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North-East as forming social and economic macroregion of the Russian Federation

Egorov Egor Grigorievich¹, Nikiforov Mikhail Mikhailovich², Mikhail P. Solomonov³ and Egorov Nikolay Egorovich⁴

- ¹ Doctor of economic sciences, Professor, Academician of the Academy of Sciences and Advisor to the Republic of Sakha (Yakutia). 677007 Yakutsk, Lenin's Avenue, 33.
- ² Senior researcher of information-analytical center "Expert" of Research Institute of Regional Economics of the North of North-East Federal University named after M.K. Ammosov. 667891 Yakutsk, Petrovskogo Str., 2, Email: nkfrv_m@mail.ru.
- ³ Candidate of economic sciences, Docent, Senior researcher of Research Institute of Regional Economics of the North of North-East Federal University named after M.K. Ammosov. 677007, Yakutsk, Petrovskogo Str., 8, kv. 22, Email: slmnvm@mail.ru
- ⁴ Candidate of physical and mathematical sciences, Docent, Senior researcher of Research Institute of Regional Economics of the North of North-East Federal University named after M.K. Ammosov. 677007, Yakutsk, Petrovskogo Str., 2, Email: ene01@ya.ru

Annotation: Russian Federation occupies a huge territory of 17.1 million sq.km, consists of 85 subjects and is divided into 9 federal districts and 11 economic regions. In this regard, reasonable spatial organization of its national economy has great importance. One of the federal districts and economic regions is the Far Eastern Federal District (hereinafter - FFFD), which extends along the coastal territories of the Arctic and Pacific oceans and includes 9 subjects of the Russian Federation. Far East economically and geographically is divided into Southern and Northern subzones. Northern zone represents the North-East of Russia with total area of 4.75 million. sq. km and includes 4 subjects of the Russian Federation. Thus, there is a need to allocate North-Eastern macroregion, which includes the Republic of Sakha (Yakutia), Magadan Region, Kamchatka Krai, Chukotka Autonomous District united with uniform regional characteristics, with a view to the application of uniform methodological approaches in managing of macroregion economy. In the article the historical periods of accession and development by the Russian State of outlying lands of North-East Asia, administrative and territorial structure and social and economic parameters of the North-East of Russia as a major macroregion are shown. Its social and economic development during the Soviet era (1917-1990) and in the post-Soviet period (2013-1991) are considered more detailed. Regional characteristics that significantly affect the formation of the structure, efficiency and growth in the economy macroregion are marked. The main factor in the

growth of the macro-economic significance, representing the northern part of Far Eastern Federal District of the Russian Federation is a unique natural resource potential, including mineral and energy resources. In the long view public programs plan their comprehensive and large-scale use that means turning of the North East from a huge economic and geographical into huge developed social and economic macroregion.

Keywords: Russian Federation, regional economy, North East macroregion, social and economic development.

INTRODUCTION

Writing this article was motivated by the necessity to allocate the North-Eastern territory of the Russian Federation in a single forming and developing macroregion, based on fundamental writings of domestic scientists-economists and, taking into account specific regional characteristics, such as severe climate and uncomfortable conditions for human habitation, greatly affecting the implementation of the regional State policy and integrated economic development of the vast space. In addition, the North-East area of Russia is a historic place of compact residence of the small-numbered indigenous peoples of the North: Evenks, Evens, Yukagirs, Chukchas, Koryaks, Itelmens, Kamchadals, Aleuts, Eskimos, Chuvanshes as well as the indigenous people of the North - the people of the Sakha Republic with more than 450 thd. men. The main factor of formation and development of the regional economy of macroregion is a unique natural resource potential, consisting of huge reserves of mineral and energy raw materials, biological and water resources. Considering the unique carrying capacity, economic and geographical situation and growing social and economic dynamics the North-East of Russia becomes special and a major subject of strategic planning and international economic integration with countries in the Pacific Ocean and the Arctic zone of the world.

THE CONCEPT OF A REGION AS SOCIAL AND ECONOMIC CATEGORY: LITERARY REVIEW

In Russia since the 70-ies of the last century regional economy began to develop intensively as an independent scientific research direction. Its founders are considered Kolossovski N.N. [2] Nekrasov N.N. [3] Alaev E.B. [4] and others. In subsequent the problems of regional economy were studied by emerged scientific schools: in Siberia of Academicians Aganbegyan A.G., Granberg A.G., and Kuleshov V.V. (Novosibirsk); in the Far East of correspondent member RAS Chichkanov V.P. and Academician Minakir P.A. (Khabarovsk); in the Urals of the Academician Tatarkin A.I. (Yekaterinburg), as well as in the North of the Republic of Komi (Syktyvkar) and Republic of Sakha (Yakutia) (Yakutsk).

