

**Guidelines and Best Practices for MSMEs to assure resiliency  
and progress towards a circular economy in sustainable  
resource management and critical raw material supply chain  
solutions in Tajikistan.**

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# Executive Summary

The small and medium business makes it possible to realize an individual's creative abilities, entrepreneurship, initiative, and creates a competitive environment, which allows, with the existing variety of forms of ownership, to eliminate the shortage of many types of products to improve social relations.

The advantage of this sector is that it can quickly respond to changes in the market and switch to new goods and services. It can meet market demand promptly and survive in conditions of a shortage of raw materials, capital, information, etc.

Studies of many scientists - economists are devoted to the problems of small and medium-sized businesses. However, several aspects of the problem of small and medium-sized businesses in the specific conditions of the transitional economy of Tajikistan remain insufficiently studied. This concern, first of all, the peculiarities of its development, the formation of economic mechanisms of state support, regional differences in the formation and development of this sphere of activity, etc.

Purposeful state support for small and medium-sized businesses is vital for the formation of a market economy. State aid is effective only when it is based on a coherent system of consistent measures to support small and medium-sized businesses.

The coronavirus pandemic has exposed Tajikistan's weak economy. The pandemic's first blow fell on the primary source of income for the Tajik economy - remittances from labour migrants.

The volume of remittances in the first quarter of 2020 decreased by \$ 80 million compared to the previous year. It is known that every fourth family in Tajikistan lives off the dispatch of labour migrants. By the middle of the year, the volume of remittances to Tajikistan increased slightly. However, it did not reach the previous level. According to the National Bank, in the first half of 2020, migrants transferred \$ 999 million to Tajikistan. This is \$ 195 million, or 14.8 percent less than in 2019.

In Tajikistan, cases of a new type of coronavirus were officially recorded only on April 30. Unlike neighbouring countries, the country has not introduced a self-isolation regime or the so-called quarantine. At the same time, due to the worsening epidemiological situation in late May - early June, non-food shops and markets were temporarily closed, and theaters, concert halls, entertainment centres and mosques were closed until further notice.

In the context of the pandemic, Tajikistan and other Central Asian countries took urgent measures to strengthen food security and support the agro-food sector: state food reserves were used, their reserves were increased, administrative control over food prices was established, and the cost of food products was reduced due to export restrictions.

Tajikistan has developed an anti-crisis plan to reduce the pandemic's consequences on the labour market and migration: protecting the rights and interests of migrants, training courses, providing preferential loans for self-employed, attracting returned migrants to seasonal public works, developing crafts, and supporting returning women migrants.

The decline in income was due to a decrease in income from services, closure of roads and borders, a decrease in the number of tourists and closure of markets, a decrease in investment and

remittances from labour migration - these are the main factors that influenced the economic development of the country.

The government of the republic has set another strategic task - the transformation of the country from agrarian-industrial to industrial-agrarian. This transformation is rapidly gaining momentum. In recent years, industrial enterprises have been organized, small and medium-sized businesses have been developing, new jobs have been created. The government of the republic coped well with the situation. The decisions made were energetically and actively supplemented depending on what was happening in the economy and the country.

But we must not forget that the coronavirus has not cancelled either economic or environmental problems, and they continue to cause damage.

Today no one in the world can produce absolutely everything. Progress is too rapid. Cooperation helps, countries exchange achievements and technologies. Tajikistan also imports essential goods and components, especially high-tech.

Lack of competition, companies' dominance with government preferences that do not have sufficient incentives to develop new products and technologies. Besides, modern regulatory legislation is required. In our country, it usually follows, but should be ahead, help development. Alas, the insufficient competence of the graduates of our schools and universities has not gone anywhere. Another level of education - except for a few elite universities - is a severe problem. Indeed, labour productivity in the economy is provided by the rank-and-file universities of the regional centres. They are noticeably inferior in quality training (especially in engineering specialities) from what they do in an average university even in Eastern Europe.

After a significant slowdown in the second quarter of 2020, economic growth picked up in mid-summer following the easing of quarantine measures, which led to a recovery in economic activity. According to official estimates, real annual GDP growth reached 4.2% in the nine months of 2020, up from 3.5% in January-June 2020. While household consumption continued to decline due to weak inflows of remittances from migrants, public and private investment fell from pre-pandemic levels.

Developed and adopted by the UN Country Team for the Comprehensive Response to the Socio-Economic Impact of COVID-19. The program is linked to all government plans of the Republic of Tajikistan to contain the disease and combat the consequences of the pandemic. It highlights the negative impact of infectious disease on socio-economic development and formulates a comprehensive response from 15 UN agencies. The program is under active implementation.

In Tajikistan, as in all of Central Asia, the extinction of the epidemic, the COVID-19 pandemic, is currently beginning. Through the efforts of all sides, people's lives are gradually returning to their usual course. There is no doubt that the economic life of the states of the region will soon improve.

In the field of ensuring energy security and efficient use of electricity, it is necessary to diversify generating energy sources, providing for the development of hydropower resources of large and small rivers, the development of existing capacities of the oil and gas and coal industries, the development of new fossil fuel deposits, the creation of technical capabilities for the use of non-traditional (renewable) energy sources (solar, wind, biological, geothermal), modernization of existing and construction of new hydroelectric and thermal power plants

The accelerated growth of the industry will act as a driver for the growth of the national economy based on the commissioning of new capacities for the production of electricity, mining,

modernization of the light and food industries, the formation of domestic ferrous metallurgy and further development of nonferrous metallurgy, and the development of the building materials industry.

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# Introduction

In late December 2019, Chinese authorities reported an outbreak of pneumonia of unknown origin in Wuhan, Hubei province. Experts have previously established that the disease's causative agent was a new type of coronavirus - 2019-nCoV (later named SARS-CoV-2). On March 11, 2020, the World Health Organization announced the COVID-19 coronavirus pandemic, which by this time has affected 118 thousand people in 114 countries.

Globally, the COVID-19 pandemic is putting tremendous pressure on health systems and the socio-economic situation. The crisis has exposed, and jeopardized countries' ineffective social protection systems, food security strategies, trade and finance and Tajikistan is no exception.

Development experts predict that the Republic of Tajikistan's economy will reduce to 2% of GDP, which is comparable to the consequences of the global financial crisis of 2008-2009.

The Government of the Republic of Tajikistan, with all development partners' participation, has initiated a comprehensive assessment of the socio-economic impact of COVID-19 to facilitate informed and targeted recovery responses. The purpose of the assessment was to understand the current, medium, and long-term impact of COVID-19 in all regions of the country on the life and well-being of the Republic of Tajikistan population, as well as on micro, small and medium-sized enterprises, and the informal sector. The assessment is based on primary and secondary sources of information. Its findings highlight the need for a quick response to provide direct assistance to vulnerable populations in rural and urban areas, accelerate reforms, build resilience at the household and institutional level to quickly adapt to socioeconomic challenges and introduce innovative operation and service delivery method.

The work of the republican headquarters to prevent of the spread of COVID-19 is aimed at combating a new viral infection in Tajikistan. It is focused primarily on minimizing the consequences of the population's health and social security.

The international community has responded with humanitarian aid, soft loans and grants. To support the economy in the context of a pandemic in May, the IMF allocated Tajikistan \$ 189 million under the mechanism of accelerated concessional lending for 10 years with a 5-year grace period. The balance of Tajikistan's debt to the Fund at the beginning of 2020 was about \$ 30 million. Tajikistan was also among the 25 countries globally (the only one in the post-Soviet space). The IMF has facilitated the payment of debts by providing grants for two years.

To carry out activities aimed at preventing possible risks, a grant for \$ 11.3 million was provided by the World Bank.

The country received \$ 100,000 from the Asian Development Bank to prevent and control of the new coronavirus, as part of an ongoing project on integrated maternal and child health care.

The European Union has allocated 78 million euros. A grant of 48 million euros and a loan from the European Investment Bank for 30 million euros for implementing the government's anti-crisis plan. It also has specially earmarked funds of 1.3 million euros for overalls, for medical workers, and 780 thousand euros for sanitary products for educational institutions.

Through the German Development Bank (KfW), Germany has allocated 1 million euros for personal protective equipment, medical equipment and financing the training of doctors and other specialists. It was decided to allocate funds under the current program on Mother and Child

Protection in Tajikistan for accelerated funding.

The United States government, through the United States Agency for International Development (USAID), the United States Centers for Disease Control and Prevention (CDC), and the Aga Khan Foundation (AKF), has allocated a total of \$ 5 million to support the republic's efforts to combat the pandemic and implement programs aimed to control, prevention, food support, creation of new jobs for the most vulnerable segments of the population. This work will involve, among others, USAID partners: The International Federation of the Red Cross, the World Health Organization through their representatives in the Republic of Tajikistan.

In addition to humanitarian aid, Russia has provided test kits for 22,000 studies. Aid from China consisted of ventilators, medicines, protective equipment, and other equipment totaling more than \$ 1 million. India sent humanitarian aid to the country in the form of medicines and special equipment, the Tajik pharmaceutical company Orienpharm was able to purchase in India and deliver medicines and medical equipment to the republic by a particular charter flight. Aid for \$ 50,000 was transferred to Tajikistan from Switzerland and UNICEF in personal protective equipment and medical supplies.

Tajikistan also received food aid and medical products from its neighbours in the region, Uzbekistan, and Kazakhstan. Uzbekistan also sent its medics and medical containers to set up a temporary hospital.

Thus, external assistance from the international community amounts to millions of dollars and euros and aims primarily to support the population, medical institutions, and workers who should contribute to an effective fight against COVID-19. Suppose funds and medical equipment, food aid can be appropriately distributed. In that case, perhaps, the risks from a pandemic will be less devastating (1, 2)

## **Economic stimulus measures**

The coronavirus pandemic has exposed Tajikistan's weak economy. The pandemic's first blow fell on the primary source of income for the Tajik economy - remittances from labour migrants.

The coronavirus pandemic has demonstrated the dependence of the Tajik economy on remittances from labour migrants. The volume of remittances to Tajikistan from abroad in the six months of 2020 decreased by 14.8% or \$ 195 million compared to the same period last year.

On November 4, the country's primary financial regulator raised the US dollar's official exchange rate from 10 somoni 34 diram to 11 somoni 30 diram. The National Bank called the jump in the dollar exchange rate a "one-off adjustment" but admitted a constant deficit of the American currency in Tajikistan, since, according to the National Bank, imports of goods to Tajikistan exceed exports many times.

In our country, as in the rest of the world, the structures involved in the tourist business and related spheres - travel agencies, transport companies, hotels, restaurants - have suffered in the first place. (3)

The report focuses on the opportunities and challenges for MSMEs involved in supplying critical raw materials in response to the COVID-19 pandemic and post-pandemic economic recovery.

The pandemic has placed critical supply chains under significant pressure. Still, it also opens opportunities that can be filled by MSMEs. Many of the opportunities will also enable MSMEs to



make significant contributions to sustainable resource management, build resilience, and move towards a circular economy as part of the projected global economic recovery.

### Brief Information about the Republic of Tajikistan

The Republic of Tajikistan is in the southeast of Central Asia. It borders in the west and north-west with Uzbekistan, in the north-east with Kyrgyzstan, in the south with Afghanistan, and in the east with China. A significant part of the country's territory (93%) are mountains belonging to the highest mountain systems of Central Asia - Tien Shan and Pamir, with extreme natural conditions. Most of the population (90%) lives in valleys separated by mountain ranges.

Tajikistan's population is 9.5 million, of which more than 49 per cent are women. 40.6 percent of citizens are children under the age of 18, 66 percent are young people under 30, which makes the country's population one of the youngest in Central Asia.

The country ranks 85th in the world in terms of land area. It possesses large reserves of hydropower resources and fresh water, a variety of minerals, favourable conditions for growing organic food, and opportunities for the active development of eco-tourism, which is in line with the fundamental principles of human development in the context of access to natural resources.

In 2015, Tajikistan ranked 72nd out of 180 countries in the Environmental Performance Index (EPI), up to 82nd from 2014.

It is important to note that Tajikistan was included in 10 countries with the fastest rate of poverty reduction in the last 15 years.

The subsoil of Tajikistan is rich in minerals. More than 300 deposits have been identified, containing more than 70 types of ore and non-metallic minerals. More than 100 deposits are being exploited. They extract 36 types of mineral raw materials. Enterprises of non-ferrous metallurgy, oil, chemical and gas industries operate on their basis.



# 1. Background

## COVID-19 and the impact on micro-, small, and medium enterprises (MSMEs) in Tajikistan

Micro, small and medium-sized enterprises (MSMEs) are the main economic development drivers in almost all world economies. They have been particularly hard hit by the pandemic for various reasons. In most cases, MSMEs lack the financial means to overcome delays in the supply of raw materials caused by disruption or interruption in supply chains. One of the main challenges for these companies is to retain qualified employees. Another challenge is the compensation for non-payments due to delays and the fulfillment of longer-term supply contracts due to the non-delivery of raw materials.

The COVID-19 outbreak has had a serious, direct impact on small businesses. In particular, 63.1% of MSMEs suffered mainly due to the closure of international borders and local markets. (4)

The pandemic has affected MSMEs to varying degrees in four sectors of the economy. MSMEs in the tourism and hospitality sectors are hardest hit by COVID-19; agricultural enterprises suffered the least.

A small part of MSMEs (5.8%) benefited - their sales and turnover increased. They managed to redesign production, changed the nature of the economic activity and the seasonality of production.

