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Green Economy: Practical Vector for Development Traditional Agriculture.

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ABSTRACT

The article analyzes the prospects for greening agriculture, and presents the opportunities for development "green economy" formed as a result of the ownership structure in Russia and the division of labor, market economy in agriculture.

Keywords: green economy, the structure of agribusiness farms, greening

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INTRODUCTION

The changes under the influence of anthropogenic factors surrounding environment (regression of the biosphere and climate, genetic modifications of food components, etc.) carry the statement and the need to solve the problem of contradictions between technological development and the needs of the greening area of life.

To resolve the indicated problem in the series of "primary" can emphasized, need to restructure the environmentally oriented "everything" economic thinking and the "entire" system of economic relations. The ultimate goal - the creation of green economy (green economy), which is based on environmental determinants of the processes of reproduction of the human environment. Hence, the main priority for the "green economy" is a modernization and technological renewal of agricultural production and management practices, which are based on the one hand, reflects the influence of environmental conditions on the production processes and, on the other hand, the use of economic activities of enterprises organically pure resources. Allocation of the spectrum of "green economy" and its development opportunities will determine the future consumption of products made with organically friendly technologies and the state's ability to grow in the global greening trends in agriculture.

MATERIALS AND METHODS

In the world, there are 525 million of small farms, 404 million of which work on an area less than two hectares of land. [4] The statistics reveal the agricultural sector existing in the economy: agricultural organizations, private households (farms) and peasant farmers. According to government statistics agricultural production in Russia, the contribution of small farms and the farmers made in 2013 in plant 1117 (bln. rubles) in the country's economy and agricultural organizations 840.6 billion rubles. In the Russia make, not only in crop production, but also to other food products an unique situation of traditional technologies and the formation sector of small farms with a large gross production of finished products.

These small-scale farmers in the developing world, to feed the population, produce the majority of cereals [2].

World statistics provides data about the high proportion of small farms in Africa, where about 90% of all agricultural production is obtained on small farms [5]. In many cases, their contribution at the national level is growing.

In Russia, the growth of households goods manufactured in the plant increased by 30%, and slightly in animal husbandry, peasant farms - an increase of 3%.

In contrast to the small agricultural enterprises, ordinary (industrial) agriculture characterized by processing methods that involve the use of external agricultural inputs. Most of the large-scale industrial agriculture is considered to be energy-intensive, if you use 10 calories of energy for every calorie of produced food, and whose performance (kg/ha) is due to the extensive use of chemical fertilizers, herbicides, pesticides, fuel, water and continuous new investments (eg, new types of seeds and technology).

In Russia, has formed a considerable range of agricultural enterprises, oriented, by virtue of the prevailing market conditions, on the approaches to the production trends within the "green economy". Thus, the formation of this sector is not due to environmental requirements, but due to the redistribution of land and property assets of large farmers by dividing the units, land survey between economic entities.

Formed sector of small farmers can be called the foundation of the "green economy" in Russia. Farms have an advantage in the production of products such as honey, vegetables, potatoes, and large farms are in the lead for the production of grain, sugar beet, sunflower seeds.

It is expected that the expansion of the production of small farmers through the "green" agricultural practices, their greater commercialization and integration in the supply chain, will create more favorable conditions for the development of green technologies in Russia.

RESULTS AND DISCUSSION

The emerging sector of "green economy" in Russia has a number of advantages compared with traditional agricultural organizations. On the market today, the total volume of the finished product expressed: Planting – 1077 billion rubles in livestock - 852 billion rubles of finished products. This is more than large enterprises, their volume of revenue is as follows: in crop and livestock production - 840 billion rubles and 915 billion rubles, respectively. Average growth of large farms production is insignificant. Thus, in 2012-2013, an increase of 12% in crop revenues and 6% in livestock.

In the transition to a "green economy" agriculture in food production on an industrial scale, with large investments in agriculture may be a slight decrease and simultaneous revival in more traditional systems, which based on farms. For example, in developing countries, they are the backbone of the green housekeeper, since they use traditional agriculture smallholders and peasant farms.

In most "green" households used, as a rule, local and traditional knowledge, based on the methods and technologies used for many years. Small farms have a number of features and characteristics: lower productivity than large farms, a relatively small value-added per worker. They operate "due to" extract nutrients from the soil and low cost resources to fill the earth with organic or inorganic fertilizers. Traditional agriculture has limited capital intensity mechanized farms and intensive use of agrochemicals external resources. Plots of many small-scale farmers, mostly located in developing countries are too small to them can realize the benefits of agricultural mechanization. In addition, the high cost of purchased inputs such as chemical fertilizers, pesticides and seeds necessitates the sale of part of the produced crop to recoup the costs.

