

## The Agri-environment Payments in the Rural Development, Latvia

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**Abstract.** Agri-environment policies have become increasingly important in the Organization for Economic Co-operation and Development (OECD) in the European Union (EU) countries. Agri-environment support payments in Latvia until its accession to the EU were available in relatively limited amounts from the state budget and its funding from year 1998 until 2010 reached 2.5 million LVL<sup>3</sup>. After accession to the EU in 2004, support measures, including agri-environment support, are implemented in accordance with the Common Agricultural Policy (CAP). Main document for agri-environment support payment implementation was Rural Development Plan in 2004-2006 year period and Rural Development Programme in 2007-2013 year period. Main sources of funding - European Agricultural Guidance and Guarantee Fund (EAGGF) and European Agricultural Fund for Rural Development (EAFRD). In Latvia during years 2004-2009 number of beneficiaries of EU funded agri-environment payments has increased from 2267 up to 16000. In this period paid out were 107.9 million LVL in agri-environment payments in Latvia, which is an increase from 4.4 million LVL paid out in 2004 up to 24.6 million in 2009. Currently there are 11 various agri-environment support payments implemented in Latvia.

**Key words:** agriculture, agri-environment payments, support

### 1. Introduction

Importance of sustainable and environmental friendly agricultural production and rural development is recognized on world (UN) and European level (Melece, Zaharova, 2010). Over the last two decades, agri-environment policies have become increasingly important in OECD countries, with significant public resources being spent on them. Across OECD countries, a very wide range of different schemes have been implemented and there is as yet little consensus concerning which approach works best (FAO, 2010). In the EU Member states for agri-environment policies implementation is used various CAP support measures, in order to interest farmers to comply with environment protection requirements, which in return restricts business operations. In Latvia as a Member State of the EU, support measures, including agri-environment support, are implemented in accordance with the EU CAP since 2004. Until now there are not many research papers done on agri-environment issues in Latvia - L.Melece, Z.Zaharova (2010), I .Upite, I.Pilvere (2009). Therefore it is crucial to perform the research on agri-environment support measures and evaluate the experience of old Member States, where these questions have been already in the spot light of the scientists, EU institutions, international organizations, for instance, Food Agricultural Organization (FAO), World Trade Organization (WTO), OECD. Important conclusions have been reached by Ch. Haaren and N. Bills (2007), F.Bonnieux, P.Dupraz, K. Latouche (2010), Baylis K., Peplow S., Rausser G., Simon L. (2006), Cooper, T., Hart, K. and Baldock, D. (2009), W. Legg (2008), A. Borowska (2009), D.Bertoni, A. Olper (2008), J.Kovacs Katona (2010) and other scientists. Nowadays the task of agriculture is to provide state inhabitants and export with high quality plant and animal food products, ensuring society health, and contributing input for society health, welfare and environment attractiveness development. Nature and social environment long term development is defined as one of the agriculture sector perspectives in Latvia (Kaufmane at all, 2007).

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**The objective of the present study:** analysis of the agri-environment payments experience in Latvia. The following hypothesis was set forth: agri-environment payments amount in Latvia increases. The fulfilment of the following tasks was identified as relevant for the attainment of the aforementioned objective:

1. To analyze theoretical aspects of agri-environment payments within CAP in the EU.
2. To evaluate agri-environment payments condition and funding sources in Latvia.
3. To research agri-environment payments experience and importance in Latvia on rural development support system.

To meet study tasks, the following materials were used: various sources of scientific publications, EU and Latvian legislation, data from Rural Support Service (RSS), which administrates the EU and national support for agriculture. The suitable qualitative and quantitative research methods have been used for various solutions in the process of study: analysis and synthesis, logical and constructional, data grouping and comparing, statistical.

