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Bachelor thesis

Natural resources and their role in Russian economy

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Natural resources and their role in Russian economy

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Nature plays a vital role in the hiring of any society and this is also valid for Russia. The aim of the is thesis is to analyze the role of natural resources in Russian economy.

Methodology

Th thesis is divided in two parts, theoretical part and practical part. The thesis will include descriptive and comparative methods of research.

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40 – 60 pages

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Natural Resources, water, forest, Russia, Economy.

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Drogomiretsky II Economy and management of use and protection of natural resources I. I.Drogomiretsky, EL Cantor, LA Chikatueva. – Rostov-on-Don: Phoenix, 2011. – 536s. IN ISBN 978-5-3222-17721-1

Gorelov AA Ecology: lecture notes. – M .: Higher Education, 2008. – 191s., ISBN 978-5-9692-0234-4

Korshak AA, Gas producing business. Introduction to the profession: a manual for schools / AA Korshak. Rostov-on-Don: Phoenix, 2015. -348s .: silt. ISBN 978-5-222-24309-1

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Declaration

I declare that I have worked on my bachelor thesis titled "Natural resources and their role in Russian economy" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the diploma thesis, I declare that the thesis does not break copyrights of any third person.

In Prague on 14th March, 2016 _____

Vladislav Khizhov

Natural resources and their role in Russian economy

Summary

The aim of this thesis capable with analyzing of natural resources in the Russian federation. Attention of readers drawn to the definition of the main determinants that influence on economic indicators. The thesis divided into two parts, theoretical and practical. Theoretical part of the work includes an introduction, focusing on the concepts of the topic and explains the context for understanding the issue, using the opinions of the most important Russian scientists. In the practical part there are made analysis with specific data for the Russian Federation in the area of natural resources in Russian economy. Comparative and descriptive methods have been used in the thesis to make more visible the role of natural resources in Russian economy.

Key words: Natural Resources, water, forest, Russia, Economy.

Přírodní zdroje a jejich role v Ruské ekonomice

Souhrn

Hlavní cíl této bakalářské práce je zaměřena na analýzu přírodních zdrojů v Ruské Federaci. Pozornost čtenáře je věnovaná na definování hlavních determinantů, které mají vliv na ekonomické ukazatele. Práce je rozdělena do dvou částí, teoretickou a praktickou. Teoretická část práce obsahuje úvod, se zaměřením na představení o tématu a vysvětluje kontext pro pochopení problému, s použitím názorů nejvýznamnějších ruských vědců. V praktické části jsou provedeny analýzy s konkrétními daty pro Ruskou Federace v oblasti přírodních zdrojů v ruském hospodářství. Srovnávací a deskriptivní metody byly použity v práci pro zdůraznění viditelnosti roli přírodních zdrojů v ruském hospodářství.

Klíčová slova: Přírodní zdroje, voda, les, Rusko, Ekonomika.

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1 Introduction

The whole history of human society - is the story of its interaction with the surrounding nature, with the geographical environment. In XX century. in the interaction of nature and society is much came a new stage. The impact of the whole society on the very nature of increased dramatically. The Company began to withdraw from the nature more and more resources and at the same time to return to nature all the more numerous waste their activities. So there were two interrelated issues on today day. The Russian lost, do not use 14% of coal produced, 28% chrome ore, 61% of potassium salts, etc. We extract from the oil reservoirs is only 30% of the oil. We use only 20% of timber from logging. Losses in agriculture, we do not consider, but nevertheless calculations fixed, we lose 20 to 40% of agricultural production. To overcome these terrible losses of negative scale needed saving technologies that will reduce losses during transportation and storage of extracted resources.

Natural conditions - are objects and forces of nature, it is very important at this level of human development, energy for life and economic activities of society as a whole, but is not directly involved in the financial, industrial and non-human activity. It is an environment in which people work to achieve your good, the good of his country and the whole world. Under natural resources refers to the components and properties of the natural environment, which are used or can be used to meet a variety of physical and spiritual needs of society as a means of labor (land, waterways, water for irrigation); energy sources (fossil fuels, hydro and wind energy, nuclear fuels, biofuels, etc.); Raw materials (minerals, forests, aquatic resources, reserves of industrial water and other.); food (drinking water, plants, mushrooms, hunting and fishing products); recreation facilities. (Gorelov A.A., Ecology, 2008.)

2 Objective and Methodology

2.1 Objectives

Nature plays a vital role in the hiring of any society and this is also valid for Russia. The aim of the thesis is to analyze the role of natural resources in Russian economy. Compare and evaluate the country's natural resources, and their potential role in the development of Russian economy.

2.2 Methodology

The thesis divided in two parts, theoretical part and practical part. The thesis will include descriptive and comparative methods of research. I will use the general fundamental scientific theories, based on a systematic approach to studying about the natural resources in the world. The theoretical bass research was make with the works of foreign and domestic scientists on natural resources. Research methods is the factorial analysis generalization and interpretation of sociological, economic and social information.

3 Theoretical part

3.1 The interaction of natural conditions and resources.

Nature plays a vital role in the hiring of society. From the point of view of the interests and needs of the entire population of all the properties of nature fall into two major classes - natural conditions and natural resources.

Natural conditions are understood as objects and forces of nature, its quality, which at this level of development of the productive forces are essential to the life and activities of society, but do not participate directly in productive and non-productive activities of people. Natural resources are understood as objects and forces of nature that are at this level of development of productive forces and the study used or could be used to meet the needs of human society in the form of direct participation in the financial activities. Together, these concepts determine what we call the natural environment of society. Agreed that all elements of nature into two classes - the conditions and resources - to a certain extent, with respect to historically volatile. The same elements of nature can act as the conditions and how the resources (such as vegetation, surface water). At the same time with the development of the society more and more of the elements of nature in the class environment goes to the class of resources (eg, solar, wind, tidal).Natural resources are the starting point of the economy of any industrialized society, because everything is kept on it. In the scientific world there is a huge variety of geographical theories.

Geographical determinism is one of the most famous. Essentially, geographical determinism - a concept which is based on the explanation of social life and economic development of the features of the natural environment and the availability of resources. According to this theory, the geographical environment and its individual elements are a major defining force of economic development of any country. Modern scientists do not deny the enormous importance of favorable natural conditions and the availability of resources in the development and distribution of productive forces, the territorial organization of the economy (for a number of industries it is of fundamental importance). At the same time, there are states where geography is not the basis of economic development of the territories. Countries like Japan and South Korea have reached an exceptional success in the development of the productive forces, not having sufficient

resource potential. Economic and geographic assessment of natural resources is one of the major problems of economic geography and regional studies, as the quantity and quality of natural resources define the natural resource potential of the territory, which has a great influence on the economic development of the regions, their specialization and place in the geographical division of labor.

Economic and geographic assessment of natural resources includes three aspects:

1. Quantification of individual resources**.**

In this case, measured by the amount of resources, strength of those or other natural factors. For example, oil reserves are measured in millions of tones, timber reserves - in cubic meters, etc. The quantity of stocks increases with increasing resource exploration and decreases as they are used.

2. Technological evaluation.

In this case, it takes into account the state of knowledge resources, including their suitability for different purposes, the extent of their availability. Often technological evaluation is verbal expression "suitable without restriction", "limited usefulness", "unsuitable." Mineral reserves at its economic value divided into two main groups:

1) balance - those reserves are economically feasible at the present time, and that meet the industrial requirements as to the quality of raw materials and mining conditions of use;

2) off-balance - those stocks whose use is currently not economical due to low power pools, their deficiency, low content of valuable components, especially the complexity of conditions, the need for highly complex refining processes, but which may later be the subject of industrial development. In other words, there are today essential components, but may be used in the future.

3. Economic evaluation.

This kind of assessment usually has value. Valuation in a market economy using the value prevailing at the moment, current world and domestic prices for resources. Difficulty valuations is that certain types of natural resources, it is very difficult to estimate. For example, it is difficult to estimate the atmospheric heat, water, although the water, as you know, today is one of the most important exhaustible resources. The problem of the current world and domestic prices is also very difficult. After all, the money rate is constantly changing**.** (Shilov I.A., Ecology 2012)

3.2 The natural conditions.

Natural conditions - are objects and forces of nature, it is very important at this level of development of mankind for life and economic activities of the whole society, as not directly involved in the financial, industrial and non-industrial activities of the people themselves.

