

**FETDE 2020**  
**International Conference on Finance, Entrepreneurship and Technologies in**  
**Digital Economy**

**STATE MANAGEMENT OF STRATEGIC NATURAL**  
**RESOURCES**

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**Abstract**

Management of strategic natural resources as a function of the state is becoming relevant in the run-up to the transformation of the market economy into a post-market and informational one. The article substantiates the thesis that the possession of strategic resources in times of crisis in history becomes the most important tool in the political, economic and military confrontation of powers. The issue of politicization of the raw materials market is raised, and modern examples of this phenomenon are given. The article provides arguments in favor of the fact that the management of strategic resources will soon become the final monopoly of the state, which implies a sharp weakening of the private principle in this matter. The problem of global depletion of mineral resources is considered. A statistical analysis of natural resources in Russia and in the world is given. The article analyzes the institutional arguments for the weakening of market instruments in the management of strategic resources. The Genesis of the study of the question of the impossibility and inadmissibility of only private ownership of natural resources in the mentality of Slavs, Muslims and Hindus is given. The article offers various options for strengthening state influence on strategic resources in the course of the new economic policy that is being formed in Russia.

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*Keywords:* Management, strategic resources, economy, state control



## 1. Introduction

Management of strategic resources as a function of the state becomes relevant in the run - up to the onset of the post-market and information economy against the background of global depletion of mineral resources (Privalov, 2012). In the National report "Strategic resources of Russia" (1997), strategic resources are those "that are essential for the development of the country, the welfare of its peoples and national security, and that can be used by Russia to influence world processes and solve global problems of humanity" (Encyclopedia of Russia, 2020).

From the point of view of economic theory, strategic resources can be called resources that are the exclusive source of formation of factors of social production or their most important elements in the long term, if there is no alternative to them.

## 2. Bibliography

Publications indexed by Web of science on the topic of strategic natural resources in Russia, even over the past 20 years, are quite small, which can be explained by several reasons. First, this information is often classified as a state or commercial secret. For example, these are information about the development of the only remaining large Udokan copper Deposit in Russia, or presumably the world's largest oil shale Deposit, the Bazhenov formation. Secondly, the trend of the last 10 years in Russia is innovation, which means a gradual rejection of traditional fuels and raw materials, replacing them with non-traditional types of materials. Third, the trend of the last 5 years is the digitalization of the economy. Finally, Russian authors have only recently begun to be able to publish (under duress) in well-known indexed foreign publications.

An analysis of articles indexed by Web of science over the past 20 years on this topic allows you to distribute them in the following areas: broad-based articles dealing with various types of natural resources, linking them to the problem of economic security of the country (Ivanitsky & Privalov, 2016; Kryukov et al., 2017; Lebedev et al., 2015; Ulanov & Ulanova, 2019); articles directly linking the problem of resources with political issues (Keypour & Hendla, 2019; Seliverstov & Krivonosov, 2019; Zelenskaya, 2018); articles on certain types of resources (Golovina, 2017; Gulyanov et al., 2019; Hashim, 2010; Kuderyarov, 2019; Laverov & Distler, 2003; Panova & Sinitsyna, 2019; Privalov & Privalova, 2017; Sergeev & Ponomarenko, 2015; Vasil'tsova, 2016; Zou et al., 2019); articles related to certain territories, especially the far North or the Arctic shelf Agarkov et al., 2018; Berezikov, 2019; Carayannis et al., 2017; Cherepovitsyn et al., 2018; Kozhevnikov, 2019; Lipina et al., 2018; Morgunova & Telegina, 2019; Zaikov et al., 2017; Zinoviev, 2017); articles on international relations and trade (Orazgaliyev & Araral, 2019; Orlov, 2016; Privalov & Li, 2015; Vinokurov & Krasnoyarova, 2018).

Many of them are located at the intersection of science-Economics, Geology, biology, agriculture, etc., taking into account geopolitics.

A significant part of the issue of the journal "Notes of the mining Institute" (Journal of mining institute), which is currently included in the Web of science list, was devoted to the topic of state regulation of subsurface use and reproduction of the mineral resource base of Russia. Volume 194 in part and Volume 201 in whole were devoted to the economic problems of subsurface use and development of the mineral resource complex. Volume 203 contains articles on environmental management issues.

