

Regional Aspect of Rural Sector Support

**Evgeny Alexandrovich Likholetov, Tatyana Aleksandrovna Dugina,
Aleksandr Vladimirovich Nemchenko, Andrei Vladimirovich Belyakov
and Aleksandr Alexandrovich Likholetov**

Volgograd State Agrarian University, Volgograd city, 400002, Universityavenue, 26
Volgograd Academy of the Ministry of Internal Affairs Russian Federation,
Volgograd City, Historical Street, 130.

DOI: <http://dx.doi.org/10.13005/bbra/1696>

(Received: 30 December 2014; accepted: 01 February 2015)

Conditions of agricultural producers support from the budgets of different levels. Objective: to investigate the state of the agricultural sector internal support at the regional level and its compliance with WTO requirements. Results of work: studies have shown that during the study period directions and instruments of state support for agriculture changed, and since 2013 it is carried out within the “green” and “amber” boxes. The support related to the “green box”, is insignificant in the equation models of subsidies impact on gross production, revenue and profit. In this case the support allocated in the “amber box”, has a beneficial effect on the results of management. Measures are suggested for improving the efficiency of “amber” and “green” boxes subsidies. Conclusion: Currently, the amount of direct subsidization of the agricultural sector in the Volgograd region is below the prescribed limit. In the context of the WTO it is required to increase the “amber box” measures, bringing them closer to the allowed limit support. This is primarily a means for agricultural production, material and technical resources that directly affect the technical equipment and operation of agriculture, increase its competitiveness in the domestic and foreign markets, create financial prerequisites for rural territories development. In addition, ‘green box’ filling should be realized by measures of domestic support which have a positive impact on the social development of rural areas and settlements, securing qualified cadres, improving the quality of life for rural residents, indirectly contributing to the development of domestic agricultural production.

Keywords: Agricultural production, The WTO, government support,
Subsidies, budget, Volgograd region.

Agro-industrial complex and its basic industry - agriculture are the leading sectors of the nation's economy, forming the agrofood market, food and economic security, labour and settlement potential of rural areas¹. The growth of agricultural and food production was provided

during implementation of strategic national project “Development of agro-industrial complex” and national program of agricultural development and regulation of agricultural product markets, raw materials and food for the period 2008-2012, as well as a number of other federal and departmental target programs on agribusiness development problems in the country². In 2006-2011 average annual growth rate of agricultural production amounted to 3.2%, despite the unfavorable year 2010³. Compared with the previous quinquennium gross grain harvest

* To whom all correspondence should be addressed.

rose by 8%, sunflower –by 40%, livestock and poultry production increase reached 30% in 2010, including pork (35.6%), poultry (69.9%).

The economy of agricultural enterprises was slightly improved, activities of large agro-industrial formations were developed, the work on rural areas social development was intensified.

However, a number of problems for sustained economic development of agribusiness still remains⁴. The global financial and economic crisis that began in 2008, and a severe drought in 2010 that covered 43 entities of Russia, which hold more than 60% of acreage, had a negative impact on the investment climate in the agro-industrial sector and on the dynamics of the agricultural production development⁵. The following problems should be highlighted:

- a) Technical and technological lag of agriculture in Russia from the developed countries of the world due to low profitability of agricultural commodity producers for the modernization and transition to innovative development⁶, stagnation of agricultural engineering and food industry, which explains the market dominance of imported machinery and equipment⁷.
- b) Limited access of agricultural producers to market in terms of its infrastructure imperfection, increasing monopolization of commercial network, weak development of cooperation in the sphere of agricultural products production and sale⁸.
- c) Slow rate of social development in rural areas, the reduction of rural people employment under poor development of alternative activities, low public assessment of agricultural labor, inadequate resource provision at all levels of funding.

To solve these problems, the country adopted a number of legislative acts for the further development of the national agro-industrial complex. Among them:

“The concept of long-term socio-economic development of the Russian Federation for the period up to 2020”;

“Food Security Doctrine of the Russian Federation”;

“The concept of rural development for the period till 2020” etc.