Large businesses can better withstand economic shocks than small businesses because of their strong financial viability and multiple coping options. The resilience of MSMEs to shocks is independent of geographic location.

The most common negative impacts on MSMEs include firms' inability to pay off loans, pay taxes, produce goods or services at pre-COVID-19 levels, scale-up businesses, and pay workers' salaries. For example, more than 25% of MSMEs reported difficulties in repaying loans, and 22.6% of MSMEs experience difficulties in paying taxes regularly, which indicates low liquidity of funds for most of the surveyed MSMEs.

Some MSMEs may not have been (yet) affected by the COVID-19 outbreak; however, they are concerned about the potential impact on their business. 81.6% of MSMEs are concerned about the impact of COVID-19 on their businesses, with up to 97% of MSMEs working in tourism and hospitality compared to 60% of MSMEs in agriculture.

A small part of surveyed MSMEs (6.3%) was not affected in any way and are not worried about the outbreak of COVID-19 and its potential impact on their economic activities. These are mainly companies that are least dependent on regional supply chains or medium-sized enterprises.

The risk of closure is exceptionally high among affected MSMEs, reflecting symptomatically low resilience to economic and financial shocks. If national restrictions and closings persist, approximately 33% of affected MSMEs will only continue their business for one month.

In a scenario in which restrictions and closings due to COVID-19 will continue for three months, the crisis is highly likely to lead to the closure of 70.1% of affected MSMEs.

While only a few MSMEs adopted innovative adaptation strategies, 28% of affected businesses adopted unconventional strategies to cope with the coronavirus outbreak, which included:

- reduction in the production of goods and services (40.3% MSME),
- the introduction of new goods or services (27.1%),
- transition to online marketing and / or sales (24.3%),
- the conclusion of contracts with new sellers or suppliers (17.4%).

Only a few MSMEs have resorted to digitalization to market their products / services or reach out to customers. More than 85% of affected MSMEs (440 out of 515 MSMEs) have reduced their customer base, with 22.5% of businesses using text messaging and 4.1% using web resources to connect with customers and market their products.

Delaying loan, tax, rent, and utility payments are more critical for MSMEs than other measures to help them weather the shock and recover from the pandemic.

“Globally, the COVID-19 pandemic is putting tremendous pressure not only on health systems, but also on the socio-economic situation. The crisis has exposed and jeopardized countries' ineffective social protection systems, food security strategies, trade and finance, and Tajikistan is no exception. Development experts predict a decline in the Republic of Tajikistan's economy to 2% of GDP, which is comparable to the consequences of the global financial crisis of 2008-2009. (5)

Impact of COVID-19 on life, well-being and MSME (Policy Brief).

The coronavirus pandemic hit Tajikistan when its economy and welfare were already unstable because of several economic shocks over the past decade. The economic impact of the COVID-19 outbreak became apparent shortly after the first cases were officially announced. Since then, businesses and vulnerable populations have been at the forefront of the fight. The pandemic's impact on people's lives and health systems has become unprecedented in the history of Tajikistan since the civil war. Many people and entrepreneurs find themselves “in dire straits” as workers have been taken on unpaid leave or ultimately fired, and businesses have experienced significant reductions in scale, sales, and revenues.

The COVID-19 Impact Assessment Report provides comprehensive and contextual information on the national impact of COVID-19. It contributes to ongoing policy discussions between the Government of the Republic of Tajikistan and development partners to facilitate a coordinated response.

## **Current status of MSMEs in critical raw material (CRM) value-chain in Tajikistan**

Any labour market shocks, including macroeconomic and financial ones, can be disruptive to supply chains and/ or value chains. Private sector enterprises may be particularly hard hit. COVID-19 outbreak has temporarily disrupted relationships between MSMEs and buyers, suppliers, customers, and markets.

There are exceptions, but they are rare. In total, 73.6% of all surveyed MSMEs reported that supply and value chains were disrupted due to the pandemic.

A total of 31.7% of MSMEs whose supply chains were affected said their production was disrupted. This means that offices, workshops, and factories have been closed since May 2020 (as confirmed by reports). Access to resources was also limited; many enterprises faced severe logistical problems, which, in turn, led to restrictions on access to transport services within the country and in the region. Besides, sales were understandably disrupted due to the temporary closure of local

bazaars and markets and international trade restrictions (including small-scale cross-border trade). Other MSMEs have found it challenging to connect with clients and carry out their marketing activities, for example, due to inability to adapt to changing business conditions and lack of flexibility in physical operations.

Disruptions to commercial distribution networks were also a direct consequence of travel restrictions and the risk of further spread of coronavirus infection, prompting many MSMEs to self-isolate and send their workers on vacation: this negatively affected sale and turnover.

In terms of value chains, 41.3% of affected MSMEs reported an interruption in customer relationships. Another 16.6% of MSMEs reported limited access to local markets (e.g., bazaars, grocery stores, etc.), and 12.7% of MSMEs said they have difficulty finding or purchasing materials from affiliates (or contractors) suppliers and sellers throughout the country. Many MSMEs, especially small businesses, did not have the means to maintain regular contact with their clients and / or staff. This resulted in 2.9% of MSME having difficulty communicating with business partners. Restrictions on international travel have also resulted in limited access to resources and markets for about 4% of affected MSMEs. Another 4.8% of MSMEs were unable to adequately plan their business due to uncertainty and risks.

Tajikistan possesses sufficiently rich natural resources. In developing plans for the future, they should become one of the primary industries that will pull the Tajik economy's growth. Currently, there are enterprises in the republic for the extraction of gold, silver, lead and zinc, antimony, coal, and building materials. At the same time, geologists of the republic are conducting prospecting and exploration work for all types of raw materials, including the discovery of deposits of rare earth elements. A state program was adopted to search for Row Rare Elements (RRE), valid until 2025. There are already preliminary results on the presence of RRE in certain areas and work there continues.

With many mineral resources available and based on its strategic development plan, great attention is paid to exploration. In the area of primary aluminum production, measures are being taken to further enhance its international competitiveness.

The mining industry includes - exploration and development of gold, silver, lead, zinc, copper, bismuth, tin, iron, rare earth elements and other ore minerals, and nepheline, rock salt, quartz, limestone, dolomite and other nonmetallic minerals.

At present, the first steps are being taken to transform the mining industry of Tajikistan into the primary branch of development and thereby to carry out the transition of the country from an agro-industrial to an industrial-agrarian system of the national economy. The strategic task of industrialization of the country adopted by the government is a priority in this direction.

### **Opportunities for CRM supply MSMEs in economic recovery in Tajikistan**

It is undoubtedly too early to assess the coronavirus epidemic's consequences for the global and Tajik economies. But it is possible to assume what awaits us "in the end on the bend", since all the largest countries have already identified their strategies for dealing with today's difficulties.

First, the extraordinary situation is illustrated because more than 80 developing countries have requested financial assistance from the fund totalling \$ 2.5 trillion. (6)

Secondly, the fall in prices for most commodities (not only oil) is more than 30% according to the CRB index, one of the key ones, and returns the markets to the price levels of 20 years ago. For the

sake of fairness, it should be noted that the world prices for some raw materials (food and, above all, grain) since the beginning of the crisis have nevertheless increased by 10-15%. Still, now they are returning to their previous levels.

Third, the world's level of interest rates returned to the bottom of 2008-2009, after all the largest central banks brought their rates to their minimum values.

Fourth, the G20 countries at a "virtual" meeting on March 26 agreed to add more than \$ 5 trillion to the world economy. in the form of monetary and fiscal incentives.

To look at the economic situation in the post-pandemic period of COVID-19, it is necessary to compare the crisis with previous pandemic's economic impact. The only past pandemic for which there is a detailed economic analysis is the Spanish flu from February 1918 to April 1920 at the end of World War I.

Since the beginning of the COVID-19 outbreak, many businesses were unaware of how this crisis would develop. Will it last for weeks, months, years? At this point, many industry observers realized that the world had not had the experience of dealing with a health crisis on such a global scale in the past 100 years. The best landmark was the 1918 pandemic. In the industry, management experts were asked to look back at past experiences, see the Spanish flu unfold, and re-learn the lessons. The world's most responsible companies did have crash programs to understand the impact of the 1918 pandemic. They are applying the lessons learned from current crisis management. Six months after the onset of the COVID-19 crisis, the parallels are becoming increasingly apparent.

To figure it out, one should make a list of the industries that were hardest hit by the self-blockade:

- international trade.
- transport (air, auto).
- tourism, hotels, and restaurants.
- offline services and entertainment (hairdressing, fitness, sports, theatre, cinema, etc.).

But there are also winners:

- local e-commerce, especially groceries and ready meals.
- online entertainment.
- production and sale of medicines and goods.
- medicine, primarily distance medicine.
- production and sale of products.

A significant part of the financial industry can also find positive aspects of today's development of events.

“The macroeconomic forecast for 2021 of the Eurasian Development Bank (EDB) reports that the economic growth of Tajikistan will be 6.1%. According to the EDB forecast, Tajikistan's economy will grow by 6.1% in 2021. A full recovery of GDP to the pre-crisis level of the IV quarter of 2019 will occur only in Kazakhstan. The EDB member countries underwent massive social and economic shocks in 2020 due to the consequences of the COVID-19 pandemic. The member states' aggregated GDP will decrease by 3.8% at the end of 2020 after growing by 1.7% a year earlier. State support for the economy in Tajikistan is relatively small and amounts to about 2.5% of GDP. This is due to the republic's limited fiscal reserves. Compared to 2019, where the economy grew by 7.5%, the Tajik economy's growth in 2020 will be 4.5%. In 2021, the country's economy will receive support from remittances from labour migrants, as the economy will recover in donor states,

primarily in Russia (6)

## Progress towards sustainable resource management and the circular economy: Application of UNFC and UNRMS in Tajikistan

### Natural resources and critical raw materials of Tajikistan

The United Nations Framework Classification for Resources (UNFC) provides countries, companies, financial institutions, and other stakeholders with a futuristic tool for the sustainable development of energy and mineral resources. UNFC applies to energy resources, including oil and gas; Renewable energy; nuclear fuel resources; mineral resources; injection projects for geological storage of CO<sub>2</sub>; and anthropogenic resources, such as recyclable resources recycled from residues waste. Emerging challenges in these sectors are sustainable, environmentally friendly, carbon-neutral and efficient development, energy and raw materials needed for a growing population. Innovations in production, consumption, and transport fundamentally change the way the energy and material sectors function today. A unique tool for harmonizing policy frameworks, government oversight, industry business processes and efficient capital allocation, UNFC can manage the natural resources needed to meet current and future societal needs and achieve sustainable development goals.

There is a gradual transition to international reporting standards, including the calculation of reserves of mineral deposits.

GKZ (State Committee for Mineral Reserves) reporting system. It covers the entire spectrum of resources and reserves: from planning regional exploration to detailed explored reserves with strictly defined boundaries at operating mines. The system is entirely consistent with the mining law and taxation system. Designed for leadership, management, and planning, but not primarily for market funding. Provides for the use of manual rather than computerized counting methods.

GKZ resource/ reserve categories. Inferred resources: P<sub>3</sub> - no precise supporting data; P<sub>2</sub> - according to geophysics/ geochemistry/ mapping data; P<sub>1</sub> - Based on limited data from drilling, sampling, and outcrop studies. Reserves: C<sub>2</sub> - systematic sampling, additional research; C<sub>1</sub> - denser sampling network, more detailed additional studies; B - a denser exploration network or partially explored ore reserves with strictly defined boundaries; A- detailed explored ore reserves with strictly defined boundaries. (A and B are usually only for detail parcels within C<sub>1</sub> reserves categories)

State Balance. All reserves must be registered with the State Reserves Committee before obtaining a mining permit. Industrial stocks are included in the State Balance. Low or unprofitable material is classified as an off-balance sheet inventory.

Problems: many different ideas about the conception between the Soviet and international categories; widespread misunderstanding of the State Committee for Mineral Reserves system and the difference between systems; too high-priced solution of these contradictions: duplication of work with the parallel calculation of resources/ reserves according to the State Reserves Committee and the international system; as a result, estimates of reserves according to the State Committee for Mineral Reserves and the international system often differ fantastically.

Classes of geological complexity. The State Committee for Mineral Reserves system identifies 4 classes of geological complexity of Type of Mineral (TM) deposits (from the **most straightforward** - 1 to the most complex - 4) to determine the required density of the exploration network. The specified complexity class also defines the levels of resource and reserve categories that can be assigned and reported for a given solid mineral asset. The allocation of solid mineral resources is



based on the level of geological knowledge. Includes off-balance reserves, provided that there are reasonable prospects for their profitable production in the future.

The JORC classification easily matches categories A, B and C1. For these categories, all technical parameters have been established and economic calculations have been sufficiently made to begin developing deposits.

Reserves of category C2 in adjoining blocks can be used in the calculations to potential the growth of industrial reserves. In areas within which there is no object with reserves of categories A, B and C1, reserves of category C2 may correspond only to designated or even calculated resources.

There is also such a category of reserves as “Off-balance”. Even with a sufficiently high degree of knowledge, such reserves, cannot be comparable with the designated and calculated resources, since their development is currently economically unprofitable however, with significant reservations, off-balance reserves can be included in the feasibility study for future mining.

