

**Abstract.**

*Kalyna T.Ye., Konstantinova O.V. Financial providing of development of nature protection territories.*

*The modern aspects of the functioning of the country's protected areas have been analyzed and investigated in this article. Attention is focused on the fact that further development of nature protection areas requires research in the field of financing. The assessment of the main directions of financing the activities of nature conservation areas in the world practice is implemented here. The peculiarities of the current state of financing of activities related to environmental protection are defined. The modern system of financing the natural reserve fund of Ukraine has been analyzed. Some financial and economic instruments for attracting funds to domestic practice for nature conservation areas for the purpose of their rational use and protection are also justified.*

**Key words:** *nature protection territories, financial providing, guard of environment.*

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**AGRICULTURAL INSURANCE AND AGRICULTURAL POLICY**

***Onegina V.M. Agricultural Insurance and Agricultural Policy.***

*The article is devoted to the consideration and generalization of tendencies of development of agricultural insurance, private and public insurance programs, the role of the public policy in the provision of agricultural insurance in the European Union, USA, and Canada. These countries provide for agricultural producers complex risk management sets of insurance tools, including public, mutual and private (insurance companies and farmers) funds and different insurance programs and products. Given the experience of world agricultural product exporters and tendencies of insurance provisions in Ukraine the main ways for the development of private-social-public agricultural risk management system in Ukraine have been offered.*

**Key words:** *insurance, agriculture, agrarian policy, risk management.*

**Relevance of the problem.** Agribusiness is very risky area of economy. Due to the assessments of M. Miranda and J. Glauber the portfolio of geographically diversified contracts of crop insurance is more risky than portfolio of health and life insurance contracts in 20 times [7]. The European Association of Agricultural Economists concluded that current and next generations of farmers are confronted with an increasing number of risks [8]. But agriculture plays a vital important role for food safety, employment and income of rural citizens, natural resources use. Society tries to find ways for sustainable development of agriculture, reduction of risks of agribusiness. Main tools that society use for these purposes are insurance and government programs.

**Analysis of last research and publications.** The problems of agricultural insurance and agricultural policy were investigated by many foreign and domestic scientists: J. Glauber, O. Gudz, M. Meuswissen, S. Makki, P. Stecyuk, [2, 6-9]. Scientists described agricultural insurance markets and insurance schemes in different countries; assessed efficiency of some insurance programs, considered the role of public policy in the provision of agricultural insurance and its contribution to the risk management system in agriculture.

The experts of the Institute for the Protection and Security of the Citizens, mission of which to provide research results and to support EU policy makers in their efforts

towards global security and protection of European citizens, revealed the inverse relationship between the quantities spent in insurance subsidies, and the quantities spent in public ex post compensation [9, p.6]. The development of the agricultural insurance in each country of the EU appeared linked to the risk level, but the public policy to support the system is also a decisive factor. If the private companies offers insurance product for non-systematic risks, public support was directed to coverage wider range of risks.

But the searches of more efficient private and public programs, that will reduce agricultural risks and contribute to vital risk management system, are going on to up date insurance programs, to find effective combinations of private and public risks reduction tools.

**Goals of article.** This article is aimed to describe and generalize modern schemes of private and public insurance programs in the developed countries – biggest exporters of agricultural products to define the ways of design of private-social-public risk management system in agriculture in Ukraine.

**The main content of research.** Since 2006 after adoption of application of Article 87, 88 of Treaty the countries-members of the European Union (EU) have got a common legal framework for disaster assistance. But in spite of Common Agricultural Policy (CAP) the insurance programs have peculiarities in the countries-members of the EU. The total amount of agricultural insurance premium in the EU is estimated 1,5 bln. Euros per year, public subsidies are approximately 500 mln. Euros. Public compensation in the form of ad hoc and calamity funds is close to 1 mln. Euros. The average amount of insurance indemnities received by famers is estimated approximately 1,1 bln. Euros per year. Experts recognized that development of insurance schemes in the EU livestock sector was lower than in the crop production [9, p. 6]. The insurance systems are private, private with public donations or entirely public (Greece, Cyprus) in the EU.

The set of Regulations and Multiannual Financial Framework were adopted in the 2013-2014 and provided guidelines and rules of the next stage of CAP of the EU. The EU practice includes agricultural insurance or/and mutual

fund schemes to help farmers manage yield and price risk. It was also authorized the use of the EU funds to support innovative insurance products such as area-based yield index insurance or weather index insurance. But design and use of new insurance schemes are challenged by lack of data for rating and losses at farm level.

The main risk management tools in the EU countries include calamities funds, mutual funds and insurances. Ad-hoc aids are generally given when no other tools are available. Aid is often organized in the form of compensation schemes, or funds, partially financed by the agricultural sector, either on a voluntary or on a compulsory basis (in the form of levies, etc.). In Spain, Austria, Portugal, Greece and Sweden there are no public fund payments if insurances are available. In France payments include damages for which there is no insurance. In some countries (for example, in Romania) public payments are given to farmers if they have insured «standard risks» like hail. The single risk insurance is available in all countries; the combined risk insurance is available in 70 % of EU countries [3].