## **2. Theoretical Framework of Agri-environment Payments within CAP**

Ch. Haaren and N. Bills (2007) notes that CAP instituted in 1957 was to integrate markets, arrange common, financing and supply control/border measures. Reforms in the early 1990s included green agri-environment measures payments. Also I.Upīte (2010) concludes that CAP reform period in the EU shows that environment questions for the first time as rural policy elements appear in year 1992 as a result of McSharry reform. M. Wiggerthale (2004) agrees that only after the McSharry reform in 1992, named after the then Commissioner of Agriculture, the adoption of the Agreement on Agriculture could be achieved; subsequently a shift in direction was initiated. The agri-environment measures (Regulation 2078/92) were introduced as accompanying measures to the reform. CAP reforms in 2000 and 2003 instituted “decoupling” and sharpened the focus on agri-environment measures (Haaren, Bills, 2007). I.Upīte, I.Pilvere (2009) emphasize that over the recent years, the multifunctional role of agriculture and the trenching of rural development aspects from the agriculture development gets more and more attention. F.Bonnieux, P.Dupraz, K. Latouche (2010) concludes that farming affects the environment in many ways, generating negative and positive effects. Neither reduction of negative externalities nor simulation of positive ones can be achieved at a satisfactory level on the basis of market activities; there is therefore a need for agri-environment schemes. Indeed, there is a shift from price support towards agri-environment schemes.

In Europe, agriculture has received a sustained level of public support over the last 50 years. Consequently, CAP assistance has shifted from strict agricultural production support towards a broader focus including the inventory of public goods and ecosystems services provided by agriculture. There is a wide range of public goods associated with agriculture, many of which are highly valued by society. The most significant of these is environmental - such as agricultural landscapes, farmland biodiversity, water quality, water availability, soil functionality, climate stability (greenhouse gas emissions), climate stability (carbon storage), air quality, resilience to flooding and fire – as well as a diverse suite of more social public goods, including food security, rural vitality and farm animal welfare and health (Cooper at all, 2009). Wilfrid Legg (2008) notes that agri-environment policy measures play an increasing role in agricultural policy in the EU, but still account for only a small share of budgetary support to farming. In Poland Agnieszka Borowska (2009) forecasts that further increase of the area of organic crops can be expected in Poland in the near future, which will be facilitated by the legislation on organic farming providing the framework for the activities of organic farmers. The development will also be possible thanks to the state support, the establishment of certified quality control centre supervising products and certified farms as well as for growing consumer demand for ‘natural’ products.

European Council regulation no. 1698 (2005) sets that “support for specific methods of land management should contribute to sustainable development by encouraging farmers and forest holders in particular to employ methods of land use compatible with the need to preserve the natural environment and landscape and to protect and to improve natural resources. Agri-environment payments should continue to play a prominent role in supporting the sustainable development of rural areas and in responding to society’s increasing demand for environmental services.”

Italian scientists D.Bertoni, A.Olper (2008) notes that agri-environment measures represent the most innovative, and important, rural development policies of the new CAP. At the same time, agri-environment measures are one of the most debated instruments. Hungarian scientist Judit Kovacs Katona (2010) warns that agri-environment measures alone cannot solve the problem of rural areas, while this measure primarily strengthens the environmental pillar.

The Health Check of CAP also picked up on key 'new' challenges including climate change, bio-fuels, water management, bio-diversity and soil conservation, which were reflected in modifications to Pillar 2 (rural development support), together with an increased level of modulation to support transfer of funds from Pillar 1 to Pillar 2 (FAO, 2010). The 2014-2020 CAP reform debate is taking place within the context of the recently agreed Europe 2020 strategy for 'smart, sustainable and inclusive growth' (EC, 2010).

### **3. Agri-environment Payments Condition in Latvia**

One can expect that Central-East European countries integration with the EU will bring a lot of relevant both environmental and economical advantages. The expected growth support of this kind of farming under agri-environment programs will result in increase of both organic land area and number of farms in further perspective (Łuczka-Bakula, 2005). In Latvia agro-environment support payment regulating acts and to them respective funding sources can be divided in 2 main periods:

- Until accession to the EU – only state support was available, this initially was regulated by Ministry of Agriculture rules and regulations, but in later years by the rules and regulations of the Cabinet of Ministers (CM). The main support schemes were -partial support for fixed asset purchase for development of biological farming.
- After accession to the EU – additionally for Rural development was foreseen funding from the EU, which was set Rural Development Plan (RDP) for 2004-2006 year period and in Rural Development Programme for year 2007-2013 period, which was complemented with appropriate CM rules and regulations.

