1. Introduction

One of the most important consequences of collapse of the Soviet Union is substantial changes in the configuration of the external borders of Russia. Many territories on the east previously considered as inner ones became new border regions. These included such regions as the Altai krai, Novosibirsk, Omsk, Tumen oblasts, and others. Having received a new status they obtained alternative possibilities to construct their development strategies, however combined with challenges and problem issues. These regions supplemented traditional border regions of Russia behind the Urals located along the Chinese and Mongolian borders. At the same time, these acquired qualities of the new and traditional
border territories as stimuli for their development strategies as well as risks remain underestimated both at federal and regional levels.

2. Functionalities of borders, transboundary territories and transboundary regions: connotation dilemmas

Formation of new borders in the Asian part of Russia is just one of changes caused by collapse of the USSR as an integrated state. The processes of transition connected with new role of a border, namely the relationship between such functions of a state border as remaining barriers and/ or becoming contact zones is at least not less important. These transformations embraced both types of Russian borders on the east – new borders and the old ones – and impacted relations of Russia with all its eastern neighbours such as Kazakhstan, Mongolia and China. Just a quarter of century ago the borders and border territories of Russia on the east of the country were exclusively considered in the context of military, strategic and national security interests. Nowadays in addition to that they received a function of a communication space which is to be pragmatically conceptualized in order to stimulate regional development and cooperation between the neighbouring countries.

In fact, none of economic experts is now disputing this theory. Meanwhile, in many respects international cooperation on the border territories is still developing spontaneously and even chaotically, and proper balance of the state, regional and local interests is not duly considered and maintained. It can be explained, inter alia, by lack of the system vision of potential advantages, which can be achieved on the basis of the pragmatic consideration of these regions as transboundary territories.

The explanation is rooted, at least partially, in the fact that the essence of transboundary territories as both natural and social phenomena is still not well conceptualized in Russia. Meanwhile, the factor of transboundary nature of geographic and socio-economic systems, which is determined by the integrity of their natural structures and/or unity of their socio-economic and cultural imperatives is getting new and important dimension in the current epoch of globalization. This factor can substantially impact the existence and future development of such specific spaces which are divided by the state borders. On the one hand, the transboundary character of the natural objects (and territories as a whole) can be interpreted as a background for the development of mechanisms of international and interregional cooperation. On the other hand, it gives birth to new issues and problems, anthropogenic on their nature.

This statement makes us briefly refer to a theory of a border. According to a classical approach, specifics of border regions are generally determined by the functional dualism of a border, which combines barrier and contact functions. “Structural dynamics, growth or collapses of economic spaces depends upon the balance of factors of barriers and contact of the formal borders” (Вардомский et. al., 1989). The classification scheme of border regions includes aloof border regions (interactions across the border are missing); coexisting border regions (territories with some economic and cultural interactions); interdependent border regions (territories, which implement broad interactions in the economic, social and cultural spheres); and integrated border regions (a high degree of integration; free transfer of people, goods, services, finances and ideas is provided) (Давидов, Чекалина, 2008).

However, different understanding of such methodologically important terms as border territories, transboundary territories, transboundary regions, etc. is circulating in the expert community. The problem of border territories is seen as even more complicated due to the lack of agreements on their geographical scales and limits. The category of a boundary space introduced into the geographical discourse became a compromise, while remaining a palliative. From the standpoint of geography, it is characterised by three dimensions such as an extent, width and intensity of the boundary processes. At the same time, the issue of proper criteria for qualifying these parameters is hardly solved at the moment (Ганзей, 2004). Evident conflict between political, administrative, economic and geographical approaches to dividing these spaces into districts is also to be taken into consideration as the methodological issue.

Not going into details of these discussions since we have already got a possibility to present our argumentation in other publications, we would like to point out that the system of criteria for identifying transboundary regions should include a number of parameters. They are to characterize not just integrity of these territories as geographical objects but also specify the integrity or complementarity of their economic profiles, closeness of their historical development and cultural archetypes.