The failure that befell the land ownership system upgrades, designed to facilitate the distribution, consolidation and the use of land as collateral for loans, has become a serious barrier to the commercialization of small-scale agriculture in many countries, including in Russia. For these reasons, added per employee costs in developing countries are much lower than the value added in the industrial economies. [6] Then, as the average value added per agricultural worker in the countries the United States OECD was 23081 dollars in 2003. (And grew by 4.4% annually from 1992 to 2003.), In Africa, the figures are 327 US dollars.. In Kenya, the contribution of small farmers to the national agricultural production has increased from 4% in 1965 to 49% in 1985 [3]. In India, small farmers have brought more than 40% of food grains in 1990-91gg., Compared with one-third of the total number in 1980. Since the late 1990s, they also owned the majority of livestock and dominated in the dairy industry [4]).

In Russia, there is an advantage for small forms of managing the production of honey and 90% wool - 80%, milk - 60%, fruits and berries - 70%, vegetables - 81%, potatoes - 82.5%. Large enterprises have significant advantages in producing high cultures with high automation processes, sunflower, sugar beet and corn. In European countries and in the US there is an increase in productivity after the "green revolution" of the past few decades, and this was mainly in the conventional agriculture. This performance increase was due to investments in agricultural research and extension services to the public sector.

Increased productivity of "green" revolution, first of all, depend on the development of more high-yielding types of major crops (wheat, rice and maize / corn), a substantial increase in the use of irrigation, mineral fertilizers, use of pesticides / herbicides and the use of fossil fuels agricultural machinery.

Industrial agriculture consumes an average of 10 calories economic energy (derived from fossil fuel energy) for each food calorie energy (derived from the metabolism of food by man). The development of green agriculture has its upside: the restoration of natural capital through the restoration and maintenance of soil fertility; reduction of soil erosion and agrochemical inorganic contaminants; increase water use efficiency; reducing deforestation, reducing loss of biodiversity and other adverse impacts on land use.

The cumulative global cost of investment and policy interventions required to transition to a "green" agriculture is estimated annually in the US for the period of \$ 198 billion from 2011 to 2050. Value added in agriculture will increase by 9%. Involvement of farmers to organic agriculture may be only 32 to US \$ 38 per person.

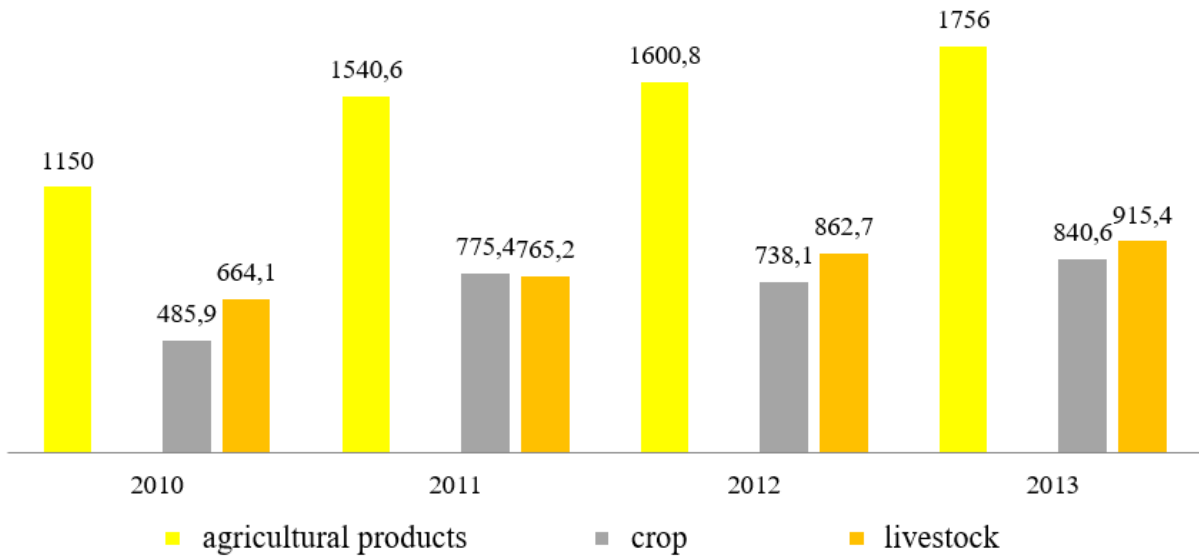


Figure 1: Production of agricultural organizations (billion rubles)