There will be such significant trends in the forecast period as:

- a) Investment increase – for rising fertility and development of agricultural land reclamation, incentives of land use improvement⁹;
- b) Overcoming stagnation in cattle sub-sector, creating the conditions for production increase and import substitution of cattle meat and dairy products;
- c) update acceleration of agricultural production technical base on the basis of the reconstruction and development of domestic agricultural engineering;
- d) Greening and biologization of agro-industrial production through the application of new technologies in the crop, livestock and food industry in order to preserve the natural potential and improve food safety.

Forecast of the State program implementation is based on the achievement of its main indicators levels, as well as private indicators on corresponding subprograms and federal target programs included in the State program¹⁰.

METHOD

We analyzed trends and instruments of state support for agriculture of the Volgograd region from 2005 to 2013. Studies have shown that in 2005 the largest share (70.1%) took agricultural production financing, including subsidies to support livestock; subsidizing interest rates on loans; compensation for damage to agricultural producers due to abnormal meteorological conditions; payment of costs for crop insurance¹¹.

Regional target programs have been financed, such as “Development of small-scale production,” “Improvement of soil fertility in the Volgograd region,” “Development, research, technology creation and the organization of drip irrigation systems serial production”, “Development of rice cultivation technology with periodic watering on the irrigated lands of the Volgograd region” and others¹².

A significant share is accounted for by activities in the field of agricultural production (12.4%). They are: government support to managers and specialists of agricultural organizations of the Volgograd region; expenses

on the support project to the implementation of reforms in agriculture; exhibitions, competitions, seminars arrangements in the field of agriculture; costs payment for social spheremaintenance; land improvement, etc.)

In 2006 agricultural production funding has risen to 97.8% of the regional budget, and among the instruments of state support there are: subsidies to support livestock (amount increased by almost 1.9 times compared to 2005), including personal subsidiary plots - 2 times, agricultural producers - 1.7 times. At the same time the amount of compensation costs for crop insurance has increased dramatically (more than 30 times), the value of subsidies to support livestock breeding increased 3 times and seed production - 1.8 times¹⁵. There appeared new support tools, including reimbursement of expenses for electricity consumed for irrigation, rural water supply and pond fish growing; the cost payment of buying chemicals; subsidizing part of the purchase cost of diesel fuel used for seasonal agricultural work.

Among the activities in the field of agricultural production there have appeared such ones as the maintenance and repair of intrafarm systems in state property of the Volgograd region, anti-erosion measures, and support of horticultural nonprofit societies and agricultural consumer cooperatives for integrated service of personal subsidiary plots, amount of payments (almost 2 times) on the fishing sector¹⁴. However, the amount of funds directed to reparation of damages incurred by agricultural producers due to abnormal hydrometeorological conditions, and the cost of the project to support the implementation of reforms in agriculture was reduced.

In 2007, costs for agricultural production decreased (almost 2.2 times)¹⁵, including subsidies to support livestock; subsidizing interest rates on loans in the Russian credit organizations; payment of costs for crop insurance; reimbursement of part of the costs (up to 10 times) for the electricity consumed for the purposes of irrigation; arrangements for exhibitions, seminars, competitions in the field of agriculture (1.7 times), and other activities in the AIC (23.2 times).

In 2007, among the areas of state support the regional target program "Development of agriculture in the Volgograd region" can be

identified, the financing of which expired 63% of the regional budget. One of the main tools of this program was the state support of personal subsidiary plots, that took almost a third of the regional budget.

For clarity, the directions of the agriculture state support for 2005 ... 2007 are presented in table 1.

Further, 51.2 and 64.3% respectively of the regional budget were accounted for by the program "Development of agro-industrial complex in the Volgograd region" in 2008 and 2009. Instruments of government support and their structure have been changed (table 2).

The analysis shows that if in 2007 the largest share among instruments for implementation of regional target program "Development of agro-industrial complex" took state support of personal subsidiary plots, then in 2009 partial payment of the cost for chemicals acquisition began to dominate. Compensation of costs for insurance of agricultural crops was sharply reduced, and, on the contrary, for the purchase of diesel oil and for seasonal work increased. Funding of exhibitions, seminars and competitions arrangement in the field of agriculture decreased (4.5 times), the proportion of subsidies to support livestock breeding also decreased (2.8 times)¹⁶.