Thus, most publications on specific types of resources are marked, which means that they are more applied in nature. A significant amount of work on the far North and the Arctic shelf is related to the official strategy of the Russian leadership to develop the fuel and energy complex in this region until the start of the sanctions war in 2014 and the outbreak of the global economic crisis. There are no articles linking logically the availability of strategic natural resources and the digital economy.

### **3. Methods and materials**

When obtaining research results, we mainly used a systematic approach, methods of scientific abstraction, formal logic, dialectical-theoretical methods, the method of empirical analysis, and other economic methods.

### **4. Research result**

The economic and political situation in the world is aggravated by the crisis of statehood as an institution of management. Modern States are trying to overcome this crisis with the following measures:

1. the United States as a collapsing Empire in a competitive economic struggle uses political tools, inciting military conflicts, military aggression, provoking internal social and political contradictions in other countries (the "Arab spring", "orange revolutions"), and the policy of sanctions. All this is otherwise called "controlled chaos" by analysts of the US National intelligence Council (Kharchenko & Kazantsev, 2006). An example is modern Ukraine.

2. New growing civilizations, such as China and India, which have the potential to become empires, are primarily increasing their economic expansion, exports of goods, labor, and investment.

3. Some countries are strengthening their consolidation, creating supranational entities, in fact, a transitional form for the formation of new superpowers — the European Union, the SCO, BRICS, and the Eurasian economic Union.

4. Russia, as the heir to the Russian Empire and the Soviet Union, is trying to regain its superpower status, which involves strengthening the vertical of power, raising the economy, the military-industrial complex, innovation policy, reindustrialization, restoring international influence and authority, and strengthening control over all its resources. The possession of strategic resources in times of crisis in history, such as modern times, becomes an important tool in the political, economic and military confrontation of powers.

This is confirmed by some modern examples. So, there is an assumption about the economic reason for the aggression of the Armed forces of Ukraine in the South-Eastern territories of Ukraine in the summer of 2014 — the presence in Donetsk and neighboring regions, in addition to coal, of significant reserves of shale gas (Polubota, 2014). The gas infrastructure in Ukraine may also come under US control. The bill on this in August 2014 was promoted in the Verkhovna Rada by the Prime Minister of Ukraine. In 2019-2020, the new President of Ukraine also lobbied for land reform that allowed the purchase and sale of land. Ukraine, as you know, is famous for its black soil.

The issue of gas supplies from Russia to Western Europe has become political. Politics has interfered with economic energy contracts before. So, back in the 70s, during the construction of the Urengoy —

Uzhgorod gas pipeline, the USSR was blackmailed by the United States when buying large-diameter pipes, after which our country established its own production.

During the war with Georgia in South Ossetia in August 2008, Western European countries threatened economic sanctions against Russia, but they became acutely aware of their energy dependence on Russia the following winter, when Ukraine began to take over gas transiting through its territory to Western Europe. Russia's monopoly on natural gas supplies to Western Europe saved us from sanctions at that time.

However, European gas-importing countries have begun a policy of diversification in recent decades. In 2000 The European Commission has issued a Green paper "Towards a European energy security strategy". This publication was the first attempt to formulate a comprehensive and coherent approach to energy security issues at the supranational level. It States that the share of external sources in the EU energy balance will inevitably grow, which sets the task of reducing risks by diversifying and reducing demand. The main gas suppliers in the EU are currently Russia, Norway and Algeria. Depletion of reserves in the North sea will further increase Europe's dependence on imports: the volume of gas imported by the EU may grow from 200 billion m<sup>3</sup> in 2001 to 650 billion m<sup>3</sup> in 2030 (Gubaydullin & Kampaner, 2006).

The share of imports over the same period may increase from 38 % to about 70 %, most of it will come from Russia and Algeria. EU enlargement has also increased the level of dependence on energy imports from Russia. Plans to phase out nuclear power in some EU member States, such as Sweden and Germany, include partial replacement of nuclear power plants with gas. After the closure of outdated and polluting coal-fired power plants in Poland, the Czech Republic, Estonia and Bulgaria, these countries' dependence on Russian gas will increase. African suppliers, such as Algeria, Angola, Libya, Egypt and Nigeria, and Central Asian and South Caucasus countries, such as Kazakhstan, Turkmenistan and Azerbaijan, can also contribute to meeting European demand.

