# "Green box" and Innovative Development of the Regional Agricultural Sector

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This article considers the changes in the regulatory and support system of agriculture, taking place in Russia as a whole and its territorial entities (evidence from the Altai Territory), in connection with the country's involvement to the World Trade Organization (WTO). The aim of the current research is to assess the potential effects of the major obligation parameters, accepted by Russia in the field of agriculture within the WTO, on the innovative activity of the agricultural sector. The research methods include an abstract logic technique, dialectic approach, positive and normative analysis, economical and statistical techniques, and others. The necessity for reorientation of the state aid towards maximum impact of "green box" measures, whose capacities are not limited by the WTO rules, is proved based on the analysis of international experience in using various instruments for domestic support of agricultural sector. The study resulted in conclusion that it is "green box" that due to its very nature is capable to ensure to the fullest extent the creation of institutional environment, conducive to the acceleration of innovation processes in the regional agricultural sectors.

**Key words**: Innovative development, agriculture, the WTO, Domestic support, "green box", "anber box".

At present, the country's agriculture, as part of the national economic complex, is experiencing a truly systemic choice: to adhere to the former, the inertial way or make transition to a fundamentally different, investment and innovative way, predetermining the need to upgrade the scientific information, technical and technological base of agriculture on a new qualitative basis. The role of innovative development of the agrarian sector is associated with a number of problems, among which we should highlight the worsening of global competition in world food markets, low competitiveness of domestic agricultural

producers, low labor productivity in the agricultural

In the context of the recent accession of Russia to the WTO, noted negative impact of internal and external risk factors for the country's agricultural sector increases multiplicatively that makes a choice towards innovative type of development non-competitive. It is obvious that putting the economy on track of in-innovative development requires huge financial investments, including state financing. Meanwhile, the membership in the WTO forces Russia to build its economic policy in accordance with the assumed obligations and international standards. A significant part of these obligations and restrictions regards to government support measures for the

sector as compared with developed countries, and finally, the lack of human capital in the rural districts.

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particular economy sectors. In this context, assessing the possible effects of the country's accession to the WTO, many experts are pinning their greatest fears with the agricultural sector of economy; this concerns the competitiveness of domestic agricultural producers and their support from the state. In this context, a question, whether Russia's WTO membership will lead to reduction in state support of the agro-industrial complex (AIC) and, as a consequence, to reduction of opportunities for transition of its leading production spheres to a high-tech production structures, looks quite natural. To answer this question it is necessary to analyze the changes that occur in the regulatory and support system of agriculture in connection with Russia's participation in the WTO, at both the level of the Russian Federation as a whole, and at the level of individual territorial entities (evidence from Altai Territory).

# Methodology

Let's start with the fact that the issues on supporting the agricultural sector are quite prominent in the studies of domestic and foreign scholars. At that, the statement concerning a permanent character of state financial support of agricultural production became truly an axiom. International experience shows that the state protects agricultural industry everywhere in the world (Wilson, 2008; Krylatskykh and Strokova, 2003; Shchebarova, 2003). After all, agriculture is a socially important sector that defines food security of the country. With regard to Russia, the need for state support is enhanced by the fact that the climatic conditions of the country are much less favorable than, for example, in the US, Argentina and New Zealand that leads in turn to higher prices for agricultural products. Finally, the importance of the agricultural sector for Russia and its trading partners is due to the fact that the country is a major exporter and importer of agricultural products (Borch, 2007; Aerni, 2009).

In this context, the question of determining the benefits and risks for the Russian agricultural production is still one of the main issues discussed in the framework of the general problem of the country's accession to the WTO. At that, the views of experts on the subject are often diametrically opposite (Vavra, 2011; Dumoulin, 2003).

Thus, the viewpoint that Russia joined the WTO unprepared is quite widespread in the Russian literature. This event had to be preceded by a comprehensive reform to increase economic growth, support the innovative development and contribute to the modernization of enterprises in priority sectors, i.e. to increase the competitiveness of the Russian economy as a whole. The absence of noted prerequisites may result in a truly catastrophic situation for many economy sectors. In particular, according to the pessimistic scenario, Russia's membership in the WTO will make the Russian agricultural sector unattractive for investment. Growth in imports of foreign food products and increase in energy tariffs will lead to mass closure of companies, operating on the verge of profitability; in fact, this will result in the collapse of production in agriculture, deprived of state support, and as a consequence, undermine social stability (Liventsev and Lissovolik, 2012).