In subsequent years, several directions of state support have changed. So, if in 2010 the proportion of funds allocated to support crop dominated in the regional budget and livestock support - 7 times less, then in 2011, the situation has changed dramatically: the amount of funds to support livestock farming was 3.6 times higher than in crop production. The cost share of the subsidy in interest rates on loans increased more than 2 times, and 2.2 times - for reclamation complex¹⁷. The share of other areas, such as government support for managers and specialists of agricultural organizations and scientific research also increased (1.8 times). Financial incentives of horticultural nonprofit societies, agricultural consumer cooperatives and cooperative agricultural markets continued¹⁸. For clarity, we can compare the directions of state support for agricultural production in 2010 and 2011 (table 3).

Additional regional target program "Development of agro-industrial complex in the

Volgograd region” was adopted for the period from 2009 to 2012, for the financing of which 55.9% of the regional budget was sent. The main instruments for implementing this support became:

- a) Compensation for damage to agricultural producers in connection with the death of crop and perennial plantings -30.1%;
- b) Subsidies to compensate agricultural producers the cost of paying loans - 15.9%;
- c) State support for selected livestock industries -14.8%;
- d) The partial payment of the costs on chemicals acquisition - 6.0% and other.

RESULTS

In connection with the entry of Russia into the WTO legislative and executive bodies of the country and its separate regions need to solve a range of measures to ensure competitive production in the agricultural sector, particularly in terms of the tangible support for agricultural

development.

As you know, all the measures of the agriculture state support for WTO member countries are divided into three groups or “boxes”.

1. Measures of “amber box” are associated with price support;
2. Measures of ‘blue box’ include payments to limit the size of agricultural land and livestock, as well as compensation for the voluntary production cuts;
3. Measures of ‘green box’ are based on common services.

The Government of the Russian Federation has a considerable reserve of direct and indirect-governmental financial support for accelerated development of rural regional budgets¹⁹, but the amounts of direct support to agricultural producers will be reduced by 2020 by more than 2 times in comparison with 2013.

These include stimulating the production of specific products (product measures) and measures not related to specific types of products.

Table 1. The structure of the Volgograd regional budget, %

Support directions	2005	2006	2007
Total agricultural production	82.8	97.8	36.8
Regional target program “Development of agro-industrial complex in the Volgograd region”	-	-	63.0
Other	17.2	1.1	0.8
Total	100.0	100.0	100.0

Table 2. Instrument structures for implementation of regional target program “Development of agro-industrial complex”, %

Instruments	2007	2008	2009
State support of personal subsidiary plots	29.2	15.9	15.6
Insurance costs partial payment	12.0	11.3	4.5
State support for agricultural producers	11.7	10.4	11.0
Subsidizing interest on loans	11.2	10.7	10.4
Partial reimbursement of expenses	10.0	5.7	7.5
Subsidization to support breeding of livestock farming	6.8	2.9	2.4
Arrangements of exhibitions, seminars in the field of agriculture	4.1	4.8	0.9
Partial payment of the costs for acquisition of technological equipment at its own expense and lease	2.6	-	-
Other	12.4	19.6	18.2
Total	100.0	100.0	100.0
Partial payment of costs for purchasing diesel fuel for seasonal agricultural work	-	8.9	12.2
Partial payment of costs for acquisition of chemicals	-	9.8	17.3

Food support measures are calculated for any agricultural product, the price of which is regulated under the program of price stabilization or state intervention and others (subsidies for agricultural products, the compensation of the costs for material and technical resources acquisition, preferential loans, pricing support for local agricultural producers).

Non-product support measures are calculated on the basis of such payments combination, as subsidies for logistical resources, loans and other types of financial support (e.g. benefits for agricultural products transportation, etc.)

One of the problems of adaptation to the requirements of the WTO is that the "green box" measure, as a form of support to agriculture, should be implemented by means of programs funded by taxpayers. "Green box" measures include crop insurance, disaster relief and assistance to disadvantaged areas, which is important for the Volgograd region, known as the zone of risky agriculture.

Regions differ in socio-economic characteristics, including the significance in the regional economy of the agricultural sector, the presence of competitive advantages of specific agricultural goods production development, its share in the federal figures²⁰.

Also, due to natural and economic conditions they are marked by the sectoral structure of agricultural production, agricultural land productivity, productivity level.

In this connection the consideration of regional peculiarities of state support for agricultural producers is of special importance.

