

Востока, Полярного Урала и Северо-Запада позволит в значительной мере повысить внутренний спрос на минеральные ресурсы и продукты их глубокой переработки (прокат, строительные материалы, оборудование и т. п.). Это возможно только на основе взаимовыгодного частно-государственного партнерства и широкомасштабного привлечения инвестиций в разработку новых месторождений, строительство объектов социальной сферы и развитие транспортной и энергетической инфраструктуры.

Создание таких кластеров в МСК должно осуществляться на базе инновационных технологий добычи и переработки полезных ископаемых, обеспечивающих полное и комплексное извлечение основных и сопутствующих компонентов. Это станет новым импульсом для развития отечественной отраслевой и академической науки в областях экономики, геологии, добычи и переработки минерального сырья при следующих условиях:

— во-первых, строгое и последовательное следование Конституции Российской Федерации;

— во-вторых, использование недр как национального достояния отечественными компаниями;

— в-третьих, совершенствование системы налогообложения путем изменения

порядка распределения доходов между субъектами Федерации и Центром, которые в настоящее время не позволяют сырьевым регионам в сколько-нибудь значительных размерах использовать текущие доходы от освоения минерально-сырьевой базы для формирования финансовых источников долговременного экономического роста;

— в-четвертых, реформирования институциональной базы, связанной с использованием минерально-сырьевых ресурсов конкретной территории, в частности, в вопросах регулирования недропользования, естественных монополий, конкуренции и антимонопольной деятельности, взаимоотношений между территориями и недропользователями с вертикально интегрированными компаниями, постепенно утрачивающими интерес к истощающимся ресурсам. Особое значение приобретает разработка долгосрочной программы развития геологоразведочной отрасли;

— в-пятых, системная увязка региональных схем развития и размещения производительных сил, инвестиционных программ и программы воспроизводства минерально-сырьевой базы России.

U.D.C. 338.1:622(1)

key words: mineral-raw complex, structural reforms, modernization of economy, social and economic development

A. I. Tatarkin, O. V. Petrov

## MODERN CONDITION AND PRIORITY DIRECTIONS OF DEVELOPMENT OF RICHES OF BOWELS IN THE REGIONS OF RUSSIA

*Social and economic development, geopolitical position and role of Russia in the world community at present time and in the long term are mainly determined by its mineral-raw potential and by the state strategy of its development and use at federal and regional levels. Potential value of balance stocks of minerals of Russia allows to consider a mineral-raw complex as the resource foundation of the state, forming base conditions for realization of structural reforming and modernization of economy, providing the accelerated growth of Gross Domestic Product and increase of well-being of the population.*

*At the same time prevailing export raw orientation at absence of mechanisms of influence over world and the regional markets aggravates dangerous*

*dependence of economy of raw regions and the country as a whole from an external conjuncture, weakens an opportunity of complex development of own hi-tech processing manufactures and at sudden decrease of the world prices results in large scale negative social consequences in the regions of Russia and to a deep crisis simultaneously in all technologically connected branches: geological prospecting, extraction, processing, mechanical engineering, construction, transport, power engineering to what the modern crisis situation testifies.*

Questions of interrelation of social and economic development of territories with use of a mineral-raw resources are a subject of long discussions, both

at theoretical, and at a practical level. So, many economists not without reasons are inclined to consider the priority relation of the state to riches of the Russian bowels as one of principal causes of our economic backwardness. However there is a real practice of positive development of the countries, possessing advanced extractive industry in economy and successful in world) economic system (USA, Canada, Australia, Norway, Saudi Arabia).

The procurement of natural resources of the country — the major social and economic and a political factor of development of a social production and, as shows world experience, it is necessary to be able to use it reasonably. The structure of natural resources, sizes of their stocks, quality, degree of obtained knowledge and direction of economic development render direct influence upon social and economic potential of the country. Economic developing of natural resources creates real opportunities for involving large-scale investments and opens wide horizons for social and economic development of regions of the country.

The presence situation is those: in the world market the prices were abruptly fallen practically for all mineral-raw resources; extraction of minerals, incomes, number of employed are reduced; the state is compelled to support a mineral-raw complex by guarantees and finances. Therefore one of basic elements of crisis processes occurring in Russia, in our opinion, is crisis of source-operation as set of the problems which have accumulated in reproduction of a mineral-raw base since Soviet times. Enduring upon modern conditions crisis has the Russian and Soviet roots, but it is caused, as known, by that financial crisis which is initiated in the USA and which was distributed practically all over the world. At the same time world crisis has initiated Russian crisis which deep essence has been veiled by the high prices for mineral raw resources until recently.