Of the many works of the regional scientific schools as special literature can be singled out the textbook for higher education written by A.G. Granberg "Basics of regional economy" [5]. It provided universally recognized interpretations of concepts, categories and regional laws of science and practice in the modern conditions of market relations. In particular, according to its definition: "The region is a defined territory, different from other territories on a number of grounds and which has some integrity, the interconnectedness of its constituent elements" [5, p. 16].

P.A. Minakir in his major monographic work "Economy of the regions. Far East" [6] considers the regions as part of a single economic space, defines the national economy as a system of economic regions. He further writes that the region as a "spatial research and management object must meet the basic requirement - it must be a real or a virtual set of economic agents that interact among themselves and with other territorial complexes [6, p. 45].

METHODS

To highlight the macroregion significant legal value has a definition of the region, given in the "Main provisions of the regional policy in the Russian Federation", approved by Decree of the President of Russia, as of 06.03.1996 No. 803[7].

They interpret the region as "a part of the territory of the Russian Federation with common natural, social and economic, cultural and other conditions. The region may coincide with the borders of the subject territory. In cases where the region stands as a subject of law, it refers only to the constituent entity of the Russian Federation".

Based on a comparative analysis of various options for interpretation of the economic region concept of the country one can specify the characteristics of its selections:

- significant expansiveness of the territory and the unity of the geographical space that have common natural, historical, cultural and social and economic conditions;
- functionality the availability of economics specialization to meet certain production and social needs of national economy and population;
- a certain integrity and interrelatedness of the constituent elements of social and economic life as a subsystem of a unified national economy;
- administrative and territorial organization of not lower than the subject of the Russian Federation.

Recently depending on the goals and objectives of social and economic development of the territories the various types of regions were allocated. This includes all regions of the Russian Federation, 9 federal districts, 11 economic regions and other territorial-economic entities, in addition to administrative-territorial and inner-city areas, forming part of the constituent entities of the Russian Federation.

Among them larger by territories and scale of economy federal districts and economic regions, like territorial and economic formations and economic and geographic spaces can be called macroregions.

In addition to the above mentioned conventional signs of the region they are characterized by regional peculiarities. They are specific differences in natural, geographical, economical and social and demographic factors and conditions of public production, having a significant impact on quality indicators of economic activity territories and therefore creating the need for the implementation of state regional policy [6, p. 103].

According to the Federal law of the Russian Federation as of June 28, 2014 No. 172, "macroregion is a part of the territory of the Russian Federation, which includes the territory of two or more constituent entities of the Russian Federation, the social and economic conditions which require the allocation of separate directions, priorities, goals and objectives of social and economic development of strategic planning documents [8, Art. 3, para. 36]. Unlike regions makroregions represent the union of two or more subjects of the Russian Federation and serve as targets for strategic planning.

In view of the above scientific and legal methodological guidelines it is proposed to allocate North East macroregion, consisting of the Republic of Sakha (Yakutia), Magadan Region, Kamchatka Krai, including the Koryak Autonomous District, and the Chukotka Autonomous District. At this administrative

and territorial structure the macroregion occupies a huge area of 4750.6 thousand km², washed by the Arctic seas in the North and the Pacific Ocean in the East. North-East of the country geographically constitutes the Eastern sector of the Russian North and North sub-zone of the Far East. It is characterized by very harsh climate, long winter for 8 - 10 months, nearly continuous permafrost with capacity of 300 - 1500 m, seasonal frost with capacity of 2 - 3 m, a short growing season, low rainfall, strong northerly winds, aurora borealis, small occupancy, difficult transport accessibility of the most areas and other typical signs of the Far North of Russia.

DISCUSSION

Joining of Yakutia and other north-eastern territories to the Russian State

The historical process of formation of the north-eastern territories of the Russian Empire began since XVII century, when the Lensky Region was opened and there was a voluntary entry of Yakutia in the Russian state as a county of the Siberian province. [10] Yakutia and its entire north-east territory, including Kamchatka, became a part of the Irkutsk province in 1764 (Figure 1). The Russian government deliberately and firmly led the development of its suburbs. Since Yakutia joined Russia in 1632 the tsar government gradually introduced agriculture among the Yakuts, Evens and Evenki. There are documents in the book of Yakut scholar G. P. Bascharin testifying the decree of Yakut Zemsky Court as of 13.07.1812, the (one month before the Battle of Borodino), sent to all the villages and ulus on implement of the farming at their territories with the annex "Regulations on the distribution of arable farming in the Irkutsk region" and "Regulations on the breeding of earth apples or potatoes "[1, p. 6]. In 1851 it formed a separate Yakutian Region on the rights of the province. In 1803 Kamchatka emerged as an independent region. The historical transformation of the administrative-territorial structure of the North East of the Russian state from the XVII to the early twentieth century were followed in the fundamental work of the Yakut historians "Yakutia: Historical and Cultural Atlas "[11, pp 213 - 227].