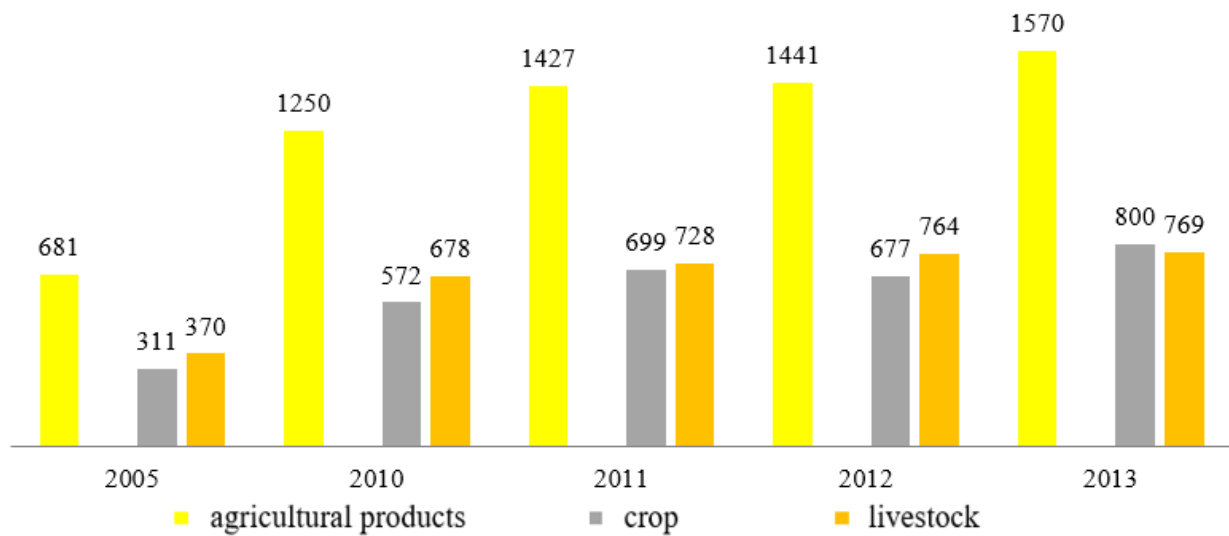


Figure 2: Production of households (billion rubles)

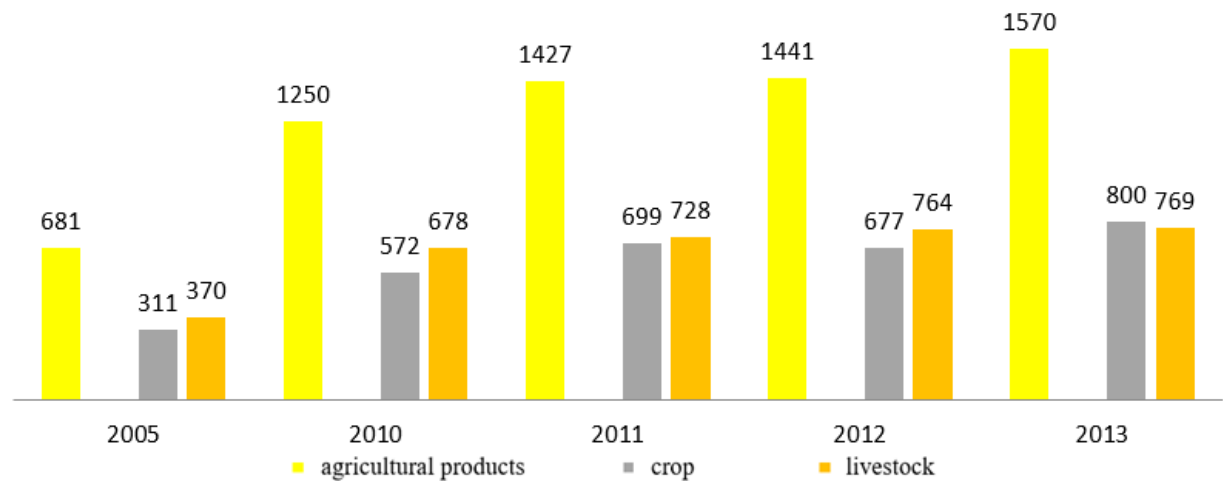


Figure 3: Production of peasant farms (billion rubles)