To the principal crisis causes of source-operation in Russia, in our opinion, it is possible to relate following: limited reproduction of a mineral-raw base; high monopolization of the market of the mineral-raw resources, limiting the basic engine of development — competition; destruction of a branch and academic geological science; closing and re-profiling of factories specializing on release geological and trade mining equipment; orientation of the industry to the import of strategic types of mineral raw material.

Today's source-operation crisis causes and general crisis causes in our country are should be sought, mainly, in depths of the reorganization period of formation of market relations. During this

period indeed the processes resulted to crisis have started to be formed:

- the expanded reproduction of a mineral-raw base of the country (for last 10 years completion of stocks of a resources came to on oil of 73%, on gas of 47%, on copper of 33%, on zinc of 57%, on lead of 41%, etc.), curtailing of reconstruction and construction of new functioning processing and re-processing enterprises (of the first and second repartitions) has been suspended; volumes of prospecting works and extractions on the majority of minerals (by different kinds on 30-50%) have decreased abruptly (more than three times), this has increased number of the closed enterprises, unemployment and has strengthened outflow of the population from Siberia and the Far East;

- formed market relations and institutes in source-operator sphere got extremely Russian specificity as excessive monopolization, depriving the domestic market of mineral raw of its main advantage - competition;

- development of a branch and academic science has stopped and that has caused absence of scientifically proved concepts and the general circuit of development and allocation of the productive forces connected with source-operation.

Last years the spectrum of concepts of maintenance of growth in source-dependent economy is wide enough: from supporters of the raw theory of growth up to numerous critics of a «resource damnation».

And till now there is no unity of opinions concerning what is the mechanism of «a resource damnation». Some base on that incomes of the budget of the raw countries is low-predictable, and it prevents to achieve long-term stable growth. Others discuss the «Dutch illness» at which growth of incomes in extracting branches results in stagnation of processing industry. One more mechanism of display of «a resource damnation» is connected with insufficient development of human potential in the countries rich of resources.

There is an opinion, that extraction and processing of mineral raw material and mining manufacture is a destiny of less developed countries, however more than half (at cost) mineral raw material extracted in the world accounts for six countries — Australia, China, the USA, Russia, Canada, the republic of South Africa. The specified countries provide the modern industry with the overwhelming majority of types of minerals. They are mineral-raw giants which potential is actively involved in global economic system and is a guarantee of normal functioning of all world industrial production. The high level of development in the majority of such countries is

achieved due to an intensification of extraction and processing of own natural resources.

Thus, it should be told about necessity of the differentiated approach to an estimation of influence of a mineral-raw complex (MRC) on social and economic development of regions and the countries as a whole. So, the role MRC is defined by many factors, the general from which are the following:

- global tendencies of development of economic;

- system-forming role of mineral resources at developing of large stocks of raw material in areas of new economic development;

- condition of own mineral-raw base;

- degree of rational use of mineral resources;

- level of demand and consumption of mineral production;

- degree of the involvement of national economy in world(global) integration processes;

- sociopolitical factors (national - ethnic, employment of the population in territories of development, distribution of incomes from source-operation, etc.)

- depth of processing of mineral raw material in the country.

Steady development of national economy assumes unity of the solution of geological, economic, ecological, social and political problems. At that, at a stage of extensive growth, mineral resources act as the powerful accelerator of social and economic progress. A high level of economic development in the majority of the advanced countries is achieved due to an intensification of extraction and deep processing of own natural resources.

The modern situation urgently demands displacement from technical and economic to a social and economic estimation of a mineral-source of raw materials. Social value finally means the contribution from development and extractions of a mineral-raw resource to the solution of social and economic problems and problems of the country as a whole, and of concrete raw territory.

Development of processing branches of industry, including those on the basis of high technologies, is impossible without wide use of mineral raw material as initial product. The countries most advanced in the industrial sphere simultaneously are also the countries with the maximal consumption per capita of primary power resources and production of a mineral-raw complex. Volumes of consumption of mineral raw material per capita positively correlate with a level of economic development of the countries. The advanced countries (the USA, England, Germany, France, Japan) which whole quota of the population of the Earth is 16%, use

more than half of minerals extracted in the world. A picture for separate kinds of raw material even more impressing. The advanced countries consume more than 80% of uranium, about 77% of copper, 72% of lead, 59% of zinc, 67% of nickel, from 50 up to 80% of tin, tungsten, molybdenum, more than 50% of phosphatic raw material.

