

MINERAL AND RAW MATERIALS RESOURCES AND THE DEVELOPMENT STRATEGY FOR THE RUSSIAN ECONOMY

Candidate of Economic Sciences (PhD)

V. V. Putin

Translated by Thomas Fennell, 2008

The article determines the significance and place of mineral and raw materials resources in the development strategy for the Russian based upon a detailed analysis of their potential.

The sustainable development of Russia's economy in the upcoming years should be based upon orderly growth of its component parts and first of all due to the potential of mineral and raw materials resources. Moreover, sustainable development as it applies to minerals and raw materials is to be understood as the guaranteed provision of economic security to the country through the creation of a reliable mineral and raw materials base for satisfying the current and expected needs of the Russian economy taking into account the ecological, social, demographic, defense and other factors.

An analysis of the development of the world economy shows that the economic growth of developed countries is 2-3% a year, and as a rule this is achieved through the introduction of new technologies. Taking this into account, the Russian economy should have an economic growth rate of 4-6%. Moreover we would note that such growth reduce Russia's lag behind the developed countries in per capita GDP.

Economic growth must not be lower than these rates, and this may be provided for through the extraction, processing and exploitation of mineral and raw materials.

An analysis of the economic potential of mineral and raw material resources, the condition of the main fixed assets and the technology applied in the extracting industries provides the basis for making a definite conclusion concerning the significance and place of the mineral and raw materials complex in building the development of the country's economy:

1. Mineral and raw materials represent the most important potential for the economic development of the country.
2. The main reserve for transforming Russia in the relatively near-term future into a leading economic power with a high standard of living for the majority of the population is comprehensive assistance to the development of the national processing industries based upon the extraction industries.
3. The analysis of the economic processes taking place in the world requires comprehensive state support and the creation of large financial-industrial corporations which span several industries on the basis of the resource-extracting enterprises, which could compete as equals with the transnational corporations of the West.

4. The development of the extracting complex should be regulated by the state using purely market methods; moreover the state must assist the development of processing industries based upon the extraction industries in every way.
5. The condition of the fixed assets and the technology employed by the extraction industries of a country with the richest reserves of natural resources is such that in the upcoming years they cannot provide for significant additional financial receipts for the country's budget for large state investments and the country's own processing industry.
6. Due to the low share of labor in the cost of production of raw materials extracted and the relatively high cost of an individual working place in the extraction industries, raw materials resources cannot be the reserve for raising the living standard for the majority of the country's population.

It seems that in the 21st century, at least in its first half, the Russian economy will preserve its orientation towards raw materials. The potential value of the booked reserves of Russia's extractable resources make it possible to view the mineral and raw materials complex as the basis for the sustainable development of the country for a long time ahead. (figure 1). Russia's large natural resources potential is conditioned by its special place among industrialized countries. Given its effective use, this resource potential will become one of the most important pre-conditions for Russia's sustainable entry into the world economy.

The fact that the country is well-supplied with natural resources is an extremely important economic and political factor for the development of public production. The structure of natural resources, the size of the reserves, the quality, the degree to which they have been studied and the direction for commercial development have a direct impact on the economic potential. The availability of rich and effective natural resources opens up a broad expanse for the economic development of the regions.

The commercial development of Russia's natural resources creates real opportunities for large-scale investments, including foreign capital; a significant portion of the hard-currency receipts are provided by the export of natural resources (figure 2).

Minerals and raw materials occupy a central place among Russia's natural resources, which is determined by the following circumstances:

- geographic location, where habitation is impossible without significant consumption of mineral resources;
- the primarily raw materials structure of the economy with an orientation towards extraction, processing and processing of mineral resources;
- subsoil resources are the most attractive for foreign investors;
- the huge territories and geological-exploration work which have been performed on them in previous decades, which have made sub-soil resources a significant element of the national wealth.

The total value of Russia's mineral and raw materials base according to the explored and

evaluated reserves of all types of extractable resources, comes to no less than 28 trillion USD, however an evaluation of the profitable portion comes to only 1.5 trillion USD.

The Russian Federation possesses significant reserves of mineral and raw materials resources. The range of mineral raw materials discovered on its territory is unique and there is nothing similar in the world. By reserves of nickel and natural gas (33% of world reserves), Russia is first in the world, second in oil after Saudi Arabia, coal – third after the USA and China, gold – third after South Africa and the USA etc. Besides the direct presence of a wide range of the most important types of mineral raw materials, this area of the economy has a developed extraction and processing infrastructure and powerful scientific and technical potential.

The Russian mineral and raw materials complex plays an important role in all vital state functions:

Provides for the reliable supply of mineral and raw materials to the branches of the economy. The high degree of development of the raw materials industry aids in the formation of a solid industrial base which is able to satisfy the needs of both industry and agriculture.