The concept of natural conditions has historically conditional. With the development of the productive forces of many elements of the natural environment are both natural resources. This applies, for example, climate, recreation, and others. The interpretation of the concept of the natural environment is not "legalized." Under them sometimes understand the totality of the components of the geographical environment (this geographical locations, and natural resources and proper environmental conditions).The concept of the natural environment is always associated with one or another kind of human activity, but it is not any permanent changes from one era to another, much depends on the nature and level of production, as well as from the place of extraction of natural resources. For a long time the study of the natural environment was due primarily to the assessment of their impact on different sectors of human activity. For example, mining operations could begin soon on the fields located in the more favorable natural conditions, since it will be more economical, more convenient, faster and more expedient. The cost of capital construction in a greater degree depends on the strength of the soil, the territory, the presence of permafrost, which is very important, as well as the presence of mountainous terrain. The cost of water supply, heating and lighting homes and their construction is different in areas of warm and cold, wet and dry climate in the short and long daylight hours. After the temperature and natural resources are not in equally throughout. The natural environment must be "weighed in economic terms." Effect of environmental conditions reflected on the performance of public and individual work, largely determines the amount of material costs. Natural conditions also need to be assessed from the perspective of people's living conditions. They - one of the most important factors that facilitate or impede the settlement and development of the territory, largely determine the scope and the ways and forms of use of its natural resources and economic opportunities. For example, in Russia, all major cities are located in the western part of the country, as large accumulations of natural resources located in the eastern territories of the country. Favorable or unfavorable conditions such as in their natural form or modified by man-

made changes, strong and versatile affects all aspects of life of the population. In Russia, it has a temperate continental climate with the rhythmic change of seasons, with long, cold and snowy winters and relatively short warm summers. Although it also depends on the area. In Eastern Siberia and the Far East, most of the climate is continental, harsh weather conditions, seasonal and daily fluctuations of temperatures are very high. This area is characterized by the presence of permafrost. It is one of the "pole of cold" in the Northern Hemisphere, which registered an absolute minimum temperature of -71 °C. On the western and eastern border regions of Russia, subject to the global influence of the oceans and seas, the sea formed a transition - a continental climate. The coast of the Arctic Ocean are different harsh arctic and subarctic climates. The subtropical climate with warm, but wet winters and dry, hot summers characteristic of the resort area of the Black Sea coast of the Caucasus. In mountainous areas, the climate has a great difference, that depends not only on the geographical location across the mountain system, but also on the altitudinal zones, slope exposure, and others. - Microclimate. Natural conditions largely determine the livelihoods of the population, his life, work, leisure, health and standard of living. The solution of many socio-economic and economic issues largely depends on the correct valuation of natural conditions. According to specialists, the cost of everything one person in different regions of Russia can vary 7-10, and even more. Features of human settlement from the first steps of becoming a limiting factor of the human substance of the natural environment. The natural resources of the country, combined with the natural conditions are the foundation of material production and life of the population. State natural resource potential of the country, the quality level of its use, protection and reproduction largely determine the pace of economic growth and the efficiency of production as a whole,that we are witnessing today. (Zheltikov V.P., 2010)

3.3 Natural Resources.

Natural resources it is a livelihood, without which man can not live, and that he finds in nature. It is water, soil, plants, animals, minerals, we use either directly or in processed form. They provide us with food, clothing, shelter, fuel, energy and raw materials for industry, of which man creates objects of comfort, cars and drugs, which have become an integral part of the modern world.

Natural resources are classified based on the genesis and method of use:

- Mineral resources
- Water resources
- Land resources
- Hydropower resources
- Biological resources
- Forest resources
- Recreation resources
- Fuel resources
- Agro-climatic resources

Agro-climatic resources In connection with the problem of limited natural resources increases the value of the classification on the basis of exhaustion: exhaustible (renewable) and inexhaustible (non-renewable). Resources are further classified on the basis of intended for a particular sector of the economy (for a black, non-ferrous metallurgy, chemical industry), the quality (such as mineral content in the ore). Under natural resources refers to the components and properties of the natural environment, which are used or can be used to meet a variety of physical and spiritual needs of society as a means of labor (land, waterways); energy sources (fossil fuels, energy, nuclear fuels, biofuels, etc.); Raw materials (minerals, forests, aquatic resources, reserves of industrial water and other.); food (drinking water, wild plants, mushrooms, hunting and fishing products); recreation facilities.

Natural resources - this is the natural basis upon which, developing economy of Russia. The main criteria for inclusion of certain elements of the nature of the resources are technically possible, their reach and production, the economic feasibility of their use, as well as a certain level of knowledge. An increasing number of elements of nature is transformed into natural resources. In this regard, it plays an important role scientific classification of natural resources. There are three approaches to this classification. The first approach takes into account the role of economic resources in the life of the population, the direction and shape of their use in everyday life, and in a great economy. The basis of this classification put resources in key areas of the economy, and highlighted here:

A. Resources of material production, including:

- industry (fuel, metals, water, wood, fish);
- agriculture (soil, water for irrigation, fodder plants, game animals).

B. Resources unproductive:

- direct consumption (drinking water, wild plants, game animals);
- indirect use (green areas for recreation, water sports and recreation, climatic resources for treatment).

In connection with the problems of environmental protection and rational use of resources is becoming increasingly important on the basis of classification of depletion of resources. All resources are divided into the following:

- have been exhausted, including renewable (plant, soil, water) and non-renewable (mineral);
- the inexhaustible (solar, wind, flowing water, climate).

This chapter describes the resources on the most traditional, natural classification joins them into five groups: mineral, water, land, biological (including vegetable, timber) and wildlife resources (fishing and hunting and fishing), agro-climatic. This approach to the classification shall be based on indication Accessories resources to a particular element of nature. (S.I., Kolesnikov 2011)

3.4 Mineral recourses.

Mineral resources- collection of minerals discovered in the bowels of some regions, countries, continents and the ocean floor or the earth as a whole, accessible and suitable for industrial use. Mineral resources are non-renewable natural resources. The concept of mineral resources has several aspects. In the mining and geological aspect of the mineral aggregate resources are identified in the bowels of accumulations (deposits) of various minerals in which chemical elements and minerals are formed by them in sharply increased concentration. In the economic aspect, mineral resources are the raw material basis for the development of the most important sectors of industrial production (energy, fuel industry, ferrous and nonferrous metallurgy, chemical industry, construction), as well as possible by international cooperation. In capitalist society the mineral resources can be one of the causes of international conflicts caused by the struggle of capitalist states for the seizure of the richest sources of minerals. In areas of mineral resources are divided into fuel and energy (oil, natural gas, coal, oil shale, peat, uranium ore); ores of ferrous metals

(iron, manganese, chromium, and others.); non-ferrous ores and alloying metals (aluminum, copper, lead, zinc, nickel, cobalt, tungsten, molybdenum, tin, antimony, mercury, etc.); ore of rare and noble metals; Mining and chemical (phosphate rock, apatite, rock, potash and magnesia salt, sulfur and its compounds, boron ore, bromine, and iodine-containing solutions, barite, fluorite, and others.); Precious and semi-precious stones; non-metallic industrial raw materials (mica, graphite, asbestos, talc, silica and others.); non-metallic building materials (cement and glass raw materials, marble, slate, clay, tuff, basalt, granite); hydro (underground fresh and saline water. The above classification is conditional, because industrial use of certain minerals may be diverse, such as oil and gas it is also the raw material for the chemical industry, limestone and other carbonate rocks - the raw material for steel production, chemical industry and construction materials industry. The concept of mineral resources varies with time and depends on the level of society, from production needs, as well as on the level of technical and economic possibilities. Natural minerals are mineral resources only after when they appear and there is a need of methods for practical use. The higher technical armed, the wider the range of minerals and an increasing number of new types of mineral raw materials involved in manufacturing. For example, coal was the minerals that have commercial value only in the late 17th century, oil - from the middle of the 19th century; aluminum ore, magnesium, chromium and rare elements, potash salts others - from the late 19th - early 20th centuries .; uranium ore - from the middle of the 20th century. On the history of the development of mineral resources, see. Art. Mining.