**Table 1 – Correspondence of GKZ RT (Soviet) and the JORC classification systems**

GKZ RT	JORC
Reserves A and B	Proved Reserves / Certain Resources
Reserves C1	Proved and Probable reserves / Designated Resources
Reserves C2	Probable reserves / Designated and Calculated Resources
Reserves P1	Calculated resources
Reserves P2	Forecast resources
Reserves P3	No equivalents

The UNFC is a universal system in which quantities are classified based on three fundamental criteria:

- Environmental-socio-economic viability (E),
- Technical feasibility (F),
- Degree of confidence in the estimate (G),

using a numerical coding system. Combinations of these criteria create a three-dimensional system (Figure 1). Categories (e.g. E1, E2, E3) and, in some cases, sub-categories (e.g. E1.1) are defined for each of the three criteria as set out and defined in Annexes I and II.

The first set of Categories (the E axis) designates the degree of favourability of environmental-socio-economic conditions in establishing the project viability, including consideration of market prices and relevant legal, regulatory, social, environmental, and contractual conditions.

The second set (the F axis) designates the maturity of technology, studies, and commitments necessary to implement the project. These projects range from early conceptual studies to a fully developed project producing and reflecting standard value chain management principles. The third set of categories (the G axis) designates the degree of confidence in estimating the quantities of products from the project. The Categories and Sub-categories are the system's building blocks and are combined in the form of “Classes”. UNFC can be visualized in three dimensions, as shown in Figure 1, or represented in a practical two-dimensional abbreviated version.

**Table 2 – Comparison of the classification of reserves and forecast resources of solid minerals of the Republic of Tajikistan with UNFC (7)**

Total Products	UNFC Classes Defined by Categories and Sub-categories					GKZ RT reserves and forecast categories
	Produced	Sold or used production				
		Production which is unused or consumed in operations				
	Class	Sub-class	Categories			
E			F	G		
Known sources	Viable Projects	On Production	1	1.1	1, 2, 3	A, B, C <sub>1</sub>
		Approved for Development	1	1.2	1, 2, 3	B, C <sub>1</sub> , C <sub>2</sub>
		Justified for Development	1	1.3	1, 2, 3	C <sub>1</sub> , C <sub>2</sub>
	Potentially Viable Projects	Development Pending	2 <sup>b</sup>	2.1	1, 2, 3	C <sub>1</sub> , C <sub>2</sub>
		Development on Hold	2	2.2	1, 2, 3	C <sub>1</sub> , C <sub>2</sub> , P <sub>1</sub>
	Non-viable Projects	Development Unclarified	3.2	2.2	1, 2, 3	C <sub>2</sub> , P <sub>1</sub>
		Development Not Viable	3.3	2.3	1, 2, 3	P <sub>1</sub> , P <sub>2</sub>
Remaining products not developed within the identified projects		3.3	4	1, 2, 3	1, 2, 3	
Potential Sources	Prospective Projects	[No sub-classes defined]	3.2	3	4	P <sub>3</sub>
	Remaining products not developed from prospective projects		3.3	4	4	4

**Comparison of the classification of GKZ RT with UNFC.** The classification of field reserves, prospective and forecast oil and natural gas resources reflects the results of a phased geological study of the subsoil. Stages of the study of the subsoil are carried out by implementing the relevant projects. Each project has goals, deadlines, quality requirements and specific risk levels. There are 4 main stages of the study of mineral resources. In contacts each stage of the mineral resources study of has a specific assessment of resources and reserves by categories: regional, exploratory, exploratory, and operational.

Reserves of category C<sub>1</sub> are calculated based on the results of exploration and development work. They should be studied to the extent that they provide initial data to develop the technological scheme of the field. They can be distributed based on drilling and well testing, provided that commercial oil and gas flows are received.

Reserves of category C<sub>2</sub> are calculated in unexplored parts of the field adjacent to areas with higher reserves categories of. They are used to determine field prospects, to plan exploration work, or to design deposit development.

Similar principles for phased exploration and project management are set out in the UNFC. With a certain degree of conditioning, the categories of geological exploration within the UNFC can be compared with the classification of the GKZ RT, for example:

- category G4 is comparable to resource category C<sub>3</sub>,



- category G3 – from the valuation category of reserves C2,
- category G2 – with reserves categories C1 and C2,
- category G1 – with reserves categories A, B.

It is also tentatively possible to compare the criteria for the status and feasibility of a field development project under UNFC with phased subsoil use projects in the Republic of Tajikistan:

- category F4 under UNFC is comparable to regional work,
- category F3 under UNFC is comparable to the exploration stage,
- category F2 under UNFC is comparable to the exploration stage,
- category F1 under UNFC is comparable to field development.

The study of a specific area in the G1 category and the economic feasibility of production and sale in the E1 category within the framework of the UNFC is achieved through the phased implementation of projects from F4 to F1.

A systematic approach to sustainable resource management can provide a closer integration of policies, especially programs of sustainable development of a country or company, in the implementation at the project level.

The United Nations Resource Management System (UNRMS) is being proposed as a tool that can link policy objectives with project implementation. Such a set of tools is currently unavailable. This drawback can be primarily explained by the constant drawback in translating policy objectives into practical results observed worldwide. UNRMS draws on its experience with UNFC, which classifies resources into different classes according to three main criteria: socio-economic viability (E), technical feasibility (F) and level of knowledge (G). Thus, UNFC provides a common terminology and classifies resources into projects based on a combination of criteria.

A resource approach to determining the priorities for the development of the export potential of the industry of the Republic of Tajikistan in modern conditions, when there is an active process of integration of the country into the world economy, the role of the natural factor in the development of the Tajik economy is growing. This factor should become the driving force of structural transformations, the formation of new specialized industries and ensure economic growth. In this regard, assessing of the country's natural resources is one of the essential components of solving the problem of increasing the Republic's export potential.

The country's natural resources of the can be defined as the initial base of production, based on which the national economy develops.

## **2. A brief overview of opportunities for MSMEs in critical raw material supply in Tajikistan**

The development of science and technology is primarily associated with the use of rare metals. Their use has caused the emergence of several industries, science, and modern technology. Today, all super-magnetic, ultra-light, super-hard, super-heat-resistant and high-strength structural materials are created based on or using rare elements.

The need to develop the potential of rare earth mineralization on the Republic of Tajikistan's territory has arisen due to the increased consumption of rare earth elements for high-tech products used, particularly in the defence, energy and space industries.

In Tajikistan, the production of rare metal products was carried out by the enterprises “Leninabad Rare Metals Plant”, “Isfara Hydrometallurgical Plant” and “Vostokredmet”, which currently operate at 10-15 percent of their production capacity.

However, even with a high conjuncture on the REE market, there was practically no work in this direction in Tajikistan. Searches for REE were not included in the plans but were discovered only by chance in passing points and anomalous concentrations during geochemical sampling on survey areas and at sites and have also been identified as associated rare earth minerals.

Currently, the US Geological Survey has proposed to study the potential of REEs in Kazakhstan, Kyrgyzia and Tajikistan as part of a prospecting project launched in 2012 in Afghanistan. At the same time, a method was developed for identifying promising areas, based on the use of space images, statistical processing of primary data with further refinement through testing in the field and determination of rare and trace elements using precision laboratory analytics, isotope dating and formation analysis of host rocks, including petrology, and geochemistry.

Based on the analysis and assessment of the state of the Republic of Tajikistan's mineral resource base, the Program for the study and assessment of reserves of rare metals for 2016-2026 was developed and approved by the government.

The Program analyzed the current state of geological exploration of the entire territory of the republic of relatively rare metals until 2014, determined the directions of exploration work and the expected results.

Based on the work performed in recent years, promising areas of REE have been identified in some areas, recommended by specialists for setting up a more detailed geological study there. (8)

Industries need CRMs from primary deposits because many CRMs are only partially or entirely recyclable.

The supply of CRM from primary fields is in several countries such as China and others.

Further development of any future technology is impossible without access to CRM. Without access to CRM, there will be no communication progress, further developing of electric vehicles, renewable energy, and national defence.

The pandemic has temporarily stopped or reduced production in supplier countries, considering their specifics. Consequently, production in CRM importing countries will be reduced for the same reasons. Thus, there will be a temporary reduction in supply and demand.

The pandemic has shown the world how vulnerable supply chains are in a globalized world. The pandemic will change these supply chains and their future organization.

### **Primary and secondary resources of CRM**

The main material element of the material and technical base is raw materials. It is included in the working capital and transfers its value to the finished product in full. Raw materials are classified by:

- Economic purpose (objects of labour and ready-finished products).
- Roles in the production process (main and auxiliary).
- Method of obtaining (industrial and agricultural).
- The nature of origin (animal, vegetable).
- Production time (seasonal, non-seasonal).

Raw materials and fuel, and energy resources used in industry are divided into primary and secondary.

Substances of nature, produced by labour in direct interaction with the earth and its subsoil, are objects of labour of natural origin (crop production, animal husbandry, fishing) or primary raw materials.

Primary resources are understood as materials in the depths and on the surface as raw materials.

Simultaneously, losses in the form of waste are generated in the spheres of production, circulation and consumption, depending on the level of technology used, the degree of concentration, specialization, and the combination of product. Being used production or other consumption, raw materials or materials have partially lost their initial value. They are defined as waste from production, individual and public consumption.

When the material substance's usefulness is identified, the waste under certain conditions can be collected and prepared for reuse as secondary resources.

Secondary means such remnants of production and consumption can be reused for the national economy needs.

The ratio between the primary stocks of material resources largely determines the industry's necessary ratio between the extractive and processing industries.

Until now, the economy of Tajikistan was influenced by the vast natural reserves of raw materials, which defined Tajikistan as the main raw material base of neighbouring states, developing the

export of the most valuable types of raw materials. As a result, a higher share of extractive industries in the structure of sectors of the national economy was established in Tajikistan, which directly influenced the development of the economy as a whole and the population's well-being.

The mining industry of Tajikistan has a good mineral resource base, the volume of which is sufficient to ensure the development of the industry for the long term.

Traditionally, the mining enterprises of the republic mined ore and its primary processing with the release of concentrates, and the metallurgical redistribution took place outside the republic. Lack of capacity to produce the final product significantly hinders the development of the industry. However, the situation has changed recently. At present, efforts are being made to obtain extractive enterprises' final products in the republic itself.

Another problem with CRM supplies is the availability of primary resources in industrialized countries. The western industry is dominated by the manufacturing industry (i.e., the production of final products and applications), and the oil refining industry (metallurgy, etc.) Given the minimal supply of CRM from secondary sources, the need for access to primary sources, including ores, concentrates Recycled or refined material is enormous and critical to development. Most of these primary raw materials are produced and supplied from non-European countries.

While China is the leading supplier of CRM to the EU, the analysis highlights several other countries that account for a significant share of specific CRM shipments in the EU, such as the US (beryllium and helium), Russia (cobalt and scandium) and Mexico (fluorspar and tungsten).

For many CRMs, the upstream value chain is absent in the EU: antimony, beryllium, borates, magnesium, niobium, PGM (Platinum group metals), phosphorus, rare earths, scandium, tantalum, and vanadium. This is due either to the absence of these materials in the European subsoil, or to economic and social factors that have a negative impact on exploration (discovery and characterization of deposits, resource, and reserve assessment) or mining (closure of existing mines, reluctance to open new mines, etc.). Besides abiotic raw materials, natural rubber is also grown and harvested exclusively outside.

To access these primary CRMs, the EU currently has no choice but to import ores and concentrates or refined materials from other countries to supply its industries and markets.

### **Applications in key sectors**

In the Republic of Tajikistan, along with the development of hydropower resources of large and small rivers, the efficient use of available energy capacities and the implementation of the export potential of the electric power industry; the creation of technical capabilities for the use of non-traditional (renewable) energy sources (solar, wind, biological, geothermal), the modernization of existing and construction of new hydroelectric power plants and thermal power plants, the introduction of large-scale energy conservation, the development of existing capacities of the oil and gas and coal industries, the development of new deposits of organic fuel are also planned.

The total oil and gas production in 2015 amounted to 24631 tons of oil and 4111 thousand m<sup>3</sup> of gas. In 2016 - 25123 tons of oil and 2979 thousand m<sup>3</sup> of gas. Due to the lack of gas resources, more than 200 large enterprises in Tajikistan use coal as fuel. According to preliminary calculations, the country's real demand for coal - industry, population, and thermal power plants - is more than 1.8 million tons in 20174. Coal mining is growing. Currently, 19 private and state-owned companies are engaged in the development of coal deposits in Tajikistan.

For a long time, agriculture occupied a significant share in the GDP structure. Still, but over the past two years, the construction sector - cement production - and the mining industry, primarily coal, have replaced.

The Decree of the Government of the Republic of Tajikistan approved the "State program for the study and assessment of reserves of rare metals for 2016-2026". The programme aims to expand the mineral resource base for the regular operation of existing, under construction and planned enterprises and meet the needs of the country's industry in mineral resources and reduce the dependence of the republic's economy on imports of ore raw materials.

Successful implementation of these tasks requires large investments in the extractive industries. Tajikistan's remote location from world markets and significant transport arteries means that transport and infrastructure costs often become factors limiting the ability to extract mineral resources.

For the implementation of the republic's development program until 2030, it is planned to attract investments for about \$ 55 billion, which is almost half of all funds required to implement the document's goals. The defining condition for raising funds is "a radical improvement of the investment environment for foreign and domestic investors."

Hydropower resources. Tajikistan has rich hydropower resources, the total potential of which is 527 billion kWh, ranking 8th in the world by this indicator. More than 947 rivers with a length of more than 10 km flow through the territory of Tajikistan, the total length of the rivers is 28 thousand km. The density of the river grid across the country is 0.6 km / km<sup>2</sup>. The economic and technical potential of Tajikistan's hydropower is 230 billion kWh. In contact, at present, the degree of development of hydropower resources is less than 10%.