The hail insurance or single-products insurance are the main insurance products in Belgium, Germany, the Netherlands and UK, demand of other farm insurance products is not valuable. There is no public support to insurance. In Finland private crop insurance is less developed, but there is a public «Crop Compensation Scheme» provided to compensate yield losses after natural disasters. The compulsory insurance systems are provided by the public in Greece and Cyprus [3].

So, the EU countries provide for agricultural producers complex risk management sets of insurance tools, including public, mutual and private (insurance companies and farmers) funds.

In North America insurance and another risk management tools are developed. In the USA the insurance products are offered by many private companies. They work in agreement with the USDA Risk Management Agency. About 45 % of field crops production value are insured (23 % in the EU). The average premium rate is 7-9 %, much higher than in Europe (4 %) mainly because they offer a wider

coverage: revenue or yield insurances versus mainly single-peril or combined-risk insurances. The government provides subsidies of premium, which amounts to 2 billion dollars per year (58 % of the total premiums). The total state support of agricultural insurance is estimated to 72 % of the total premiums (in the EU around 32 %) [3, 9].

The yield insurance covers most risks of crop production in the US. The USA have also developed revenue and income insurances. 73 % of the premiums come from revenue insurances products that include: area index revenue insurance; livestock prices insurance; livestock gross margin insurance and whole-farm income insurance. The three standard revenue insurance products (Crop Revenue Coverage, Revenue Assurance and Income Protection) are prevalent in the US.

The Agricultural Act of 2014 offered two new government programs - Price Loss Coverage (PLC) and Agriculture Risk Coverage (ARC) for American farmers [5]. Producers of covered commodities can choose to enroll in one of the two programs. Price Loss Coverage (PLC) - payments are provided to producers with base acres of wheat, feed grains, rice, oilseeds, peanuts, and pulses (covered commodities), when market prices fall below the reference price. Price Loss Coverage Program works like insurance for farmers in the case of prices reduction, and government takes some market risks of farmers. But the market

price mechanism works such way that reduction of prices often is a consequence the growth of supply. It is fairer for public institute to take private risk due to market failure in the provision of fair income for producers.

Producers participating in Agriculture Risk Coverage (ARC) Program may choose county-based or individual coverage. For producers choosing county-based ARC, payments are provided to producers with base acres of covered commodities when county crop revenue (actual average county yield times national farm price) drops below 86 percent of the county benchmark revenue (5-year Olympic average county yield times 5-year Olympic average of national price or the reference price—whichever is higher for each year), calculated separately for irrigated and nonirrigated crops [5].

The state programs to reduce farmers' risks were developed also for dairy producers in the US. The Margin Protection Program (MPP) for dairy producers offers insurance based on the average actual dairy production margin (difference between the all-milk price and average feed cost).

Special part of the US Agricultural Acts is «Crop insurance» [5].

The amount of premium and indemnities due to the insurance programs for the producers of some crops in the USA are in the table 1.

Table 1

**Amount of premium and indemnities due to crops insurance programs in the USA**

<i>Crop</i>	<i>Year</i>	<i>Premium, 1,000 dollars</i>	<i>Indemnities, 1,000 dollars</i>
Barley	2014	53,410	61,401
	2015	69,085	37,329
Corn	2014	3649,571	3842,778
	2015	3685,913	1677,587
Sunflower	2014	344,517	757,076
	2015	306,477	428,374
Wheat	2014	1453,541	1643,091
	2015	1284,514	1218,538

Source: NASS, USDA [4]

Statistical data show the differences between amounts of premium of different crops in the USA. It is mainly depend on the harvested and insured area, level of risks and standard losses in the production of different crops. The amount of premium is high for grain crops, soya bean, nuts, almonds, apples

cherries, but they are low, for examples, for bananas, chile peppers. The levels of coverage of premium by indemnities are pretty similar among different crops, but it is also depends on the level of risks and possible losses of producers.

In Canada insurance income program

based on a stabilization account (Canadian Agricultural Income Stabilization, CAIS) substitutes two former programs: NISA or Net Income Stabilization Account and CFIP or Canadian Farm Income Program in 2003. Due to the CAIS farmers put an amount of money every year in the individual stabilization account, which they can withdraw in a year of big losses. CAIS, based on a farm's production margin, is a whole-farm program available to eligible farmers regardless of the commodities they produce. Government pays a share of funding when producers withdraw funding from their accounts. The program now includes coverage (60 %) for negative margins. The system is mainly led by public insurance agencies. The subsidies from the Federal and the provincial governments consist 66 % of the premiums [3, p. 6].

Area-index insurance has been experienced in the USA, Canada. This type of

insurance product specially developed in Canada, with area insurance, weather index insurance and insurance based on satellite imagery.

Agricultural producers in Ukraine face to many risks. Unstable weather conditions: frost, drought, hail and many others natural factor influence on the results of agricultural production. Some years are successive and losses are very low, but some years bring huge losses (billions hryvnas) for producers. Innovations led to the growth of productivity, crops yield, but their influence on stability of production and reduction of risks has not impressive yet. The volatility of yield of crops has reduced a little for some crops, but it has not decrease for grain production in Ukraine. This fact proves the meanings of coefficient of variation of the annual crops yield in 2002-2007 and 2011-2015 (table 2).