In recent years, Gazprom's permanent problem has been its relations with Ukraine. Ukraine's unpaid debt for gas supplies from Russia at the beginning of September 2014 was \$ 5.3 billion. Ukraine has not paid for 11 billion m<sup>3</sup> of gas, ITAR-TASS reported (Novak: dolg Ukrainy za gaz sostavlyayet \$5,3 mlrd ne oplacheno 11 mlrd kubov, 2014). The arbitration Institute of the Stockholm chamber of Commerce (Stockholm arbitration) issued a final decision on the dispute, which lasted from the summer of 2014: ordered Naftogaz of Ukraine to pay Gazprom 2 billion rubles. 18 million 920 thousand dollars, as well as interest. The arbitration also ordered the Ukrainian side to select and pay 5 billion rubles annually from 2018 cubic meters of gas (Sud Stokgol'ma obyazal «Naftogaz Ukrainy» vyplatit' «Gazpromu» boleye \$2 mlrd).

Not only representatives of Gazprom, but also the Minister of energy of the Russian Federation took part in the negotiations with Naftogaz of Ukraine from the Russian side, which shows the interstate nature of the problem and the impossibility of solving such economic issues only by the executors of contracts themselves-legal entities. Accordingly, the signing of contracts for the supply of energy resources is no longer complete without state participation.

The blackmail of Russia by the EEU countries and the United States in the form of waves of economic and political sanctions has accelerated the process of Russia's interstate consolidation with the SCO and BRICS countries, primarily with China. May 21, 2014 Gazprom and the Chinese company

SEARS signed a major agreement in Shanghai to export Russian gas to China. The total contract price is \$ 400 billion for 30 years. It is planned to supply 38 billion m<sup>3</sup> of gas per year to China (Rossiya i Kitay podpisali kontrakt na postavku gaza, 2014). There are political reasons for signing oil and gas contracts between Russia and China. In the context of Russia's strained relations with the UES and the United States, this seems inevitable, but in the future it threatens Russia with falling into economic dependence on China. In our view, it would be more advantageous for Russia from a geopolitical point of view to maintain the geopolitical balance between the United States and China in the future for 30-40 years, supporting one side in a certain situation, and the other side in another situation, but generally pursuing its interests as the center of Eurasia or the "axis Empire". Perhaps this model is currently being implemented.

And to fulfill your Mission, you need to be aware of this special role, not completely binding yourself to friendship with any of the parties, and have state levers for managing strategic resources. The oil market is also becoming politicized.

There is an opinion that today neither independently, nor even United with OPEC, Russia is not able to influence the oil market situation. What can and should she do? Do not lock yourself in any cartel agreements, but coordinate your financial and energy policy with all countries — both consumers (the European Union and China) and producers (OPEC and the countries of the Central Asian region). We need to switch to long-term contracts and OTC transactions at mutually acceptable prices, without relying entirely on the futures market. By analogy with building a new financial architecture, the world is also coming to building a new structure for oil prices. This means that they can be regulated. That is, when you go beyond the expected range, additional control should be included over the income of traders, over the relationship between futures and real deliveries. Until now, there has simply been no such control (Zykova, 2008).

The management of strategic resources will soon become the final monopoly of the state, which implies a sharp weakening of the private principle in this matter, since it is in the strategic interests of the survival of States and peoples.

Management of strategic resources is complicated by the problem of global depletion of mineral resources. It is statistically proved that the level of economic development directly depends on the volume of consumption of mineral raw materials per capita. In General, economically developed countries, where only 16% of the world's population lives, account for 55-56 % of the world's oil, 50% gas, 23-25% coal, more than 80% uranium, 43% iron, 35% manganese, 50% chromium ores, about 77% copper, 72% lead, 59% zinc, 67% Nickel, 50 to 80 % tin, tungsten, molybdenum, 50% phosphate raw materials (Laverov et al., 2004).