Coal resources. In Tajikistan, coking reserves, lignite and hard coal, anthracite were discovered, the total reserves of which are estimated at 4.6 billion tons. Coal production has an annual growth trend and in 2020 amounted to more than 2 million tons.

To regulate the development of the energy sector, to improve its structure, the government should adopt the "Law on Energy", which also defines the creation of industry governing bodies, requirements for the mechanisms for setting electricity tariffs. The "Plan for the development of small hydropower plants in 2009-2020" was approved.

Simultaneously, Tajikistan has stimulated investments (including foreign investments) in hydropower in various forms. It can also provide foreign investors with the right to manage geological exploration, production and use of energy resources. Separate tariffs and tax rates can be set for investors purchasing excess electricity. Also, energy investors can be provided with non-regulatory tax and other incentives, which played a vital role in attracting investments in the energy sector.

The aluminium industry is a traditional basic industry in Tajikistan. The Aluminum Company of Tajikistan is the only enterprise in the aluminium industry in the country. This is a state-owned enterprise. Features of the production of the Aluminum Company of Tajikistan at the present time:

- A reasonably complete production system includes an electrolysis production system, an anode production system, and ancillary production systems.
- The primary raw materials, such as alumina and petroleum coke, are entirely dependent on imports. Imports are made from a large number of countries.
- The main products are primary aluminium and very few aluminium products. 98% of

aluminium products are exported.

- The main advantage of the aluminum industry's development stems from the low cost of electricity generated from hydro resources.

**Electrical and electronic equipment.** The electrical and electronic equipment sector depends on many of CRMs, including antimony, beryllium, cobalt, germanium, indium, platinum group metals (PGMs), natural graphite, rare earths (REEs), metallic silicon and tungsten.

**Batteries.** There are three types of batteries: portable, industrial, and automotive. In recent decades, new battery chemistries have emerged on the market due to the development of new applications (e.g., electric vehicles, e-bicycles). Depending on the battery's chemistry, the main CRMs embedded in used batteries are antimony, cobalt, natural graphite, indium, and some rare earths.

**Automotive industry.** In the automotive sector, including conventional (internal combustion vehicles), hybrid (HEV) and electric vehicles (EV), some vehicle components contain CRM. Some examples are graphite, cobalt, platinum group metals, niobium, and rare earths.

**Renewable energy.** Wind and photovoltaic technologies are based on a variety of materials, including six CRMs, namely neodymium (Nd), praseodymium (Pr), dysprosium (Dy), indium (In), gallium (Ga), and metallic silicon (Si).

**Defence industry.** It depends on a variety of raw materials needed to create a wide range of key defence capabilities. Thirty-nine raw materials were identified as "important" to produce highly efficient machined materials. Semi-finished products (e.g., alloys, composites, etc.) are required to produce many defence-related components and subsystems.

**Chemicals and fertilizers.** Certain chemicals and fertilizers depend on many CRMs, such as antimony; barite; bismuth; borate; cobalt; fluor spar; hafnium; natural graphite; niobium; platinum group metals (PGM); phosphorite ore; phosphorus; rare earth elements (REE); metal silicon; tantalum; tungsten; vanadium.

## Demand and supply

"The structure of the economy is slightly deformed in Tajikistan. That is, there is no domestic demand due to the poverty of the population. It is gradually, restored, but basically the able-bodied part of the population, as a resource, is used by other countries - in Russia and Kazakhstan. Domestic demand is a massive reserve for Tajikistan, but living in the country must also be improved.

The resources available in the republic make it possible to work well for export - these are cotton, gold, and aluminium. It is critically vital for Tajikistan to develop domestic demand, an internal locomotive that would drive GDP.

At the same time, much depends on external factors, including the situation of the neighbours. If there is a certain recession, then the demand for export products of Tajikistan decreases. (9)

**In the energy sector,** wind energy development (including REE) and household energy storage (mainly cobalt and natural graphite) is expected to increase CRM requirements in the coming decades.

**In the transport** sector, the need to decarbonize mobility and reduce air pollution is closely linked

to hybrid and electric vehicles' emergence and the continued reliance on autocatalysts for combustion vehicles.

**In the telecommunications and electronics sectors**, the global spread of digital networks and services means more and more people have access to the Internet, thereby fueling the need for connected equipment and fibre optics that Europe can manufacture and export.

**In the agriculture sector**, population growth will drive more efficient agriculture, thereby increasing dependence on fertilizers and potentially stimulating exports. On the contrary, different sources of phosphorus (manure as well as sewage sludge and food waste chain) are likely to be considered to reduce dependence on phosphate rock.

**Impact of COVID-19 on supply and demand.** Supply and demand will decline in the short term due to the pandemic. First, the pandemic will temporarily halt or reduce primary production in supplying countries by blocking specific countries. Second, for the same reasons, production in importing countries will decline. Consequently, there will be a temporary reduction in supply and demand.

## Post COVID-19 outlook

In the short term, the scale of support for MSMEs from the Government of the Republic of Tajikistan largely depends on the total size of the state budget, on monetary and fiscal policy instruments, as well as on various indirect indicators such as GDP per capita, which are a vital factor, determining the Government of the Republic of Tajikistan's ability to provide adequate support to business, without resorting to external official development assistance.

The critical "Minimum Scale" factor leading to "economies of scale" is key to ensuring the required return on investment, whether public or private, to make it viable and cost-effective. Given the predominance of sole proprietorships and microenterprises with a significant share of production for their own consumption, there is, by and large, no "economies of scale" designed to ensure the minimum required production to obtain the minimum return on investment. Current best practice suggests that sustainable employment must be closely linked to sustainable enterprises, which in general will have to adapt to more economical and profitable enterprises. It follows that enterprises are likely to continue to reduce the average number of employees and strive to diversify their products and adapt to the needs of a market that differs from conditions that existed before the pandemic.

According to Tajikistan's Economic Update: "The economic downturn amid the pandemic, after a sharp decline in April and May 2020, the labour market began to recover quickly from June to August in the absence of lockdown measures. However, serious vulnerabilities remain.

With the right political response, the Tajik economy is expected to gradually return in 2021–2022. This scenario assumes a vaccine's availability, a more robust regional economy, and recovery in remittances and international trade.

The key to unlocking the dynamics of responding to Tajikistan's significant political challenges, currently exacerbated by the COVID-19 pandemic, is in the ability to provide entrepreneurs and investors with the predictability and perspective inherent in transparent and fair rules. Ongoing tax reform work, in collaboration with a focus on modernizing the telecommunications sector's conditions or food production and processing, can help release pent-up investment demand, increase



economic self-sufficiency, stimulate exports, and help create new businesses, jobs and additional budgetary revenue.

To ensure the public finances' efficiency, the government has pledged to consolidate the budget and updated its Debt Management Strategy 2021-2023 to work out borrowing criteria and debt ceilings over the medium term. With the support of development partners, the government is expected to continue to support spending on health and social protection. (9)

“The consequences of the economic downturn in Tajikistan may be an increase in unemployment and an increase in poverty.

Tajikistan has recently achieved quite impressive success in reducing poverty in the country. Still, due to the pandemic, this level may be higher.

The risk of Tajikistan's external debt is also increasing. The burden on the social sector of the state budget is growing. The budget deficit will significantly increase. To cover it, loans will be taken from international financial organizations, and various states.

The achievement of four strategic goals, namely ensuring energy security, breaking the communication deadlock, ensuring food security and increasing productive employment, and the goal of accelerating the country's industrialization due to the pandemic, has been postponed indefinitely.

Nevertheless, the country will have certain achievements in the field of industry, and the energy sector due to the construction of the Rogun HPP. (10)

To implement the Action Plan of the Government of the Republic of Tajikistan to prevent and minimize the impact of possible risks of coronavirus COVID-19 on the national economy and to prevent the potential impact of the pandemic, the National Bank of Tajikistan has developed an Action Plan to prevent the possible impact of the COVID-19 pandemic on the national economy, the banking system and insurance sector country created a headquarters to strengthen anti-epidemiological measures to prevent the transmission and emergence of a new coronavirus.

The National Bank of Tajikistan is taking the necessary measures to strengthen work in the money and foreign exchange markets, efficiently use monetary instruments and maintain inflation stability to implement the Action Plan of the Government of the Republic of Tajikistan to prevent and minimize the impact of possible risks of the COVID-19 coronavirus on the national economy. To support the country's economy and implement monetary stimulation policy, the National Bank of Tajikistan, starting from May 1, 2020, reduced the refinancing rate by 1 percentage point and set it at 11.75% per annum.

In July 2020, there was a need to develop more comprehensive approaches with well-thought-out plans, support measures and roadmaps, which is confirmed by the situation in many countries of the world. Tajikistan has taken a similar approach, endorsing a package of measures to mitigate the socio-economic impact of COVID-19 in June-August 2020 and focusing on short-term policy responses. The crisis also highlighted the need for long-term structural reforms in the business environment to ensure recovery and enhance resilience.

Recent events, that is, the spread of the coronavirus COVID-19 in the world and changes in oil prices, began to hurt various global economy sectors. The introduction of quarantine measures in the countries of the main strategic partners, the closure of borders and the continuation of restrictive measures can increase the level of influence of potential risks on various sectors of the economy,



including its banking system, reducing its efficiency.

At the moment, the National Bank of Tajikistan carries out mutually beneficial cooperation with such international financial organizations as the International Monetary Fund, the World Bank Group, the European Bank for Reconstruction and Development, the Asian Development Bank, the Islamic Development Bank, the Eurasian Development Bank, the Interstate Bank, the Financial Inclusion Alliance, international funds, central (national) banks and banking structures of countries of near and far foreign countries.

According to publications of global world resources, Tajikistan is a country that has the potential for the development of energy-intensive industries. Currently, the world's primary energy resources are coal, hydropower, oil, natural gas, nuclear power, wind power and solar power.

Coal is a non-renewable energy source. The development of the coal industry is frequently under increasing pressure from carbon control and environmental authorities. The cost of electricity produced by coal is continually growing.

Hydropower resources are classified as renewable clean energy sources. Since hydropower resources are unevenly distributed globally, the differences in the potential of hydropower resources in different states differ significantly.

Oil and natural gas are both non-renewable energy sources. Their use is under pressure to control the world's carbon emissions and under pressure from ever-diminishing reserves. There is a tendency to increase the cost of energy obtained from oil and gas.

Nuclear power is also a source of non-renewable energy. Its use is associated with increased danger. There is a tendency to increase the cost of energy generated by nuclear power plants.

Wind energy and solar energy, and other alternative energy sources are still in the research and development stage, and currently there are no conditions for their large-scale economic application.

It is predicted that in the future, over a relatively long time, there will be no significant changes in the structure of world energy. However, the cost of production of energy-intensive enterprises using electricity generated by coal, oil, gas, and nuclear reactions will tend to increase and decrease their competitiveness in the market.

Tajikistan is one of the countries with rich hydropower resources, the total potential of which is estimated at 527 billion kWh. At present, the hydropower resources development in Tajikistan is at a deficient level, not even 10%. The development potential of hydropower is very high. This creates perfect conditions for the development of energy-intensive industries in Tajikistan.

The National Bank of Tajikistan will continue to implement the monetary policy to achieve a stable price level in the medium term and ensure the liquidity of the banking system.

As the COVID-19 virus causes economic turmoil around the world, modern supply chains are facing unprecedented stress. They get a lot of attention.

In the months leading up to the COVID-19 crisis, trade tensions escalated due to the escalating tariff-war between Washington and Beijing. A wider populist streak pervaded several other capitals. This rise in protectionism, coupled with specific costs and new financial barriers, has created broader challenges and challenges for supply chains operating globally.

Today's globalized supply chain network is optimized to determine the fastest lead times at the lowest possible cost. We need electronics made in China so that we can buy them cheaply. However, rapid political developments, a shift towards consumers buying niche products, and now global pandemics have highlighted this production model's weakness.

With the lessons learned from the COVID-19 crisis, intergovernmental fiscal relations can be continually improved by adopting the successful measures that have been used to combat the outbreak, potentially leading to more sustainable policies.

### **3. Guidelines and Best Practices for navigating challenges for MSMEs in the raw material supply business environment in Tajikistan.**

MSMEs have experienced mixed short-term impacts on their incomes from the COVID-19 outbreak. A total of 78.1 percent of affected MSMEs experienced reduced sales because of the coronavirus outbreak. A significant number of dehkan farms (in agriculture) were affected. Still, sales are often seasonally driven and therefore only slightly affected, especially when compared to tourism and hospitality MSMEs in the other two sectors of MSMEs.

Overall, 88.6% of MSMEs in the tourism and hospitality sector reported a significant decrease in their monthly sales revenues due to the COVID-19 outbreak. In comparison the average decline was 87.3%. Conversely, in the tourism and hospitality or personal services sector, there are absolutely no such MSMEs. This is because, with the closure of international borders, local travel companies offering excursions, excursion tours, camping, and other types of recreational activities in the territory of the Republic of Tajikistan hoped that recreational activities would be in demand, but this did not happen due to social stratification and an increased risk to health.