The optimistic scenario assumes that the opening of the borders of the Russian agribusiness will serve an instrument to attract investments and technologies, as well as to expand product markets. All this will contribute to the modernization of production facilities, sustainable development of the innovation process, increase in production and improvement of the quality and competitiveness of domestic agricultural products.

In order to understand how realistic may be one or the other scenario, first, it is necessary to turn to the characterization of the major parameters of the obligations assumed by Russia in the field of agriculture.

Within the WTO framework, agricultural issues are addressed in two agreements: the Agreement on Agriculture and the Agreement on Subsidies and Countervailing Measures (SCM Agreement).

The Agreement on Agriculture regulates, first of all, provision of measures to support agriculture. With regard to these support measures, in accordance with the classification of the Agreement, they can be divided into three main blocks: the first block includes domestic support, the second block concerns access to the market; and the third one relates to export subsidies.

In turn, domestic support, in the frameworks of the WTO, is divided into three main categories, which in terms of the WTO are called

the "boxes". Boxes are assigned different colors: yellow (amber), blue and green (Benjamin et al., 2006; Brockmejer and Pelikan, 2008).

Measures of agrarian policy of the "amber box" are considered by the WTO rules as stimulating production and, therefore, distorting trade. Measures of "amber box" are aimed at subsidizing interest rates on loans, market price support, indemnification of expenses for fuel and lubricants, electricity, providing incentives for transportation and debt write-offs, etc. It is noteworthy that the Agreement lacks precise definition of the state measures, which should be classified to "amber box". It is believed that they include all measures that do not fall under the other categories, which will be discussed below (Portaesky, 2008). Under the WTO rules such measures are limited in scope and should be reduced. Obligations in terms of the "amber box" are recorded for each WTO member as an aggregate support measures indicator (hereinafter ASM). The ASM indicator defines the support level in terms of money invested per year, and represents the amount of production support of specific agricultural products, as well as the support, which is not focused on specific products and is provided to the agricultural sector as a whole (Mihnevich, 2003).

Measures of the "blue box" are associated with direct payments aimed at limiting the size of the used farmland and livestock, as well as compensations for voluntary reduction in output by farmers. In accordance with the Agreement, these payments should not be subjected to mandatory reductions if they are based on fixed areas and yields, and in animal industry, if they are carried out on a fixed number of livestock. Note that such measures are mainly used in the European Union, while currently they are not applicable in Russia.

Finally, measures of the "green box" are considered as the so-called authorized support. The main two criteria of classifying support measures to the "green box" are as follows: firstly, funding should come from the state budget under the government program, rather than at the expense of consumers; secondly, funding should not be targeted on supporting producer prices. In other words, the measures of the "green box" are provided through the state programs, do not

involve reallocation of funds from consumers, and do not entail the provision of price support to producers. The "green box" measures can be applied without restrictions. The WTO member country just states and proves the essence of public funding of the concerned box, though spends as much money as it sees fit.

The "green box" includes, in particular, the measures aimed at the creation and improvement of infra-structure, support of agricultural science and education, consulting, promoting structural re-construction of agriculture, compensation for losses in the event of any disaster, insurance of farmers' incomes, veterinary and phytosanitary measures, distribution of market information, etc. (Potter and Tilzey, 2007).

Using the above described terminology, we can draw the following conclusion: current situation in Russia's agribusiness industry is characterized by the predominance of the forms and methods, whose application is restricted or prohibited by the WTO rules. The case concerns in particular the "amber box". Thus, until recently, in animal industry, there have been widely used such forms of support, prohibited within the WTO, as subsidies for livestock products and animal feed; concessional lending to agricultural producers at the expense of federal and regional budgets, including the charge-off of debts and rollover; price support to compensate the difference between the purchase price and the market price for agricultural products, and many others.

As for the "green box" measures, they also existed before Russia's accession to the WTO, though in a very limited scale. Thus, some of the measures included in the "green box" were part of the State Program on Rural Social Development, implemented since 2004.

#### RESULTS

When referring directly to the characterization of the commitments made by Russia in the frameworks of the WTO, which resulted from the negotiations on agriculture, it should be noted that these obligations differ from the standard commitments, adopted by other countries acceding to the WTO. Thus, in accordance with the standard approach, the

acceding country "binds" the total amount of financial support, allowed under the terms of the "amber box", at the three-year period prior to the accession, and reduces it within a short period after accession (Portansky, 2008).