Here is a statistical analysis of natural resources in Russia and in the world, proposed by doctor of biological Sciences Yuri Novozhenov. Already, a third of the world's inhabitants suffer from lack and poor water quality. For example, about 50 % of the US population depends on the use of underground sources, more than 80% of which are contaminated beyond the norm with nitrates, pesticides, and fungicides. In the conditions of global shortage of the main source of human life, Russia has unique water resources. Lake Baikal alone contains a fifth of the world's fresh water reserves. Our country has the largest natural underground reservoir in the world — the West Siberian artesian basin, whose area reaches three million km<sup>2</sup>, which is almost eight times the area of the Baltic sea. Add to this the basins of the deepest and longest

Siberian rivers (Ob, Yenisei, Lena, Amur, etc.), and it becomes clear why the borders of NATO are approaching Russia and why a Russian can consume 350 liters of water a day from the water supply, and a Muscovite even 700 liters, while most people in the world are content with 2-3 liters a day, and others do not have even that. To maintain the world's five billion people, 27 % of the land was used for fields and pastures. There are still 28% of forests and 45% of deserts, which include Antarctica, Greenland, the Sahara, the Kalahari, and evergrowing industrial deserts and eroded territories. Every year, the number of people increases by 90 million people. Already, a third of the population does not get the necessary amount of calories. To provide one person with food, an average of 0.5 ha of soil is required (in temperate zones). Now in the world per person accounts for 0.14 hectares, while in Russia, if you want to get personal use of two to twenty hectares of land. Approximately 43 % of the world's coal lies in the former Soviet Union, 29% in North America, 14.5 % in Asia and 5.5 % in Europe, while the rest of the world accounts for only 8 %. (Novozhenov, 2009)

As the American Professor K said, Solberg, democracy depends entirely on oil, without oil there is no free enterprise (Privalov, 2010).

Natural gas accounts for 21 % of the Earth's renewable fossil energy. As a result of the extremely intensive use of oil, gas will be the main energy carrier of the XXI century. Up to half of the proven reserves of this type of fuel are located in Russia. Iron is one of the three whales that support civilization. Only Russia, Brazil and Canada are the world's main producers of iron and steel. At the same time, our metal production is 10 times higher than in Brazil and Canada. Russia has a third of the world's best-quality copper reserves. Russia produces about 25 % of the world's diamonds, Nickel, and silver. We are fully supplied with manganese, platinum, zinc, gold, vanadium, lead and other rare metals. The area of farmland per capita in the USSR in 1988 was 2.9 hectares, now even more. For every resident of our country, there are 11.7 conventional units of resources, while for a resident of the United States-2 units, and for a resident of Western Europe-0.067 units. In other words, each of us is six times richer than an American and 17 times richer than any average European (Novozhenov, 2009).

According to academician D. S. Lvov, Russia's supply of minerals for the next decades, based on the level of production in 1991, looks like this. The oil will last for 35 years of development, gas – 81 years, coal – 60 to 180 years, iron ore – 42, niobium – 43, copper 40, Nickel – 40, molybdenum – 40, W – 37, zinc – 18, lead 15, SB – 14, placer gold for 12 years, the indigenous gold – 37, phosphates – for 52 years, potash – 112 (Privalov, 2020).

You can also add another competent source-Saint Petersburg state mining University. According to his official information, the national wealth of Russia at the beginning of the XXI century is estimated at 340-380 trillion dollars. Mineral resources and fuel and energy base - 270 trillion. Raw materials industries are the main source of filling the Russian budget. Russia accounts for about 11% of world oil production, about 30% of gas, 10 % of coal, 14 % of commercial iron ore, 10-15 % of non-ferrous and rare metals.

Oil: \* Proven reserves: 14.5 billion tons (A+B+C1+C2). • About 2500 oil fields, 1200 in development. • Current production: 9.5 million barrels per day. \* Export: 5.6 million barrels per day.

Natural gas: \* Proven reserves: 47.5 trillion m<sup>3</sup> (first place in the world), 830 fields, 120 in development. \* Current production: 630 billion m<sup>3</sup>, 340 of them are exported.