Makes a weighty contribution to the formation of the income side of the country's budget; its production continues to be the main source of hard currency receipts. The enterprises which are part of the mineral and raw materials complex provide for more than 50% of the gross domestic product of the country. The volume of export receipts to the state budget which are directly or indirectly provided for by the development of the mineral and raw materials wealth of the country comes to 70%.

Comprises the foundation of the defensive might of the country. A highly developed raw materials base is a necessary condition for the competitiveness of the state's military-industrial complex and creates a necessary strategic reserve and potential.

Preserves social stability. In Russia almost all large companies which are part of the mineral and raw materials complex, or which are connected with it form the economic backbone of one-company towns. Thus the development of this sector of the economy will provide for an increase in the level of prosperity of the population and a reduction in social tension.

Ferrous metals

(6.8%)

1962

Non-ferrous and rare

Metals (6.3%)

1807

Other extractable resources

(14.7%)

4193

Coal and shale

(23.3%)

6651

Precious metals and diamonds

(1.0%) 272

Oil and condensate

(15.7%)

4481

Uranium (0.01%)

4

Gas (32.2%)

9190

Figure 1. The total potential value of Russia's extractable resources - 28,560 billion dollars

Machines, equipment
and vehicles

9%

Metals and products made from them

2%

Textiles, textile products, shoes

31%

Forestry and cellulose-paper industry

5%

Food products and
agricultural raw materials

3%

Other

1%

Mineral resources

41%

Chemical industry
products

8%

Machines, equipment
and vehicles

18%

Metals and products made from them	2%
Textiles, textile products, shoes	10%
Forestry and cellulose-paper industry	3%
Food products and agricultural raw materials	4%
Other	2%
Mineral resources	52%
Chemical industry production	9%

Figure 2. Breakdown of export products to countries of the far abroad (a) and countries of the CIS (b)

Promotes the development of integration processes between countries. The mutual complementing of states within the framework of a unified economic space makes it possible to command practically all types of extractable resources, which will have a great impact on the world raw materials market.

The strategic factor in Russia's economic growth in the near future should be the restructuring of the national economy on the basis of the country's available extractable resources for the purpose of substantially increasing their effectiveness. The particular complexity of this task consists in the fact that it is necessary to restructure the industry and production structure which developed under conditions of the plan-and-distribute system and complete isolation from the world market. This state of affairs caused the low level of effectiveness in the processing industries, the lack of competitiveness of a large portion of its production on world markets and, as a result, the reduction of the levels of production and the liquidation of many enterprises of this sector of the economy.

The raw materials industry, and in particular the extraction industries, are not in the condition to be able to absorb the huge mass of workers who have been released from the processing branches of the economy. At the same time, a large portion of the extraction industries do not possess sufficient investment potential not only to expand, but even to simply replace fixed assets. Thus, in the most prosperous of the branches of the mineral and raw materials complex, the gas industry, more than 60% of the gas pipelines have been operating for more than 20 years (with a standard of 33 years), and in the coal

industry more than two thirds of the fixed assets are beyond the limits of physical deterioration.

For this reason, the process of the re-structuring of the national economy must have the goal of formation of the most effective and competitive companies both on the internal and on the world markets. Considering the huge mineral and raw materials potential of Russia, the restoration of the domestic raw materials processing industry must take place based upon its comprehensive integration with the extraction industries.

The most promising form for such integration should be the creation, with the comprehensive support of the state, of large financial-industrial groups - corporations with a cross-industry profile, which can compete with the transnational corporations of the West.

The financial condition of the enterprises of the extraction and processing industries today, the use of uncompetitive technologies in the production process, the lack of appropriations for geological and exploration work - all this makes it necessary to organize with the support of state authorities financial-industrial groups which are capable of accumulating significant financial resources on the internal and world capital markets.

The main priorities of the state when creating cross-industry financial-industrial groups must be:

- sustainably providing the country with mineral resources and the products of processing industries;

- raising the effectiveness of the use of mineral and raw materials and creating the require conditions for the transitioning the economy to a resource-saving development path;

- the further development of the raw materials base;

- the support and cultivation of the country's export potential, changing its structure in favor of trade in the products of the processing industries and industrial production;

- the development of the processing industry and its export potential etc.

The process on the formation of industrial-financial groups on the basis of individual branches of the mineral and raw materials complex (first of all gas, power generation, oil, aluminum etc.) which has already begun in Russia marks the formation of a new stage of development - the unification of complexes spanning several industries with financial and commercial structures.

These complexes should determine the tempo of the transformation and recovery of the economy as a stable source for budget and hard currency receipts and a significant haven of stability, including the effective employment of the population, as a factor in the formation of cutting-edge technologies, as a factor in the restructuring and modernization

of the base industries of the mineral and raw materials complex and industry, and finally, as a factor in the spatial integration of Russia, the CIS and the world community.