The spatial distribution of mineral resources in the bowels of the Earth as a whole as well as individual continents and countries are characterized by uneven. As a rule, mineral resources quantitatively estimated mineral reserves and probable reserves. The balance of the mineral resources of the world, as well as the balance of individual countries more than 70-80% of the stock of each type of minerals account for a relatively small number of large fields and fields of giant, the rest are concentrated in the middle and many small fields. The industrial value and size of mineral reserves conventionally distinguished: the unique field of great importance in the world's reserves of the planet as a whole; large - in stocks of large territory and provided countries with mineral resources; average - in stocks of medium and small countries or certain regions of large countries; small and small - in stocks of small countries or specific areas and enterprises. The most studied long-

existing mining areas, the territory of the socialist and industrially developed capitalist countries, to a lesser extent - the territory of developing countries in Africa and Asia, some areas of Latin America, as well as the World Ocean subsoil. Despite the exhaustion of long-exploited individual deposits and the reduction of proven mineral reserves in some countries, production levels achieved in the world in the early 80-ies., Provided the long term. However, a significant part of the identified mineral deposits are concentrated in a relatively poor ores or occur at greater depths and in difficult geological conditions. Industrial development of mineral resources, including their evaluation (research, prospecting and exploration) and the actual development (mining and processing), the scale and intensity of which is determined by the peculiarities of industrial and socio-economic development of society, the role of the mineral resource sector of the economy in the economy countries. Non-renewable mineral resources necessitates their rational use, to reduce losses during extraction, processing and transportation, and recycling of secondary raw materials and compliance with environmental and economic approach to the exploitation of mineral resources.(E.N. Kuzbozhev 2011)

3.5 Water resources.

Water it is all the water of the hydrosphere, it is the water of rivers, lakes, canals, reservoirs, seas and oceans, groundwater, soil moisture, water (ice), mountain and polar ice, water vapor atmosphere. Water resources, water in liquid, solid or gaseous state and their distribution in the world. They are found in natural waters on the surface (in the oceans, rivers, lakes and swamps); in the bowels (underground waters); in all plants and animals; as well as in artificial ponds (reservoirs, canals, etc.).Water - the only substance that is naturally present in the liquid, solid and gaseous states. The value of liquid water varies significantly depending on the location and application possibilities. Fresh water is more widely used than salty. Over 97% of all the water is concentrated in the oceans and inland seas. More about 2% accounted for by fresh water, enclosed in ice sheets and mountain glaciers, and only less than 1% - the share of fresh water lakes and rivers, groundwater and soil. The aqueous medium includes surface and underground water. Surface waters are mainly concentrated in the ocean, the content of 1 billion 375 million km3 -.. About 98% of all water on Earth. The surface of the ocean (water area) is 361 million. Km2. It is about 2.4 times the size of the land area, occupying 149 million. Km2.

Underground waters are salty, brackish (lower salinity) and fresh; existing geothermal waters are at elevated temperature (above 30 ° C.). For the production of human activity and its domestic needs require fresh water, the amount of which is only 2.7% of the total volume of water in the world, with a very small fraction of it (just 0.36%) available in easily accessible locations for extraction. Most of the fresh water contained in the snow and freshwater icebergs in areas of mainly South of the Arctic Circle. In the absence of fresh water used salty surface or underground water, making it desalination. This process is very energy intensive, so it is of interest the proposal consisting in use as a source of fresh water freshwater icebergs (or part thereof) which for this purpose is towed through the water to the banks with no fresh water, where they organize melting. According to preliminary calculations, this offers developers, obtaining fresh water will be roughly twice as energy-efficient as compared with desalination. Without water a person can not live. Water - one of the most important factors determining the distribution of productive forces, and very often a means of production. The increase in water consumption of the industry due not only to its rapid development, but also with an increase in water consumption per unit of production. For example, the production of 1 ton of cotton plant consume 250 m3 of water. A lot of water is required chemical industry. Modern large thermal power plants consume huge amounts of water. One of the most significant water users is agriculture. The Water Management System is the largest water consumer. The high productivity of irrigated land has stimulated a dramatic increase of the area of the world - it is now equal to 200 million hectares.. Accounting for about 1/6 of the entire area of crops, irrigated areas account for about half of the agricultural products. A special place in the use of water resources takes water consumption for the needs of the population. For drinking purposes in our country accounts for about 10% of water consumption. Rational use of water resources - is first and foremost the protection of bodies of water from pollution, as well as industrial wastewater ranks first in volume and the damage they cause, it is first necessary to solve the problem of dumping them in the river. Under the pollution of water bodies is meant a reduction in their biospheres functions and economic value as a result of receipt of harmful substances. One of the types of water pollution is thermal pollution. Power plants, industrial plants often discard heated water into the pond. This leads to an increase in temperature of the water therein. With the rise in the water temperature decreases the amount of oxygen increases the toxicity of water-polluting impurities disturbed the

biological balance. The contaminated water with increasing temperature begin to proliferate rapidly pathogens and viruses. Once in the drinking water, they can cause various diseases outbreaks. In particular, the restriction of discharges into water bodies, as well as the improvement of production technology, treatment and disposal. Also important is the collection of fees for the discharge of sewage and pollutants and transfer of collected funds for the development of new waste technologies and treatment facilities. It is necessary to reduce the amount of payment for environmental pollution enterprises with minimal emissions and discharges, which will continue to be a priority in order to maintain a minimum discharge or reduce it. (Morozova T.G., 2010)

3.6 Land resources

This land, which are used or can be used in the economic activity of people. They occupy about a quarter of the land area (excluding Antarctica). Earth, which is grown most of the food, make even less - 9% of the surface of our planet (pastures provide only 10% of the production of food products). All lands within the national borders of countries constitute a land fund. Cultivated land, particularly arable, mostly concentrated in the forest, forest steppe and steppe natural zones. Most large tracts of land are located in Russia, USA, China, Canada and Brazil. The difference in the availability of land per capita is very high: in Australia is 3 ha, Germany - 0.1 hectares, Japan - 0,04 hectares. The ever-growing world population and new land use means a significant effect on the size and structure of the land fund in the world. This effect is ambiguous. On the one hand, mankind has constantly expanded the area of cultivated land. Only in this century arable land doubled. So, some land-poor countries such as the Netherlands and Japan, increasing its area by the sea. On the other hand, noticeable degradation of land resources. Earth's exhausted and withdrawn from agricultural production. The main reasons for this is unsustainable agriculture and livestock, which leads to erosion, salinization and pollution of land. As a result, the total area of agricultural land each year is reduced by 50-70 thousand. Km2. Scientists have calculated the year 2000 the area of arable land could be reduced by 1 billion hectares, which will significantly reduce the supply of land per capita. Land resources are among those natural resources, without which human life is unthinkable. Land resources of the planet as much sushi. Land - is the earth's surface, which is suitable for human habitation, construction and other economic activities. Land resources are characterized by topography, soil and other natural conditions of the

complex. The structure of the land fund is a characteristic of land resources. Land Fund - is the ratio of the areas that are occupied by agricultural crops, forests, pastures, industrial plants and so. Land resources and soil cover of the Earth were created thousands of years -. Is the basis for wildlife and agricultural production. A third of the land fund of the planet - is agricultural land, ie land used for food production... About 3/4 of the planet's soil resources have reduced productivity due to lack of heat and moisture availability. Farmland - this is arable land, perennial plantings, natural meadows and pastures. Land Fund consists of inconvenient land (deserts, high mountains). The structure of the land fund: arable land - 11%, pastures and meadows - from 23 to 25%, forests and bushes - 31%, settlements - 2%, and the rest of the territory occupied by low-productive and non-productive land (mountains, swamps, glaciers, deserts) . Cultivated lands account for about 88% needed for human food. Mankind has been fighting for the expansion of lands that are suitable for agriculture and habitation. land development deal with Russia, the US, Kazakhstan, China, Canada, Brazil. Conservation of land resources of the planet - this is one of the major problems of mankind. Land resources are reduced, as the productive land were allocated for the development of mining and construction, destroyed towns and other settlements, flooded during the construction of reservoirs, etc.. Problem agriculture -. It is land degradation due to improper land use. Soil erosion reduces their fertility, damage crops. Inconvenient land in agricultural areas are due to ruts, gullies, ravines. In connection with the process of erosion of the world's agricultural turnover eliminated 6-7 million hectares of land, but due to salinity, water logging - another 1.5 million hectares. Gradually depleting the upper fertile layer of soil. The process of desertification - is an extension of the area of the desert, their attack on farmland. This process is typical for many regions of the world.(Makhovikov G.A. 2016)

3.7 Hydropower resources

Hydropower is currently the only source of renewable energy that allows you to receive cheap energy in large enough quantities. The water cycle in nature, which we use as the energy of rivers is due to the evaporation and movement of clouds, with the sun heating the earth's surface. Hydropower resources in the world is estimated at 33,000 TW • h per year, but due to technical and economic considerations of all stocks are available from 4 to 25%. Hydropower resources - is taken into account reserves of water power of the rivers, which can be converted to hydropower. The river hydropower relations can be

divided into three types: mountain with a steep drop, characterized by irregular regime. They have a strong and sudden floods depending on the time of melting snows on the mountains; River flowing from lakes naturally regulated with a favorable uniform regime; River Valley, requiring artificial regulation because of the large spring floods. Hydropower has a number of advantages in comparison with the most common way of obtaining energy at thermal power plants by burning gas, coal and oil products. The greatest advantage is that hydropower can replace a significant proportion of non-renewable energy reserves are limited and have already come to an end. An important advantage of HPP is that their work is in contrast to the thermal power plant does not pollute the air and the environment. Dam hydroelectric power station can accumulate huge amounts of energy, and the production of electrical energy to easily adjust the start and stop of additional generators at the power plant. Hydroelectric power plants are well suited to cover peak loads. hydroelectric power stations can be considered disadvantages of flooding large areas and siltation of dams and river channels. Construction of power plant business is quite expensive and time-consuming, but in the future, with low maintenance costs can get cheap energy for decades. Just a few decades are not readily available renewable energy will mainly be spent, and the value of the remaining strongly increase. Seriously increase the transport and other operational costs. Therefore, it is now advisable to engage in the construction of new and modernization of old hydroelectric power station. Large hydropower resources have not yet mastered in Asia, Africa and Latin America. Most of them are concentrated in remote areas, which greatly complicates their development in the future. Scientists are convinced in the future of HPP.(Hasanova G.B 2011)