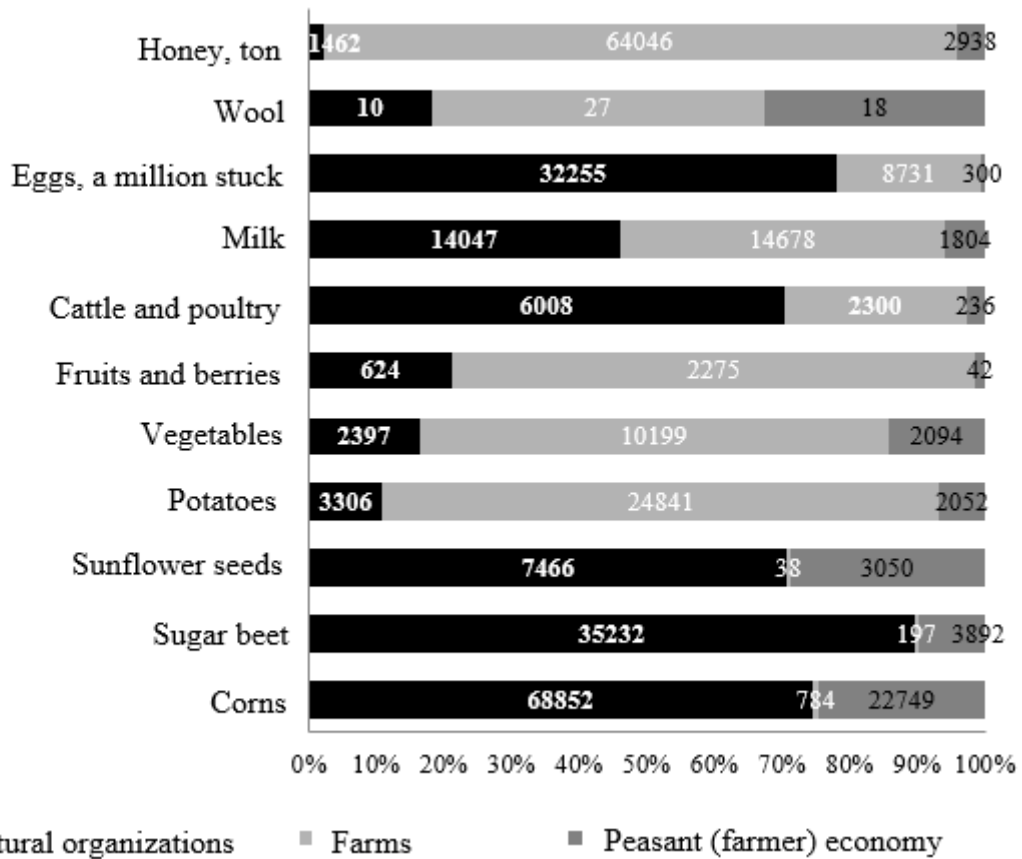


Figure 4: Production of basic agricultural products by types of farms in 2013 / (thousands of tons)

CONCLUSION

Requirements creating a "green economy" rise to the need to ensure conditions for the production of multifunctional activities in agriculture. It should take into account the entire volume of the complexity of agricultural systems within diverse social and ecological contexts. It becomes an important recognition of the farming communities and households as producers and managers of ecosystems. Innovative institutional and organizational measures are also required to promote an integrated approach to the development and deployment of the main conditions and factors of the "green revolution". To calculate the total value of agricultural production for the company, incentives across the value chain of education needs to be take into account as much as possible adverse effects on all the "agricultural production. At the same time, political and strategic changes must be design for those whose interests are at least taken into account existing approaches, including resource-poor farmers. This approach is generally emphasizes the need to create small farms in diverse ecosystems realistic opportunities to improve productivity and their access to markets.

The main measures in the modern concept of "greening" the economy of agriculture, we can offer the following: conducting the diversification of economic systems; poverty alleviation by increasing crop yields and create a new more efficient "green" jobs, especially in rural areas; food security on a sustainable basis of productivity growth; a significant reduction in the environmental and economic costs associated with traditional methods of farming.

Greening agriculture requires investment, research and capacity building. This is necessary in the following key areas: management of soil fertility, more efficient and sustainable use of water, the diversification of crops and livestock, biological control of animal health and plant the appropriate level of mechanization, improved storage facilities, especially for small farms and construction supply chain in both directions for business and trade. Capacity-building efforts include expanding extras "green" agriculture and facilitate improved market access for small farmers and cooperatives.



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