Regardless of who the natural, and in particular mineral resources belong to, the state has the right to regulate the process of their development and use, acting in the interests of society as a whole and individual owners whose interests conflict with each other, and who need the assistance of state authorities to reach a compromise.

In a centrally planned economy, natural resources use was located outside the sphere of the market economy. At the beginning of market reforms in Russia, for a certain time the state let go of the reigns of the strategic administration of the natural resources complex. This resulting in the stagnation of the national natural resources potential, the collapse of the geological industry which had formed over many decades, and a series of other negative consequences. But now the market euphoria of the first years of economic reform is gradually yielding to a more balanced approach, which admits the possibility of and recognizes the necessity of the regulatory action of the state on business processes as a whole and natural resources in particular. The practice of countries with a highly developed market economies provides many examples of the efficacy of state intervention in long-term projects for developing natural resources.

A modern strategy for rational resource consumption cannot be based exclusively upon the capabilities of the market as such. This relates even more to the transitional stage of economic development, and thus to the economy of Russia. Practice shows - even our innovative enterprises often do not use energy-saving technologies.

Even in developed countries, the market mechanism does not provide for the solution of strategic tasks of resource usage, or the protection of the environment, or sustainable economic security, which is clearly addressed in the results of the UN Conference on the Environment and Development which took place in 1992 (which is reflected to a significant degree in the government concept for the transition of the Russian Federation to sustainable development approved by Presidential Decree No. 440 of 1 April 1996).

Therefore, in Russia it is necessary to realize a principle of rational resource usage as an organic combination of market mechanisms for self-regulation and the support of rational resource consumption and resource conservation. The system of state regulation and support of the latter should include, at a minimum, the following sub-systems: a) legal support, b) financial-credit support, c) infrastructure and informational support, d) insurance against emergency events and catastrophes. One can also distinguish the sub-systems for scientific support, ecological and economic education as well as raising qualifications et al. Rational resource consumption and resource conservation is a complex and multi-dimensional problem. Alongside the socio-economic and ecological aspects, researchers have emphasized technical and technological aspects. Improvement and thoroughgoing renewal of technology should be the top priority for the development of entrepreneurial activity. According to a series of serious foreign and domestic studies in the field of technological macro-dynamics, Russia remains (and given the current poorly thought-out strategy for market reforms it will long remain) mixed not only by forms of property but also by so-called technological modes. Moreover the "third

(resource-intensive) mode” prevails with us. The developed countries already passed through this mode at the end of the 70’s, and the “fourth technological mode,” which is connected to a transition to resource-conserving innovative technology is represented only in a number of production facilities in the military-industrial complex.

The potential conditions for a transition to new modes in Russia are present in a number of areas, but in order to realize these possibilities, it is necessary to provide for the distribution of leading technologies from the military-industrial complex to peaceful industries and areas of the economy, to use the remaining reserve of national scientific achievements to stimulate the activation of our scholars for new achievements. With the help of new designs and the implementation of new mode technologies, the most important task is to ensure effective resource consumption by businesses in the fuel and energy sector, the agro-industrial complex, in the branches and areas of production, social and market infrastructure.

In order to rationalize resource consumption, it is necessary to create the appropriate organizational and economic conditions. As was already noted, by itself the market mechanism cannot resolve the entire range of problems reviewed, and a range of problems are to be removed through scientifically substantiated state regulation. Here we are talking of the resistance to the monopolistic activity of large structures, which slows innovation in a number of cases and violates the rules for natural resources usage, of providing for the cleanliness of bio-systems, and blocking tendencies towards ecological pollution etc. In all developed countries natural resources usage is the most highly regulated area (although this is far from being always effective) – regardless of the existing forms of property for land and the sub-soil or the forms of business operations.

The most important goal of natural resource policy is the provision of the rational and effective use of Russia’s natural resource potential for the purpose of satisfying the current and expected needs of the economy and exports. It must provide for carrying out the principal structural transformations which eliminate the non-effective, resource-intensive usage of natural resources, the creation of economic mechanisms for the comprehensive solution of the tasks of rational usage and the protection and renewal of natural resources, including state support for new methods and means of studying, forecasting, and monitoring the condition of the environment and the improvement of inter-connected systems of land registries on the basis of digital geo-information systems.

In this regard, in the upcoming decades, the strategic goal of state policy in the area of the replenishment (renewing), usage and conservation of natural resources is the achievement of an optimal level of replacement, sustainable, rational and balanced consumption and conservation of the entire range of natural wealth; this is directed at increasing the socio-economic potential of the country, the quality of life of the population, the realization of the rights of the current and future generations to use the natural resource potential and to a benign environment for habitation, stronger savings of raw materials, stocks, and energy at all stages of its production and consumption, the creation of the basis for a transition to sustainable development and a high level of

responsibility for making various internal and external political decisions directed at the realization of geopolitical interests and in compliance with Russia's national security.