Russia has committed itself to the maximum size of aggregate support measures for the period up to 2013 at a level of \$9.0 billion. Then the permitted level of support should gradually decrease to a fixed (bound) level of \$4.4 billion by the early 2018 (Table 1).

**Table 1.** Russian commitments on domestic financial support (total value of ASM in billions \$)\*

| Years | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 |
|-------|------|------|------|------|------|------|------|
|       | 9.0  | 9.0  | 8.1  | 7.2  | 6.3  | 5.4  | 4.4  |

<sup>\*</sup> Source: The WTO Members List – the Russian Federation (Part IV. Agricultural products: the obligations on subsidy limitation).

To estimate the ASM volume, we present the following data: in 2011 (i.e. before the accession to the WTO) Russia has allocated \$4.4 billion to support agriculture in the framework of the "amber box". This means that the maximum volumes of ASM were more than twice higher than those that would have allowed to Russia in accordance with the standard rules. The level of support provided by the commitments for 2018 corresponds to the average level of subsidization of Russian agriculture in the period from 2006 to 2008. In other words, even though Russia has committed itself to reduce the total amount of subsidies by factor of two, actually authorized support of the industry should not be reduced. During the transitional period of adjustment, it may even increase. Therefore, from the perspective of the amount of direct state support, there is no reason to talk about infringement of Russian agricultural sector by the WTO in a mid-term horizon. This is also evidenced by the fact that, according to the WTO Secretariat, our country occupies the 5th place in terms of the agreed aggregate measures of support, being second only to leading manufacturers of agricultural products, such as EU, Japan, the USA and Mexico (Moon, 2011).

As concerns the requirements of rigid limitation of the funding through the "amber box" for each WTO member, we believe that this limitation can and should have a positive impact on the future fate of the Russian agricultural sector.

Introduction of limitation on the ASM is responsible first of all for the inevitable transformation of established theoretical and methodological approaches to the issues concerned the support of industry, and, as a consequence, the need to shift priorities in real instruments of state support. It is related to the reorientation of state agricultural policy in favor of using the "green box" measures.

It is the measures of the "green box" that currently are in the emphasis of developed countries (Brockmejer and Pelikan, 2008). Thus, if at the end of the 80's of the last century the proportion of traditional market and price support in the EU amounted for 91% of the total state support in agriculture, in the mid-nineties, the measures of the "green box" have increased drastically. Over the years 1995-2001 the EU expenditures for "green box" have increased by 56%. A similar trend was observed in other developed countries. Currently, the EU and the US farmers receive under this box up to 90% of the total amount of domestic support of the industry (Potter and Burney, 2002). Consider the main reasons, which caused a change in priorities of the support instruments of state industry in the developed countries.

First, our traditional market and price support in the form of price premiums, compensations, and the costs for the purchase of the production means in fact are extremely inefficient way to support. World experience testifies that the large amounts of the agricultural subsidy do not automatically lead to greater productivity and efficiency. Direct payments to the producers, not related to production volumes (the "green box" measures) are much more effective:

more than 90% of the funds taken from consumers and taxpayers fall to producers.

Second, aggregate support measures form a stable dependence of the agricultural sector on the state financial injections, while not guaranteeing its competitiveness in the long-term perspective. At that, support provided in the frameworks of "green box", contributes to the sustainable development of agriculture more than any other ways to support, because it is directed to the creation of rural infrastructure, carrying out research, providing solution to environmental problems, fighting against pests and diseases of animals and plants, as well as aiming at targeted payments to farmers in case of their losses. Aggregate support measures form a stable dependence of the agricultural sector on the state financial injections, while not guaranteeing its competitiveness in the long-term perspective

Finally, thirdly, support measures under the "amber box" infringe upon the interests of foreign partners and set the stage for conflicts, which often have a negative impact on other economy sectors (Huang et al., 2001).

In summary, we can conclude that the government's ability to select the most effective support measures that will allow agribusiness industry to better respond to market signals, maximize the growth rate of agricultural production and minimize the distortion of market indicators, has truly enormous importance in the current context. Obviously, the "green box" measures are best suited to meet these challenges. The State Program for Development of Agriculture and Regulation of Agricultural Products, Raw Materials and Food for 2013-2020" (the State Program), approved by the Russian Federation Government on July 14, 2012, is targeted exactly to their maximal application.