The nationwide government has secured tax deferrals for private businesses. This is consistent with responses from MSMEs who expressed concerns about their inability to pay taxes. Approximately 10% of MSMEs also stated that they would prefer to receive subsidized loans through financial institutions. Another 8.6% of MSMEs would like to defer utility payments. Falling demand and disruption to distribution networks explain why few MSMEs would prefer authorities to ease access to local markets (e.g., bazaars) and remove market activity restrictions. Contrary to previous assumptions, only 4.1% of all MSMEs mentioned rental payments. This can be partly explained by the fact that many businesses view their interactions with asset/property owners as not requiring government intervention, or that such intervention is unlikely to result in a mutual agreement to defer rent.

State regulation of entrepreneurial activity is carried out in many areas. The need for such regulation is because, in the process of activity, entrepreneurs' private interests and the public interests of society collide. These relationships must be balanced and not conflict with each other. To realize society's public interests, the state influences the subjects engaged in entrepreneurial activity in different ways and using different forms.

An entrepreneurial is an independent activity carried out at one's own risk aimed at the systematic receipt of profit from the use of property, the sale of goods, the performance of work or the provision of services by persons registered in this capacity.

Parties of entrepreneurial law are persons directly engaged in entrepreneurial activities and the Republic of Tajikistan, state bodies that, in the person of the authorities, regulate and control this activity. These entities are the bearers of the rights and obligations in the implementation and regulation of entrepreneurial activity.

One of the entrepreneurial activity parties is a small business, which is essential for the state's economic development. It should be emphasized that small businesses, as the most important and

rather risky form of economic activity in Tajikistan and other countries, are gradually developing in other countries.

The development of small business and creating a mechanism and instruments of state support for the small business acts, naturally, as one of the strategic directions of market reforms. Simultaneously, the formation, development, and system of state and public support for small business is a complicated, complex problem, the successful solution of which is a significant factor in economic recovery, and, consequently, in raising the standard of living of the people. Small business must be attributed to the priority and critical sectors of the modern economy.

The market economy cannot function in isolation from the sustainable functioning of small business and its guaranteed support from the state.

Achieving high rates of development of small and medium-sized businesses is possible through the implementation of the following measures: the creation of effective mechanisms for financial and credit support and insurance of risks of small businesses; ensuring reliable social protection and safety of entrepreneurs; creation of positive organizational mechanisms for the interaction of small business with the market and government agencies; removal of administrative barriers to the development of small business; the formation of competitive markets and market mechanisms in the economy, transparency and equality of all forms of ownership; achieving a general understanding of business principles, including the principles of modern management, financial and marketing analysis; assistance to small and medium-sized businesses in finding partners both within the country and abroad; creation of favourable conditions for providing microcredits to the poor for organizing their business.

National and international institutions are of great help in simplifying business practices and registering MSME businesses.

In the short term, during a pandemic, non-bureaucratic relief measures, such as simplifying import regulations, can significantly ease MSMEs' burden.

Simplifying laws and regulations can significantly improve the position of MSMEs in the long term.

National and international institutions and companies provide all kinds of training on the Internet, such as developing entrepreneurship skills, access to markets and business, access to finance, etc.

Energy is the leading primary sector of the state's socio-economic development. As Tajikistan implements its “food security” strategy and advances in industrialization and urbanization, the electricity demand will develop at a relatively rapid pace. Tajikistan has quite good conditions for the development of the electric power industry. There are rich hydropower resources, some of the richest per capita in the world.

There are also quite large reserves of coal. The strategy and development plans contain a clear ideology and priority of projects. It is necessary to consistently develop hydropower resources, optimally develop thermal power, strengthen power grids, promote international cooperation, and really guarantee energy supply.

The bowels of Tajikistan are rich in various minerals. To date, more than 600 deposits and promising manifestations of more than 50 types of minerals have been identified, explored. They are being prepared for development in the Republic of Tajikistan:

- fuel and energy raw materials (coal, oil, gas, gas condensate),

- ferrous metals (iron, manganese),
- non-ferrous metals (lead, zinc, aluminium, copper, bismuth, nickel, tungsten, molybdenum, antimony, mercury, strontium),
- noble metals (gold, silver),
- mining and mining chemical raw materials (fluorspar, barite, ozokerite, quartz sands, quartz and quartzite's, wollastonite),
- technical raw materials (piezo quartz, rock crystal, fluorite for melting),
- organic stones (noble spinel, amethyst, corundum-ruby, topaz, kainite, tourmaline and many others),
- agronomic raw materials (phosphorites),
- raw materials for the chemical industry (salt, sulfur, limestone),
- a variety of building materials,
- cutting, ornamental (lapis lazuli, jasper, ophite),
- facing (serpentine, marble) stones,
- mineral waters, medicinal mud,
- other types of minerals.

The prospecting and geological exploration results of recent years indicate that the fund of newly discovered deposits is far from being exhausted. New deposits of various types of minerals may still be discovered in the depths of the Republic.

Based on the results of prospecting and appraisal works, some of them already known objects can be transferred to the category of industrial deposits. The potential for converting the benefits of natural resources into economic benefits is excellent. Based on the diversity and volume of mineral resources explored in Tajikistan to date and from the analysis of the potential of the upcoming geological exploration, the mineral resources have the conditions necessary to turn the extraction of natural resources into a primary industry.

Advantages in the development of the aluminium industry are consistently supported in the republic. Low electricity prices are a critical factor in the competitive cost of primary aluminium production. Tajikistan possesses rich yet undeveloped hydropower resources, which can supply cheap electricity to develop the aluminium industry. There are opportunities for developing the aluminium industry, as the demand for aluminium products is continually growing.

Efforts are being made in the republic to identify new deposits and further study mineral resources' already known objects. At the same time, there is a tendency to obtain an estimate and increase in reserves of mineral raw materials, which leads to resource support for the production system in the non-ferrous industry of Tajikistan. Active extraction of natural resources determines the scale of development to meet domestic and export needs and consistently develop them.

For the development of the mining industry, the following development paths are indicated:

- strengthening the conduct of geological exploration work for a complete study of mineral deposits,
- development of measures for the scientific substantiation of the development of a strategy for the development of the mining industry,
- activation of exploration work - ensuring the priority of exploration work before the start of field development,
- involvement of explored mineral deposits in development,
- Improving the investment climate in the mining industry and ensuring the reliable provision of information on natural resources.

## Business facilitation and business registration

The Republic of Tajikistan's Government has undertaken several critical interventions that have improved the investment climate during 2015-2019 and mitigated the severity of the pandemic's consequences.

Tajikistan has been recognized as one of the top 10 reformers in the World Bank's Doing Business 2020 rankings. However, its score and rankings are relatively low and started from a shallow base. The rating of the ease of doing business of the Republic of Tajikistan rose to 106th place, gaining 61.3 points out of 100.

However, at the same time, Tajikistan is considered the worst in terms of competitiveness in the Eurasian region, gaining 52.4 points (out of 100) and ranking 104th (out of 141 countries in the world) according to the Global Competitiveness Index (GCI) of the World Economic Forum (WEF).

The GCI also shows that the Republic of Tajikistan received relatively low scores in business dynamics, financial system, product market and market size. These data indicate that the private sector was already minimal and challenged during the pre-pandemic period.

Micro, small and medium-sized enterprises (MSMEs) play an essential role in generating employment. Their contribution to GDP remains low (around 30%) compared to the OECD average of 50% to 60% in 2018. According to government sources, the share of MSMEs in total employment in the Republic of Tajikistan is about 35%.

The economy outside the industrial complex (i.e., in addition to the mining and processing industries) is dominated by self-employed individuals and small family companies. MSMEs are usually viewed as part of a mechanism for sharing economic growth benefits that contribute to household welfare. However, MSMEs tend to operate in low-productivity sectors. The growth prospects of enterprises are further constrained by regulatory and economic constraints.

The small proportion of MSMEs shows that many entrepreneurs are actually reluctant to register as legal entities due to complicated taxation and government regulations. This deterrent also pushes local entrepreneurs into informal employment of their workforce, which reduces operating costs and visibility.

Due to COVID-19, many MSMEs will face exacerbated challenges, including the inability to maintain full-scale operations due to restrictive measures, reduced demand, disruption of supplier linkages and logistics. In fact, tight cash flow restrictions could push even more MSMEs towards the informal economy or outright closure.

The situation with COVID-19 has negatively affected the total volume of trade in the Republic of Tajikistan. In January-June 2020, exports to other CIS countries decreased by 30.6% compared to the same period last year. In the first six months of 2020, Tajikistan's exports totalled \$ 654.4 million and imports \$ 1504.3 million, resulting in a trade deficit of \$ 849.9 million. Imports from non-CIS countries also decreased, amounting to 20.6% less than in the same period last year. The total volume of imports also decreased by 4% compared to January-June 2019.

The concentration of exports and heavy dependence on natural resources also make Tajikistan's export volumes vulnerable to volatility in international commodity prices. International copper, aluminium and cotton prices have been declining since early 2018. They are expected to decline

over the next few years. Expressly, copper prices declined 19.8% in January 2018 and May 2020, while aluminium and cotton prices declined 30.5% and 28.1%, respectively, over the same period. The decline in prices continued during the coronavirus pandemic. Reversing this trend requires systemic and long-term measures, such as redefining the structure of exports and production of the Republic of Tajikistan and investment in the development of the value chain.

**Table 3** - Seven main product groups, exported from the Republic of Tajikistan (in USD million).

(11)

Product groups	Jan - June 2019	Jan - June 2020	% Changes
Precious and semi-precious stones and metals	124,7	303,8	143,5
Minerals	182,3	118,1	-35,2
Non-precious metals and products (including aluminum)	105,0	99,2	-5,5
Cotton-fiber	56,1	46,3	-17,5
Electricity	40,1	31,4	-21,6
Textile products (excluding cotton fiber)	31,2	28,2	-9,8

## Policy, legal and regulations

“In reforming the Republic of Tajikistan's economy, small business plays a significant role, since interaction with large organizational and economic structures; it forms the basis of a modern market economy.

Entrepreneurship, being one of the most critical factors in shaping an economy's development with a market mechanism of management, requires government policy to create appropriate economic, industrial, social, and other conditions for the large-scale development of the entrepreneurial activity.

In the Republic of Tajikistan, the state has formed a specific legal environment for entrepreneurship functioning. In 1991, the Law "On entrepreneurial activity in the Republic of Tajikistan" was adopted, which determined the directions and main types of state support for small businesses' development.

Most small businesses are concentrated in trade and public catering (about 60%), industrial enterprises make up about 18%. Small businesses operate in different spheres of the economy. Still, preference is given not to the industry but to commerce (trade, catering). There is an explanation for this phenomenon.

First, investments in production pay off much longer than, for example, investments in trade. The rapid turnover of funds allows in a short time with a smaller number of workers to achieve greater profits. This stimulates entrepreneurs to engage in commercial activities, not in the production of consumer goods.

Secondly, the sphere of production requires more capital investment than the non-production sphere.

Thirdly, the statistical analysis of recent years shows that only in the last 3 years the country's industrial enterprises have been making a profit. The rest of the time, the republic's industrial enterprises have been unprofitable.

One of the main conditions for the development of small business is the availability of an appropriate financial and credit infrastructure. Only 23% of entrepreneurs in their business practice use bank accounts; the rest are limited to cash.

There is another financing instrument - microfinance. Microfinance and bank financing's crucial distinction should be emphasized here - microfinance aims to promote and protect by encouraging clients who usually consider themselves "insolvent" to seek financial services and start-up entrepreneurs who do not have a lot of entrepreneurial experience.

Small business can thrive only in conditions of full understanding of the state in the urgent need for such enterprises as one of the priority projects in the formation of GDP.

It is evident that small business is a promising area of economic development, which can help the republic ensure the preservation of labour resources and increase the flow of funds to the budget; you just need to implement them correctly identified priorities and take personal responsibility for the obligations assumed". (12)

The Law of the Republic of Tajikistan "On Pledge of Movable Property and Registration of Secured Obligations" is aimed at regulating standards related to the use of the movable property as collateral, and the procedure for registering secured obligations, as well as several documents on amendments to laws in the Civil Code, Criminal-procedural code, the Economic procedural code, to the laws "On financial lease (leasing)", "On bankruptcy" and "On enforcement proceedings".

All these documents also provide for the implementation of the norms of the Law of the Republic of Tajikistan "On the pledge of movable property and registration of secured obligations" and the simplification of the procedure for securing obligations, as well as the timely fulfilment of loan obligations".

The reform in the field of lending based on movable property, the importance of which was correctly assessed and put in the focus of attention of the government and the international community, received its legislative form and became of fundamental importance in the emerging market of Tajikistan since it involves the development of a regulatory framework and the creation of a centralized pledge registry. Which will diversify collateral for lending to small and medium-sized businesses.

With the adoption of amendments to the law "On the pledge of movable property and registration of secured obligations" and other regulatory legal acts, a favourable environment is created in which credit institutions, traditionally preferring to accept real estate assets (land, buildings, etc.) as security for credit obligations, which created several obstacles for SMEs due to the limited amount of this kind of capital in the assets of enterprises, receive an alternative option in the form of movable assets, including, for example, equipment, accounts receivable, warehouse or even intellectual property.

The biggest problem with governmental institutions and sovereign institutions that MSMEs face in international business is collecting duties and taxes by government agencies in exporting and importing countries. Since each country has its own rules and fees, it takes a lot of time and effort to complete the import and export formalities. The smaller the company's size, the more cumbersome it is to properly handle the import of raw materials.

COVID-19 and policies, laws, and regulations. The pandemic's impact on policies, laws and regulations is likely to be medium to long-term, as only politicians can act immediately. In most parts of the world, it has also gained momentum by protecting and containing the pandemic.



