

Digital mechanisms of public-private partnership in the Russian agro-industrial complex

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Abstract—The agro-industrial complex reform Russia essentially changes approach to creation of the competitive entities of the agrarian sphere that is so far a sales problem of agrarian policy in the conditions of digitalization of economic and food security of the country. Transition to innovative development and upgrade of economy provides active search of instruments of stimulation of innovative and digital activity of a private equity and providing at the same time the most effective combination of interests of the state and entrepreneurial structures. As such tool the mechanism of public-private partnership is used. In article the need of using new digital instruments of ensuring innovative development of the agrarian sphere is proved. These instruments are digital platforms, venture funds, agro- industrial parks, the rent leasing relations that will promote effective development of the PPP in the Russian agrarian complex in modern conditions of digital economy.

Keywords—digital economy, public-private partnership, agro-industrial complex, agricultural industry, program, digitalization.

I. INTRODUCTION

The development of agriculture is an important part of the national economy, the main government task being to organize and stimulate innovation in the sector. It is obvious that in the current digitalization of economic in the agro industrial complex, its separate branches and entities are not able to provide a solution to this problem on their own. Public-private partnerships, with active interaction of public and private capital, would be the best solution.

II. PURPOSE OF RESEARCH

The situation calls for a system of measures to improve the digital mechanisms of agricultural public-private partnerships in Russia.

III. MATERIALS AND METHODS

The research focused on systematization of domestic and foreign works centered on public-private partnerships. The use of system analysis allowed us to pinpoint the main benefits and drawbacks of the digital mechanism in question and to assess the possibility of its application for the Russian agro industrial complex. It also allowed us to identify the best foreign practices of government regulation and to justify their scalability for Russia using the digitale-oriented method. The conclusions were put at the basis for a set of proposals to develop an digital mechanism for the implementation of PPP projects in the agricultural sector.

The empirical study used the data of the Federal Statistics Service of the Russian Federation, media

materials, and published reports on the development of public-private partnerships.

IV. RESEARCH RESULTS AND DISCUSSION

The development of public-private partnership mechanisms has been the subject of research of various disciplines and schools. The PPP mechanism has been used for a long time and has proved its efficiency internationally. H.E. Hale (2006), E.R. Yescombe (2011), T.J. Murphy (2012), S. Osborne (2000) among others have studied particular aspects of private and public interaction, and the relations between the government and business.

Russian studies of the subject were prompted by the interest in the mechanisms of PPP implementation, in particular the cases of collaboration between business and government agencies. Russian scholars A.P. Berestov (2008), V.G. Varnavsky (2009), M.V. Vilisov (2007), A.V. Belitskaya (2008), R. R. Shabanov (2008) have worked on a theoretical substantiation of public-private partnerships. In recent years, increased public and scientific interest in the phenomenon has resulted in a significant number of papers that analyze the efficiency and prospects of the PPP mechanism in a wide range of industries, including agriculture. However, many issues remain to be explored.

Since the agricultural sector suffers greatly from research underfinancing and from multiple external factors, PPPs can reduce the risks for individual private partners, at the same time facilitating the adaptation and sharing of new research results or existing knowledge and technologies.

The history of public-private partnerships in the Russian Federation includes PPPs that were created as concessions during the NEP (New Economic Policy) period [9]. As early as in the 1990-s, more than 2,700 PPP projects were established in Western Europe and certain developing countries. Thousands of successful PPP projects have been implemented over the past two decades. The leaders are the UK, USA, France and Germany, where concession agreements and contracts are the main forms of partnership. The common features of PPP practices outside Russia include a larger and more streamlined regulatory framework regulating contractual relations in various industries and factoring in the diversity of the operating conditions across industries.

Although the history of PPP projects in Russia is relatively short, there is a number of successful partnerships between the state and business in a number of sectors, including agribusiness. The practice involves a range of state organizations (government agencies, federal unitary

enterprises, state corporations, financial and industrial groups, non-profit partnerships, autonomous non-profit organizations, foundations). However, the involvement of institutions that were designed to foster the development of PPPs (state corporations, the Russian Venture Company, special economic zones, technology transfer centers, innovation and technology centers, technoparks, etc.) is not systematic.

The analysis of the investment projects implemented in Russia allows us to identify areas that are attractive to Russian business and should be priority for the state, such as manufacturing, housing and communal services, and road construction. Agribusiness is among the five industries with the largest number of PPP-based investment projects.

Performance-based approach is one of the tools utilized by Russian PPPs today and enforced through the State Program of Agriculture Development and Regulation of Agricultural Markets, Materials and Food (effective in 2008-2012 and extended for 2013-2020). The function of the state is organization and economic support for agricultural development; it coordinates the development of state, departmental and regional target programs and innovative investment projects, enables the building of innovative infrastructure; it does not fulfill the function of agribusiness [1].

