1 Introduction

Russia is a country very large in territory and complex in geography, and has excellent conditions for ore-forming. Russia is very rich in mineral resources of almost all kinds with reserves accounting for 37% of those of the whole world. The mineral resources of Russia are mainly distributed in Siberia, Ural, north of Volga River basin and Far East areas, serving as the main supply bases of raw mineral materials.

At present, about 20,000 deposits have been discovered in Russia, 5% of which are large or super large ones with 70% of the total reserves and 50% of the total produced volumes accounted for, respectively. And 1/3 of the discovered deposits have been developed. Among the raw mineral materials, ferrous and nonferrous metals account for 13%, non-metals for 15%, and diamond and precious metals for 1%, respectively. The security level of mineral material supplies of Russia is higher than those of other countries.

2 Current Situation and Distribution of Mineral Resources

2.1 Petroleum and Natural Gas

Russia is rich in oil and gas, proven reserves of oil and gas are in the second and first positions in the world, accounting for 12~13% and 32% of those for the whole world, respectively. The total area of oil and gas bearing is 1,290×10^4 km^2. Up to 2010, the exploration licenses have been issued for totaling 2,255 reserve oil fields with proven oil reserves of 108×10^8 t obtained; and the exploration licenses have also been issued for about 750 gas fields (including gas condensate) with natural gas reserves of 165.4×10^12 m^3 predicted. Oil and gas fields are distributed in older platforms (Eastern Europe, Siberia), younger platforms (West Siberia, Skiff - Tulan), intramontane basins and marginal depressions.

2.2 Solid Mineral Resources

As for the solid mineral reserves, Russia also occupies an important position in the world. For example, Russia ranks first for its nickel and zinc reserves and second for its copper, cobalt and lead reserves in the world. However it is not quite satisfactory for the exploitations of these solid mineral resources in Russia. Russia ranks among the top countries in the world only for its productions of nickel and cobalt; whereas the production capacities of, copper, lead and zinc of Russia are less than those of United States, Indonesia, Australia, Canada, China and some other countries, ranking 6th to 10th of the world.

3 Development of Mineral Material Bases

The analyses on explored material bases, the social mission of expanding material bases and regional development trends of production capacity are quite rough. At present 11 blocks can be outlined and regarded as cross-region supply centers of raw materiels, some of which will also be the industrial - technical centers in the future. Seven of them are oil and gas supply center: Caspian oil and gas center, northern oil and gas center, Yamal-Har oil and gas center, Turukhan oil and gas center, the East Siberian oil and gas center, south and north Okhotsk oil and gas centers; while four of them are solid mineral supply centers: Zabaykalsky lead-zinc polymetallic mining center, Aldan center of mining and metallurgy, Amur center of mining and metallurgy, Verkhoyansk-Kolyma gold-silver mining center.

4 Development Strategy of Mineral Resources

A long-term development strategy of mineral resources for Russia is to shift the emphasis to the east. This so-called Eastward Strategy firstly embodies in the energy resources, especially oil and gas. As we know the oil and gas resources are the main power of economic development in Russia. At present, 68.7% of the explored oil reserves are from the western Siberia, 8.3% is from...
Ural-Volga river basin. As for the explored natural gas reserves, 78% is from the western Siberia, 8.3% is from Ural-Volga river basin. However, the oil and gas reserves in these areas have been gradually exhausted, the empty rate for the oil and gas reserves in the Ural-Volga river basin is even up to 70~80%.

In order to promote the development of oil and gas, especially in Siberia and the Far East, the Russian federal government formulated the "Energy Strategy to 2020 of Russia". Department of energy in conjunction with other departments and relevant companies have established a system by integrating natural gas production, transportation and supply together in East Siberia and the Far East, and exporting natural gas to the Asia Pacific market.

5 Conclusions

Mineral resources are widely distributed in Russia, and with its huge reserves making people breathtaking. However, the imbalance between the economic requirement and mining occurred. It is extremely important for Russia, the country with its economy mainly relying on mineral resources, to develop new mineral material bases, so as to ensure effective and long-term development of national mineral resources. In the recent 20 years, the potential of mineral resources in Russia has been obviously dropped due to rapid increment of capacities both for mining and production, thus resulting in resources depletion in old raw material bases. At present, the focus of mineral exploration and development has been gradually shifted from West Siberia, Ural, Volga regions to the East Siberia and the Far East.

The oil and gas resources in East Siberia are large in scale, but the degree of exploration is very low. The regions will become more important to ensure the stable increment of oil and gas reserves along with the completion of Siberia-Pacific oil pipeline project. The East Siberia area is adjacent to the China, has very important geographical advantages, and therefore much attention should be paid to the area for the future development in the upstream oil and gas cooperation projects.

Meanwhile, an important prerequisite for developing new regions of minerals and energy is to carry out a large scale of further explorations, infrastructure constructions and industrial development, which are the necessary conditions to provide mineral materials and to maintain the production scale and economic growth.

Acknowledgements

The authors thank Prof. Zhao Jingxiang Institute of Geophysical and Geochemical Exploration CAGS, Prof. Xiang Renjie Information Center of Land and Resources Ministry, Prof. Wang Shuling and Prof. Tian Qianning National Geological Library of China. This study was supported by the China Geological Survey Project (1212011220914).

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