It shows the historical role of Yakutia in the geopolitical formation and strengthening of the north-eastern territories of the Russian state from the XVIII century. This is evident in the scientific organization of large Kamchatka and other geographical expeditions of Russian scientists.

Connected to the Russian Empire Yakutia was also a base for penetration of Russian peasants, merchants and industrialists in Dauria (Amur region). This region from Yakutsk through the backbone reached the expedition of V. Poyarkov in 1643, and the expedition of E. Khabarov in 1649. Over the next 20 years more than 4,000 peasants and Cossacks penetrated in the Dauria. They met armed resistance of local residents and the Manchus. Defending their interests in Dauria, China in 1685 forced with the superior forces the Russian troops to withdraw to Nerchinsk. The second coming of Russia in the Amur River basin since 1849 has provided East Siberian governorship under the leadership of Muraviev N. He also organized the invasion of Primorye and the capture of the southern part of the Far East. As a result of the final accession of Primorye and the Amur region by the end of the XIX century followed with the formation of the Far East - Pacific Russia, which occupies a huge area of Northeast Asia [9, pp 130 - 134].

Primorye, Amur and Northern Manchuria, constituting the south of the Far East with favourable climatic conditions and geostrategic importance were quickly settled. Their agricultural, industrial and transport development, and the establishment of sufficiently powerful Russian military base were successful.



r. - C. 227

Сибирская губерния (до 1744г.) Иркутская губерния (с 1784 г.)

Уфа Тобольск Челябинск Оренбург Енисейск Иркутск Âĺđőílóäčíńę Якутск

Центры провинций Иркутской губернии Сибирской губернии Якутская провинция Границы Российской империи

Границы и центры губерний

Границы провинций Сибирской и Иркутской

(с 1775г.) губерний

Северо-Восток Российской империи

Syberian government (till 1744) Irkutsk government (since 1784)

Ufa **Tobolsk** Chelyabinsk Orenburg Yenisevsk Irkutsk Verhneudinsk Yakutsk

Centres of the provinces Irkutsk government Syberian government Yakutsk government

Boundaries of the Russian Empire

Boundaries and centres of the governments Boundaries of the provinces of the Syberian and

Irkutsk (since 1775) governments North-East of the Russian Empire

Source: Yzkutia. Historical and Culture Atlas. Moscow, IPC "Design. Information. Mapping", 2007. - p.227.

Figure 1: Administrative structure, 1775

By the end of XIX century the population of the Far East was over 1 million people, gold mining, coal and fishing industries, commercial agriculture were established, Ussuri and the Chinese Eastern Railway were built, trade, including foreign significant progressed [6, C. 136 - 141].

In pre-revolutionary times, in contrast to the South of the Far East its North-eastern part was not almost settled and economically developed, which was joined by the Russian government peacefully, and for almost three centuries remained a prisoner of patriarchal socio-economic relations.

In addition to the small mines for artisanal gold mining and artisanal home crafts there were no industrial enterprises. The basic economy of the territories remained the traditional extensive farming industries: cattle breeding, herding, horse breeding, farming, hunting and fisheries. Indigenous peoples and peoples of the North were engaged in them: Yakuts, Evenks, Evens, Yukaghirs, Chukchis, Koryaks. According to the first national census of the Russian Empire, held in 1897, in the Yakutsk region, the total population amounted to 269,980 persons, including: Yakuts - 221 467, Great Russians - 30807, Tungus - 11647, Tatars - 1565 Chukchis - 1558 Yukagirs - 948. Indigenous representatives were humiliating considered foreigners, among them literacy were only 1% [16, pp 62 - 71, 92 - 94].

So, in the Tsarist Russian Empire until 1917 its northeastern territories were a little habitable geopolitical space and were a backward colonial patriarchal suburbs.

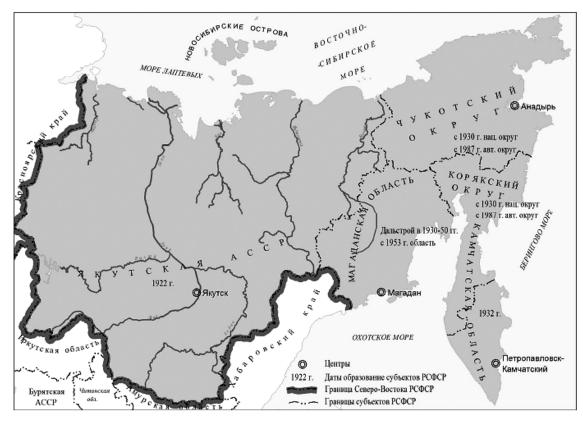
Administrative-territorial and economic development of the North-East during the Soviet period

In the post-revolution - the Soviet period (1917 - 1990) in the North-East of the country there were significant processes of geographical, geological and socio-economic scientific studies of the territories and their natural resources, fundamental social and economic reforms, economic development, cultural and educational development of peoples.