In the Volgograd region the proportion of programs relating to the "green box" in the structure of domestic support to agriculture is low

-35.9%. This is due to several reasons, including insufficient dissemination of these programs (e. g. "Social development of the village"), and the fact that some of them are part of the region's other budget items in a hidden form.

A significant proportion of inner support occupies the structure of "green box" measures in the Volgograd region in the form of damage repayment to agricultural producers in connection with the death of crops and yield of perennial crops due to abnormal hydrometeorological conditions (14.4%), payment of the cost for chemicals acquisition, purchased electricity used for crop irrigation and agricultural water supply, construction and repair of access roads, power lines, gas pipelines, water supply facilities, modernization of livestock complexes, farms and introduction of new technologies in livestock production, as well as part of the cost of making and purchasing designing estimates for construction of family dairy farms (18.3%). Auxiliary instruments of state support for agriculture in the region remain "amber box" measures. Their share in 2012 amounted to 12.2% of spending on agriculture in the regional budget.

The largest share in the structure of "amber box" belongs to subsidizing the interest rate on investment loans (49.3%) and loans for up to 8 years (5.0%), as well as subsidies to support livestock and sheep breeding (12.8%).

It should be noted that the use of state support mechanism instruments occurs under conditions of loss of most economic entities in the region, their insolvency and low liquidity of existing assets²¹. Payment of the interest rate does not guarantee that you can get a loan, if the agricultural sector attractiveness is low for the bank due to the high risk in combination with a relatively long period of credit and poor economic condition of

Table 3. The structure of agriculture state support in the Volgograd region, %

	Federal budget		Regional budget	
	2010	2011	2010	2011
Livestock support	14.1	25.5	9.8	42.1
Crops support	31.2	19.1	67.9	11.7
Interest rate subsidies on loans	54.7	39.2	12.1	24.6
Reclamation complex support	-	16.2	7.5	16.7
Total agricultural production	100	100	100	100

the borrowers, the lack of collateral base, i.e. price factors.

Analysis of the agricultural finance trends shows that in general the size of the industry direct subsidy is not significant in the Volgograd region. Less than 28.9% of total government expenditure on agriculture was allocated on the total crop and livestock support in 2012. Of these subsidies livestock breeding and seed production was carried out only by 2.4% of regional budget. These measures do not create favorable conditions for the effective use of the budget, credit and other financial means, as most farms unprofitable state does not allow them to take advantage of government support.

Thus, the existing measures of direct state support in the area do not contribute to the bailout of agricultural production yet and in fact most of them contribute to the development of financial institutions and insignificant number of economically strong farms.

DISCUSSION

The current situation does not provide evidence of any prerequisites for sustainable agriculture development without increasing its financial support measures. Many scientists propose reorientation of the agrarian sector support in favor of measures permitted under WTO rules. It is about optimizing the cost structure of budgets of various levels by cutting straight line programs of state support and wider use of "green box".

Research shows that the existing measures related to the "green box" does not solve the problem of low level development of the social infrastructure in rural areas, as support measures that improve the standard of living by increasing the income of rural residents, are virtually absent.

Also, a number of existing support measures, such as interest rate subsidies refer to direct measures only according to the classification of the WTO, but in practice they do not have a direct impact on economic growth in agriculture.

Studies have shown that support related to "green box", is insignificant in the equations models of the subsidies impact on gross production, revenue and profit. At the same time the support allocated in the "amber box", has a favorable impact on economic results. Every ruble

of such support creates conditions for 2.5 rubles of gross output, 1.25 rubles of revenue and 0.11 rubles of profit.

CONCLUSION

Clearly, new approaches are necessary to the provision of government support related to the "amber box" measures. These are the most efficient use of the permitted limit of direct support.

WTO rules do not suggest its abolition. The main issue in the negotiations on Russia's accession to the WTO was the maximum amount of direct subsidies, which may be granted to the agricultural sector of the economy.

As it is known, the obligations in terms of "amber box" for each WTO member are fixed in the form of aggregated support measures. For the Russian Federation, they were set up in 2013 to \$9 billion. If we consider that the area of agricultural land in the Volgograd region is about 3.3% in the general structure of such areas in Russia, the allowable amount in proportion with this "amber box" in the region will be about 13 billion rubles.