Coal: \* 22 coal basins, 130 deposits, 108 mines, 167 quarries. \* Proven reserves: 272 billion tons. \* Current production volume: 300 million tons, 80 million tons-for export.

Diamonds: \* Proven reserves exceed 30% of global reserves (first place in the world). \* Production of rough diamonds - about 15 million carats. • 20 % of the global market, \$1.5 billion. \* 3.8 million carats of diamonds are cut into 1.6 million carats of diamonds (\$550 million).

Gold: \* Proven reserves: 7,200 t (A+B+C1). \* Production: 200 tons per year. \* 249 main fields, 5500 mines. • Russia's domestic consumption is no more than 28 tons per year.

Apatites: \* Proven reserves: 770 million tonnes of P<sub>2</sub>O<sub>5</sub> (A+B+C1). • 8 fields. \* Production: 25 million tons of ore, 13 million tons of Apatite concentrate per year. \* 4.2 million tons of concentrate is exported. • 9 million tons are processed into fertilizers, 90% of which are also exported.

Copper: \* Proven reserves: 80 million tons. \* Production: 840,000 t. per year. \* Export: over 600,000 t.

Nickel: • First place in the world in terms of proven reserves. \* 28 fields. \* Annual production and production: 340 thousand tons of cathode Nickel. \* Export: 250 thousand tons (22 % of the world market).

Platinoids: \* Total reserves: 15% of the world's (second in the world). \* 80 % of the global palladium market. \* Contained mainly in the ores of 12 copper-Nickel deposits. \* Annual production: about 140 t. • Domestic consumption of platinum in Russia is about 15.5 t.

Aluminum: \* Production: 4 million tons per year. (first place in the world). \* Half is produced from its own bauxite deposits. \* Reserves: 1200 million tons (A+B+C1). \* Production: 5 million tons of bauxite. • A third of aluminum is produced from nepheline ores (16 deposits)

Iron ore: • 27 % of the world's proven reserves, 13 % of production, and 6 % of global steel production. \* 106 fields, 100 billion tons (A+B+C1+C2). • 5 companies produce more than 90 % of commercial ore. (Spmi.ru., 2015).

Russia has the largest areas of the continental shelf. Within the exclusive economic zone, its area is 4.2 million km<sup>2</sup>. A number of large hydrocarbon deposits have been discovered on the shelf (for example, the Shtokman gas condensate field), the development of which requires huge expenditures, international cooperation and acceleration of NTP. However, the economic crisis has destroyed the plans for the development of the Shtokman field. The organization "Shtokman development" actually collapsed when the Norwegian side withdrew from the project, citing a lack of financial resources.

Russia's long-term advantages are undeniable. Thus, according to the Institute of regional problems, the distribution of oil reserves in the Arctic is as follows (in %): Norway-4, Canada-9, Denmark-18, USA-28, Russia-41. Similarly for gas: Norway-4, Canada-4, Denmark-8, USA-14, Russia-70. (Tat'yana Smol'yakova, 2015)

The problem is also that only 2 % of the fossil material extracted from the subsurface goes to meet vital needs. The remaining 98 % go to dumps (Tetel'min & Yazev, 2009). Therefore, it is necessary to take a wide variety of measures (technological, economic, political) for a more comprehensive processing of raw materials, which indirectly should simultaneously solve the environmental problem. For example, associated petroleum gas is often burned. Back in 2012, Russia thus destroyed 35 MLD. m<sup>3</sup>, and in 2016 — already 21 billion. In 2018 The world Bank called Russia a leader in reducing associated gas flaring.

The Ministry of energy in January 2020 proposed to increase this figure to 2.5 %, that is, to reduce emissions by another half.

A clear opportunity for Russia to reduce emissions is also the mass transfer of transport from gasoline to gaspowered fuel. The Russian transport strategy States that by 2030, the share of the fleet with engines using alternative fuels (primarily gas) should be at least 49 %.

Russia also has some advantages in having energy sources other than hydrocarbons, in particular alternative sources. From the point of view of electric generation and heating in Russia, everything is not so bad. Over the past seven years, with an increase in electricity generation by more than ten percent, the gross consumption at thermal power plants has decreased by 2.8 million tons of conventional fuel.