Firstly, macroregion had the new administrative-territorial structure. In 1922, Yakutia became an autonomous republic and began to develop the state, economic and cultural autonomy. In 1930 Koryak and Chukotka autonomous districts were formed, and in 1932 - Kamchatka region, in 1953 - Magadan region were formed (Figure 2). In 1930 - 1950, over a wide area, situated in the upper reaches of the rivers Kolyma and Indigirka, there was a forced labor system "Dalstroy" [13, pp 345, 430, 523]. In 1962 - 1965, North-East Economic Council was functioning, which carried out the unified management of all the macro-economic region.

Secondly, taking into account natural conditions and resources, territorial division of labor in areas of the North-East of the USSR have developed the basic industries of the regional economy. Its industrial specialization was gold, silver, mica, phlogopite, tin, diamonds, coal, natural gas, antimony mining. Yakutia, Chukotka and Magadan region together become the leading region of the country for gold and tin mining, and Yakut ASSR turned into the All-Union Center for the extraction of diamonds, mica, phlogopite and antimony. In the Magadan and Kamchatka regions a large fishing industry, which has all-Union significance was created.

Third, ancillary and service industries of the North-East regions of the country became electric power, building materials industry, metalworking, food and forestry industries. Some businesses in these



Красноярский край Иркутская область Амурская область Хабаровкий край

Магаданская область Магадан Дальстрой в 1930-50г.г. с 1953 г. область

Корякский округС 1930г. нац. округС 1987г. авт. округ

Камчатская область 1932 г.Петропавловск-Камчатский

Чукотский округ АнадырьС 1930г. нац. округ

С 1987г. авт. округ Бурятская АССР

Восточно-Сибирское море

Море Лаптевых

Новосибирские острова Чатинская область

Якутская АССР 1922 г. Якутск

Охотское море Берингово море

ЦентрыДаты образования субъектов РСФСР Границы Северо-Востока РСФСРГраницы субъектов РСФСР

Source: http://www.savok.name

Krasnoyarskiy Krai Irkutskaya Region Amurskaya Region Khabarovskiy Krai

Magadanskaya RegionMagadanDalstroy in 1930-50 since 1953 region

Koryakskiy DistrictSince 1930 – national districtSince 1987 – autonomous district

Kamchatskaya district 1932Pertopavlovsk-

Kamchatckiy

Chukotskiy DistrictAnadyrSince 1930 - national

districtSince 1987 – autonomous district

Buryatskaya ASSR East-Syberian Sea Laptev's Sea

New Syberian islands Chatinskaya Region

Yakutskaya ASSR 1922Yakutsk

The sea of Okhotsk

Bering Sea

CentresDates of foundation of the subjects of RSFSRBoundaries of North-East of RSFSR Boundaries of the subjects of RSFSR

Figure 2: Administrative-territorial structure of the Russian North-East in 1990

sectors, for example, Arkagalinskaya GRES and Kolyma HPP, Magadan repair-mechanical plant, Yakutskiy cement plant were intended to produce products for inter-regional exchange and use.

Fourth, an important condition for the industrial development of the macro-region and the initial processes of economic integration was the transport development of lands. In the period up to 1990 in the areas of the North-East of the country all types of transport have been created, in addition to the train. Internal and external freight and passenger traffic was carried by air and water.

At this Yakutia is characterized by the predominance of river traffic, and Chukotka Autonomous District, the Magadan and Kamchatka regions are characterized by maritime transport. For the whole North-East macro-region increasingly integrated role was played by the Northern Sea Route. The interregional transport links are also used the Amur-Yakutsk and Kolyma Highway.

Fifth, in all areas of the North-East recovery and further development of the traditional sectors of the economy has been achieved: reindeer husbandry, farming, hunting, trapping and fishing, which provided a revival of indigenous peoples of the North. In addition main industries of agriculture of Yakutia became breeding, horse breeding, vegetable, potato planting, agriculture based on the industrialization of the production and collective forms of agricultural labor organization. For these sectors, except for horse breeding, we have achieved some success in Magadan and Kamchatka regions. Characteristically, the agrarians of the North-East of the country actively shared the best practices of agriculture in the conditions of Far North.