Moreover, the main strategic tasks for the natural resources block are the completion of the transition to a rational combination of administrative and economic methods of state regulation in the area of natural resource usage; the formation of an effective system of state administrative bodies in the area of natural resource use, a precise coordination and delimitation of the areas of their activity; the development of a legal base for the purpose of stimulating innovative and investment processes in the area of natural resources usage; the optimization of the levels and expansion of the diversification of sources of investment during the replenishment, consumption and conservation of natural resources; the development of state regulation of export-import operations in the area of natural resources; carrying out state support of scientific research as the most important portion of the technological cycle in the area of the study, replenishment, use and conservation of natural resources; the creation of conditions for the balanced use of natural resources as a main factor in the sustainable growth of the country; ensuring the delimitation of functions and rights of the federal bodies and constituent entities [regions and Republics] of the Russian Federation, in the area of the use of natural resources; taking into account regional particularities and land-usage needs when improving the structure of Russia's economy overall.

At the first stage, the state's efforts must be directed at solving the following problems: improvement of the natural resources legislation, including improving the administrative and criminal liability for violating it; deepening and improving the economic mechanisms for natural resources usage; clarification and correction of the licensing systems and regulatory regimes for natural resources usage; the development of an audit mechanism in the area of natural resources usage; the expansion of the list of types of natural resources used on a for-pay basis; the creation of an effective mechanism for the financial support of programs and measures for the replenishment and conservation of natural resources, the formation of criteria and requirements for the delimitation of state and other types of ownership of natural resources, as well as the creation of a federal fund of reserve fields of extractable resources and other forms of natural wealth, etc.

Going forward, the main efforts should be concentrated on completing the creation of a unified system of regulatory support; the realization of state policy in the area of natural resources usage; the transition to the administration and regulation of natural resources on the basis of the delimitation of state resources and the regulation of natural resources usage on the basis of the delimitation of state property for natural resources among the central and the regions; the development (reform) of the tax system in the area of natural resources usage, replacing excise taxes with rent payments; the implementation of insurance systems and audits in the practice of natural resources usage; the implementation of comprehensive territorial land registries of natural resources; the creation of a unified informational- analytical and recording-statistical system for natural resources and a number of other areas.

In connection with this it is necessary to develop and begin the realization of a concept of a state natural resources policy which includes problems of the regulatory-legal,

economic, recording-statistical support of rational natural resources usage; to complete the preparation of the regulatory-legal base for introducing payment for the use of all types of natural resources, included in business dealings; to continue to improve the systems for payments for natural resources rights, including the ability for natural resource users to receive relief for depletion of the sub-soil or for developing low-quality ores containing extractable resources which there is a shortage of. Going forward one must provide for a reduction in the number of taxes and a transition to primarily using rent payments, to increase the effectiveness of state administration of natural resources usage, to strengthen the economic basis of federalism in the area of ownership of natural resources, to strengthen administrative and criminal liability for violating natural resources legislation, and to ensure compliance with national interests when attracting foreign investments.

In order to carry out state policy in the area of the usage, conservation, and production of mineral and raw materials resources, one should view the following main measures as having the first priority: prevention of the process of depletion of the prospecting and exploration reserve of previous years through strengthening geological research and geological-exploration work; liquidation of the acute shortage of certain types of mineral raw materials in the country (manganese, chrome, uranium, et al.); suspension of the lag in the growth of reserves compared to the volumes of extraction of extractable resources; the development of the mineral and raw materials base on a regional level through the discovery, evaluation and industrial development of small fields of coal, turf and agrochemical raw materials, first of all in remote regions of Russia, where there are no alternative sources of solid fuel and mineral fertilizer; the development of measures for the modernization of geological and exploration work, the introduction of new techniques for drilling and geophysical work which are adapted to the geological and natural conditions of specific oil and gas-bearing and ore-bearing regions of Russia; the expansion of the scope of exploration and use of the resources of the continental shelf and the global ocean.

In conclusion, one should note that the existing socio-economic preconditions, as well as the strategy for Russia to emerge from its deep crisis and attain its previous might at a qualitatively new level show that the condition of the mineral and raw materials complex of the country will remain the most important factor in the development of the country in the near-term. The speed with which the crisis phenomena in the country are overcome; the creation of the material-technical base for the production of high-technology and science-intensive products, including durable goods; the solution of food supply problems, including ensuring Russia's state security in the area of food products; changing the structure of foreign trade to correspond with the exchange of goods in the world's developed countries; the solution of many social problems and a whole range of factors which determine the future of the Russian Federation depend overwhelmingly on the level of rationality, well-considered responsibility and the scale of the use of natural wealth potential.