The country has developed hydroelectric power (17-18 % of total electricity generation) and nuclear industry (19%). According to the international renewable energy Agency IRENA, the technical potential of wind power in Russia is 80 thousand terawatt hours per year. No state has such a level. In 2019, Russia adopted the "Five gigawatts" program for the development of solar and wind energy. By 2024, it will bring electricity generation from solar and wind farms to 1 % of the total volume (Sadyrkin, 2020).

Given the growth of the environmental component in production, wood as a building material will be important. Forest covers 771.1 million hectares, i.e. 45 % of the territory of Russia. Per capita, the country has 5 hectares of forest, or 550 m<sup>3</sup> of wood. Russia accounts for 22 % of the world's forested area (72 % of them are coniferous forests). Russia also accounts for 75 % of the bound carbon stock in the boreal forest ecosystem zone (Canada-15 %, Alaska<sup>2</sup>, and Scandinavia-8 %). Russia has 21 % of the world's estimated stock of forest on the root, and until recently, wood production was 11 % of the world, which gave 2 % of GDP and 5 % of export earnings. In Russia, there are opportunities to produce biofuels, for example, from manure produced in a huge number of cowsheds. The experience of India can be useful here.

In addition to political, technical and environmental arguments, there are institutional (cultural) arguments in favor of a sharp weakening of market instruments in the management of strategic resources. The impossibility and impermissibility of owning natural resources only privately is embodied in folk traditions and the belief "the land is God's", noted in the mentality of Slavs, Muslims and Hindus.

The Russians in the main did not consider farming on the land only a means of ensuring their existence or a way of enrichment. For them, it was always something more connected with their entire spiritual life. They were convinced that it belonged to God by its origin and by the present order of things. This popular view was repeatedly noted by observers and researchers of the XIX century, but most often it was recalled in connection with the usually legal norms of land ownership. The most clear use of the folk concept of "land of God" in customary law was defined in the work of F. Shcherbina "Solvychegodskaya land community" (Shcherbina, 1987).

In Islam, the "concept of Viceroyalty" applies to property, where the owner is Allah himself. Therefore, the owner of property is responsible for the welfare of the entire society. The treasure should not remain in vain, there should be an increase in goods and services, and not in the money supply. Muslim authors repeatedly emphasize the social duty of property, reject private ownership of natural resources (for example, oil, water), and recognize the right of the state to restrict the freedom of disposal of means of production in order to correct the failed market. Here, as in some other religions, the earth is declared to be

the creation of Allah and therefore his property, while people are more or less the users of this good. (Ninkhaus, 2002).

Mahatma Gandhi also had the concept of "guardianship". In accordance with ancient Indian traditions, he believed that wealth was created by God and given to people for temporary use, guardianship, as if for rent. And for its effective use for the benefit of all people, its earthly owner will be responsible after death. The principle of guardianship is the cornerstone of Gandhi's economic system. He believed that this principle would ensure the transition of the present capitalist order to an equalizing society. He insisted that this principle gave the propertied class a chance to change itself. Developing his point of view, he later wrote that this principle does not recognize the right to property, except what society will allow to own for the common good; a person has no right to own wealth, without taking into account the interests of society; the nature of production should be determined by social needs, not personal interests.

## 5. Conclusion

Thus, we come to the following conclusions:

1. Strategic natural resources remain the most important factor in socio-economic development, even if some factors, for example, environmental reasons, are partially replaced by others.
2. in the world, the geopolitical struggle is escalating not only for control over traditional fossil resources, but also over water, forest and other similar resources, over transport routes and certain territorial points that give important advantages for military and political control. Therefore, all named objects can be considered part of strategic resources.
3. the Crisis of statehood leads to various forms of geopolitical struggle, the inevitable content of which is the struggle for the possession of strategic resources.
4. Russia possesses, among others, some strategic natural resources, having an advantage over many countries - remnants of oil, gas, and other minerals, territory, forests, and water sources.
5. the Revival of Russia as an Empire objectively requires strengthening state control over strategic resources while simultaneously transforming the social system in the direction of state capitalism.

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