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Mining Development Report of The Shanghai Cooperation Organization (SCO) Member Countries (2023)



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Preface

The Shanghai Cooperation Organization (SCO) was officially established in Shanghai on June 15, 2001. It is a comprehensive regional cooperation organization with nine member states (China, Russia, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan, India, Pakistan, and Iran), three observer states (Afghanistan, Mongolia, and Belarus), and 14 dialogue partners (Turkey, Saudi Arabia, United Arab Emirates, Azerbaijan, Armenia, Egypt, Bahrain, Qatar, Kuwait, Cambodia, Maldives, Myanmar, Nepal, and Sri Lanka). After more than 20 years of development, the SCO's areas of cooperation have continuously expanded, extending from the field of security and counterterrorism to politics, economics, science and technology, culture, education, mineral resources, etc. Cooperation in geosciences and mining are essential aspects of science and technology, economics and trade, and energy and mineral resources.

Over the past decade, driven by the Belt and Road Initiative, the mining cooperation among the SCO countries has become increasingly close and an essential driving force for promoting each country's high-quality economic and social development. In order to comprehensively understand the latest progress in the development of mining cooperation among the SCO countries for further promoting mining cooperation among the countries in the region and jointly enhancing the resilience of the mineral supply chains of the countries in the region, the China-Shanghai Cooperation Organization (SCO) Geosciences Cooperation Research Center has organized the first research and compilation of the Mining Development Report of The Shanghai Cooperation Organization (SCO) Member Countries (2023). The key contributors of this research are Jinrong Tang, Jun Hong, Zixin He, Yongwei Gao, Yanjun Luo, and Zhongping Ma. Other co-authors, such as Yuxuan Zhang, Guanglu Meng, Mingyi Liu, Zhihua Wang, Bin Wang, Jifei Cao, Leqian Li, Lu Wang, Bo Chen, Xutuo Li, Dandan Zhang, Huan Tang, Haidi Zhang, Huishan Zhang, Kai Weng, Wenhong Li, Xueqi Zhang, Weiqing Li, and Kai Cao have made some important efforts to improve the manuscript.

This study focuses on the nine SCO member countries (from now on referred to as the SCO nine countries). It attempts to outline the overall development of mining in the SCO nine countries from five aspects: economic development, mineral resources endowment, current mining development, mining investment environment, and the current state of mining cooperation between China and other member states. The study has gained the following insights:

- (1) **The SCO countries have become an important force in promoting economic globalization and participating in global governance.** With the expansion in 2017 and 2023, the number of SCO member states has increased to nine. The SCO member states have a combined area of 35.63 million square kilometers and an estimated population of 3.2 billion. That equates to about 24% of the world's land area and 40% of the global population. It has become the most extensive and populous comprehensive international, regional cooperation organization globally. The SCO member states are mainly developing countries with a strong desire to participate in and promote economic globalization. In recent years, their economic growth has generally been higher than the global average. In 2022, the combined GDP of the SCO nine countries was 24.7 trillion USD, accounting for 26.3% of the global total, making them a significant force in promoting economic globalization and participating in global governance.
- (2) **The abundant mineral resources of the SCO countries can provide relevant guarantees for the sustainable development of the global economy.** The SCO nine countries have enormous energy reserves, accounting for 44.44% of the world's natural gas, 42.21% of coal, 18.37% of oil reserves, and 27% of uranium resources. The reserves of gold, antimony, and rare earth elements in the SCO nine countries account for more than 50% of the world's total. The reserves of iron, lead, zinc, molybdenum, silver, and platinum group metals account for 30% ~ 50% of the world. The SCO nine countries have abundant new energy mineral resources such as copper, manganese, nickel, cobalt, and lithium, with copper reserves accounting for 20% of the world's total, manganese reserves accounting for 23.2%, nickel reserves accounting for 12.74%, cobalt reserves accounting for 8.4%, and lithium reserves accounting for 6.92%. The SCO nine countries have many world-class mines, such as the Muruntau gold mine in Uzbekistan, the Kempirsai chromite mine in Kazakhstan, the Reko Diq copper mine in Pakistan, the Norilsk nickel mine in Russia, and the Bayan Obo rare earth elements mine in China.
- (3) **The exploration and development of mineral resources in the SCO countries have become vital supports for promoting economic recovery and enhancing the resilience of global supply chains.** Mining has become a pillar industry in most SCO member countries. From 2017 to 2021, the countries with the output value of the mining industry accounting for a higher proportion of the country's GDP than the global average were: Kazakhstan (19.98%), Russia (11.15%), Kyrgyzstan (10.72%), Uzbekistan (9.6%), and Tajikistan (8.2%). In 2022, the mining industry in the SCO nine countries reached a total output value of 690 billion USD, playing a crucial role in the global mineral supply chains.