Technological platforms should become an important tool for building an innovative agribusiness system and for developing public-private partnerships in the near future. Such platforms are the most modern form of PPPs, in which the policies of development of the producing and processing branches can be coordinated between business, science and education in order to improve the agribusiness competitiveness on the country level and in particular territories and organizations. One example is the technological platform “*Technology of Food and Processing in Agribusiness: Wholesome Foods*” at the Voronezh State Engineering University.

The PPP contract is the most popular PPP mechanism in both Russian and international practice, its specific types being investment and concession agreements, which is explained by the existence of a well-developed legislative framework and a transparent mechanism of interaction between the parties. In total, there are about 500 concession contracts registered in Russia [9].

As they develop direct relations with entrepreneurs, the regions rely on large farms as well as on small businesses and rural cooperatives. The government assists large enterprises in the allocation of land plots, bringing service lines, and the provision of loans guarantees. Payments from the state budget take various forms: appropriations, subsidies, grants, subventions. Monetary policy instruments include credit limits, discount rate adjustments, direct regulation of interest rates, etc. Other forms of economic influence include lending, investment, and taxation [6].

In domestic practice, in addition to the considered forms, large strategic PPP projects are financed chiefly by the RF Investment Fund and specialized sources. Of the total number of investment projects implemented on PPP terms in Russia, only eight belong to the agribusiness sector: four in the Tambov region, two in the Republic of Mordovia, one in the Bryansk region and one in the Altai territory; only two were completed. Tambov region in terms of number of

projects (four). The volume of investments amounted to 80% of all projects implemented by the RF Investment Fund (37,787.02 million rubles). All the projects aim to transform the regional economy through the creation of new high-tech agricultural production companies.

A multidimensional study of PPP problems and prospects and the ways to reduce investment risks in the regional agro-industrial complex allows us to state that at the present stage it is very important to optimize the PPP forms and models [14]. From the variety of PPP forms, those that rely heavily on the financial administrative capacity of the state at their initial stages should have priority. Later, when the corporate or private business engaged in the projects starts earning a profit, it can repay the state share of the invested capital up to a full privatization.

Russian agriculture is currently at the development stage. Experts estimate the investment potential of agribusiness to exceed 4 trillion rubles by 2020. A significant part of these investments will be financed by credit funds. An appropriate solution, in our opinion, would be the organization of PPP between the state organs, farmers of the Russian territorial units, and small agricultural organizations. An example of such a successful partnership is the Association “Agricultural Education and Science”.

Innovative and technological improvement of the sustainable food supply system is important at the present stage, which implies the renovation of the relevant organizational structure, and implementation of a set of measures such as:

- 1) Stimulating quality, environmentally friendly agro products,
- 2) Budget support of seed production system,
- 3) Promotion of measures to expand the range of food products,
- 4) Support for innovation at the municipal level,
- 5) Encouraging the introduction new science and technology through cooperation with scientific institutions,
- 6) Cooperation with universities to prepare highly qualified personnel for agribusiness in the region,
- 7) Cooperation with advanced training schools for agribusiness workers,
- 8) Encouraging of import substitution and production of critical products.

The main measures of state support for agribusiness are partial reimbursement the money manufacturers pay as premiums under agricultural insurance contracts, partial reimbursement of interest on loans and borrowings, federal grants for promising innovative projects. The state can provide producers with subsidized loans for investment projects, and provide financing through the RF Investment Fund.

The key factors that impede the efficient implementation of PPP projects in Russia are socio-political and legal issues, low efficiency of public authorities, and insignificant growth of the investment climate. Longterm development of the innovative agribusiness should rely on an existing PPP-based infrastructure, e.g., in the form of innovative

agricultural clusters. The creation of such clusters requires the following factors: favorable soil and climatic conditions; availability of labor and land resources; involvement of research institutions in the clusters to ensure early introduction of new science and technologies; the parties should use their existing foreign economic and export relationships and financial resources to acquire new technology and equipment, their own brands and brands.

The formation of new institutions of regional agriculture development involves:

- Development of lease relations where the state leases its property to the private sector in order to attract long-term investments for the development of innovative projects;
- Improvement of the legislative, financial, tax and property mechanisms of incentive and support for small agro enterprises specializing in research and development;
- Use of new sources of PPP financing (non-state pension funds) and the mechanism of concession bonds;
- Changes in the legislation to increase the investment attractiveness of PPP projects, and to allow borrowing at lower rates in view of the long-term nature of relations within agro PPPs.

Thus, the use of organizational mechanisms of PPP should be the starting point for the development of a new level of relations between the state and business within the agro-food complex, using the strengths of public and private partners to achieve efficiency growth, resource and investment mobilization in solving priorities, implementation of innovative projects, and risk reduction.

SUMMARY

As shown by the generalization of the theoretical provisions of the problem, PPPs are the optimal economic form for the organization of financial support for the industry's innovative infrastructure and manufacturing projects. Continuous development of forms, tools, principles, approaches, models and digital mechanisms of PPP innovation and investment in the agricultural sector will improve the efficiency and competitiveness of domestic agribusiness.

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