Regions located in a proximity to the state border naturally are the backbone and key structural elements of transboundary regions. There is a term of “an international transboundary territory” introduced into scientific discourse that is seen as operational. According to this assumption,
an international transboundary territory is “a territory, which combines interacting border territories of one or several neighbouring countries and possesses a combination of natural resources and types of economic activities based on the integrated geosystem or two or more geosystems of the regional level which interact in the area of the state border” (Бакланов, Ганзей, 2004). The background for appropriateness of such categorising is a combination of natural and anthropogenic factors, which in their integrity allow interpreting border territories as internally indivisible transboundary regions, and considering them as holistic geosystems, ecosystems and/or territorial complexes. According to some experts, they have a number of interconnected layers, namely physical and geographical, economic, cultural and historical, functional and political ones (Бакланов, Шинковский (eds.), 2010). If sufficient level of cooperation and integration is developed and maintained on an international transboundary territory, it formulates a solid basis for becoming a true transboundary region.

In our opinion, transboundary regions should only be treated as interacting or cooperating border territories. We believe that this is the factor of interaction as well as the level of mutual integration across the border, which is to be seen as the key parameter for identification of a territory as transboundary region. Thus, transboundary regions are always a result of some political design. The major precondition for qualifying transboundary regions is a joint participation of different kinds of actors across the state border in setting up objectives and selecting means and instruments for development of the adjacent territories. In a practical sense, it makes an analysis of the existing practices and modelling of the optimal institutes of transboundary cooperation the key issue of both research and management practices of cross-border cooperation.

Transboundary cooperation is typically determined as a combination of bilateral and/or multilateral links between administrations and authorities, economic entities, public organisations and population of border regions of the two or several countries (Давидов, Чекалина, 2008). In the theory, integrating efforts of the state institutes and the institutes of the civil society transboundary cooperation is an important factor of regional development harmonizing the processes of globalisation and regionalization. In practice contrary to the EU countries, which for a long time have been successfully relying on the European Framework Convention on Trans-frontier Cooperation (European…, 1980), Russia has just started to conceptualize new opportunities of trans-boundary cooperation, and setting up acceptable and effective institutional platform for collaborating with its neighbours is now under formation with many obstacles on this way.

3. Transboundary institutes and regional development policy: a bit of methodology as applied to Russian realities

This is for sure, that interaction of transboundary regions is supposed to be based on the developed system of transboundary institutes. No doubts that effectiveness of border contact zones is determined by the cooperation institutes, which include international agreements, chamber of commerce and trade representatives, bilateral and multilateral commissions, associations, consultancies, etc. facilitating international economic and human contacts (Вардомский, 2006). International and specifically, European experience is rich of positive practices of this sort, including euroregions (see: Vodichev, 2014).

We believe that institutionalisation of cross-border links, ties, contacts and communication is the most important indicator of a true transboundary region. After classical approach of Thorstein Veblen, the institutional framework is understood as forms of organisation and means of development of transboundary interactions. It incorporates a combination of laws, rules, codes of behaviour, types of socio-economic relations and links (Веблен, 1984). In other words, these are ways of public life in connection with the material surrounding of the existing society. In this sense, institutes can be divided into formal, including instruments, means, regulating methods in some specific spheres of life, such as laws, rules and regulations, etc., and informal ones, which are also influencing and structuring actions undertaken by formal institutes. Respectively, the process of institutionalisation can be interpreted as a creation of mechanisms, systems and methods, which provides for regulating certain spheres of life. This process should always be considered historically and retrospectively since it passes specific phases in course of its development.

Thus, in a wider sense a category “transboundary institute” accepted either officially or publically can be applied to any kind of relations across the state borders. From the formal point of view, a transboundary institute is an instrument of transboundary interactions agreed with the international laws. In this sense transboundary region should be considered in integrity of their political, legislative and regulative, economic, social, cultural and infrastructural institutional dimensions (Бакланов, Шинковский...
ments and authorities should have at their disposal on proper selection of instruments, which govern the so-called “empirical rule of economic integration” based on proper selection of instruments, which governments and authorities should have at their disposal and may use in a view of the three mentioned above dimensions of regional development.