In Latvia for RDP years 2004 through 2006 agri-environment support measures were funded from EAGGF Guarantee part and involved several sub-measures (MK noteikumi nr.282, 2008): Development of organic farming (BLA 04), Maintaining biodiversity in grasslands (BDUZ 04), Establishment of buffer belts (BI 04), Reduction of erosion (EI), Preservation of genetic resources of farming animals (LDGRS 04).

Rural development programme for years 2007-2013 is funded from EAFRD and additionally there is finance for biological agriculture development (BLA 08), maintenance of biological diversity in grasslands (BDUZ 08), buffer zones (BI 08), farm animal genetic resources (LDGRS 08), to foresee new and in Latvia unprecedented agri-environment support measures (MK nr.295, 2010): Introducing and Promoting Integrated Horticulture (IDIV), Stubble field in winter period (RLZP). However for years 2007-2013 has not been retained support measure Reduction of erosion (EI). Agri-environment payments are granted for farmers which voluntarily give agro-environment commitments. Agro-environment payments cover only such commitments which exceed respective mandatory standards, as well as minimal use of fertilizers and plant protection products and other respective mandatory requirements set in legal acts and specific programmes (Padomes regula, 2005).

### **4. Agri-environment Payments Experience and Importance in Latvia Rural Development Support System.**

The process of policy integration and decoupling was continued in the Agenda 2000 reforms which developed two 'pillars' within the EAGGF. Pillar 1 contains funding for production support, still the great majority of the money. Pillar 2 contains funding for Rural Development Regulations (RDR) which are activities undertaken by Member States to improve their rural areas. Agri-environment Programmes form part of RDRs, and take up the largest share of RDR money. Average Agriculture and Agri-environment Expenditure by Country, 1992-2003 (million euro) varies. Agri-environment as % of total EU Agricultural Expenditure in Greece, Netherlands, Belgium, Luxembourg, Denmark does not exceed 1%, but in Austria they are 27.9%, Finland 21%, Sweden 12.7%, Portugal 7.4%, Germany -5.7% (Baylis, Peplow, Rausser, Simon, 2006).

In the research authors will determine paid out agri-environment support from both state budget and the EU funding, number of support beneficiaries and areas under management, as well as support payment importance in total rural and agriculture payment scheme. For the first time state support payments for biological farming were foreseen in year 1998, and then were paid out 190 thousand LVL. In 10 months of 2010 for biological farming support was paid out only 2.7 thousand LVL, which apparently was influenced by the fact that state budget cuts have also had impact in decrease on subsidies for farmers. The largest support for biological farming in Latvia was in 2003 and 2009 – respectively 480 and 401 thousand LVL.

In 2001 when in Latvia for the first time was granted support for biological farming areas, for this support qualified 62 farms and support was given to 63ha. In 2002 support was received by 167 farms, which had 243 ha under management or on average 1.5 ha per farm. In 2003 biological farming support was granted to 292 farmers for 28 ha, thus number of farms and areas have increased by 75-76% when compared to 2002, but in comparison to 2001, number of beneficiaries have increased 5 times and managed areas – 7 times.

Since 2004 when for farmers were available more diverse EU funded agri-environment support measures, thus significantly has increase the number of beneficiaries and also areas which are managed using biological methods. If in 2004 total beneficiaries of agri-environment were 2267 farms, than a year later – in 2005 it was already 2.6 times higher number, but in 2006 it was already 2.85 times 2005 number. Since 2007 the number of this support beneficiaries has stabilized and during last years has reached more than 16000 farms, which 7 times exceeds the number what was in 2004. This means that during first years after accession to the EU has significantly increased the number of farmers willing to operate either biologically or using other more environmentally friendly methods. Agri-environment support payments have been implemented gradually – in 2004 and 2005 – 4 measures, in 2006 and 2007 – 5, but in 2008 and 2009 – all 11 measures, that means taken up liabilities in 2004-2006 have not yet finished, but already has been started implementing support measures for 2007 – 2013. Agri-environment support measures paid out funding has been displayed in table 1.