**Table 2.** Distribution of total state support from the budgets of all levels distributed by various boxes, billion Rubles\*

|   | 2013  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  |
|---|-------|-------|-------|-------|-------|-------|-------|-------|
| Amount of support related                     |       |       |       |       |       |       |       |       |
| to the "green box"                            | 104.8 | 119.4 | 110.8 | 125.6 | 138.1 | 155.3 | 170.2 | 182.3 |
| Product-specific support measures             |       |       |       |       |       |       |       |       |
| (referred to the "amber box", restricted)     | 1.4   | 1.4   | 1.5   | 1.6   | 1.7   | 1.7   | 1.8   | 1.9   |
| Product-nonspecific support measures          |       |       |       |       |       |       |       |       |
| (referred to the "amber box", not restricted) | 115.0 | 115.5 | 133.9 | 135.1 | 136.0 | 138.8 | 132.8 | 133.4 |
| The maximum allowable amount of               |       |       |       |       |       |       |       |       |
| non-specific support measures in product      |       |       |       |       |       |       |       |       |
| in accordance with the WTO limitations        |       |       |       |       |       |       |       |       |
| (at the rate of 30 rubles /\$)                | 270.0 | 243.0 | 216.0 | 189.0 | 162.0 | 132.0 | 132.0 | 132.0 |
|   |       |       |       |       |       |       |       |       |

<sup>\*</sup>Source: official website of the Ministry of Agriculture of the Russian Federation

According to the State Program for the period from 2013 to 2020, the federal budget of the Russian Federation will allocate funds for the agribusiness needs in amount of more than 1.5 trillion rubles, i.e. \$190 billion per year, which is equivalent to \$4.3 billion. This sum will be amended in terms of co-financing by another 770 billion rubles allocated by the regions. The total sum resulted exceeds even the current maximum of ASM, which is set for Russia in accordance with the WTO rules. Presented statistics confirms the fact that a significant part of the funds to support the agricultural sector is planned to be allocated

by the Ministry of Agriculture through the "green box" and regional co-financing (see Table 2).

Based on the data in Table 2, we make the following conclusions. Firstly, the amount of support referring to the "amber box", in 2013-2017 has significant resources for further increase. Secondly, the State Program shows in general a trend towards increased funding and shifting the center of influence in the total state support measures towards the "green box". Thus, if in 2013 the proper percentage would have reach 47.3%, by 2020, this figure is expected to reach 57.4%.

### **DISCUSSION**

Analyzing the State Program, one should pay attention not only on scheduled significant increase in the scale of financing the agricultural sector, but also on significant expansion of support forms and methods, provided by this government document. The State Program includes a number of innovations in comparison with the program on agriculture support, which has ended in 2012. Thus, in accordance with the new program, part of the current direct measures to support crop farming (subsidizing part of the cost of mineral fertilizers, support of fiber flax and rape production) is transformed into subsidies to support the yield per 1 hectare of arable land. The rules on granting subsidies were adopted also for milk producers: support for milk production will be rendered per one liter of milk produced at proper quality. According to the estimates of the Ministry of Agriculture, the average subsidy per 1 liter of milk will be 1.2 rubles for the premium quality milk, and 0.40 rubles for the first class milk. Starting from 2016, a prerequisite for obtaining subsides will be meeting requirements for yield of calves. All this will require from farmers to pay more attention to product quality and profitability.

Special attention in our study deserts the fact that the State Program clearly displays an innovative vector of both agriculture and related industries. Thus, the State Program provides a fundamentally new section, namely Subprogram on "Technical and Technological Modernization and Innovative Development", whose objectives include improving the efficiency and competitiveness of agricultural products due to the technical and technological modernization of production; creation of a favorable economic environment, conducive to innovative development and attraction of investments into the industry; and reaching by Russia's agriculture the leading positions in the field of agricultural biotechnology. The proposed Subprogram includes activities, such as renewal of agricultural machinery; implementation of promising innovative projects in the agro-industrial complex (including the development of social catering and food aid to vulnerable population stratum); and the development of biotechnology.

The subprogram for modernization and

innovative development provides for accelerated development of innovations distribution networks through public-private partnerships, organization of agricultural consulting for agricultural business representatives to provide exchange of information on promising innovative projects and transfer of such projects from one development institution to another. Besides, it is planned to create database containing information (which does not include commercial classified information or technology know-how) about all supported innovative projects (The State Program for Development of Agriculture and Regulation of Agricultural Products, Raw Materials and Food for 2013-202).