3.8 Biological resources

The major component of the human environment are the natural resources. These are plants, animals, fungi, algae, bacteria, as well as their combination - communities and ecosystems (forests, grasslands, aquatic ecosystems, wetlands, etc..). For biological resources are also organisms cultivated man: cultivated plants, domestic animals used in industry and agriculture strains of bacteria and fungi. Thus, the biological resources - are natural sources of essential human wealth (food, raw materials for industry, for selection of crops, farm animals, micro-organisms, for recreational use). Due to the ability of organisms to reproduce all biological resources are renewable, but the person should support the conditions under which these renewable resources will be carried out. In the

modern system of biological resources of many of them threatened destruction. The principal biological resources are the resources of flora and fauna. Man is inextricably linked with nature. Apparent his current independence and isolation from nature is actually a consequence of the fact that the person in the process of evolution has gone beyond its resource cycle. However, the nature and live without a man, but man dies without nature. This is the value of natural biological resources. Biological resources - the basis of human life. This is his food, housing, clothing, breathing source, the medium of rest and recuperation. The depletion of biological resources could lead to mass starvation and other unpredictable consequences. To maintain the stability of biological resources requires highly enough of their base reproduction. Number of humanity is growing, and the amount of arable land on which agricultural products are grown needed, based will scent the population decreases. Even if we assume that the total area of agricultural land will not decrease, and in this case the amount of arable land per capita will decline due to the increasing number of people. Today, for every person on the planet, including children, accounting for 0.28 hectares of fertile land. By 2030, the sown area are expected to grow by 5% (total!), While the world population is predicted to increase to 8 billion. This will reduce the amount of land I will scent the population to 0.19 hectares. Virtually the whole of Asia, particularly China, will try to feed themselves from a much smaller area of the calculation of fertile soil will scent the population. The need for a food resource people provides mainly due to the fact that growing different varieties of crops and breeds of domestic animals. This involved such branches of agriculture as crop, including arable farming, fruit growing, meadows, vegetable growing, melon growing, forestry, floriculture and animal husbandry - fur, fish and other types of fishing. With these industry people provide themselves with food, and industry - plant and animal raw materials. Plants create the necessary environment for the life of the people, serve as an inexhaustible source of various food products, technical and medicinal raw materials, building materials, etc. It plants are the primary link in the natural food chain, and therefore represent the primary link to the animal world.(A.A., Litovchenko. 2006)

3.9 Forest resources

Forest resources- a component of the biological resources that are used or may be used in the economy as a raw material or energy source. For forest resources include timber, turpentine, mushrooms, fruits, berries, nuts, industrial, hunting and medicinal

resources. In addition, the forest has a soil and water protection, recreation, and aesthetic properties. Forest resources are characterized by indicators of forest cover, forest and timber resources. Forest resources are exhaustive, but restorative. Forest Peace Fund LP is almost% of the land. High rates of forest cover must Latin America, low - Western Europe and Australia. Countries with a high percentage of forest areas are located in the equatorial and tropical maritime climate, as well as in the temperate zone. Therefore, in the world there are two almost identical forest belt areas: north and south. In the north (moderate) belt is dominated by conifers, accounting for 2/3 of the forest area. Here are the forest areas are Russia, Canada and the United States. South (equatorial and tropical) forest zone covers the Amazon and Congo basins, as well as the islands of Southeast Asia, the eastern regions of China and south-eastern United States. In the forests of the southern belt is dominated by deciduous species, accounting for 97% of the area. Forest area decreased by 0.6% annually in the world. Particularly intense humid equatorial forests are being cut down. Over the past 50 years their area has decreased by half. Intensively destroying rainforests for arable land in developing countries. In the areas of construction and industrial development are also disappearing forests. Many wood comes to the needs of the furniture industry. In the poorest countries are still using wood as fuel. Thus, according to the UN, 70% of the population of developing countries use wood for heating and cooking. A growing share of exports of tropical timber in the developed countries of the world. The most effective way to deal with a decrease in forest area is reforestation. The pace of its timber must exceed the speed. You should also pay more attention to the comprehensive utilization of timber, ie, make waste-free production. Started research work on finding substitutes for wood pulp and paper industry. Countries with large forest areas are located in the natural area of tropical forests and temperate forests. Least of all forests in the states located between the northern and southern forest belt, as well as countries characterized by arid climate and desert landscapes. It is a serious global problem is a problem of loss of forest cover. The forests of the northern forest belt in the economically developed countries is now subject to intense destruction in the past, but then the forest cover has been largely restored (plantations). In some countries, where the government conducted a program to preserve the biosphere, timber growth began to exceed the volume of its cutting. And the main reason for the loss of forests and reduce its quality in developed countries, acid rain

have become in recent decades (from air pollution). According to experts, the total area affected by forest is about 30 million hectares.

FAO estimates (UN Food and Agriculture Organization) by 2000, lack the wood fuel will be more than 2 million people, ie. E. Half of the forecast on the date of the population of developing countries. Among the main reasons for the reduction of the world forest resources are the following: - the forests are being cut down to expand agricultural land, as well as space for the construction of industrial facilities, urban, transport, communications, etc;. - Wood is a high quality building materials; - From a variety of tree species produce furniture, toys, paper, pencils, matches, etc. - Wood is used as fuel; - Forests are reduced and degraded by air and soil pollution. For many centuries, the reduction in forest area on the planet practically does not interfere with the progress of mankind. However, recently, this process has a negative impact on the economic and environmental state of many countries. Although about 30% of the land of the planet Earth are still covered with woody vegetation, forest protection and reforestation are necessary for the continued existence of mankind.(S.I., Kolesnikov 2011)

3.10 Recreational resources

Recreational resources are a combination of natural, historical and cultural sites and events, suitable for use in recreation and tourism. The basis of the tourist potential of the town -cultural, monuments, museums, museums, parks, historic estates, national and natural parks, natural and cultural World Heritage sites, customs and traditions of many peoples around the world, folk arts and crafts, the richest natural resources: sea, river , lakes, mountains, caves, hydropower, favorable for rest and treatment, and other climatic factors and conditions of natural health and wellness in many regions of our country. Recreation resources include natural, cultural and historical complexes and their elements, each of which has its own specific. Recreational resources are a combination of physical, biological and energy-elements and forces of nature, which are used in the process of reconstruction and development of the physical and spiritual powers of man, his ability to work and health. Almost all of the natural resources are the recreational and tourism potential, but the extent of its usage varies and depends on the demand for recreational and specialty of the region. World there are areas where recreational activity is a defining industry in the structure of their social reproduction. It comprises a network of recreational

enterprises and organizations. The greatest wealth in terms of recreation resources are areas of mixed forests and forest-steppe, mountains, deserts, lakes.
(V.V.Kadet, N.M., Dmitriev 2014)

3.11 Fuel resources

Fuel resources in the world. The basic fuel resources of the world is oil, natural gas and coal. Their reserves are unevenly placed. Explored reserves of the world's oil and natural gas are constantly growing as a result of research and development of new deposits. This is especially true of the ocean floor. Among the many thousands of oil and gas bearing areas of different fields giants. they are about 50. Each of these oil reserves are estimated at 500 million tons and above, and the reserves of natural gas - more than 1 trillion tons. Large oil reserves in North and South America. In the far north of the North American continent, is almost on the coast of the Arctic Ocean, the US oil is produced and Canada. The second major area of oil production is located in the northern part of South America. There are oil-producing Venezuela and Ecuador. Fuel minerals are often located on the flat areas of the planet. The most important types of energy raw materials are oil, gas and coal. To say that oil - the most important type of fuel, enough. Oil is also extremely valuable chemical raw materials. However, large volumes of produced oil is used for processing into a variety of fuels and lubricants. Oil and natural gas in marine conditions arise. Therefore, the major oil and gas basins are located in the coastal plains, which in the past have been the bottom of the sea. In recent years, oil field open seas in coastal areas. Currently, nearly a third of oil and gas produced in the world is extracted from the seabed, and this share is gradually increasing. This oil has grown by about 25% over the past ten years. Natural gas is related to the origin of the oil. Therefore it is very often the gas fields side by side with the oil fields. Thus, the distribution of gas fields around the world in increasingly follows the distribution of oil fields. Gas reserves are depleted much less than oil. Therefore Resourcing this kind of fuel is much higher and is estimated at approximately 100 years. Coal - mineral resource of sedimentary origin. Unlike oil and gas, coal accumulation occurs on land. All coal mines are located at a considerable distance from the shores of the sea, and even in the mountains. Coal - a very widespread minerals. Stocks of coal exceptionally high, and the resourcing of the world economy with coal, according to some, is about 3 thousand. Years. Besides these three types of fuels there are so-called local fuels. These include peat, brown coal and oil shale.