On extraction of mineral raw material per capita Russia does not lag behind the advanced states — about 700 dollars per one year in comparison with 500 dollars in the USA. But the USA import annually approximately as much raw material, as much they extract. Thus per year it is consumed approximately in 7 times more oil, than in Russia, though on a population Russia lags behind from the USA only in 2 times.

The important factor in the analysis of demand of mineral-raw products is intensity of use. So, in the USA it is annually extracted almost as much, as much in Russia, the natural gas, whereas stocks of it make on 3,4% from global, compared to 34% at Russia. Coal in the USA is extracted practically in 3 times more, than in Russia. Economic development of the country and region is defined not so much by quantity of the extracted raw material, but by skill of its rational, competent and innovative use.

As an example it is possible to give example of Norway. In process of falling extraction its companies specializing on raw convert more and more to manufacture of science intensive, technological and source-saving production.

Actually, on the reconnoitered stocks of gas, nickel, silver, gold, platinoids, diamonds Russia takes the first places in the world. But to process raw material in the full measure the country is not capable: for this purpose it is necessary in 2 times more energy. On volume of generation of the electric power per capita Russia is not included even into the twenty of the leading countries of the world. Many of deposits have an adverse geographical position. The cost price of extraction of gold in northern regions is higher, than the price for which it can be got at the London stock exchange of metals.

Now the tendency of differentiation of the countries on mainly consuming and mainly producing mineral raw material is precisely looked through. Struggle for sources of cheap raw material, increase imbalance of the prices between an industrial output and raw material on which in many respects it is based economic prosperity and a high standard of life of the countries of the West, become the determining factor not only for economic, but also for geopolitics. In this situation for Russia it essentially grows the stabilizing role of a mineral-raw complex for economy.

For Russia mineral resources represent the major factor of manufacture of gross national product, formation of the budget, well-being of the population of the country and competitiveness of national economy as they create social and economic conditions of steady economic growth of the country and its regions.

The Russian mineral-raw complex acts the important role in all spheres of ability to live of the state:

- provides steady supply of branches of economy by a mineral-raw resources and promotes formation of the strong industrial base satisfying need as of the industry, as of the agriculture. The enterprises included in a mineral-raw complex, provide more than 50% of a GDP of the country;

- brings the powerful contribution (more than 50%) in formation of a profitable part of the budget of the country. Extraction and processing of minerals makes a basis of economy of well-being territories of the Russian Federation;

- makes a basis of defensive power of the country. The advanced raw-material base is a necessary condition for perfection of a military-industrial complex of the state and creates a necessary strategic reserve and potential;

- makes a basis of large domestic business, corresponding to the basic world tendency of development. The important factor of development of a mineral-raw base are also positions of Russia in the world market of mineral raw material;

- takes the important place in social and economic development of separate territorial - administrative units, provides social stability. The fuel and energy complex of Russia is the major infrastructural factor providing daily needs of the population and the state in heat and the electric power, gas, coal and motor fuel;

- promotes development of integration processes between the countries. The Russian export of oil and gas forms in a not small degree a conjuncture of the world power market and plays the important role in maintenance of power safety of Europe where the share of the Russian gas makes over 60%.

Thus it is impossible to overlook, that the overwhelming part of mineral resources is exported to other countries, and then products of its deep processing is imported to Russia. Almost half of extracted oil, the third part of gas is exported. For export goes up to 60% of the extracted nickel, up to 70% — diamonds and silver, up to 75% — gold and platinum, more than 75% — copper and aluminium, 80% of mineral fertilizers, 90% of a palladium, 20% of iron ores.

In the regional aspect the mineral resources:

- make basis of Gross Regional Product (GRP) and social stability of regions of Russia;

- create preconditions of realization of national megaprojects: construction of East oil pipeline (BCTO), the Baltic pipeline system, a transport corridor «Ural Industrial — Ural Polar»;

- are a powerful element of political influence on the countries CIS and the Western Europe.