Currently, the amount of direct subsidization of the agricultural sector in the Volgograd region is below the prescribed limit. In the context of the WTO it is required to increase the "amber box" measures, bringing them closer to the allowed limit of support. This is primarily a means of agricultural production and logistical resources that directly affect the technical equipment and operation of agriculture, increase its competitiveness in the domestic and foreign markets, create financial preconditions for the development of rural areas.

In addition, the 'green box' should be filled by domestic support measures which have a positive impact on social development of rural areas and settlements, securing qualified staff, improving the quality of life for rural residents, indirectly contributing to the development of the national agricultural production. Effective use of "green box" measures is a prerequisite for the innovative development of agriculture in the Volgograd region.

REFERENCES

1. Kravets, E., Steshenko Yu., Likholeto A., Kairgaliev D., Vasiliev D., 2014. Cognitive

- Activity Efficiency Factors during Investigative Actions, Performed Using Information and Communication Technologies. Knowledge-Based Software Engineering. 11th Joint Conference, JCKBSE, Volgograd, Russia, September 17-20, 2014. Proceedings: 2014; 585-592.
2. Agreement on agriculture. Date Views 01.01.2015 <http://www.wto.ru>
 3. Belyakov, A., Economic aspects and trends of Volgograd region agro-industrial complex development. *Business. Education. Right. Bulletin of the Volgograd Institute of Business*, 2014; **4**(29): 161-164.
 4. Kashinskaya, E., Sustainable competitive position building in agricultural production: a monograph. Volgograd: Volgograd State University, 2000; 136.
 5. Dugina, T., Streamlining of land shares as an efficient resource of agricultural land-use. The economy of agricultural and processing enterprises, 2012; **4**: 70-72.
 6. Shepitko, R., Grain processing industry in Russia: Problems and Prospects. Nizhnevolzhskiy agricultural University complex: *Science and higher professional education*, 2007; **1**: 69-74.
 7. Shepitko, R., Agriculture innovative capacity: methodological aspects. Nizhnevolzhskiy agricultural University complex: *Science and higher professional education*, 2012; **3**: 228-232.
 8. Nemchenko, A., Cost management plan for businesses. *Bulletin of the Altai State Agrarian University*, 2009; **8**(58): 109-112.
 9. Panova, N., State and market regulation of the investment activity in agro-production complex. *Entrepreneurship*, 2009; **8**: 149-153.
 10. Shepitko R., Promotional approach to crop production support by the state. Nizhnevolzhskiy agricultural University complex: *Science and higher professional education*, 2014; **2**(34): 220-225.
 11. Chernyaev, A., Territorial and economic zoning of agricultural production in the region. *The economy of agricultural and processing enterprises*, 2014; **1**: 21-23.
 12. Belyakov, A., Provement of economic reasons for melon-growing in Volgograd region. *Business. Education. Right. Bulletin of the Volgograd Institute of Business*, 2014; **3**(28): 154-158.
 13. Grigorov, M., Water-melon cultivating economics using irrigation systems in Volgograd region. *Agricultural scientific journal*, 2007; **6**: 81-84.
 14. Panov A., Small business support by the local authorities. *Bulletin of the University State University of Management*, 2014; **12**: 54-60.
 15. Nekhorosheva, V., Corn-growing industry competitiveness: problems & prospect. The economy of agricultural and processing enterprises, 2007; **2**: 24-26.
 16. Balashova, N., To improve economic reproduction mechanism in agriculture. The economy of agricultural and processing enterprises, 2011; **1**: 27-29.
 17. Likholetov, E., Irrigated agriculture - the basis for efficient functioning of the agricultural production in risk farming areas. *Bulletin of the Altai State Agrarian University*, 2013; **6**(104): 147-151.
 18. Dugina, T., Land relations development in Russian agriculture. *Russian business*, 2014; **2**(248): 78-85.
 19. Karaulova, N., System analysis and synthesis of the concept "economic interests' protection". *World Applied Sciences Journal*, 2013; **27**: 13 A: 329-331.
 20. Shepitko, R., Assessment of the competitive position of regional systems for grain production. *Bulletin of Volgograd State University. Episode 3: The Economy. Ecology*, 2009; **2**: 103-108.
 21. Nemchenko, A., Production costs optimization in crop-growing business in Volgograd region. Management of economic systems: electronic scientific journal, 11. Date Views 01.15.2015 <http://www.uecs.ru>, 2014.