Firstly, the rule incorporates formation of institutes, which are “territorially neutral”. These are laws and regulations connected with the land use, labour force, international trade, as well as such institutes which are dealing with education, health, water supply, sewerage systems, etc. which are to be funded from the state budgets. Secondly, these are such measures, which may connect and integrate territories. These are predominantly infrastructural instruments such as construction of roads, bridges, airports, communication systems, etc., which provide for the movement of people, goods and ideas and making this process easier and faster at all levels. And the last but not least, these are measures which stimulate development of specific territories, such as regional programmes focused on poverty prevention, tax privileges and other preferences for concrete territories.

Without making conclusions on sufficiency of these instruments when applied to transboundary territories on the east of Russia it is worth to note that their appropriateness is well supported by a broad spectrum of other examples. It is pointed out by the World Bank experts that final success in making regional policies is conditioned by utilisation of all three kinds of means of regional growth since each of these instruments is designed to solve specific tasks at the own level. Our analysis indicates that most of the strategic development programmes for the eastern regions of Russia contain predominantly the measures, which stimulate development of specific territories only, and thus belong to the third category of instruments of governing. Meanwhile, there is a lack of attention given to the measures, which are to be neutral in a territorial respect. In the same time, such measures are necessary for Russia in order to guarantee implementation of its legislation, specifically, environment protection laws, providing equal access to resources for creating favourable conditions for business to all business actors and not to specific companies which operate at some concrete territories, and protecting population and businesses from violence and other arbitrary actions.

It should be pointed out that measures of the second group such as development of infrastructure are not always neutral to the regions. Rather often they are aimed at providing some privileges or favourable business conditions to some concrete companies and/or consortia (e.g. the projects of the highway and gas pipeline “Altai”, special tourist and recreational zones on the Altai Mountains and the lake Baikal area, East Siberian and Far Eastern (VSTO)
Securing of acceptable living standards equal to the average ones in the country should be the major objective of the institutes regulating territorial development. It is specifically acute now for the eastern territories since existing disparity in living standards is leading to the increasing population outflow from the region. In this context, the effectiveness of such an institute as a private-public partnership, although admitting its importance and significance, should not be overestimated when setting up machinery for the solution of the key strategic tasks.

At the moment there are some indications, that certain demands for improvement of the institutional infrastructure are demonstrated by some regional administrations, although they are still weak enough. They generally remain cautious. The matter is that improvement of institutions will certainly lead to decreasing of the administrative rent. It is a reason why this process is often connected with resistance to the institutional modernisation. This issue formulates an important aspect for further research, and a study of correlation between transboundary links and interactions and transboundary demand for natural resources should be an important component of such a research. It is well known that the resource orientation of economic development contributes to the decreasing rent in the resource sectors of the economy and lead to the increasing rent in the processing and innovative industries. This is why there is a risk that such advanced industries are extruded from the economics of transboundary territories, if the existing dynamics and deepening of the raw materials orientation in the border regions will not be overcome. We believe that it applies not only to the eastern transboundary territories of Russia but to the western ones as well such as Karelia at the Russian-Finnish border.

4. Timber industry in Eastern Siberia: a case study of the transboundary cooperation and institutional bottlenecks

In the theory, it is clear that transboundary location may entail some negative consequences for the economic performance if remains unregulated. On the opposite side if the situation is duly conceptualised it provides with much more possibilities for effective utilisation of the factor of border and transboundary location, when generating joint operational strategies allowing transformation of transboundary territories into real transboundary regions.

One of the most indicative examples of how institutions create problems for regional economic development in transboundary regions on the east of Russia is a development of timber industry in Siberia and on the Far East. Now the biggest importer of the Russian wood is China. Timber complex of the East Siberian and Far Eastern regions of Russia is mostly oriented to exporting wood and timber to this country (Антонова, ЮН, 2012; Антонова, 2014). In the theory favourable geographical location and constantly growing demand for timber from the Chinese industry should have stimulated development of modern production technologies in the regional timber complexes. However, in reality due to the impact of spatial and institutional factors these “theoretical advantages” are becoming barriers for technological modernization of this industry.