However, it can be assumed that laws and regulations will be adapted to prevent such a pandemic based on current events in the long term.

## Access to data, information, and knowledge

Access to data, information and knowledge is the foundation for a successful MSME or startup. At the international level, this task is mainly the responsibility of government agencies, such as the Geological Survey, which ensure the quality of data and advice. Chambers of commerce can also provide access to data, information, or knowledge. In many countries, in addition to purely governmental sources of information, there are also professional organizations such as the Professional Association of Geologists of Germany (BDG) in Germany or the European Federation of Geologists (EFG) in the EU, which provide advice and transfer knowledge, both through expert groups. According to our research, one of the best systems in existence is the EU Raw Material Information System (RMIS). This database stores all the data about the circular economy of critical raw materials.

Raw material fact sheets equally combine additional information and data that third parties may want to use in their specific criticality assessments, for example to target specific sectors more specifically or smaller sets of crucial technologies. Also, RMIS 2.0 includes a section titled Raw Material Profiles. These profiles are intended to be used as dynamic sources of information, which will be regularly updated and used for various proposals, including the next revision of the critical raw material list.

By tracking materials throughout their entire life cycle, MSA can help quantify primary and secondary sources' potential strengths, support monitoring of their "lock-in" level in the EU-28, and better manage metals use. This is especially important for CRMs. The public information about their trade is sometimes unknown. Their use is not well understood, and their recovery and reuse after deletion is problematic. An accurate estimate of mineral resources in the world and on the EU should include not only the resources available in the ground (reserves) and those present in the form of reserves in the technosphere and become available as a result of recycling. The data from the MSA research for CRM provides an important baseline for better addressing material criticality in the future and developing sustainable development pathways across the EU. Much of this data will be presented to the industry.

European Network of Critical Raw Materials Experts. "Screen" (Solutions for Critical Raw Materials - European Expert Network) is a coordination and support activity to bring together European initiatives, associations, clusters, and projects.

Work on CRM in a long-term network of critical raw materials experts, including stakeholders, government agencies and civil society representatives. This network will join forces to address all CRM challenges, including mining, refining, replacing and end-use applications, across cross-cutting dimensions: policy/society, technology, standards, and markets.

Screen will contribute to the CRM strategy in Europe by:

- comparison of primary and secondary resources, as well as CRM substitutes,
- assessing the expected demand for various CRMs in the future and identifying significant trends,
- providing policy and technology advice on actions to improve production and a potential replacement for CRM,
- a concrete solution to the problems of WEEE and other end-of-life (EOL) products related to their mapping and processing standardization,

- Revealing knowledge gained in recent years and facilitating access to this data outside the project.

Screen has just published a report that looks at CRM use in the European Union, considering the 2014 CRM list and baseline methodology. It takes a general economic approach (such as material systems analysis and criticality studies). It complements it with a bottom-up perspective by looking at the material composition of products. The knowledge collected within the Screen project will be collected and stored in the raw materials information system.

Impact of the COVID-19 pandemic on access to data, information, and knowledge. Access to data, information and knowledge has become much more convenient in a pandemic. It requires only a computer system with Internet access or a smartphone. Since many scientists cannot attend conferences or symposia, the number of online conferences has increased significantly. Besides, travel costs are eliminated, and thus such conferences are also available to MSMEs. They would typically never be able to pay for intercontinental travel for their staff. Since in many countries, employees are in the home office as a precautionary measure, they have ample time to attend such web meetings.

Also, since the start of the pandemic, international agencies and companies have offered webinars on almost every topic. Here, employees who are underutilized or have more free time due to missed trips to clients or meetings can now receive training on almost any topic. Many of these webinars are free or significantly cheaper than major international congresses. It has never been so easy and inexpensive to train your employees with international experts.

## **Entrepreneurship skill facilitations**

MSMEs are created by technicians, craftsmen, scientists or engineers who develop a business idea and then bring it to life. This means that a young company is run by a person who in most cases is a good technician or craftsman. This entrepreneur sees himself as the embodiment of his idea or service, and only then as a businessman. Most start-ups - MSMEs - fail if the technician doesn't understand that his company will not survive unless he becomes an entrepreneur with business skills.

The main factors for the growth of entrepreneurial activity in the Republic of Tajikistan are construction, light industry (such as textiles and clothing), electricity and services (namely, growth in income from tourism and the financial sector, and various personal services). However, according to the IMF estimates, in 2020, the Republic of Tajikistan's economy will contract to negative 2%, which implies a significant economic downturn, which will require targeted measures to mitigate the crisis. The Republic of Tajikistan's low projections is unprecedented in the past 25 years, suggesting that the socio-economic impact of COVID-19 is likely to be severe. Simultaneously, the pandemic has a lingering effect on every sector of the economy and is likely to become more measurable later in the year as the situation develops gradually.

Since the mid-2000s, capital accumulation has become another growth driver for the Republic of Tajikistan. However, it has been primarily driven by public investment. The share of private investment remained low. Since 2000, private investment has averaged only 4.4% of GDP, which is well below the CIS average (21%). The low level of private investment is characteristic of domestic capital accumulation and cross-border inflows of funds.

Net foreign direct investment (FDI) inflows have declined significantly since the outbreak of COVID-19. They are unlikely to recover to pre-2020 levels shortly. In the period 2010-2019, according to the IMF, the volume of FDI inflows to Tajikistan amounted to 3.2% of GDP, which is

lower than the 4% average for low-income countries. According to IMF forecasts, FDI inflows are likely to decline to 1.2% of GDP in 2020 and reach 2.5% of GDP in 2021.

These forecasts have an individual basis, in particular, because the statistics of the balance of payments show that in the first quarter of 2020, FDI inflows decreased by 2.5% of GDP over the last 12 months (from 53.7 million USD in the first quarter of 2019 to \$ 18.3 million in Q1 2020).

Despite the consensus that Central Asia, including Tajikistan, like the rest of the world, will have to downgrade its assessment of the typical situation in 2020, most of the forecasts were initially made based on two scenarios:

- Assumptions and implications under the baseline scenario: containment measures, including quarantine, movement restrictions and closure of international borders, are cancelled by the end of the second quarter of 2020, allowing economic activity to resume.
- Adverse Scenario Assumptions and Consequences: Efforts and constraints to contain the pandemic outbreak will extend to the third quarter of the year 2020.

Since the world is already on the fourth quarter's cusp, the analysis will likely be based on the second scenario. Forecasts for 2021 are very different and maybe too optimistic. For example, the Bank of England estimates that the UK recovery will take 9 quarters at best.

A potential entrepreneur's problem is that business management, tax law, marketing, and business administration are not part of the training and education at the university. This place a high level of responsibility on the entrepreneur; he is responsible for his further training and must also delegate tasks and work that he cannot do himself to qualified personnel. He should also be aware that he and his staff should receive further regular training. These training courses should cover all areas of the company. Training courses are offered by government and private organizations such as Chambers of Crafts and Chambers of Industry and Commerce. In developing countries, numerous NGOs and aid organizations offer training courses for every level of SMEs.

The same applies to the development of entrepreneurship skills regarding the thematic impact of the COVID-19 pandemic on access to data, information, and knowledge—an excellent opportunity to get inexpensive training. In addition to government and public institutions, companies also offer training opportunities for themselves and their employees.

**Table 4 - FORECAST OF REAL GDP GROWTH IN TAJIKISTAN (13)**

	Update	2019	2020 p	2021p
IMF	May 2020	7.5	–	7
World Bank	April 2020	7.5	1.7	3
EBRD	May 2020	7.5	-1.0	5
ADB	July 2020	7.5	-3.6	7
MEDT RT	July 2020	75	4.7	7

## Market access

For the development of the economy of Tajikistan, it is necessary to proceed from the use of those resources that have an advantage, first of all, to develop agriculture, hydropower and mining.

It is necessary to fully develop agricultural goods and their deep processing to increase efficiency

and profitability.

Use the available water resources to develop hydropower based on an integrated approach to their geographical location. There is a need to intensify efforts to develop and use resources, mainly developing mining and energy industries, such as metallurgy, manufacturing, agricultural processing, and construction materials industry. In the republic, the resources of mineral raw materials are extensive, but the degree of their exploration is insufficient.

Simultaneously, with the preservation of the whole place in the economy of aluminum production, the republic should make the most of the huge potential in hydropower and the advantages that rich mineral resources give it.

Currently, the government has taken measures in the direction of industrial development. At the same time, priority is given to the development of primary industries - energy and mining.

In the energy sector, with the simultaneous development of hydropower resources, it is stimulated to obtain electricity from other sources (CHP, etc.).

In the mining industry, the geological study of the territory is gradually expanding, thereby laying the foundation for developing new types of mineral raw materials. The republic is shifting from the export of ore and concentration to final products produced in the country.

With the development of hydropower resources, it is necessary to expand the aluminium industry scale to maintain the aluminium industry's position as a primary branch of the economy. Simultaneously, take various measures aimed at its technical re-equipment and reduce energy costs, increasing the production chain, developing deep processing of aluminium, further increasing the aluminium industry's international competitiveness.

Tajikistan has rich hydropower resources, but the development of thermal energy is lagging behind. In this regard, in the republic, based on the presence of large coal reserves while maintaining hydropower's priority development, efforts are being made to develop thermal energy as an essential addition to hydropower. Great attention is also paid to the development of small hydroelectric power plants in the country's mountainous part.

Mineral development is an area in which the country has advantages. The number of projects for geological exploration of the country's entire territory is gradually increasing, measures are being taken to increase the degree of development of the identified deposits. The conditions for attracting foreign investments in geological exploration are improving. Various preferential conditions in the field of taxation are provided. The import of new technological equipment is exempted from customs duties and several other measures designed to give impetus to the mining sector's development.

Assessing the coronavirus pandemic's impact on the Republic of Tajikistan's labour market requires a good understanding of the underlying constraints and challenges. Tajikistan's labour market is weak and typically characterized by low labour productivity, hidden unemployment, and low wages. Workers often receive low wages, unskilled workers, and a lack of incentives.

While the Government of the Republic of Tajikistan is taking steps to create jobs, reform the vocational education and training (VET) system and develop high-productivity industries (such as construction, mining, and manufacturing), there is a mismatch between supply and demand for skilled workforce and knowledge continues to be an obstacle to the economic development of Tajikistan.

Many factors contribute to the lower level of participation of SMEs in international trade. There are inherent constraints associated with higher vulnerability to market changes, higher infrastructure costs, and lower productivity, including lower digitization rates.

Besides, SMEs are disproportionately affected by trade barriers and inefficiencies resulting from trade policies, namely standards and technical regulations, logistics processes and services, customs, and other administrative trade procedures. Trade and border procedures lead to direct and indirect costs to the business and affect the firm's competitiveness. SMEs disproportionately bear the burden of these barriers.

The share of unemployed and not studying in Tajikistan is increasing every year, which can have serious negative consequences for the population's welfare and well-being. These people are unlikely to have a stable income source, although some are likely to work unofficially. Besides, in most cases, workers in the informal sector tend to be lower (and younger) than workers in the formal sector. This means that the impact of the COVID-19 outbreak is highly likely to harm young workers in the informal sector, especially with the closure or temporary suspension of businesses across the country.

The registered unemployment rate is uncharacteristically low and in May 2020 amounted to only 51,734 people. Also, the level of education among the unemployed is deteriorating. The share of people with incomplete secondary education among the registered unemployed increased from 13.9% in 2000 to 41.6% in 2010 and further to 65.3% in 2018. This indicates a deterioration in the quality of the Republic of Tajikistan's labour force and partly explains the insignificant increase in labour productivity in the economy.

This also indicates that the labour force's quality in the Republic of Tajikistan, mostly young graduates with little or no work experience, is gradually deteriorating. Reversing this trend will require significant changes in the quality of education and domestic production. These data show that Tajikistan's labour market gaps remain not caused by COVID-19 but continue to impact and pose risks because of the pandemic.

SMEs' ability to access international markets is more limited and vulnerable to the framework conditions in which they operate. Trade facilitation can improve their ability to participate in international trade as it seeks to reduce the trade's cost and time.

Impact of the COVID-19 pandemic on market access. As in the previous two chapters, the pandemic and its associated review phases can build internal knowledge of applicable regulations and laws and import/export management. However, this requires the rapid digitalization of employees who need and can be trained. In most countries, there are subsidies for such digitization from the state or from development companies. Companies that digitized their internal processes, documents, and business processes, as well as their employees before the pandemic, have a clear advantage. Going to the international market, like everything else, is a matter of knowledge. A period of isolation provides an opportunity to expand this knowledge and become more substantial after a pandemic.

New and better jobs are a means of reducing poverty and financial vulnerability. Still, Tajikistan has failed to cope with the need to create decent jobs, forcing many citizens to seek work in Russia. Labour migration is the most popular way to overcome problems for citizens, especially in rural areas.

Another reason for low job creation (and growth in average monthly wages) is the overly large public sector, including the quasi-fiscal sector, which comprises state-owned enterprises and crowds out private business or stifles market competition. In 2018, the Republic of Tajikistan's public and private sectors accounted for 20% and 71.3% of total employment, respectively.

## Access to finance

The main direction of hydroelectric power plants' development is to increase the capacity of existing large hydroelectric power plants and restore the normal functioning of small and medium-sized hydroelectric power plants. In thermal power plants, the main direction is creating power plants based on the identified coal deposits. Relatively rich coal resources are also a source of solution to electricity shortages in Tajikistan, and the development of the coal industry can become one of the priority areas for providing the republic's economy with energy.