There are defined social and economic effects of developing of mineral resources for social and economic development of regions:

- the contribution of the mining industry to a total regional product and volumes of industrial production, for example, in such subjects of Federation as Khanty-Mansi and Yamal-Nenets autonomous regions, the Magadan, Amur regions, Republic Khakassia more than 40% GRP are formed due to operation of a mineral-raw complex, and the share of MRC in industrial output of the given regions will achieve 80%;

- receipts in budgets of regions (for example, in Kursk, Tyumen, Orenburg, Magadan regions, Republic Tatarstan more than 20% of incomes of regional budgets are made on by receipts from development of mineral-raw base (MRB), in Tomsk region — more than 30%, in Republic Saha (Yakutia) — more than 40%);

- maintenance of employment of the population in traditional and new mining regions of the country (for example, only in extracting industries of such subjects of the Russian Federation as the Kemerovo, Magadan regions, the Chukotski autonomous region, there are more than 10% of all labour power employed of these regions; in Khanty-Mansiysk and Yamal-Nenets autonomous regions — more than 20%). Thus it is necessary to consider multiplicate effect which possesses the development of MRB in the sphere of employment (it is known that one workplace created in extracting industries, promotes creation of 5-6 workplaces on the average in the connected branches of economy);

- development of inter-regional cooperation, allied industries of the industry (consumers of raw material, manufacturers of technologies, equipment, service);

- development of a transport, power, social infrastructure. As practice testifies, development of MRB of subjects of Federation of Siberia and the Far East helps to develop an infrastructure of these regions, raising, in turn, their investment appeal.

The analysis carried out has shown, that 27 subjects of Federation who provide 90% of mineral-raw potential of subsoil (MRPS) have a well-defined resource bias. (On separate regions the data are those:

Siberia — 48,5% of value of extracting resources; the Far East of — 14,3%; Ural of-11,4%; the European North — 7%).

Among singled out there are subjects with high and above the average level of development of a mineral-raw base (Khanty-Mansi and Yamal-Nenets autonomous regions, Nenets autonomous region, Murmansk, Irkutsk, Tomsk, Sverdlovsk, Chelyabinsk regions, Republic Saha (Yakutia)).

There are subjects of Federation who have the further prospects of development MRB (Chukotski autonomous region, Omsk, Novosibirsk, Amur regions, the Jewish autonomous region).

Prediction calculations testify, that development of perspective deposits in the centers of economic development of the Siberian federal district can bring in regional budgets by 2030 (in the prices of 2006) more than 60 billion roubles of tax incomes, Far East federal district — more than 100 billion roubles.

On the basis of the data of a geological level of investigation of regions, the cost analysis of a mineral-raw base and estimation of influence of its developing on social and economic development of regions, and also of the country as a whole there have been singled out 29 perspective centers of economic development (CED) which most part is in regions of new developing in the territory of Polar Ural, Siberia, the Far East.

As a result of formation CED must become the following:

- scale development of new territories and acceleration of development of economically backward regions;

- increase of mineral-raw independence and economic safety of Russia;

- increase of incomes of the budget due to a wide involving in economic circulation of natural resources;

- formation and the further strengthening of integration social and economic communications with other regions.

Thus, it is possible to claim, that social and economic development, geopolitical position and a role of Russia in the world community at the present time and in the long term are noticeably defined by its mineral-raw potential and the state strategy of its development and use at federal and regional levels. Potential value of balance reserves of minerals of Russia allows to consider a mineral-raw complex as the resource foundation of the state forming base conditions for realization of structural reforming and modernization of economy, providing the accelerated growth of gross national product and increase of well-being of the population.

At the same time prevailing export raw orientation at absence of mechanisms of influence on world and the regional markets aggravates dangerous dependence of economy of raw regions and of the country as a whole from an external conjuncture, weakens an opportunity of complex development of own hi-tech processing manufactures and at abrupt decrease of the world prices it results to scale negative social consequences in regions of Russia and to deep crisis simultaneously in all technologically connected branches: geological prospecting, extraction, processing, mechanical engineering, construction, transport, power, - to what the modern crisis situation testifies.

There is no doubt that exploitation of raw material sources further will play a role of one of the main determining factors of social and economic development of raw regions. Thus the degree of influence of the resource factor will depend directly on in what measure it will be possible to keep competitiveness of extraction of minerals, and also from opportunities of involving in economic circulation of new deposits.

It is necessary to note, that the major problem facing to the Government of Russia, is the maintenance of geological studying and rational use of mineral resources in interests of all society, instead of several corporate groups (Nor Nickel, RusAl, Lukoil, etc.).