The reserves of these minerals are very high, but they have a small calorific value and high ash content. Their combustion is accompanied by the release of a large amount of hazardous gases. Therefore, the fuel is only used in areas where other sources of energy. (A.A., Korshak 2015)

3.12 Agro-climatic resources

Agro-climatic resources - climatic conditions recorded in the economy: the amount of precipitation in the vegetation period, annual precipitation, the amount of heat during the growing season, the duration of the frost-free period, etc. Agro-climatic resources - this climate properties, providing the possibility of agricultural production. They are characterized by: the duration of the period with average daily temperature above +10 ° C; the sum of temperatures for this period; the ratio of heat and moisture (moisturizing factor); moisture reserves created by winter snow. Different parts of the world have different agro-climatic resources. In the far north, where excessive moisture and heat a little, perhaps only farming and greenhouses. Within taiga several- sum of active temperatures 1000-1600 °, you can grow the rye, barley, flax, vegetables. In the zone of steppes and forest steppes of Central Europe and the Far East moisturizing enough, and the sum of temperatures from 1600 ° to 2200, you can grow corn, wheat, oats, buckwheat, various vegetables, sugar beet, fodder crops for animal husbandry. The most favorable agro-climatic resources of steppe areas of south-east and west south . Here, the amount of active temperature 2200- 3400 °, and can be grown winter wheat, maize, rice, sugar beet, sunflower, heat-loving vegetables and fruits. The international community is dependent on agro-climatic changes. After all, we are highly correlated. It is the nature. It can survive without us for millions of years, it can not be said about the people.(Hasanova G.B)

4 Practical part

4.1 The role of natural resources in the Russian economy

Natural resources - it land and mineral resources, flora and fauna, forest and water resources, air swimming pool and a climate that is everything that surrounds and forms the external conditions of his activity. Just saying: if labor - this wealth of his father, then his mother nature. The availability and variety of natural resources largely determines the possibility of the economic mechanism. Because of this, along with labor, capital, science, entrepreneurial ability of natural resources is one of the economic resources. Man has always used natural resources to meet their needs. But along with the growth needs of the growing volume and nature of the elements are drawn into the economic circuit. This is connected with the growth of population, and qualitative changes in the needs of the people. What once was lying untouched in the storerooms of nature, more and more involved in the economic turnover. Huge impact on the natural resources of the issues involved has scientific and technical progress in the production of goods and services to the process. This influence has a certain inconsistency, going in two opposite directions. Scientific and technological progress contributes to rationalize the use of natural resources: identify cheaper and more easily transported materials (eg, natural gas); introduced ways to better extraction and refining of oil, raw materials climb fully used; apply non-waste technology. In agriculture introduced ways to more intensive farming and animal husbandry, industrial production was successfully carried out the transition to energy-saving and material-technology, which reduces the specific consumption of raw materials and fuel. Invented many synthetic materials, successfully replace natural resources. At the same time, the development of science and technology leads to an expansion of the old and the creation of new types of production, requiring the use of natural resources. An important aspect of the problem of natural resources associated with their geographical location. Most of them are concentrated not in the developed countries, and in regions with relatively low levels of economic development. This situation makes the inevitable move to large scale natural resources of their production areas to the areas of refining and consumption. According to experts, the cost of proven Russian raw materials is over 28 trillion dollars !. There is a problem: how to make the most efficient use of these resources, ensuring effective export structure, eliminate the prospect of converting the fuel and raw

material industries in the dominant sectors of the economy. Significant economic importance has ownership of the resources of nature. State ownership gives you the opportunity to use a variety of natural resources in the public interest (the use of land for the construction of highways, exploitation of forests, water resources, mining, etc.) use of natural resources in the private sector usually involves the collection of specific taxes, rent and other payments, reducing profits.

The Russian Federation is one of the richest on the availability of natural resources around the world. Russia has a huge and very diverse in species composition (over 200 species) of natural-resource potential. In terms of volume and diversity of natural resources of the Russian Federation is almost unrivaled in the world. Scientists have calculated that reserves of coal, iron ore, potash and phosphate raw materials provided by Russia 2-3 century. Very significant forest, water resources, reserves of gas and oil. Russia's population is 2.4% of the population of our planet, and the territory of Russia is 10% of the Earth. In the Russian Federation concentrated ~ 45% of the world reserves of natural gas, 13% oil, 23% coal, per capita accounts for 0.87 ha of arable land, forest covered area in Russia, accounting for 22% of the world's "forest" of the surface. As stocks of certain types of natural resources of Russia belongs to the first or one of the first places in the world (1_oe - gas reserves, timber, iron ore, potash, water resources, oil reserves - 3_e in the world). Russia is also rich in bauxite, nickel, tin, gold, diamonds, platinum, lead, zinc. Many of these resources are located in Siberia, where long distances, poor populated, harsh climate and permafrost pose significant challenges for cost-effective production and transportation of raw materials to the places of processing and consumption.

(A.A., Litovchenko. 2006)

4.2 Mineral resources

The main feature of the placement of mineral resources is the uneven distribution of them in the bowels of the Earth. For example, large iron ore reserves in the area of the Kursk Magnetic Anomaly (KMA). This allows you to extract ore in open pits. A variety of ore are at Baltika - iron, copper, nickel, nepheline Kola Peninsula. In the Trans-Baikal region are significant reserves of iron ore, steel, copper. Rich ore deposits of the Urals mountains. There is mined iron and copper, nickel ore, platinum. In the Altai developed

rich metal ores. And on the East European Plain, there are deposits of coal, oil and gas in the north of table salt is mined. On the territory of Western Siberia are the largest oil and gas fields. The most common indicator of evaluation of mineral resources - mineral resources, and the amount of minerals in the bowels of the earth, on the surface, at the bottom of bodies of water and in surface and groundwater, determined according to the geological survey. Currently, Russia has the main types of mineral resources in quantities that satisfy current and future needs of the domestic production and population, as well as allowing for exports. In mid-2007, the gross potential value of proven balance reserves of the main kinds of minerals are estimated at 36.6 trillion. USD., and the projected capacity - 250 bln. dollars. In the structure of the mineral resource base of 71% are fuel and energy resources, provided gas, coal, oil, 15% - non-metallic raw materials, 13% - black, non-ferrous and rare metals. In general, Russia's economy is built on oil and gas. In the depths of Russia, which occupies 11.5% of the land area of the world, is concentrated a large share of the world's reserves of various natural resources: apatite - 64.5% tin - 37, gas - 35.4, iron - 32, nickel - 31, cobalt - 21, zinc - 16, diamond - 26 Oil - 12.9 Coal - 12% (6, 65). The share of Russian exports in the global trade balance of minerals steady at 7-8%, including oil - 8%, gas - 36, coal - 6, uranium - 40, copper - 10, nickel - 23, aluminum - 34%. Overall, exports of primary mineral raw materials is many times the volume of imports in the trade balance of Russia. Russia is still a country that is actively exporting its natural raw materials, as opposed to developed countries, follows a strategic line for the use of their own natural resources and the satisfaction of their needs mostly through imports. Of the total volume of minerals produced in the world, accounting for: apatite - 55%, natural gas - 28 diamonds - 26, nickel - 22, potash salt - 16, iron ore - 14, non-ferrous and rare metals - 13 oil - 12%.

Table No. 1: Mineral Resource Statement of Russia

Mineral Resource Statement, Talbot Deposit, Manitoba, RPA, January 26, 2016

		Grades				Contained Metal			
Zone	Tonnes (kt)	Cu (%)	Au (g/t)	Zn (%)	Ag (g/t)	Cu (Mlb)	Au (koz)	Zn (Mlb)	Ag (koz)
Talbot Main	1,441.0	3.4	2.6	2.4	61.0	107.0	118.6	76.4	2,827.8
Talbot Main FW	443.9	2.2	2.0	2.4	55.6	22.0	28.5	23.2	793.8
North Lens	283.4	0.7	2.0	1.3	20.6	4.6	18.3	7.9	187.6
Total	**2,168.3**	**2.8**	**2.4**	**2.2**	**54.6**	**133.6**	**165.4**	**107.4**	**3,809.3**

Source: Federal State Statistics Service [online]. [cit. 2016-01-08]. Available from: http://www.gks.ru/

For many types of mineral raw materials security is only 25-50 years, and for lead, zinc, antimony and placer gold - at least 20 years. Due to the significant decline in recent years, the volume of exploration insufficient replenishment of raw material base for oil and gas, although prospects for its expansion are real.