Sixth, from the social sphere for the characteristics of the North East as a socio-economic macroregion science can be distinguished. Since the 50s of the twentieth century in Yakutsk, Magadan and Petropavlovsk-Kamchatsky appeared scientific departments and the USSR Academy of Sciences centres and they are currently functioning. For them the North-East regions were the special natural and economic polygons to create a new regional areas of science, technology and the economy as a Permafrost, northern ecology, human adaptation to the cold climate, engineering and technology in the "northern climate", a regional approach to solving the problems of social and economic progress, studying of the economy, culture and way of life of indigenous peoples. [14]

Achieved levels of social and economic development of the state-territorial entities of the North-East of the USSR are characterized by parameters as shown in Table 1.

Table 1
Indicators of social and economic development of the North-East of the USSR subjects in 1990

Suhjects	Number o f population, ths. people	The volume of industrial production, bn. rub.	Gross production of agriculture, in 1991, bn. rub.	The volume of construction, bn. rub.	The volume of autofreight transport, mln. tons.	The volume of construction, bn. rub.	The mainfunds, bn. rub.	Investments into the fixed capital, bn. rub.
RSFSR	148274	600.0	260.0	121.8	15347.0	300.0	1925.0	249.0
FEER	8064	278.0	12.5	11.0		15.5	141.0	19.6
including: YASSR	1119	4.0	1.7	2.5	583.5	2.3	24.0	4.2

(contd...Table 1)

Subjects	Number of population, ths. people	The volume of industrial production, bn. rub.	Gross production of agriculture, in 1991, bn. rub.	The volume of construction, bn. rub.	The volume of autofreight transport, mln. tons.	bn. rub.	The mainfunds, bn. rub.	Investments into the fixed capital, bn. rub.
Magadan Region	385	1.8	0.8	1.3	86.2	1.0	15.0	1.4
Kamchatskaya Region	479	2.5	0.8	0.6	33.0	1.1	9.0	1.1
Chukotka AD	158	0.9			48.6	0.3 (mln.rub.)		0.6
Northeast in general	2141	9.2	330.0	3.8	751.3	4.7	48.0	7.3
The share of North- East in the RSFSR,%	1.44	1.53	1.27	3.12	4.9	1.57	2.49	2.9
The share of North- East in the FEER,%	26.55	33.1	26.4	34.5		30.3	34.0	37.2

Source: Regions of Russia. Social and economic indicators 2009: stat. book. / Rosstat. – M., 2009. - 990 p.; Statistical Yearbook of the Republic of Sakha (Yakutia); stat. book. / FSGS, TOFSGS on RS (Y); [The Editorial.: T.A. Torgovkin et al.]. - Yakutsk: Yakut. Region, 2009. - 708 p.

Of all the subjects Yakut ASSR, Magadan and Kamchatka region had more successful social and economic development. Particularly backward was the Koryak Autonomous District. In 1990, the North-East as a whole had a share in % for:

	RSFSR	FEER
- number of population	1.44	26.55
- the volume of industrial production	1.53	33.1
- gross production of agricultural products	1.27	26.4
- the volume of construction and assembling works	3.12	34.5
- the cost of fixed assets	2.49	34.0
- investment in fixed assets	2.9	37.2

A brief historical and economic analysis shows that during the years of Soviet power and the Socialist construction the North-East from the natural-isolated, backward agrarian national area became significantly developed industrial and agricultural macroregion with affordable for economic and geographical transport scheme which had considerable importance in the economy, culture, science and geopolitics of the USSR.

The development of the North-East social and economic macro-region in the post - soviet market period (1991-2013)

After the collapse of the USSR the development of the North-East regions of Russia takes place as subjects of the modern Russian Federation with a qualitatively new social and economic system - market economy. The geographic boundaries of the North-East of Russia have not changed, but the state-territorial structure was qualitatively updated: Yakut ASSR became the Republic of Sakha (Yakutia); from the Magadan

region independent Chukotka Autonomous District is separated; Kamchatka region, including the Koryak Autonomous Area, was transformed in the Kamchatka Krai. All these subjects are a part of the Far Eastern Federal District of the Russian Federation.

All subjects of the North-East of Russia with large social and economic losses passed the transition period (1991 - 2000). Ill-considered shot-term pro-market reform processes of instantaneous price liberalization, mass denationalization of enterprises and the wild privatization of public ownership for the means of production were especially devastating in the North.

In the Republic of Sakha (Yakutia), Magadan and Chukotka Autonomous District ceased to exist the entire mining areas and factories, farms, many settlements, social facilities, air and sea ports. For example, in the Republic of Sakha (Yakutia) Kular gold mining district, huge Deputatsky Mining and Processing Plant for the extraction of tin, Sarylahsky Mining and Processing Plant for the extraction of antimony and gold, some mines for gold mining in Indigirskiy and Dzhugdzhurskiy mining areas were closed. In the Magadan region a large industrial association "Severovostokzoloto" collapsed and joint-stock companies were set up. The transport and economic activity and interregional relations of the subjects of the North-East of Russia was very adversely affected the functioning of the practical cessation of the Northern Sea Route on the eastern sector.