These aspects have special importance for the agricultural sector of the Altai Territory, which traditionally is one of the largest agricultural producers having huge agricultural potential. Here are some of the data. The proportion of the Altai Territory in the total country's agricultural production in 2006-2011 was in average as follows: grain - 5.0%, sugar beet -1.5%, sunflower -3.6%, potatoes - 2.9%, vegetables -1.8%, livestock and poultry -2.8%, milk -4.3%, and eggs - 2.5%.

In 2012, the Altai Territory took 5<sup>th</sup> place in Russia for production of grain, relenting only to major agrarian regions of the south of Russia; and 8<sup>th</sup> place for the production of potatoes. The Territory is among the 20 regions of the Russian Federation, providing the greatest increments of growth in production of milk, meat and poultry. By the end of 2012, the Altai Territory held the 1st place in the Siberian Federal District (SFD) in terms of production of slaughter livestock and poultry, and the 8th place in the Russian Federation. In terms of the gross production of milk it holds the 1st place in the SFD and the 3<sup>rd</sup> place in the Russian Federation; in terms of egg production it is on the 2<sup>nd</sup> place in the SFD and the 15<sup>th</sup> place in the Russian Federation (Shamkhalov et al., 2012).

Recent years have shown intensification of modernization processes due to the implementation of the state and target-oriented programs, as well as the development of public-private partnerships in the agricultural sector of the Territory. Thus, during the two years of the implementation of the program "Construction, reconstruction and modernization of 100 dairy and 100 meat complexes in the Altai Territory (the "100+100" Program) for 2011-2013", over 280 cattle

breeding facilities providing 215 thousand livestock staging places were built, renovated and modernized, as well as 750 new high-performance workplaces were created.

More than 25 billion rubles were invested in the Altai Territory over the past five years to renew the agricultural machinery and equipment. This made it possible to create the basis for further improving the competitiveness of agricultural products (On the measures to develop agricultural complex in connection with the accession of the Russian Federation to the WTO and participation in the Customs Union, 2013).

However, we must note the certain negative trend in the agriculture of the Altai Territory, which has been outlined in the recent years. We are talking about reducing the growth rate of agricultural production and still the unstable nature of the crop production output dynamics. One of the major reasons that caused this trend is the amount of resource provision at all levels of funding, which is irrelevant to real needs. Given the limited resources of the regional budget, the amount of the state support of agriculture in the Altai Territory is definitely insufficient. Thus, in 2011, the federal budget has allocated 560 rubles per hectare of arable land in the region, while the national average figure exceeded 1,000 rubles, i.e. was 1.8 times greater. Therefore, the financing of regional agriculture is not provided even at an average level. At that, the agricultural share of consolidated budget of the Altai Territory is 6.0-7.0% of the total expenditures that is significantly higher than the national average (Long-term target program "Development of Agriculture in the Altai Territory for 2013-2020", 2013).

Maintaining the existing efficiency level of the agricultural sector in the regional economy and the scope of its state support make it very difficult to solve the strategic problems, facing the industry and related to improving rural livelihoods, providing sustainable reproduction of logistic, human and natural ecological potentials in agriculture, and ultimately increasing the competitiveness of agricultural products in the context of Russia's membership in the WTO.

In order to implement the State Program in the Altai Territory, a long-term target program "Development of Agriculture in the Altai Territory for 2013-2020" was approved in October 2012. This

pro-gram provides a comprehensive development of all sectors and sub-sectors of agribusiness industry, in the context of Russia's accession to the WTO. The program funding for the noted period will exceed 44 billion rubles, of which 36 billion rubles will be allocated from the federal budget. The amount of funding of the regional long-term target program is subject to annual improvements when developing the federal and regional budgets for the ensuing financial year and planning period.

As the State Program, the regional long-term target program includes a special subprogram entitled "Technical and technological modernization and innovative development of agro-industrial complex" (Subprogram). Let describe the expected final results of the adopted Subprogram.

Implementation of the Subprogram measures will allow encouraging the agricultural producers to buy 5,000 tractor units, 2910 combine harvesters, and 625 forage harvesters. As a result, farm machinery supply will increase up to 140 hp per 100 hectares of cultivated area.