Table No. 2: Mineral Resources indicated and Inferred in Russia

Resource Category	Cut-off Ag Eq	Volume (m^3)	Tonnes	Density	Metal				Grade			
					Ag_Eq (oz)	Ag (oz)	Au (oz)	Cu (t)	Ag_Eq (g/t)	Ag (g/t)	Au (g/t)	Cu (%)
Indicated	50	3,156,176	8,485,813	2.689	33,698,095	14,645,088	105,279	45,384	123.5	53.7	0.386	0.535
	80	2,113,760	5,673,771	2.684	27,938,365	12,390,900	86,867	36,874	153.2	67.9	0.476	0.650
	100	**1,584,648**	**4,253,968**	**2.684**	**23,838,629**	**10,835,338**	**72,207**	**30,914**	**174.3**	**79.2**	**0.528**	**0.727**
	150	863,528	2,327,430	2.695	16,205,941	7,697,377	46,408	20,369	216.6	102.9	0.620	0.875
	200	405,792	1,105,097	2.723	9,474,178	4,522,283	27,828	11,718	266.7	127.3	0.783	1.060
	250	218,048	596,569	2.736	5,820,374	2,792,304	16,552	7,243	303.5	145.6	0.863	1.214
Inferred	50	3,316,272	8,982,925	2.709	29,258,352	12,407,216	130,031	33,978	101.3	43.0	0.450	0.378
	80	1,742,616	4,710,633	2.703	20,488,097	8,718,189	97,196	22,668	135.3	57.6	0.642	0.481
	100	**1,193,320**	**3,220,896**	**2.699**	**16,262,944**	**7,068,831**	**75,858**	**17,719**	**157.0**	**68.3**	**0.733**	**0.550**
	150	519,704	1,399,366	2.693	8,967,681	4,229,254	29,878	10,670	199.3	94.0	0.664	0.763
	200	204,560	552,562	2.701	4,338,265	2,289,307	7,375	5,539	244.2	128.9	0.415	1.002
	250	71,344	195,258	2.737	1,802,917	1,022,743	2,284	2,197	287.2	162.9	0.364	1.125

Source: Federal State Statistics Service [online]. [cit. 2016-01-08]. Available from: http://www.gks.ru/

4.3 Water resources

Water is the most basic element of life on the planet. Russia is washed by 12 seas, owned by three oceans, as well as the inland Caspian Sea. In Russia there are over 2.5 million. Large and small rivers, more than 2 million. Lakes, hundreds of thousands of wetlands and other facilities of the water fund. Most provided water downstream of major rivers. Elevated levels of water availability is characteristic of the tundra and forest zones of Russia. Because of the Russian Federation have the greatest figures Krasnoyarsk and Kamchatka Region, the Sakhalin Region, the Jewish Autonomous Region. In the center and south of the European part of the country, where most of Russia's population, the region is limited to a satisfactory water supply to the Volga valley and mountainous areas of the Caucasus. From administrative units greatest water shortages noted in Kalmykia and the Rostov region. Slightly better situation in the Stavropol Territory, southern areas of the Central Black Earth region, and the southern Urals. As water resources are considered rivers, lakes, groundwater, water, ice, atmospheric precipitation, which are sources of water to meet the economic and household needs. Water - a peculiar kind of resource,

without which our planet can not exist. It combines the character and exhausted (groundwater) and inexhaustible (runoff) stocks. Water in nature is in constant motion, so its distribution in the territory, the seasons and over the years much more difficult. Russia has substantial reserves of fresh water. It is widely used in the national economy of the river waters. Russian River belong to the basins of three oceans, as well as to the inner basin of the Caspian Sea, occupies a large part of European Russia. Most of the rivers of Russia belongs to the basin of the Arctic Ocean. The rivers that flow into the North Sea, the longest and full-flowing. The longest river - Lena (4400 km), the deepest river - the Yenisei. In the southern parts of the Siberian rivers and swift rapids. In these segments to build the largest hydroelectric power station in the country - Krasnoyarsk and Sayano-Shushenskaya on the Yenisei, Ob Novosibirsk, Irkutsk, Bratsk, etc. European River Basin of the Arctic Ocean - Pechora, Mezen and Northern Dvina, Onega - much shorter than the Siberian rivers. By the basin of the Pacific Ocean are many rivers. The main rivers of the basin - the Amur and its tributaries - Zeya, Berea, Usury. Atlantic basin occupies the smallest area of the entire country. River flows west to the Baltic Sea (Neva), and the south - in the Azov and Black (Don, Kuban, and others.). A special place is the Neva. This short river (74 km) brings a huge amount of water - four times more than the Dnepr, having a length of over 2,000 km. Most of European Russia occupies the inner basin of the Caspian Sea. The rivers flow into the Caspian Sea, Volga, Ural, and others. In the European part of Russia's longest river - Volga (3530 km). On the Volga hydroelectric lot: Volzhskiy them. Lenin, Saratov, the Volga them. XXI Congress of the CPSU, and others.

The main consumers of water resources in our country are water supply, hydropower, artificial irrigation. Water - a set of different ways to use the water resources industry, utilities and the public with a high degree of irretrievable loss and varying degrees of pollution. It is this side of the water makes all the more acute with the growth of production problems and reduce the deterioration of the quality of water supplies. Its solution requires the redistribution of water resources between regions, gentle, as well as the economical use of reserves, construction of sewage treatment plants, widespread use of closed cycle water use, and others. Hydropower uses the energy of flowing water reserves which are then fully returned to the watercourse. Russia has the world's largest reserves of hydropower, which make up about 1/10 of the world's reserves. Russian hydropower resources are distributed unevenly. Most of them are accounted for Siberia and Far East,

the main reserves of hydroelectric power are concentrated in the basins of the Yenisei, the Lena, Ob, Angara, Irtysh and Amur. Lena reserves hydropower ranks first among Russian rivers. Rich in hydropower resources of the Northern Caucasus. A significant part of technically feasible for the use of hydropower resources of the country falls on the Volga and Central regions of Russia, especially where large reserves of hydropower Volga basin. For irrigation use the flow of rivers and glacier resources. The main areas of irrigation - is arid areas: the North Caucasus, Trans-Volga region.

Table No. 3: Catch fish and production aquatic resources

	2000	2002	2003	2004	2005	2006	2007	2008	2009
The catch of fish and other seafood	3776	3258	3285	2965	3212	3264	3417	3333	3728
in inland waters	395	274	291	244	249	241	239	245	266
in the fishing zone of Russia	2445	2065	2106	1785	1947	1977	2195	2035	2652

Source: *Russian industry* [online]. [cit. 2016-02-09]. Available from: www.nornik.ru

Table No. 4: Production (manufacturing) of main fishery products

	2010	2011	2012	2013	2014
Live fish, fresh or chilled	1151	1395	1399	1461	1109
Crustaceans, frozen; oysters; Other aquatic invertebrates, live, fresh or chilled	39,8	42,8	44,5	52,7	52,9
Water Bioresources other	3,5	6,9	5,4	3,1	3,6

Source: *Russian industry* [online]. [cit. 2016-02-09]. Available from: www.nornik.ru

4.4 Land resources

Land resources of Russia are huge - it is 1/9 of the total land area of the world. The total area of the Russian Federation is 1,709,800,000. Ha. Land for agriculture Russia, and first of all for agriculture is limited by unfavorable climatic conditions: the territory of the permafrost is 1.1 billion. Ha or 60% of the total area. The agricultural use can be involved about 710 million. Ha. The average per capita of our country accounts for 11.5 hectares of

land (more than in all other countries of the world). However, productive agricultural lands make up only 13% of the total land area, including arable land - 8% of the country's land resources. However, the security of Russia's population of agricultural land per capita is quite high (0.9 hectares per person). In China, it is 0.08 to 0.54 US, Japan 0.03 ha. The land fund of Russia is unevenly distributed across regions. The share of arable land varies from 5 to 70-85% of the total area. The bulk of the arable land in Russia is its European and southern Siberia, within the steppe and forest steppe zones, as well as in the southern part of the forest zone. The main location of pasture is mainly in the south-eastern regions of the Russian Plain and the southern outskirts of the West Siberian Plain. Unlike most important grassland grasslands are located in the northern regions of European Russia, especially in the flood plains. Large areas of arable land and hayfields are concentrated in the so-called non- black earth zone, covering the European part of Russia to the north of the forest. To obtain high yields prevailing in the area marsh soils require annual fertilizer (especially organic fertilizers).