As a result of these and other crisis features the population has significantly reduced, there was a decline in industrial and agricultural production, capital construction, transport, and social sectors of the economy. Living standards of the population as to the individual subjects decreased by 1.5-2 times. Due to the incompatibility of cost data we will give the main social indicators, which may well indicate the general dynamics of the social and economic development (see. Table 2).

As in the whole country, in all regions of the North-East since 2001 a new stage of development of the market economy began, the objectives of which were the elimination of the serious negative consequences of its first stage and the stabilization of the social and economic development in the medium

Table 2
Social indicators of the North-East subjects of Russia in 1990 and 2000

Indicators	Years	Republic of Sakha (Yakutia)	Magadan Region	Kamchatka Krai	Chukotka AD
1	2	3	4	5	6
Number of population per sq.	1990	1119	384	478	158
km, ths. people	2000	957	193	366	57
Average annual number of involved	1990	597	314	232	45
in the economy, thousand. people.	2000	459	104	183	32
Unemployment level, %	1990	no	no	no	no
		information	information	information	information
	2000	11.2	11.0	16.3	10.3
Life expectancy at birth, years	1990	66.2	66.1	65.9	67.9
	2000	63.6	62.0	63.3	60.1

Source: Regions of Russia. The main characteristics of the subjects of the Russian Federation. 2012. p. 588, 623, 595, 644.

term. In our opinion, from this time began the process of purposeful development of the North-East of social and economic macro-region. For its beginning an important role was played by state organizational and economic measures and scientific research on issues of special federal economic and social policy of the integrated development of the north-east subjects of the Russian Federation.

So, on November 8-10, 1997 in Magadan a meeting of delegations of the Republic of Sakha (Yakutia) and the Magadan region with the participation of the delegation of the Russian Federation Government on the issue of North life support was held [13]. The President of the Republic of Sakha (Yakutia) M.E. Nikolaev and the governor of the Magadan Region V.I. Tsvetkov delivered the report. On the basis of their reports and speeches of other participants of the meeting the Declaration on Social and Economic Development of the North-East of the Russian Federation adopted [15, pp 35-37].

It stated: "North-East of Russia is the territory of the Republic of Sakha (Yakutia), Magadan and Kamchatka regions, the Chukotskiy and Koryak autonomous districts, representing more than 1/4 of the area of the country and occupying a geopolitical space important for the Russia...

Therefore, participants in the meeting suggested to allocate the North-East of Russia in the special area of social and economic development with the formation of a new federal budget, credit, investment, tax favored policies... ". In addition to general Declaration an Agreement on social and economic cooperation between the Republic of Sakha (Yakutia) and the Magadan region until 2000 was signed, Minutes of meetings of delegations on cooperation and integration of the economy on its priority areas were drafted.

In order to support the scientific study and implementation of the Declaration and the Protocols of the official delegations of the North-East subjects of the Russian Federation the scientific research was carried out in 1998 by the Institute of Regional Economy of the Academy of Sciences of the North of Sakha Republic (Yakutia): "North-East Economic Region of the Russian Federation (justification of the selection)" [16].

It considered in detail the special economic and geographical situation, the main directions of contemporary and future social and economic development of the North-East as a major special object of federal state policy. As a result, a normative principle of social and economic development of macroregion was proposed and, based on it allocation from the Far Eastern economic region of independent North-Eastern social and economic macro-region was recommended [16, p. 78].

However, unfortunately according to the decisions of the Magadan meeting of the North-Eastern regions of the Russian Federation (1997) and the scientific advice on the allocation of this macro-region the documents were not adopted at the federal level. However, the North-East macro-region continues to serve as a major geographical, geopolitical, and socio-economic object of regional policy, interregional cooperation and integrated scientific researches. Since the North-Eastern regions of the Russian Federation are considered as part of government policies and programs of long-term socio-economic development of the North, the Arctic zone and the Far East of the Russian Federation.

In 2001-2013 a restoration and development of all sectors of the economy on the basis of market relations, and the establishment of new mining and processing facilities took place in all North-Eastern regions of Russia. In the Republic of Sakha (Yakutia) the railway to Yakutsk, the underground mines of diamond-mining industry were built and put into operation, the Talakan oil and gas field, the main oil

pipeline ESPO were mastered. In the Magadan region and Chukotka autonomous district mining and fishing industries were further developed, and fishing and processing industry and agriculture were developed in the Kamchatka region. Throughout the eastern sector of the North Sea Route began the revival and expansion of maritime transport. As a result, social and economic and innovative potential of all four North-Eastern federal subjects of the Russia significantly increased (see. Tables 3 and 4).