The Subprogram will boost both investment activity of agricultural producers and innovative development of agriculture, it will ensure the participation of regional representatives in the international and inter-regional trade fairs and other events of inter-regional and international significance. By 2020, it is planned to create two exhibition sites for demonstration of agricultural machinery, breeding cattle and innovative technologies, used in agro-industrial complexes. The planned state support for the implementation of 11 promising innovative projects in the field of crop farming, livestock breeding and processing of agricultural products will be carried out to promote the innovations transfer to agricultural production.

The Subprogram includes also the scheduled improvements of information organization and management in the rural population and producers through the use of mass media, the system of public information support in agriculture, as well as formation of state information resources to provide public e-services. By 2020, it is planned to provide the access of municipal governments and agricultural producers to 5 information systems in the area of food security

and the management of agribusiness industry.

Transition to an innovative development pathway requires the improvement of consulting services of agribusiness industry. Currently providing comprehensive consulting services to agricultural producers and rural population, development of information resources in the field of agriculture and the transfer of innovations is carried out by the Centre for Agricultural Consulting. The Subprogram will continue supporting the activities of this Centre in order to expand its involvement in the development of innovation distribution networks and exchange of information about promising innovative projects, creating a database of innovative developments in the agricultural sector and providing the scientific support of investment projects in the industry. In addition, in the Altai Territory it is supposed to further establish 6 agriculture consulting service centers; they will be established in Alei, Biya, Zarinsk, Kamensk, Rubtsovsk and Slavgorod areas. Overall, 8600 consulting offices will be provided to agricultural producers by 2020.

The success of the innovative development of the agricultural sector and increase in its competitiveness largely depends on the effectiveness of workforce policies in this economy sector. In this regard, we distinguish the following expected objectives arising from realization of the Subprogram: to increase by 2020 the supportability of the regional agricultural organizations by managers and experts at all levels to 95.8%; as well as the proportion of managers and specialists with higher or secondary vocational education in agricultural organizations up to 85.5%. In addition, the Subprogram also provides for increased access of rural youth to vocational training in educational institutions of agrarian profile, as well as settled lifestyle of qualified professionals in rural areas (Long-term target program "Development of Agriculture in the Altai Territory for 2013-2020", 2013).

## **CONCLUSION**

In connection with the above, it should be emphasized again that the financing of innovative projects, the costs for development of information and consulting services system in agribusiness industry in the territorial entities of the Russian Federation and municipalities, as well as training specialists and much more can be done exactly through the "green box", whose scopes, according to the WTO rules, do not fall under the strict limitation. Consequently, the state support rendered in the form of "green-box" is able to enhance innovation activity in the agricultural industries of the region.

However, when speaking about state support for innovation processes in agro-industrial complexes, one should raise another very significant aspect of the problem, associated with the resource provision of technical and technological modernization, innovative development of agro-industrial complex of the region. Consider this issue in terms of above discussed Subprogram.

The amount of funding in the framework of the Subprogram in 2013-2020 is more than 1.5 billion rubles. At that, 1.44 billion rubles should be allocated from the regional budget. Accordingly, the share of the federal budget (in co-financing of the State Program for Development of Agriculture and Regulation of Agricultural Products, Raw Materials and Food for 2013-2020) accounts just for about 70.7 million rubles. Thus, in the overall structure of financial expenditure in the areas covered by the Subprogram, the expenditure from the regional and federal budgets account for 95.3% and 4.7%, respectively. In this regard, of particular interest is the fact that, in the context of the longterm target program "Development of Agriculture in Altai Territory for 2013-2020" as a whole, the proportion of the distribution of sources and amounts of funding, are directly opposite. Thus, the proportion of the federal budget accounts for 81.8% of all expenses for the implementation of this regional program. The remaining 18.2% of the total funding account for the regional budget. This, in turn, means that the costs associated with technical and technological modernization, transition of agribusiness to the innovative development pathway is largely shifted from the federal to the regional level. However, as already noted, the expenses of the regional budget for the implementation of the above program are planned based on the co-financing principle of the State Program. In other words, the region should contribute its share to get federal funds in order to collect the planned amount of funding. Moreover, this share is quite substantial for the regional budget. As a result, the limited resources of the regional budget can be a deterrent to the implementation of measures aiming at transition of regional agribusiness industry to innovative way of development.

Taking into account the globalization of trade and increased competition in the agro food market, it is necessary to strengthen state support, primarily at the expense of the federal budget, aiming at creating the favorable conditions for the functioning of entities in the industry, enhancement of innovative activity of agricultural producers and scaling up rural economy development on the basis of innovation.