Table No. 5: Artificial breeding of certain species in Russia

Artificial breeding of certain species of game hunting users of resources in nurseries in the Russian Federation					
	2010	**2011**	**2012**	**2013**	**2014[1)]**
	The number of basic herd at the end of the year, heads				
Boar	3035	3652	3642	3450	3172
Roe	83	124	301	343	487
Elk	26	140	38	191	38
Noble deer	598	1232	1720	2149	2828
Dappled deer	1645	2378	2583	3139	3950
doe	318	699	976	1126	1364
moufflon	164	147	248	508	915
Saiga	113	124	152	186	19
The Bears	3	6	13	7	6
Duck (duck)	2893	3289	3318	5201	7016
Partridge (gray and bearded)	164	538	707	744	1791
Pheasants	6121	6413	10129	6195	12524

Source: Russian energy portal [online]. [cit. 2016-02-05]. Available from: www.rusal.ru

Cleaning land non- black earth zone - draining, cleaning of stones and shrubs - can afford to expand agricultural land and high yields. A relatively small portion of the land area occupied by Russian settlements, especially cities, industries and transport routes. Built-up

and busy transport routes of land less than 2% of the total land area of Russia. They are located mainly in the most populated parts of the country, the poorest land suitable for agriculture. It is therefore very important economical and reasonable development of land areas disturbed by mining and quarrying. It is of great importance for the development of inter-river and farm connections. In Russia - the most extensive river system in the world; length of navigable waterways of Russia - more than 400 thousand km.

Table No. 6: Maintenance costs for the years in thousand roubles

	Maintenance costs for the years, at current prices; thousand Roubles.				
	2010	**2011**	**2012**	**2013**	**2014**
Boar	17112,7	21831,4	31944	32877,9	32205,9
Roe	1303	742,4	1775,3	3289,2	3681
Elk	445	51,7	286,4	337,5	721,3
Noble deer	5744,9	13650,8	17139,1	19707,9	26120,9
Dappled deer	8415,2	11463,3	16744,9	26000,3	37940,7
doe	2072,7	7467,2	9158,4	26801,9	25065,4
moufflon	1011,1	785,1	1702,5	7558	19336,1
Saiga	891,6	952,6	1115,3	1131,2	976,4
The Bears	98,5	830	666,4	684	661
Duck (duck)	5785,6	6574,6	7532,8	10170,2	12571,1
Partridge (gray and bearded)	701,5	189,7	505,9	1997,9	2501,7
Pheasants	11365,1	12291,9	14211,2	13148,7	17362,3

Source: Russian energy portal [online]. [cit. 2016-02-05]. Available from: www.rusal.ru

4.5 Hydropower resources

Russia's share in global reserves of hydropower resources is technically possible to use, is estimated at 10% of the world. This is a fairly high figure, which puts our country in second place in the world. China is the first indicator. If the Russian master of hydropower resources, it will annually produce up to 2 trillion. kWh - twice as much as now produced by all power stations of the country (hydro, thermal and nuclear power). The bulk of the hydropower resources of Russia (about 70%) is concentrated in Eastern Siberia, where the 1 km2 account for a potential 235 kW power. Close-energy potential have such pools and the river Lena, Angara, Yenisei and the Amur. Their total reserves of 1.5 times the

hydropower resources of a country like the United States. In the Irkutsk region total hydropower potential reserves are estimated at 200-250 billion. KWh / year, including the technical potential to use - about 190 billion. KWh / year (Table. 5.3). The presence of significant hydropower will continue to determine the economic development of the Irkutsk region as an important center of energy intensive industries in the east. Currently involved in the turnover of only a third of the available water resources. To build three hydroelectric power stations on the Angara total capacity of 9.1 GW, with annual power generation of more than 50 billion. KWh, and a hydroelectric power station on the river. Mahakam (tributary Vitim) capacity of about 100 MW with possible annual power generation to 0.4 billion. KWh. Russia has vast hydropower resources. But they are used less than 20%. Most of the hydropower resources account for Siberia and the Far East (80%). They are especially great in the basins of the Yenisei, the Lena, Ob, Angara, the Irtysh, the Amur. Rich in hydropower resources of the Northern Caucasus. Hydropower plays a role in the economy of the Russian Federation. Therefore, the industry is not standing still, and just developing. Perhaps in the near future, Russia will take gas from the system and re-equip all the equipment to the electric supply.

4.6 Biological resources

Biological resources includes forestry, hunting and fishing grounds. The Russian Federation is rich in forest resources, it has a 1/4 part of the world's forest resources. Forested area in Russia is 766.6 million. Hectares with a reserve timber 82 billion. M3.

Table No. 7: Production (manufacturing) bio-resources other water

	2011	2012	2013
Russian Federation	6948	5370	3083
Northwestern Federal District	462	436	356
Ural federal district	71	483	19,9
Far Eastern Federal District	6415	4450	2707

Source: Electronic-library system [online]. [cit. 2016-02-07]. Available from: Www.Znanium.com

The bulk of the country's timber resources are concentrated in the forests of Siberia and the Far East, but due to their remoteness exploited much more of the forest European part of

Russia, as it is more profitable from an economic point of view, especially the swimming pools of the Northern Dvina, Pechora, the upper reaches of the Kama River. In the past, the main logging took place in the southern part of the zone of taiga and mixed forests in Central and North-West Russia, which are located close to the main consumers of wood. As a result of forest resources in these areas severely depleted. Now logging is drastically reduced, and maintained only in an amount not exceeding the natural increase.

4.7 Forest resource

Many forests in the central and north-western parts of Russia are of particular importance, so the wood they did not harvested. Its resources in Russia more than in any other country in the world. However, in terms of their use, our country lags behind the developed countries. A lot of wood is not just used for transport of huge losses of forest (including rivers). Logging is not compensated by appropriate reforestation, thus develops a critical ecological situation (in the north of European Russia, near Lake Baikal) and complicated situation with timber harvesting. We are losing a huge part of our resources produced during transportation. Russian forests provide not only wood, but other foods: mushrooms, berries, nuts, medicinal raw materials and, most importantly, furs. More resources have fur tundra and taiga. The main kinds of oil produced in Russia furs - sable, squirrel, fox. According to the number of produced fur Russia ranks first among all countries in the world, exporting it in large size.

To ensure forest Russia ranked first in the world, with about 1/5 of the world's timber reserves. Forest resources are mainly concentrated in the eastern regions of the country. For every person on the planet is 0.9 hectares of forests in Russia - 5.2 hectares (in Canada - 10.5 hectares). Stocks of wood per inhabitant of the Earth, on average, 65 m3, Russia - 548 m3 (in Canada - 574 m3). Forest cover in Russia is 44.7% (21th place in the world). The most common breed in Russia: Larch (258m. Ha), Pine (114m. Ha), spruce (77 million. Ha) and Siberian stone pine (37 million. Ha). Russia is the largest forest power. The area of the forest estate and of forests not within the forest estate, more than in the Russian Federation 1.18 billion. Ha. To ensure forest Russia ranked first in the world, with about 1/5 of the world's forest cover and timber resources, and with respect to temperate forests is virtually a monopoly, possessing 2/3 of the world's supply. Forest Fund of the Russian Federation, stretching for thousands of kilometers from the pine forests of the Baltic Sea to Kamchatka birch and spruce forests of Northern Sakhalin, from

meager dwarf vegetation to the north of the Kola Polar regions richest in species composition of forests Black Sea region occupies 69% of the land of the country. The level of forest cover (the ratio of forested area to the entire territory) in Russia as a whole is 45.3%. Russian forests are rich in animal game. Russian forests are a source of secondary products (fruit, berries, nuts, mushrooms), economic value are hayfields, which grows more than 300 species of medicinal plants. Rich Russian and fish resources. For many years, commercial fishing was carried out in the Barents, White, Caspian, Azov and Sea of

Japan, as well as a number of inland water bodies (the Volga basin in lakes Ladoga and Onega). As a result of intensive fishing fishery resources of these bodies of water greatly reduced, especially valuable species.

Table No. 8: Forest resources

Years	Overall land area of forest and other land areas where forests are located, mln. ha	Including forest lands	of them wooded	Total stock timber bln. M3
1992	1180,9	886,5	763,5	80,7
1997	1178,6	882	774,3	81,9
2002	1179	883	776,1	82,1
2009	1183,7	892	797,5	83,5
2010	1183,3	891,8	797,1	83,4
2011	1183,4	891,8	796,8	83,1
2012	1183,5	890,9	795,2	83
2013	1183,4	891,2	795,3	83

Source: E-library [online]. [cit. 2016-03-07]. Available from: http://window.edu.ru/

A negative impact on fish resources of Russia and the construction of hydropower plants on the Volga River and the pollution of the seas and inland waters. The development of fish resources of the northern seas Pacific and the Siberian rivers did not offset the loss of fish catch in the surrounding seas of Russia. Significantly reduce fishing in rivers and lakes. In this regard, great importance is fishery, is still poorly developed. An important

role for recreation and treatment of people who have natural recreational resources of Russia. These include mineral springs (for drinking and bathing), mud, favorable for the treatment of many diseases climatic conditions in some regions of Russia, sea beaches. Great recreational value and has a variety of landscapes. Almost every region of Russia has a place convenient and favorable for rest and treatment of people; particularly large recreational resources have coastal and mountainous areas.