Comparative evaluation of the level of innovative development of the subjects under consideration in 2013, made by the authors' method [19, 20], shows the leading position of the Republic of Sakha (Yakutia), which rate is higher than the average rate for the regions of the North-East of Russia (0.67) (Figure 3). The leading position of the regions were caused mainly due to the relatively high levels of scientific and educational complex and volumes of the innovative products (Republic of Sakha (Yakutia) and the Magadan region).

Table 3

The volume and structure of the gross regional product of the RF subjects in the North-East in 2013

Subjects	GRP*, bn. rub.	mining of natural resources	processing facilities	production of e/e, gas, water	Agricultural products, bln. rub.
Republic of Sakha	540.4	338.7	27.8	50.1	20.9
Magadan Region	76.9	53.2	3.8	12.0	1.6
Kamchatka Krai	126.9	5.7	42.8	16.1	6.1
Chukotka AD	48.8	34.8	0.7	10.6	0.8
North East, in general	793.1	432.4	75.1	88.8	29.4
Specific weight of NE in FEFE,%	29.7	39.4	17.7	36.4	26.6

^{*} Data for 2012

Source: Regions of Russia. Social and economic indicators 2014: Stat. book. / Rosstat. – M., 2014. – p. 348, 447, 498, 578 [17].

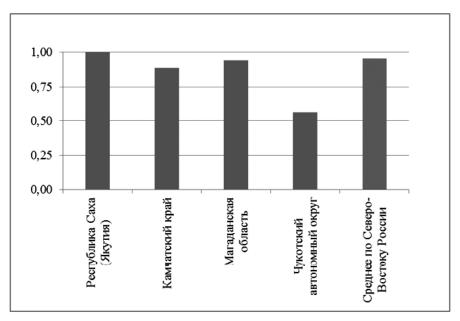
Table 4

Main innovation indicators of the subjects of the North-East of Russia for 2013

Subjects	The number of employees engaged in research and development, people.	The number of organizations of innovative infrastructure, units.	Gross domestic expenditures on research and development, mln. rub.	Number of issued patents, units.	The volume of innovative products, works and services, mln. rub.
Republic of Sakha (Yakutia)	2314	19	2315.9	75	9369.1
Kamchatka Krai	1136	16	1265.1	22	528.2
Magadan Region	559	12	900.1	3	6115.3
Chukotka AD	0	2		0	627.5
Average for the North-East of Russia	1002.3	12.3	1120.3	25.0	4160.0

Source: Regions of Russia. Social and economic indicators 2014: Stat. book. / Rosstat. - M., 2014. [17].

The analysis of the innovation activities of the main participants in the innovation process (the state, the market, research and education center) shown the relatively high rate of efforts of the regional executive authorities to support innovation activities do not provide significant practical results in the development of business in the sphere of innovation and implementation of R & D results into production. This fact is due mainly to the fact that developed and adopted legal documents in the sphere of science, technology and innovation policy in the region is not immediately affect the development of the innovation process as a whole.



Республика Саха (Якутия)
Камчатский край
Магаданская область
Чукотский автономный округ
Среднее по Северо-Востоку России

Republic of Sakha (Yakutia) Kamchatskiy Krai Magadanskaya Region Chukotskiy Autonomous Region Averange for North-East of Russia

Figure 3: Relative integral level of innovation activity of subjects of the North-East of Russia for 2013

Compared to the Soviet period, although the poverty of the North-East has declined substantially in the post-Soviet period (see. The second block of indicators Table 5), life expectancy has reached the values of the Soviet period only in 2013. The latter figure is also significantly different from the national average. A significant increase in housing area per 1 inhabitant have all subjects of the North-East of Russia in comparison with 1990, and in the Magadan region, Kamchatka Krai and Chukotka Autonomous District it is higher than average rates in connection with the departure of the visitor population from the North. In the Republic of Sakha (Yakutia) leaving of the population over 25 years of post-Soviet period was only about 16%, and this was a major factor in the growth of low availability of housing. The latter was caused, as shown in Table 5, by extremely slow pace of housing updates due to the reduction of housing construction in comparison to 1990 in all the subjects of the North-East. Table 5 shows the extremely disastrous state of the population of Chukotka in the late 90s, but in 1999-2013 one managed to update the housing stock, to improve significantly the living standards of the population, to revive traditional industries of indigenous peoples and industrial district production output.