Tajikistan possesses rich natural resources. In developing future plans, they should become one of the primary industries that will pull the republic's economy's growth. State programs for the development of the geological industry and the mining sector for the future have been adopted. The implementation of the adopted programs will provide an opportunity to raise the mining industry level in the country.

In the Republic of Tajikistan, financial services for individuals and MSMEs are provided by 16 commercial banks and 58 non-bank financial institutions (NBFIs). The banking sector consists of 16 banks, 6 of which are classified by the National Bank of Tajikistan (NBT) as systemically important. The five largest banks account for about 70% of all banking sector assets in the Republic of Tajikistan. The three primary purposes of lending among financial institutions are consumption, foreign trade and agribusiness. The fragility of the Tajik banking sector limits access to finance and the variety of consumer goods and services offered to MSMEs.

Despite the relatively large number of financial institutions, the return on assets (AA) in the banking sector only slightly increased from 0.8% in 2015 to 2.1% in 2019, while the return on equity (CA) in the banking sector was 7.7 % in 2019 compared to 5.5% in 2015. This suggests that financial institutions in the Republic of Tajikistan have a relatively low return on financial services. Most of the associated risk is passed on to consumers. In turn, this leads to the high cost of loans, for example, for business or consumption purposes.

In 2019, 21.3% of the total volume of bank loans were issued to individual entrepreneurs, 31% of all bank loans were received by MSMEs (compared to 50.1% in 2010 and 40.4% in 2015), and SOEs accounted for 25.4% (compared to 11.7% in 2000 and 9.5% in 2015). As for microfinance organizations (MFOs), almost half of their total loan portfolio (48.7%) was issued to individuals for consumer purposes, followed by individual entrepreneurs (33.4%) and MSMEs (14.5%). Historically, MFIs lend little to SOEs. The latter also appear to be better protected from direct (or weakly secured) lending practices in some banks. Besides, individual entrepreneurs seem to be more willing to receive loans from MFIs as the total volume of lending to individuals has stabilized over time. Since 2017 has surpassed this indicator among banks. This may be due to a combination of better conditions provided by MFIs, less interest from banks in private MSMEs, and a lack of trust from banking sector clients.

MSMEs and individual borrowers were most affected by the COVID-19 outbreak between May and June 2020. Comparison of January-June 2020 with the same period last year showed that the volume of lending to enterprises by banks increased by 11.6%, amounting to USD 371.3 million at the end of June 2020. Bank lending to individual entrepreneurs over the same period increased by 20.9%, amounting to USD 130.1 million at the end of June 2020.

This is even though banks' cost of loans decreased on average from 23.8% in June 2019 to 22.6% in June 2020 in national currency and from 15.5% to 11.3% in foreign currency. This may indicate the effect of measures taken by the National Bank of Tajikistan and encouraging financial institutions to lend to entrepreneurs on more favourable terms.

Access to finance is minimal, as is the range of financial products and services offered to MSMEs. The cost of loans is prohibitively high: on average, in June 2020, interest on loans amounted to 22.6% per year in national currency and 11.3% in foreign currency. The high cost of credit is mainly due to the higher risk of bad debt (as evidenced by the high rates of non-performing loans and the high overall portfolio risks due to economic uncertainty. High dependence on unstable sources of income (e.g. remittances and informal employment) and the high cost of loans have led to over-indebtedness and financial constraints for many borrowers. Mortgages are short-term and expensive while leasing loans are often subsidized by development partners (such as GIZ and KfW) and are not sustainable.

Financial participation in the Republic of Tajikistan improved significantly during 2015-2019, albeit from a shallow base. In 2020, the proportion of the adult population with bank accounts increased to 65%, up from 47% in 2017, according to the latest Findex data. The number of holders of bank payment cards has grown by 73% since 2015, amounting to more than 2.5 million people in April 2020. The growth in the number of financial institutions and their coverage in small settlements of the Republic of Tajikistan led to an increase in the number and coverage of payment terminals (by 15%) and the total number of bank accounts from 2015 to 2020.

However, the promotion of financial inclusion is limited:

- strong preferences of the population for informal savings and borrowing.
- high risks associated with the coverage of traditionally underserved areas.
- weak financial capacity and indebtedness of consumers of financial services.

In general, this indicates the continuing problems with the coverage of the Republic of Tajikistan's population with financial services that existed before the advent of COVID-19.

Microcredit is a common form of microfinance that involves a minimal loan provided to individuals to help them become self-employed or grow small businesses. These borrowers tend to be low-income individuals, especially from less developed countries. Not every MSME is helped by microcredit, but microcredit is the first step in doing business for thousands of MSME.

Business owners with poor management skills also stunt growth. While there is evidence that closer ties between businesses and financial institutions can improve access to financial services and spur growth, it is essential not to isolate access to finance as the only impediment to growth but to see it as part of a more holistic approach.

Poor access to finance is a problem faced by many women-owned and operated MSMEs. The World Bank (2014) finds that women-owned and agricultural firms face particular challenges in accessing finance. Women-owned firms tend to be smaller than men-owned firms and grow more slowly because women have less access to finance.

Impact of the COVID-19 pandemic on access to finance. Access to quick help from the financial sector is a prerequisite for the survival of MSMEs in a pandemic. Many countries have emergency assistance programs such as emergency loans or bridge funding, some of which are non-refundable. Essentially, this is about convincing government agencies and the private financial sector not to drive tomorrow's working machines and clients into bankruptcy today without helping them.



## Access to technology

Tajikistan has rich hydropower resources, the aggregate potential of which is 527 billion kilowatt-hours, ranking 8th globally for this indicator and one of the world's first places per capita. The government, relying on rich hydropower resources, considers the construction of large hydropower plants as a priority area for its economic development.

In Tajikistan, reserves of coking coal and anthracite, drill and bituminous coal were discovered, the total explored reserves of which amount to 4.6 billion tons.

The commercial and technical potential of Tajikistan in hydropower is approximately 230 billion kWh, while less than 10% is currently utilized. In the future, there is great potential for the development of thermal power and hydropower.

Besides, there are relatively rich mineral resources. In the country, deposits of more than 70 mineral resources have been discovered. Reserves have been confirmed at more than 400 deposits. There are precious, nonferrous and rare earth metals, ferrous metal ores, non-metallic minerals and coal.

Deposits of precious metals are represented by gold and silver deposits, and Tajikistan ranks first in Central Asia in terms of silver reserves. The amount of explored reserves is more than 53 thousand tons.

Deposits of non-ferrous and rare-earth metals, such as lead, zinc, nickel, copper, antimony, tungsten, tin, molybdenum, beryllium and strontium, have been identified.

Ferrous metals are represented by deposits of iron ore and manganese.

Deposits of non-metallic minerals - rock salt, barite, boron, fluorspar, phosphates, asbestos, clay for making bricks, limestone, quartz sand, gravel, semi-precious and ornamental stones.

The Republic of Tajikistan has taken several measures to digitize financial services such as mobile money, e-wallets and web-based cashless payments.

As of May 2020, 9% of all transactions were conducted using electronic payment instruments (via mobile phone and the Internet), up from 1.6% in 2015. These transactions amounted to approximately US \$ 130.4 million. Even though these ECFU solutions need further support from various providers and their networks, special attention is paid to mobile money and e-wallets - for example, from Alif Bank OJSC, IMON International OJSC, Bank Eskhata OJSC and others - due to high rates of use of mobile services by the population and as a means of access to remote areas.

These measures complement the ongoing reform of payment systems oversight. The NBT recognizes that ECFs can be a powerful tool for channelling remittance into the formal financial sector and their subsequent savings.

Access to information and critical supporting technologies is essential for the development and growth of MSMEs.

Definition: Key enabling technologies (nanotechnology, micro-/nanoelectronics, photonics, advanced materials, industrial biotechnology and advanced manufacturing technologies).



Due to growing differentiation and innovation in technology, it is hardly possible for MSMEs with few employees to keep track of the status quo. This is where the supportive networks of government and industry must step in.

Technology centres must meet at least two additional quantitative criteria for the following:

- More than ten projects with SMEs in the last two years.
- More than two significant investments in R&D equipment close to the market in the last three years.

The center should provide a short description of these investments (type, functionality and amount of investment).

The COVID-19 pandemic is affecting access to technology. As described above, access to new technologies also depends on access to information about new technologies.

## Logistics and supply chains

To ensure the pace of economic growth, Tajikistan must implement a development strategy related to the priority development of infrastructure, the development of areas in which it has advantages, the comprehensive development of goods for import and export, and follow the path from the development of a separate centre to the development of the region.

Traditionally strong agriculture should receive preferential development, hydropower should develop at an accelerated pace, the coal industry and the extraction of natural resources should develop at a moderate pace, the processing of agricultural products in places with a high concentration of labour resources should be actively developed, and the production of import-substituting products and export-oriented products should be gradually developed—step by step to create an effective financial management mechanism that will contribute to stable economic growth.

The great potential for developing agriculture, power engineering and mineral resources will create the necessary conditions for accelerating its socio-economic development.

Among the countries of Central Asia, Tajikistan has abundant sunlight, heat, water and land resources and is a traditional agricultural state. The total area of agricultural land is 4.728 million hectares, including arable land - 714 thousand hectares.

Ensuring the state's food security has already become one of the four most important goals of Tajikistan in the future. Suppose we rationally use land suitable for agriculture and increase the area under grain crops. In that case, Tajikistan will have all the conditions to independently solve the problem of grain shortages.

Any labour market shocks, including macroeconomic and financial ones, can be disruptive to supply chains and/or value chains. Private sector enterprises may be particularly hard hit. The COVID-19 outbreak has resulted in temporary disruptions in the relationship between MSMEs and buyers, suppliers, customers and markets.

There are exceptions, but they are rare. In total, 73.6% of all surveyed MSMEs reported that supply and value chains were disrupted due to the pandemic.

As supply chains or value chains are disrupted, MSMEs, in general, need to be flexible and able to diversify their markets. This is where business support organizations come into play. Still, they are concentrated in large cities such as Dushanbe and Khujand. They monitor the market, share findings, help small businesses build market networks of partners and suppliers, and provide market analysis tools. However, due to regional disparities in the availability of business support services, not all MSMEs are equally resilient to the economic shocks caused by the coronavirus pandemic. This means that, on average, MSMEs in cities can better cope with the economic impact of COVID-19 compared to businesses in rural areas.

The COVID-19 outbreak has temporarily disrupted links between MSMEs with buyers, suppliers, customers and markets. This indicates a significant and likely long-term impact on supply chains and value chains. A total of 73.6% of MSMEs reported that their supply, production and distribution cycles were disrupted due to the coronavirus pandemic.

31.7% of MSMEs whose supply chains and value chains were disrupted reported production disruptions. As a result of which access to resources and capital goods was limited, sales volumes were reduced, customer contacts were disrupted, marketing activities were weakened, outages in commercial distribution networks. These factors contributed to the decline in sales and turnover of 41.3% of affected MSMEs indicated a violation of their interaction with clients. Another 16.6% of MSMEs reported having difficulty accessing local markets (e.g., bazaars, grocery stores, etc.), and 12.7% of MSMEs said they had difficulty finding or purchasing materials from affiliates ( or contractors) buyers and suppliers nationwide.

In general, MSMEs in rural areas are disadvantaged compared to MSMEs in cities regarding access to professional business advisory services and the ability to diversify their markets (in the context of disrupted supply, production and distribution chains).

MSMEs must use supply chain management systems (SCM systems) to monitor and manage their supply chains. These programs make it easier for managers to track the supply chains on which the company depends to intervene directly if problems arise.

Small and medium-sized business owners need to understand that they have an untapped gold mine right in front of their eyes. This is their supply chain management system.

Small and medium-sized businesses can choose from various software that supports complex day-to-day decisions like what to buy, when, how much and where. Too few understand its real value. We have been living in the age of information technology for many decades. However, many MSME owners do not understand that IT systems are only as good as the data they enter.

Impact of the COVID-19 pandemic on logistics and supply chains. Supply chains are the main problem with CRM supply during the COVID-19 pandemic. Significant delays are to be expected here. The path from mining to the final product directly depends on the availability of logistics and personnel. All the problems of a pandemic can arise in supply chains: a truck that is not allowed to cross the border, customs clearance at a destination port with no people to clear, etc., are problems that cannot be calculated in advance. These problems can only be addressed after the isolation criteria are relaxed and therefore, only after a pandemic.

## **4. Summary of Guidelines and Best Practices in Critical Raw Material Supply for MSMEs and Conclusions**

In the gross industrial product, 40% is the production of the non-ferrous industry's metallurgy. It is concentrated in the Tajik Aluminum Company. It is the leading enterprise in Tajikistan for export and foreign exchange earnings. Raw materials in the form of aluminium oxide are imported from Azerbaijan, Romania and Italy. Aluminium in ingots is exported to Holland, Turkey, China and other countries.

Tajikistan's hydropower resources are enormous, with a total potential of 527 billion kWh (60.167 million kW), ranking 8th in the world and 1st in the world per capita for this indicator. Medium and large power plants mainly concentrate on the Vakhsh River (87.5%), the centre of energy supply in Tajikistan.

There are more than 400 mineral deposits in Tajikistan. Basically, mining is carried out at gold deposits, antimony, silver, lead, and zinc deposits.