4.8 Recreation resources

Recreational resources are a combination of natural and historical and cultural sites and events, suitable for use in recreation and tourism. The basis of the tourism potential of the Russian Federation is the historical city, monuments, museums, reserve museums, historic estates, national and natural parks, natural and cultural World Heritage sites, customs and traditions of many peoples of Russia, folk arts and crafts, the richest natural resources: sea , rivers, lakes, mountains, caves, hydro power, favorable for rest and treatment of climatic and other natural health and wellness factors and conditions in many regions of our country. Recreational resources include natural, cultural and historical complexes and their elements, each of which has its own specific Recreational resources are a set of physical, biological and energy-elements and forces of nature, which are used in the process of reconstruction and development of physical and spiritual forces of man, his ability to work and health. Almost all of the natural resources have recreational and tourism potential, but the extent of its use varies and depends on the recreational demand and specialization of the region. In Russia, there are areas where recreational activity is the defining industry in the structure of their social reproduction. In its composition includes a network of recreational enterprises and organizations. The greatest wealth in terms of recreation resources are areas of mixed forests and forest-steppe. Because of the mountainous areas of greatest interest is the Caucasus. Promising Altai region and a number of eastern mountainous regions. The Caucasus and the Black Sea region, the North Caucasus region, Northern region, Azov district, the Caspian region, Central District, Northwest District, Western Region, the Volga region, the Urals region, the Far Eastern District, near-Baikal regions.

Figure No. 1: Recreation resources of Russia

Source: [online]. [cit. 2016-02-09]. Dostupné z: www.google.ru

4.9 Fuel resources

Properties of fuel resources in Russia is high containment and the remoteness of the most productive and intensively used fields. As a result, the centers of production and resource consumption spaced from each other on a huge distance. In 2008, oil production in Russia reached 504.1 million. M., Gas 635 billion cubic meters., Coal 322 million. Tons. The estimated global forecast geological reserves of mineral (organic) fuel exceeds 12.5 trln.t . (12,500 billion tons). At the present level of production of these resources should be sufficient for about 600-1000 years. These stocks consist of 60% coal, 27% of oil and gas as well as shale, and peat. With proven reserves of things are not so optimistic. It should be borne in mind that the following data is quite approximate. Explored reserves of coal amount to 5 trln.t. and reliable about 1.8 trln.t. According to reliable Russian proven reserves (200 billion. M) is the third largest in the world after the United States (440 billion tons) and China (272 billion tons). At the present rate of coal will last for 400 years. Oil reserves at the beginning of the century was estimated at 139.7 billion tons In addition, probable reserves of oil from oil shale and tar sands are estimated at 750 billion tons But the cost of production of this oil will be much higher. In proven reserves in the first place

is Saudi Arabia (25.4 billion. Tons), Iraq (11 billion tons), Kuwait (9.3), Iran (9.1), Venezuela (6.8), Russia (4 8 billion tons), China (2.4 billion tons), the United States (2.4 billion tons), and others. Availability of World Economy proven oil reserves of about 45 years. For Russia, this figure is 23 years. Proven gas reserves at the beginning of the century reached 144 trillion. cbm Russia accounts for 39.2%. A unique value of energy of the Russian Federation are in Hanty-Mansijsk and Yamalo-Nenets regions. Increased relative to the average level of natural potential fuel are located in the regions of the Volga-Uralsk oil - gas province - Tatary, Udmurtia, Samara and so on.

Table No. 9: Extraction of petroleum and natural gas of Russia

Extraction of crude petroleum and natural gas; related service areas		**101,2**		**101,3**	**103,3**
oil extracted, Mt	499	100,4	42,5	100,7	102,6
unstable gas condensate, million tons	24,3	113,3	2,3	106,4	109,4
flammable natural gas (natural gas), km3	601	101,5	58,5	98,1	112,2
passing gas oil (flammable natural gas	67,5	107,8	6,1	107,6	102,9
oil fields), km3	10,8	98,9	1	100,4	109,7

Source: *Gas portal* [online]. [cit. 2016-01-05]. Available from : www.neftegaz.ru

Table No. 10: Production of fuel and energy minerals in million tons

	1990	1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Coal	395	263	258	270	256	277	282	299	310	314	329	301
Peat	73	13,5	4,1	4,6	3	1,5	2	1,9	1,7	1,7	1,2	1,2
shales	4,6	2,4	1,7	1,5	1,1	1,2	1,2	0,2	-	0,6	0,7	0,2
Oil and gas condensate	516	307	324	348	380	421	459	470	481	491	488	494
Flammable natural gas (natural), bln. M3	641	595	584	581	595	620	633	641	656	653	666	583

Source: *Gas portal* [online]. [cit. 2016-01-05]. Available from : www.neftegaz.ru

Table No. 11: Oil production of Russia in million tons

Years	**2009**	**2010**
Russian Federation	494502	505326
Northwestern Federal District	33547	32165
Southern Federal District	8161	8942
North Caucasian Federal District	2828	2226
Volga Federal District	102365	107255
Ural federal district	311296	307051
Siberian Federal District	18927	29404
Far Eastern Federal District	17378	18283

Source: *Gas portal* [online]. [cit. 2016-01-05]. Available from : www.neftegaz.ru

4.10 Agro-climatic resources

Agro - climatic resources of Russia create opportunities for comprehensive development of agriculture in the country. The vast space of Russia, where much of the population is within the cold and temperate zones. However, the southern half of the country, which lies in a zone of mixed forests and forest-steppe zone, covering the Central Russia, the south of Western Siberia and the Far East, has adequate moisture and the amount of daily air temperatures (above +10 ° C) - from 1600 to 2200 ° C. These agro-climatic conditions for growing wheat, rye, oats, flax, hemp, buckwheat, potatoes, vegetables, sugar beet and various fodder crops (maize for fodder, grain legumes) needed for livestock. The northern half of the country, including the north Russian taiga plains and most of the Siberian and Far Eastern taiga, is sufficient, and in some places excessive moisture. The sum of average daily temperatures during the growing season ranges here in the range 1000-1600 ° C, which allows to grow rye, barley, beans, flax, less demanding to heat vegetables (radishes, onions on the pen, carrots) and potatoes, herbs. The least favorable agro-climatic conditions in the far north of Russia, where excessive moisture and the amount of average daily temperatures during the growing season of less than 1000 ° C. In such circumstances, can only patchy farming with the cultivation of crops undemanding to heat and Hothouse economy. The warmest part of Russia - the steppes of south-east of the Russian plain and south of the West Siberian Plain, as well as Ante. Here the sum of average daily

temperatures during the growing period of 2200-3400 ° C, which allows the aging of winter wheat, corn, millet, sugar beet, sunflower, heat-loving vegetables and fruits. However, in these areas, insufficient hydration, which requires in many places irrigation and irrigation.

Table No. 12: Average air temperature and rainfall in Russia for 2013

	Air temperature, C				**rainfall**			
	January		**July**		**January**		**July**	
	The actual temperature	**Deviation from the norm**	**The actual temperature**	**Deviation from the norm**	**average, mm**	**Attitude to normal, percent**	**average, mm**	**Attitude to normal, percent**
Russian Federation Total	-114,2	9,6	147,5	6,5	256	859	584	879
Central	-8,6	1,5	18,6	0,6	41	111	77	94
Federal district	-13,1	1,4	16,4	1,5	36	108	61	93
Northwestern	-1,9	3,7	23,7	0,5	65	159	61	135
Federal district	-0,7	2,9	21,7	0.1	16	60	73	110
south	-12,6	1,3	19,6	1	33	97	74	110
Federal district	-22,5	-0,8	16,9	1,3	27	108	68	103
North Caucasus	-24,4	-0,4	15,2	0,2	24	136	82	104
Federal district	-30,4	0	15,4	1,4	14	80	88	130

Source: Federal State Statistics Service [online]. [cit. 2016-01-08]. Available from: http://www.gks.ru/

5 Conclusion

In the conclusion I would like to say that the natural resources of Russia are vital not only for the economy of the country which build basically on the natural resources. They also play the key role in the economy of European economy too. Natural resources play the key role in the living standards of the population in Russian Federation. To say more, it is important for the whole world international community. For today days we are depend on each other and depend on the natural resources. Civilization uses different tips of resources in many scale projects. However we forget than the nature and human society can not exist separately. Nature dies in the result of human irrational use of the World mineral . Of ozone depleting, degrades ecology. Natural resources - it is a livelihood, without which man can not live. In any case the natural resources are not unlimited and eternal. This necessitates constant concern about their preservation and reproduction. To this end, the following basic conditions.

- First, we need to carefully and rationally use what nature gives to man (especially with regard to non-renewable resources).
- Secondly, where it is available, it should take effective measures to replenish the natural resources (to restore and enhance the natural fertility of the land, carry out afforestation, reproduce stocks of reservoirs).
- Thirdly, we should make maximum use of secondary raw materials and other production waste.
- Fourthly, it is necessary to fully support the environmental cleanliness of production and environmental management.

If we change our attitude to the environment, natural resources, their production and use, our country and our people will not be suffering from a strange disease and natural disasters.

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