For instance, in Zabaikalsky krai (one of the East Siberian regions) three factors surprisingly play a negative role for the industrial development, although initially they might have been seen as positive ones. These are boundary location of the territory, huge deposits of the timber resources, and localization of several border check points within the limits of this particular krai including the biggest Russian-Chinese automobile and railway border transit point Zabaikalsk – Manzhouli. The boundary location of the region and low costs for transportation of timber which might have become the competitive advantages in practice became obstacles for creation of modern timber industry in Russia. In 1990s – early 2000s export of raw wood was not connected with high commercial and investment risks, which were characteristic to most of the businesses in the processing industries in Russia and provided for a quick return of the investments, and typically the choice was made in favour of exporting raw materials. Thus, export of raw timber (wood round timber) and primarily processed timber remained more profitable business in comparison with deep-processed timber.

The model of regional forest exploitation, which was formed on the east of Russia, brought some positive results in a short run. However, it took the industry to the dead-end in a longer perspective. Specifically, after economic crisis of 2008–2009 and changes in the customs policy only those regions managed to preserve their positions at the external markets, which expanded added-value production in the timber processing complex (Колесникова, 2013).
Meanwhile, the problem of low efficiency of the forest exploitation has become actual for regions with large processing industries and bigger export volumes. There was a government resolution issued on 23 December 2006 “On rates of export duties for goods exporting from the territory of the Russian Federation outside of the states members of the Customs Union” that was focused on decreasing of raw materials export from Russia. It introduced substantial increase of the customs duties for raw wood. However, it did not radically solve the problem (Колесникова, 2013). After accession of Russia to the World Trade Organisation special quotas were introduced which determined low export duties for row wood of the coniferous breeds of trees (13% for fir-trees and 15% for pine trees). As a result, the share of wood round timber in the timber export decreased and its place was substituted by pre-processed but not deep-processed timber (Отмена..., 2013).

Zero level custom duties for timber led to the situation when Chinese businesses delivered many primitive power-saw benches to the territories of Russian Eastern Siberia and Far East. They are being used for production of the pre-processed timber with minimal added value which is subsequently being exported from the country without paying any customs duties. It is possible to say that such customs policy served as “anti-stimuli” for modernization of this branch of industry in the regions, which possessed favourable geographical location for exporting of their products. This is actually an illustration of poor budgetary efficiency of timber processing in the regions exporting substantial quantities of timber to its eastern neighbour. So far, several large regions of the Eastern Siberia and Far East exporting timber demonstrate negative economic performance and are subsidized from the federal budget.

Thus, the combination of the economic and institutional factors in the boundary territories on the east of Russia and in the regions, which possess good infrastructural conditions for developing export to China does not stimulate development of deep-processed production and consequently does not contribute to an increase of the budgetary efficiency of the forest exploitation. Certainly, this is a characteristic point of not just forest exploitation alone. There are numerous trends of similar transboundary asymmetry in cooperation with China in many other branches of industry (Бардаль, 2014; Глазырина, 2012; Кулешов et al., 2010; Ломакина, 2014).

5. Ecosystem services as an instrument of reasonable transboundary economic activities

There is another negative impact of weak institutes in transboundary cooperation that deserves special attention — the issue of the environmental consequences of interaction of factors of the first and the second nature. Environmental outcomes and nature protection issues are practically excluded from the agenda of current economic transboundary activities on the east of Russia. There are a number of commissions of different kinds but their activity remains formal and unproductive. We assume that ecosystem approach can be taken as a conceptual basis and key instrument for analyzing and balancing them. Respectively, some portion of theory should be addressed to make it clear. In general, ecosystem services are interpreted as universal benefits important for the humanity, which originate from functioning of ecosystems. The term was introduced by the founders of the environmental economics and is now widespread in the scientific literature (see: Глазырина, Михеев, 2014).

After R.A. Perelet, ecosystem services can be divided into two categories such as ecosystem environmental “services”, which is a system of biospheres’ regulation of climate, water regime, ozone layer of the Earth, etc., and “services” of nature connected with aesthetic, ethic moral, cultural, recreational, historical, etc. aspects (Пепенер, 2009). Ecosystem services therefore can be interpreted as a product of the human capital, which should not be misidentified with natural resource potential (Глазырина, 2001). Ability of natural systems to perform environmental functions is not less important than provision of economic activity with natural resources. Respectively, both issues — providing natural raw materials and performing environmental services — are executed as “streams” and thus they have a dynamic nature.