Table 1 Agri-environment Support Payment Type of Funding in Latvia during Years 2004-2009, thousand LVL

Support	Years						Total	Growth rate, %
	2004	2005	2006	2007	2008	2009		
BLA04	3406.6	8558.2	12095.7	9389.0	5591.6	4047.3	43088.4	119
BLA08	X	X	X	X	2335.2	6891.7	9226.9	295
BDUZ04	858.4	1801.1	2614.5	2423.5	1094.6	645.6	9437.7	75
BDUZ08	X	X	X	X	1717.8	2073.3	3791.1	121
BI04	X	32.1	41.1	33	27.6	26.3	160.1	82
BI08	X	X	X	X	4.9	1.2	6.1	24
EI	X	X	10102.7	9526.6	9551.8	9612.2	38793.3	95
LDGRS (04/08)	166.4	204.6	232.1	179.2	168.1	153.6	1104	92
RLZP	X	X	X	X	1050.8	1092.0	2142.8	104
IDIV	X	X	X	X	51.6	60.3	111.9	117
Agri-environment payments together	4431.4	10596.0	25086.1	21551.3	21594.0	24603.5	107862.3	555
Total area payments	72499	98919	151600	136410	146435	163207	769070	225
Total support payments (mill.LVL)	110.5	219.6	213.3	191.5	299.3	293.0	1327.2	265

Source: Kļava, Pilvere, 2009, Pilvere, Pilvere, 2010, LAD, 2010 and authors' calculations

Analyzed information about support payments in Latvia during period 2004-2009 (Table 1), it can be determined that:

- Agri-environment payments comprised small part- 14 % from area payments support and 8% from total agriculture and rural development paid out support amount. If total amount of support in

analyzed period has increased 2.65 times, then in agri-environment paid out support has increased – 5.55 times, which 2.65 times exceeds the growth rate in area support payments increase.

- If analyzing agri-environment total support payments structure, then 49% has been paid out in support measure Development of organic farming, 36% in support measure - Reduction of erosion, 13%- in support measure Maintaining biodiversity in grasslands. That does not meet the number of beneficiaries' structure, which is respectively - 27, 41 and 25%.
- Paid out agri-environment support base growth rate is from 104-295% has been observed for new 2008 commenced support measures. However, in 2004 started support measures base growth rate has been observed in support measure Development of organic farming – 119%, but in other measures – paid out support amount in 2009 has decreased when compared with base rate.
- During analyzed period for one support beneficiary average paid out amount was annually 1486 LVL. If in 2004 this amount was 1955LVL, then during the review period end in – year 2009 -1536 LVL, or a drop of 22%. Thus in this support measure according to environment requirements operated relatively small number of farms.

Therefore, below will be performed regression analysis using Microsoft Excel data analysis tool Regression parameters between the agri-environment payments (y) and other indicators. The coefficient of determination R<sup>2</sup> (R Square) analysis will be used. It indicates to what extent the agri-environment payments can be explained by the other analyzed parameters. In addition, with 95% confidence interval we will be predicted levels of regression Standard Error (Syx) (Arhipova, Balina, 2000). Results of calculation shown the closest relationship is between the agri-environment payments and the support beneficiary amount and paid out area payments, because R<sup>2</sup> is respectively 0.98 and 0.94. The standard errors in this case are the lowest – 1016 and 2324. However, the correlation between agri-environment payments and total support payment for agriculture and rural development is medium close (R<sup>2</sup> only 0.51 and standard error is higher 6646).

## 5. Conclusions

Environment questions are integral part of CAP, which for the first time as a part of rural policy elements in EU were set in 1992 as a result of McSharry reform. It can be forecast that environment issue importance had increased. This is evident from the Health Check of CAP, where also it picked up on key 'new' challenges including climate change, bio-fuels, water management, bio-diversity and soil conservation.

Agri-environment support payments in Latvia until accession to the EU were available in comparatively small amounts as a part of state budget means and its funding during 1998-2010 has reached 2.5 million LVL. After accession to the EU, agri-environment payments have been implemented with RDP during 2004-2006 and Rural Development Programme in 2007-2013 support. During time period from years 2004-2009 in Latvia EU agri-environment payments were 107.9 million LVL, increased from 4.4 million LVL in 2004 up to 24.6million LVL in 2009. Thus it can be concluded that aforementioned hypothesis can be confirmed. On average per one beneficiary was paid out annually 1486 LVL. During analysis period support payments for one farm has decreased by 22 %, comprising 14% from total area payments and 8% from total paid out support for agriculture and rural development.

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