Table 2

**Coefficient of variation of average annual crops yield in Ukraine**

<i>Crops</i>	<i>CV (2002-2007)</i>	<i>CV (2011-2015)</i>
Grain	0,095	0,144
Sugar beet	0,168	0,101
Sunflower seeds	0,150	0,113
Vegetables	0,090	0,026
Fruits	0,169	0,089

Source: calculated by the author on the base of data of State Statistical Services of Ukraine [1]

In spite of high level of risks of agribusiness in Ukraine insurance in agribusiness in Ukraine has not developed: limited range of insurance products, high level of insurance premiums (5-12 %), very small insurance coverage of producers and planted areas (less 10%). More than a half of total number of agricultural insurance contracts is the contracts of bank collateral. According to the estimations of representatives of Ukrainian insurance companies effective tariffs for crop insurance of should be at the level of 10-15%, the fact average insurance rates in Ukraine were 7,0-8,5% for grain crops, 9,0-9,5% for sugar beets, , 8,0-9,0% for orchards and vineyards, 8,0-9,5% for vegetables. Agricultural producers assess the acceptable level of premiums - less 5 %.

The Law of Ukraine "On State Support to Agriculture" dated June 24, 2004 # 1877-IV

announced the creation of the Fund for Agricultural Insurance Subsidies of Ukraine (FASS) and the provision of compensation of 50% of insurance premium paid by agricultural producers. The Law of Ukraine "On the State Budget of Ukraine for 2005" dated February, 23, 2004 # 2285-IV provided allocation of 54 million UAH as a subsidies to reduce the cost of insurance premiums actually paid by agricultural producers, but only 5,8 million of them were used, that is, the volume of insurance coverage turned out to be less than expected, and in 2006 the state subsidies of agricultural insurance were set at 10 million UAH. After three years of low demand in insurance the program of subsidies of insurance premium was stopped and has not renewed in spite of its positive influence on the development of agricultural insurance in Ukraine.

**Conclusions.** Insurance systems have become the important parts of risks management systems in developed countries – leaders of world producers and exporters of agricultural products. These systems are not homogeneous due to the high diversity of risks, historical and socio-economic conditions, but all national systems are based on the common principles: private social and public background, updated insurance tools, products, and databases, efforts of all society to reduce risks of agricultural production and food security.

In Ukraine the agricultural insurance as well risk management system has not developed yet to meet modern challenges of innovations and markets. The effective provision of risk management in agriculture requires a combination of efforts of producers, professional organizations, state (at central and local levels) and have to be built on the base of:

- the elaboration of the state strategy of risk management in agriculture;
- the development of regulatory framework

for agricultural insurance and risk management;

- the design of the new insurance products (based on index based insurance schemes), state revenue stabilization programs, that add to private insurance products;

- the development of organizational support for risk management in agriculture and the creation of Risk Management Department under the Ministry of Agrarian Policy, the State Fund for Agricultural Insurance, the Bureau of Risk and Losses Assessment;

- facilitating the composition of databases for insurance the improvement of risk assessment methods and tools;

- the educational programs for agricultural producers and insurance specialists on agricultural risk management and state programs in the field of risk management.

These are the main steps for the development of the complex private-social-state system of risk management in Ukraine and its adjustment to the most efficient modern world practice.

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**Анотація.**

**Онегіна В.М. Аграрне страхування та аграрна політика.**

Стаття присвячена розгляду та узагальненню сучасних тенденцій розвитку аграрного страхування, приватних та державних страхових програм, ролі державної політики в забезпеченні аграрного страхування в Європейському Союзі, США, Канаді. Ці країни забезпечили для сільськогосподарських виробників комплексні набори з ризик менеджменту страхових інструментів, включаючи різноманітні страхові програми та продукти. З урахуванням досвіду світових лідерів експортерів сільськогосподарської продукції та тенденцій в аграрному страхуванні в Україні, основні напрями для розвитку приватно-соціально-державної системи аграрного ризик-менеджменту в Україні були запропоновані.

**Ключові слова:** страхування, сільське господарство, аграрна політика, ризик-менеджмент.

**Аннотация.**

**Онегина В.М. Аграрное страхование и аграрная политика.**

Статья посвящена рассмотрению и обобщению современных тенденций развития аграрного страхования, частных и государственных страховых программ, роли государственной политики в обеспечении аграрного страхования в Европейском Союзе, США, Канаде. Эти страны обеспечили для сельскохозяйственных производителей комплексные наборы по риск-менеджменту страховых инструментов, включая различные страховые программы и инструменты. С учетом опыта мировых лидеров экспортеров сельскохозяйственной продукции и тенденции в аграрном страховании в Украине, основные направления для развития частно-социально-государственной системы аграрного риск-менеджмента в Украине были предложены.

**Ключевые слова:** страхование, сельское хозяйство, аграрная политика, риск-менеджмент.

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