Table 5
Comparative dynamics of the main indicators of life standards in the Russian Federation and subjects of Russian Federation in the North-East of the country in the post-Soviet period

Indicators	RF and regions	1990	1995	2000	2005	2010	2013
Life expectancy at	Russian Federation	69.38	64.64	65.34	65.37	68.94	70.76
birth, number of	Republic of Sakha	66.92	62.22	63.66	64.68	66.75	69.13
years	Magadan Region	67.04	60.05	62.02	62.53	65.07	67.12
	Kamchatka Krai	66.08	61.03	63.30	63.24	65.82	67.98
	Chukotka Autonomous Okrug	64.72*	59.84	60.17	58.48	57.49	62.11
Specific weight of	Russian Federation	22.4**	24.7	29.0	17.8	12.5	10.8
the population with	Republic of Sakha	22.7	29.2	28.3	20.0	19.0	16.3
incomes below the subsistence level in	Magadan Region	21.4	23.2	30.9	18.6	13.6	12.2
the total population	Kamchatka Krai	16.7	22.7	-	25.2	19.5	16.8
of the subject, per	Chukotka Autonomous Okrug	70.9***	-	50.1	15.1	10.3	8.3
cent	Russian Federation	16.4	18.0	19.2	20.8	22.6	23.4
Total area of	Republic of Sakha	13.5	17.4	19.3	19.4	20.2	20.6
residential premises	Magadan Region	15.1	23.2	24.4	26.6	28.4	29.0
per average per capita (end of	Kamchatka Krai	13.1	17.6	20.4	22.4	24.2	24.6
year)-total, m ²	Chukotka Autonomous Okrug	13.5	24.6	28.9	27.9	30.4	25.9
) car-) co car,	Russian Federation	61700	41000	30300	43560	58431	70485
Implementation of	Republic of Sakha	744	642	247	261	303	418
dwellings, thous. m ²	Magadan Region	194	19	6	9	16	15
of the total area	Kamchatka Krai	210	44	8	13	58	83
	Chukotka Autonomous District	94	6	1	24	0.3	0.4

Source: Regions of Russia. Social and economic indicators: Stat. books 2000-2014 Rosstat. - M.

Summarizing the analytical indicators of social and economic situation of North-East macro-region a low level of innovation development at the present stage can be noted.

CONCLUSION

Since 30-ies of the XVII century, the Russian state joined to itself Lensky region and other north-eastern territories of the Asian contingent. As a result, almost for the next 4 centuries, North-East natural and geographical area was gradually formed. The Russian government has made it the object of a new geographical discoveries and research expeditions. It was not engaged in economic development and the population of this huge marginal territory. Here lived the Yakuts and numerically small indigenous peoples of the North, who were engaged in the traditional sectors of the economy, hunting and fishing. Until the beginning of XX century the North-East of the Russian Empire remained a backward colonial patriarchal margin.

^{*}data for 1992.; ** data for 1994 to the Russian Federation and subjects; *** data for 1999 to Chukotka Autonomous Region.

Only after the post-revolution (. 1917-1990) in Soviet period the North-East of the country got a new administrative-territorial, large industrial, transport, agricultural, scientific, educational, cultural, spiritual and demographic development. As a result, it from natural geographical area became a much-developed industrial-agrarian available for inter-regional transport scheme, economic and geographical macro-region, which has a significant importance in the economy, culture, science and geopolitics of the USSR.

In the post-Soviet the market period the North-East of Russia as well as the whole Russian Federation is characterized by fundamental political and social and economic transformations, the formation of a democratic social system and a market economy. Here the main four subjects of the Russian Federation are being developed: The Republic of Sakha (Yakutia), Magadan region, Kamchatka Krai and Chukotka Autonomous District. During the transition period (1991-2000) all of them have experienced a systemic crisis, which was accompanied by destabilization of the socio-economic situation, a significant decline in production, reduction in the number and standard of living.

But during the last 15 years, all the North-Eastern regions of the Russian Federation have experiences significant strengthening of administrative and territorial structure, community and market relations, and the growth of industrial production, agriculture, transport, energy and social infrastructure.

The entire volume of GRP of RF North-East reaches almost 30% of the total GRP of Far East Federal District, whose share in the total GDP of the Russian Federation in 2012 was equal to 5.4%. As of 01.01.2012 the total population amounted to 1483.5 thousand people or 0.36 persons per 1 km² of total macro-region territory. North-East of Russia as an emerging social and economic macro-region in particular is not only a vast territory, but, most importantly, has a unique natural resource potential, including mineral raw materials and fuel and energy resources. In the long view public programs plan their comprehensive and large-scale use that means the turning of the North East into huge developed social and economic macroregion of the country [18, p. 3–7]. Therefore, the need for a more complete account of specific regional features and complex large-scale economic development of the North-East social and economic macro-region requires the allocation of it into a separate strategic planning and management macro-region. Accordingly, it requires a complex social and economic research and the creation of a regional Northeastern Economic Research Institute in Yakutsk, Republic of Sakha (Yakutia).

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