In the meantime, there are arguments indicating meaningful discrepancy of ecosystem services from the stream of natural resources (Farley, Costanza, 2010), which are conceptually and methodologically important. (1) Ecosystems are not quantitatively spent, but can qualitatively change in the process servicing; (2) Contrary to the natural resources, it is impossible to create stocks of the ecosystem services. They can not be utilized sooner or later depending on our will and intentions; (3) Ecosystem services are the streams of benefits generated by the specific configuration of natural assets and not just by their existence as such.

The last point seems to be the most important in this argumentation. Only healthy and complete
ecosystems are able to perform their environmental functions in a full scale and provide with ecosystem services. In this connection, the principle of responsibility for the integrity of ecosystems should belong to key ones in the nature protection activity (Glazyrina, Strizhova, 2000). Structure and diversity of ecosystems should be treated as an important component of the capital of nature. Specific actions aimed at supporting this integrity are needed, and the system of payments is to be introduced to serve this purpose.

Numerous data collected in the framework of our research of the transboundary territories in Siberia and Far East of Russia indicate that there are serious risks of irreversible changes connected with drastic violation of the ecosystem integrity there due to unbalanced economic performance. Possible solution is also rooted in the ecosystem approach. Based on that, a number of procedures have been developed in the international practice in order to prevent these risks. In this sense the ecosystem approach is presented as a complex strategy of management of land, water and live resources in order to preserve them and guarantee their utilization on the fair basis (Бообылё, 2012). Specifically, the EU Water Framework Directive based on the ecosystem approach can be used as a good example. It became the key instrument of the European Economic Commission for elaborating recommendations on introduction of system of payments for ecosystem services in the conditions of complex management of water resources (Плата за …, 2006).

Economic mechanisms of regulating of relationship of nature and society are not the only ones but they are very important instruments to preserve the integrity of ecosystems. The systems of payments for ecosystem services is utilised in the OESD countries, and some developing countries including China belong to this category. However, in Russian practice of payments for utilization of resources still dominates a mono-resource approach. This outdated methodology is used, as a rule, when debating and signing agreements on transboundary cooperation with neighbouring countries. Our research of basic trends in the ecosystems transformations on the east of Russia indicates necessity of rapid reconsideration of the existing agreements with China on the basis of ecosystem approach and setting up new institutional forms of their practical implementation including transboundary system of payments for ecosystem services.

6. Summing up

Collapse of the USSR resulted in emergence of new state borders in Siberia and changes in functionalities of the old one in Far East. New transboundary territories appeared on the East of Russia, and transboundary links and cooperation are now increasing while often remains spontaneous and not well agreed with regional development strategies. On this reason and due to ineffective regional development and transboundary cooperation institutes eastern border territories can not be considered so far as true transboundary regions. Application of Paul Krugman’s theory of spatial economic development to the border regions of Russian east indicates that in many cases factors of the second nature (institutes) work against factors of the first nature initially seen as advantages, and regional economy is seen as “institutionally trapped”. Results of the case study of timber industry in Zabaikalskiy krai in the Eastern Siberia and ineffective cooperation with China in this field convincingly confirms this statement. The wealth of forests on the east of Russia and proximity to the Chinese border with its highly demanding economics requiring timber in the situation of weak institutes and mismanagement are not leading to modernisation of this industry and causing depletion of natural capital of the forests’ ecosystems.

Thorough analysis of formal and informal institutionalisation in the framework of the ongoing processes of socio-economic and socio-cultural interactions on the border territories at the interregional levels is seen now as specifically important since the process is contradictory and in many cases institutes play a very negative role de-stimulating innovations in some branches of the regional economy. We assume that institutional approach based on international practices should be a platform for planning and evaluating regional development instruments, such, for example, as Siberia and Far East Development Corporation. No doubts that improvement of institutes is to be a basic precondition for modernisation of national economy as a whole. It does not mean that it should go ahead of the economic and technological modernisation: the two processes may develop in parallel and in interaction. However, it is really important to understand whether the existing institutes are going on in a right way, and correctly assess all possible consequences (economic and non-economic) of their development both at federal and regional levels. Sensitive environment in transboundary territories of Siberia and Far East of Russia should not be sacrificed to economic performance due to ineffective institutes. Ecosystem approach is seen as optimal concept to cope with
environmental risks for designing new institutes of regional and trans-regional development.

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