



National perspectives on MSMEs and Critical Raw Material Management

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Regional workshop on guidelines and best practices for
MSMEs in sustainable resource management and CRM supply



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Business category criteria in Kazakhstan



Criteria	Units	Business Categories			
		Micro	Small	Medium	Large
Average annual income	\$mln.	<0,200	>0,200<2,00	>2,00<20,0	>20,0
Number of employees	Human	15	100	250	>250

- ✓ Due to the fact that the criteria for MSME in Kazakhstan are low, mining companies are classified as large business, the category of MSMEs includes service geological companies, as well as junior subsoil user companies that have received exploration licenses, including CRM.

Dynamics of changes in the number of companies and the employees MSMEs in Kazakhstan for 2017-2020



Indicators	2 017	2 018	2019	2020
Total in the economy of Kazakhstan, MSMEs	1 145 994	1 241 328	1 330 244	1 357 311
Total number of employees in MSMEs	3 190 133	3 312 457	3 398 786	3369 915
Including: Mining industry, number of MSMEs	2 470	2 746	3 104	3 527
Number of employees	29 768	33 891	32 334	30 148

- ✓ **Despite the pandemic, the total number of MSMEs in Kazakhstan in 2020 increased compared to 2019, but at the same time the number of employees decreased. The same trend is observed in the mining industry**
- ✓ **The increase in the number of MSMEs in the mining industry is associated with the registration of numerous junior companies that received exploration licenses, including CRM, in connection with the liberalization of the Mining Code**

The state of the CRM mineral resource base in Kazakhstan



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- ✓ Traditionally, in Kazakhstan, for solid minerals, the main focus was on the exploration, mining and production of basic metals: Cu, Pb, Zn, Au, Ag, Fe, U, Cr, Mn
- ✓ At the same time, there are many hundreds of fields in the Republic in which all 30 types of CRM are present
- ✓ Part of CRM, such as: Coking coal, Phosphate rock, Baryte, Phosphorus, Bauxite, Titanium, form their own deposits. The rest of the CRMs are contained in the form of impurities (with low contents) in many types of deposits of various metals

The state of the mineral resource base of CRM in Kazakhstan (continued)



2020 critical raw materials		
Antimony	Hafniim	Phosphorus
Baryte	HREE	Scandium
Beryllium	LREE	Silicon metal
Bismuth	Indium	Tantalum
Borate	Magnesium	Tungsten
Cobalt	Natural graphite	Vanadium
Coking coal	Natural rubber	Bauxite
Fluorspar	Niobium	Lithium
Gallium	Platinum Group Metals	Titanium
Germanium	Phosphate rock	Strontium

	Extraction and production from our own raw materials
	Production from imported raw materials
	There is no mining and production

- ❑ Of the 30 types of CRM, 17 are mined, and products are produced according to 21 CRM (due to production from imported concentrates: Beryllium, Magnesium, Niobium, Tantalum). Kazakhstani deposits of these metals are characterized by low grades and therefore are not developed.
- ❑ 5 CRMs are mined in n * mln.tonns volumes (Coking coal, Phosphate rock, Baryte, Phosphorus, Bauxite)

Extraction and production of major CRMs in Kazakhstan



CRM	Manufacturer company	CRM products	CRM production volume, tons	Deliveries
1	2	3	4	5
Antimony	Kazzinc	Metallic antimony	650,0	Export
Bismuth		Metallic bismuth	270,0	Export
Indium		Metallic indium	1,0	
Platinum group		Platinum	Not data	State
Baryte	Stroyservice	Baryte concentrate	30000	Oil companies
Beryllium	Ulba Metallurgical Plant	Products from beryllium and alloys	1747,0	Export
Niobium		Metallic niobium, products and alloys	47,0	
Tantalum		Metallic tantalum, products and alloys	122,0	
Feldspar		Hydrofluoric acid	Not data	Own needs
Titanium	Titanium-Magnesium Plant	Spongy titanium	Not data	Export
Magnesium		Metallic magnesium	Not data	
Vanadium		Vanadium pentoxide	Not data	
Phosphorus	Kazphosphate	Yellow phosphorus	3 300 000	Export
Phosphate rock		Phosphoric flour		

- The main CRM manufacturers are large companies that have their own mines and metallurgical production
- One of the few medium-sized enterprises in Kazakhstan that mine and produce CRM is Stroyservice, which produces baryte concentrate

Prospects for expanding CRM production in Kazakhstan



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- ✓ The main part of CRM, which are present in the form of impurities in the ore of deposits of non-ferrous, ferrous and rare metals (16 in total), such as - Sb, Be, Bi, Co, Ga, Ge, Hf, HREE, LREE, In, Nb, Ta, Sc, Li, St, which can be partially extracted into concentrates and then into products of metallurgical processing, accumulate in large quantities in tailings and slags (up to 30-80% of their amount in the original ore)
- ✓ Therefore, the recycling of tailings and slags from metallurgical production is an important task in the production chain of using CRM. In this production, MSMEs of Kazakhstan can potentially take a leading position in the development of new technologies and the creation of pilot plants

Prospects for expanding CRM production in Kazakhstan (continued)



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- The development of this area should be facilitated by Kazakhstan's participation in the OECD Program to Increase the Competitiveness of Eurasia Countries, which is designed to accelerate economic reforms and improve the business climate in order to ultimately ensure sustainable economic growth and employment in the countries of Central Asia, Eastern Europe and the Caucasus
- This program has a triple objective: (1) to transfer OECD best practices in attracting investment and improving competitiveness; (2) facilitating the discussion, exchange and consideration of the reform experience of the countries of the region; (3) assisting the countries of the region in developing government measures to support local enterprises and attract foreign investors
- **To solve this important task, government support is also needed, which, among other things, should be expressed in the implementation of the UNFC and UNRMS, in the management of CRM development at the state level, in order to increase common understanding and ensure effective management of the creation and development of such industries with the involvement of potential MSMEs**

Thank you for your attention!

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