Expectations of interests of Federation, regions, the mining companies, etc, to be gradually counterbalanced in conditions of the market, were not justified.

The solution of this problem by the state is possible only by a harmonious combination, on the one hand, of regional social and economic policy, on the other — policies in the field of rational source-operation and reproduction of a mineral-raw base.

Complex social and economic development of territories of Siberia, the Far East, Polar Ural and Northwest will allow to increase appreciably internal demand for mineral resources and products of their deep processing (hire, building materials, the equipment, etc.). It is possible only on the basis of mutually advantageous partial-state partnership and large-scale attraction of investments into developing of new mineral deposits, construction of objects of social sphere and development of a transport and power infrastructure.

Creation of such clusters in MRC should be carried out on the basis of innovative technologies of extraction and processing of the minerals providing full and complex extraction of the basic and accompanying components. It becomes a new pulse for development of a domestic branch and

academic science in the field of economy, geology, extraction and processing of mineral raw material under following conditions:

— first, strict and consecutive following to the Constitution of the Russian Federation;

— second, use of bowels as national property by the domestic companies;

— thirdly, perfection of system of the taxation by change of distribution of incomes between subjects of Federation and the Center, which now do not allow raw regions to use in a any significant sizes the current incomes of development of a mineral-raw base for formation of financial sources of long-term economic growth;

— fourthly, reforming of institutional base connected to use of a mineral-raw resources of concrete territory, in particular, in questions of regulation or source-operation, natural monopolies, competition and antimonopoly activity, mutual relations between territories and source-operators with vertically integrated companies, gradually losing the interest to resources running out. The projection of the long-term program of development of prospecting branch is becoming of special value;

— fifthly, system coordination of regional circuits of development and allocation of productive forces, investment programs and programs of reproduction of a mineral-raw base of Russia.

УДК 330.15

**ключевые слова:** природные ресурсы, социально-экономическое развитие, влияние, природопользование, оценка, регион

А. Г. Шеломенцев, О. В. Губина

## ОЦЕНКА ВЛИЯНИЯ ПРИРОДОПОЛЬЗОВАНИЯ НА СОЦИАЛЬНО-ЭКОНОМИЧЕСКОЕ РАЗВИТИЕ АРХАНГЕЛЬСКОЙ ОБЛАСТИ

*В статье предлагается анализ роли добычи и обработки природных ресурсов, осваиваемых на территории региона, на социально-экономическое развитие Архангельской области. Выявлены особенности динамики удельного веса видов природных ресурсов по показателям и сферам влияния. Рассмотрены перспективы освоения и возможности повышения роли природопользования в социально-экономическом развитии Архангельской области.*

Природно-ресурсный потенциал регионов Европейского Севера России является одним из главных факторов их экономического роста и развития. Особенности территориального разделения труда определили специфику хозяйственного комплекса северных территорий. Здесь развивались только те отрасли хозяйства, функционирование которых было обусловлено общегосударственной необходимостью, обеспечивалось местной сырьевой базой и было вызвано необходимостью обеспечения разнообразных потребностей местного населения и отраслей специализации. В настоящий момент исследователями Севера России обосновывается необходимость формирования новой парадигмы развития северных территорий, в основе которой лежит тезис «освоение для обживания» [1]. Одним из основных целевых направлений

государства в отношении использования природных ресурсов, которое переключается с данным тезисом, наряду с рациональным использованием и воспроизводством ресурсов, получением адекватных доходов от их освоения, является обеспечение стабильного долговременного социального развития. Это направление «нацелено на создание и сохранение рабочих мест, участие в инфраструктурном обустройстве территории, обеспечении экологической безопасности, сохранении этнокультурных ареалов» [2]. В связи с этим актуальной является оценка влияния природопользования на социально-экономическое развитие региона.

Под природопользованием понимается «совокупность всех форм эксплуатации природных ресурсов, основными из которых являются их извлечение и переработка» [3]. Сходная формулировка трактует природопользование как использование природных ресурсов в процессе общественного производства для целей удовлетворения материальных и культурных потребностей общества [3]. Для оценки мы используем генетическую классификацию природных ресурсов (земельные, минерально-сырьевые, животного мира, лесные, водные). Методика строится на сопоставлении видов природных ресурсов с видами экономической деятельности по их добыче и обработке (со-