In conclusion, we would like to emphasize that accession of Russia to the WTO cannot bring unambiguous fallout for the country as a whole and for its regions. It will inevitably affect both the sectorial and regional economic development of the country. However, the proportion of disbursements and benefits of such joining will largely depend on how properly the state will use the benefits of the WTO membership. With regard to agriculture, one should talk about the reorientation of state aid towards maximizing the use of "green box" measures. Subject to this condition, Russia's accession to the WTO may become a catalyst for innovative processes in agricultural production, capable to provide their high level of competitiveness and effectiveness.

## REFERENCES

- 1. Aerni, Ph., What is sustainable agriculture? Empirical evidence of diverging views in Switzerland and New Zealand. *Ecological Economics*, 2009; **68**: 1872-1882. DOI: 10.1016/j.ecolecon.2008.12.016
- 2. Benjamin, C., Le Roux, Y., & Phimister, E. . Direct payments versus interest rate subsidies to new farmers: a simulation analysis of alternative farm set-up policies in France. *Land Use Policy*, 2006; **23**: 311-322.
- 3. Borch, K. Emerging technologies in favor of sustainable agriculture. *Futures*, 2007; **39**: 1045-1066.
- Brockmeier, M. & Pelikan, J., Agricultural market access: A moving target in the WTO negotiations? *Food Policy*, 2008; 33(3): 250-259.
- 5. Development of Agriculture of the Altai Territory for 2013-2020. (01.03.2013).

- Retrieved July 26, 2013 from http://base.consultant.ru/regbase/cgi/online.cgi?req=doc;base=RLAW016;n=39942
- Dumoulin, I., The evolution of multilateral trade negotiations in the WTO. Foreign Economic Bulletin, 2003; 7.
- 7. Huang, J., Rozelle, S. & Zhang, L., The WTO and agriculture: Radical reforms or the continuation of gradual transition. *China Economic Review*, 2001; **11**: 397-401.
- 8. Krylatykh, E. & Strokova, O., Regional trade agreements in the frameworks of the WTO and the CIS agricultural market. *World Economy and International Relations*, 2003; 3.
- Liventsev, N. & Lissovolik, Ya., Regional aspects of Russia's accession to the WTO, World Economy and International Relations, 2012; 5.
- Mikhnevich, S., Liberalization of world trade in agricultural and food security problem. World Economy and International Relations, 2003; 1.
- 11. Moon, W., Is agriculture compatible with free trade? *Ecological Economics*, 2011; **71**: 13-24.
- 12. On measures to develop agricultural complex in connection with the accession of the Russian Federation to the WTO and participation in the Customs Union, Analytical Bulletin of the RF Federation Council, 7, 491. Retrieved July 26, 2013 from http://www.budgetrf.ru/Publica.../ VSF\_NEW201303141242\_p\_006.htm, 2013
- 13. Portansky, A., The WTO: Perspective of the Doha round negotiations remains. *World Economy and International Relations*, 2008; 12.
- Potter, C. & Tilzey, M., Agricultural multifunctionality, environmental sustainability and the WTO: Resistance or accommodation to the neoliberal project for agriculture? *Geoforum*, 2007; 38: 1290-1303.
- 15. Potter, C., & Burney, J., Agricultural multifunctionality in the WTO: legitimate non-trade concern or disguised protectionism? *Journal of Rural Studies*, 2002; **18**: 35-47.
- Schemes and trade in dairy products: World Trade Organization and other factors shaping the dairy industry in the future., *Encyclopedia* of Dairy Sciences (2<sup>nd</sup> ed.), 2011.
- Shamhalov, F., The economic encyclopedia of Russian regions. Altay Territory. (2<sup>nd</sup> ed.). Moscow: Economics, 2012.
- Shchebarova, N., State regulation: The proportion of free trade and protection. World Economy and International Relations, 2003; 3.
- The State Program on development of agriculture and market regulation of agricultural products, raw materials and food for 2013-2020. (2014).
  2013 from http://mcx.ru/navigation/docfeeder/ show/342.htm

20. Wilson, G., From "weak" to "strong" multifunctionality: Conceptualising farm-level multifunctional transitional pathways. *Journal* 

of Rural Studies, 2008; **24**: 367-383. DOI:10.1016/j.jrurstud.2007.12.010