Medium and long-term development plans of Tajikistan define "priority development sectors such as transport infrastructure, energy infrastructure, agriculture and agricultural processing, mining and quarrying, as well as mechanical engineering, chemical industry, light industry, construction industry."

One of the main features of the current crisis is that there are still no concrete conclusions that can be universally applied to countries and regions experiencing a pandemic in terms of improving and increasing the resilience of the socio-economic environment and emergency measures to contain the spread of the virus. All countries are still in the process of exploring and experimenting.

However, even in countries that are very similar in character, including relatively highly developed and interdependent countries, there are significant differences in policies and comprehensive support measures.

Decisive factors such as economic performance, fiscal capacity, social and cultural norms, political will and the availability of the necessary tools, infrastructure and governance allow for multiple options and opportunities to mitigate the impact of crises worldwide. More importantly, preexisting socioeconomic constraints inevitably affect states' options and capabilities to develop measures to recover from a pandemic.

For example, in the Republic of Tajikistan, the tax base is relatively small. The macroeconomic situation is complicated, making any tax incentives for businesses and the population, such as social assistance programs, a risky proposition. The large informal sector also limits the pool of potential employers participating in targeted support programs. Also, underdeveloped value chains and a complex business environment limit the likelihood of stimulating private investment in sectors that are the engine of economic growth.

To date, policies in many countries are mostly short to medium term. They aim to support household income and business activity to protect vital macroeconomic indicators, including through national plans or funds from raising funds and channelling financial flows through official development assistance. Most of these measures were taken in response to emergency needs and,

therefore, were relatively temporary, short-term, and not viable after the end of the first phase of the COVID-19 outbreak.

This stage has already been passed, although restrictions on border crossing and travel have not yet been lifted. In July 2020, there was a need to develop more comprehensive approaches with well-thought-out plans, support measures and roadmaps, which is confirmed by the situation in many countries of the world. Tajikistan adopted a similar approach, approving a package of measures to mitigate the socio-economic impact of COVID-19 in June-August 2020 and focusing on short-term policy responses. The crisis also highlighted the need for long-term structural reforms in the business environment to ensure recovery and strengthen resilience.

The production and availability of CRMs must be increased to ensure their delivery. This applies not only to MSMEs but to the entire industry. It was very convenient to order the required raw materials without discussing mining opponents or environmentalists in China. But the current pandemic has shown the virus can threaten the raw material supply chain.

Even now, during the crisis, it becomes clear which economies are sustainable and which are not. The past mistakes cannot be quickly corrected in such a crisis, so the only recommendation for the future is to learn from the COVID-19 pandemic.

When formulating policy and developing a response in the Republic of Tajikistan, critical and common issues related to the overall macroeconomic environment and private sector growth should be considered, including:

- The economy already needs enough quality jobs to expand the formal labour market, which requires significant reforms to stimulate private sector development.
- The scale of the informal sector is of concern and suggests the need to formalize economic activity.
- The internal labour market is under additional pressure due to a large number of migrant workers unable to return to work abroad and temporarily employed in local enterprises (and who are likely to remain in the country for a long time), as most countries of destination of labour migrants are experiencing similar economic the crisis.
- The need for a properly coordinated regional approach to overcome many of the existing trade facilitation challenges, especially customs and border regimes.
- A high concentration of exports and insufficiently diversified economy (i.e. production structure) exposes it to external economic risks through trade and migration channels;
- The national financial system's weakness, especially regarding the availability and affordability of financial products for MSMEs and households, hedging of risks and weak corporate governance.
- Slow implementation of structural reforms to improve the market and public services' efficiency, especially in macroeconomic regulation and social protection of the population.

## Recommendations for MSMEs in Tajikistan

**Hydropower.** Tajikistan has rich hydropower resources with a potential of 527 billion kWh. The total hydropower potential of various small rivers may amount to 14 billion kWh. The electricity generated by the hydroelectric power station is one of the export items of Tajikistan to neighbouring countries. Therefore, there are prospects for the development of small hydropower plants. In the future, the need for equipment for small hydropower plants will obviously increase.

**Non-ferrous metal industry.** The aluminium company of Tajikistan can further develop the production structure, expand the production of aluminium profiles and finished products from

aluminium, contribute to the development of demand for finished products within the country and sell them abroad.

**Mining industry.** Tajikistan possesses rich mineral resources, including deposits of gold, polymetallic ores, and rare earth metals. Therefore, Tajikistan hopes to expand cooperation with foreign partners, create a base for the production of non-ferrous, rare earth and precious metals, organize the production of finished products, make the transition from the export of raw materials to the export of finished products, and increase the added value of exports.

**Building materials industry.** This industry's main tasks will be restoration, reconstruction and renovation of production infrastructure and equipment, restoration and increase of production volumes, and improvement of product quality. Based on the development experience in the building materials industry, it is necessary to increase cement production, the extraction and processing of a broader range of building and facing materials and stones, such as granite, rubble stone, marble.

Discussions on reducing COVID-19 and policy responses' economic impact often focus on macroeconomic indicators; however, the pandemic has slowed growth, affecting the real economy. In the Republic of Tajikistan, the engine of the real economy is business, mainly MSMEs.

To determine the appropriate policy response to assist MSMEs, which are likely to be more affected than larger enterprises, it would be useful to consider the magnitude of the impact by a cycle of milestones:

- consequences associated with border closures and restrictions, for example, connected with containment measures adopted by the Government of the Republic of Tajikistan.
- disruptions to production and distribution chains caused by trade disruptions and production interruptions.
- a decrease in demand, leading to a reduction in sales, credit burden and a long-term household spending reduction.
- recovery in economic activity varies by sector of the economy as containment measures are gradually weakened.

Likely, most MSMEs in the Republic of Tajikistan go through the first three phases. At the same time, containment measures such as border closures have not yet been fully reversed.

In the short term, the scale of support for MSMEs from the Government of the Republic of Tajikistan largely depends on the total size of the state budget, on monetary and fiscal policy instruments, as well as on various indirect indicators such as GDP per capita, which are a crucial factor, determining the Government of the Republic of Tajikistan's ability to provide adequate support to business without resorting to external official development assistance.

In the short term, the following measures could be taken to support MSMEs affected by the COVID-19 outbreak:

1. Providing temporary financial support for MSMEs facing problems. The survey confirms that tax, rental or utility incentives (i.e. moratoriums) are significant to enable a business to survive and adjust to a new situation. It is important to note that such subsidies lose their sustainability and effectiveness after a certain period.
2. Providing liquidity to MSMEs on special concessional terms to those businesses that have been hit by the COVID-19 outbreak and are more financially vulnerable. This may include subsidized loan products, interest-free lines of credit for long-term borrowers, risk insurance schemes (whereby a financial institution provides loans in foreign currency and accepts payments on these loans in the

local currency, which carries the risk of volatility in exchange rates) and coverage risks of first losses with international development partners.

3. Supporting demand and employment through infrastructure building, such as increased capital spending and government programs to create (or maintain) jobs. This measure is both short-term and longer-term. It is likely to lead to an increase in the government deficit. However, significant risks in employment and a sharp decline in private investment make it an essential measure for MSMEs (for example, in light industry, personal services and construction).

4. Subsidizing professional consulting services for businesses, particularly to meet the needs of MSMEs who are struggling and who are experiencing supply and sales chain disruptions, lost customers, did not receive expected revenues, or are on the verge of stopping production. Dealing with these types of problems is challenging, especially for small businesses. They often need mentoring and advice to rebuild and adapt their business. Implementation of this measure will require mobilization and coordination of actions between incubation and business acceleration facilities, coworking spaces and business associations, and subsidies for paid consulting services can be carried out by international development partners.

5. Temporary support for the self-employed population (i.e., individual entrepreneurs, who make up about 45% of all entrepreneurs in the Republic of Tajikistan, excluding dehkan farms and most affected by COVID-19), at least temporarily, to help cope with the fall in demand for goods and services and declining sales. This could include temporary exemptions from monthly patent payments on a case-by-case basis, extending tax filing deadlines and suspending tax inspections of businesses.

The viability and sustainable growth of MSMEs in the medium and long term depending on the need to create several critical enabling factors, including:

1. Improving the business environment, for example, minimizing over-regulation of business by the state, comprehensively implementing reforms to improve the investment climate, and strengthening tax policy and tax administration, will all significantly increase the ability of MSMEs to withstand crises.

2. Improving competitiveness, including through the effective implementation of competition policies and regulations and eliminating subsidies to state-owned enterprises through privatization, which will align MSMEs' position concerning larger companies.

3. Expand financial inclusion and literacy for MSMEs, and improve market support systems, mainly through coordinated and tailored professional advice to businesses, to promote adaptive governance and the development of functional tools to address economic challenges. Business incubation and acceleration mechanisms will also provide resources and information networks for MSMEs to overcome specific market barriers (for example, disruptions to production and distribution chains or limited access to digital solutions) and provide support structures that foster innovation and business growth.

4. Strengthening public-private dialogue, for example, through business associations, chambers of commerce and commerce, industry representatives and suppliers, building on existing dialogue platforms.<sup>212</sup> An active and sustainable public-private dialogue facilitates effective communication between MSMEs and governments. It will promote adaptive learning and timely learning from lessons learned and respond to economic crises.

All economic operators can benefit from trade facilitation measures such as simplified customs

clearance, comprehensive guarantees or authorized trader programs. To benefit from these measures, operators and government partnerships.

The trade community can do its part to become a reliable partner to the government and benefit from such trade facilitation measures. They can change their way of doing business, namely compliance management, actively participate in private and public consultation, and stay current with the legal and regulatory framework. This entails knowing and complying with legal obligations for solvency, record keeping, accounting standards and the duty to exercise caution.

MSMEs must become members of professional or business associations, even if this requires specific fees. These associations make a critical contribution to protecting MSMEs from harm and conflict with government agencies through consultation and information.

## **Policy recommendations applicable to Tajikistan**

To date, the policies adopted by many countries are mostly short to medium term. They aim to sustain business activity to protect critical macroeconomic indicators, including through national plans or funds from raising funds and channelling financial flows, mainly through official development assistance.

Most of these measures were taken in response to emergency needs. They were relatively temporary, short-term and not viable after the end of the first phase of the COVID-19 outbreak.

This stage has already been passed, although restrictions on border crossing and travel have not yet been lifted. In July 2020, there was a need to develop more comprehensive approaches with well-thought-out plans, support measures and roadmaps, which is confirmed by the situation in many countries of the world. Tajikistan has adopted a similar approach, endorsing a package of measures to mitigate the socio-economic impact of COVID-19 in June-August 2020 and focusing on short-term policy responses. The crisis also highlighted the need for long-term structural reforms in the business environment to ensure recovery and enhance resilience.

Many developed countries worldwide have demonstrated significant public debt opportunities (issuing Treasury bonds by governments or central banks).

However, it is now becoming clear that domestic or foreign borrowing should also be kept under control, as countries increasingly fear shifting from initially soft budget constraints to hard budget constraints. Approximately 7-8 months after the start of the pandemic and after a series of emergency, short-term measures were taken in June-August 2020. It became abundantly clear that the resources of the Republic of Tajikistan are not unlimited. This is especially true of public debt. The overall state budget deficit for 2020, according to the IMF forecasts, will increase to 7.7% of GDP due to a sharp drop in revenues and growing spending needs. Accordingly, the decision is no longer limited to injecting liquidity into the market to revive economic activity, for example, through the Industrial and Export Bank Sanoatsodirotkbank and other financial institutions, unless targeted support measures are developed to restore demand and supply for goods and services, both in the public and private sectors.

More specifically, many developing countries have financed support measures through internal or external borrowing. Still, the Republic of Tajikistan's capacity in this regard is limited. The risk of a continuation of the crisis remains very high, while the public and publicly guaranteed debt at the end of the first half of 2020 was 52.6% of GDP. Besides, due to reduced revenues and increased expenditures of the state budget, the total fiscal space is shrinking in almost all areas of the economy. For countries such as Tajikistan, limited fiscal space requires tackling the complex

challenges of revising tax policy and State financial management (SFM) and fully implementing priority reforms.

The revised Tax Code of the Republic of Tajikistan will enter into force in early 2021 amid a challenging business environment and the impact of COVID-19, while broader reforms in the SFM system aimed at strengthening tax administration, treasury management, fiscal discipline and accountability in the use of public resources are implemented everywhere. For small economies such as Tajikistan, it is essential to prevent citizens' impoverishment and preserve the achievements of previous years' reforms.

There is no doubt that it is essential to improve the business environment through sound tax administration and well-functioning economic institutions (e.g., Ministry of Economic Development and Trade, Ministry of Finance, National Bank of Tajikistan, economic and arbitration courts). However, this requires significant investment in human capital - through quality education and skills development. This will help improve the quality and productivity of labour and, in general, strengthen the competitiveness of the labour market in the Republic of Tajikistan.

The long-term commitment of the Government of the Republic of Tajikistan to support the development of human capital should be supported by public funding for social areas, in particular for health care and care services (e.g., for the elderly, disabled and other vulnerable citizens), i.e., sectors that are chronically underfunded. The capacity to recover from crises such as a pandemic must also be matched by practical measures to reduce public sector corruption.

It is recommended to create a “Raw materials alliance of MSMEs for a circular economy (MRM-ACE)».

MRM-ACE could serve as a platform for bringing together MSMEs, politicians and financial institutions to support supply chains for raw materials in the UNECE region. Such a platform could be a starting point for MSMEs. They want to enter the international market for CRM and other products. It could act as an interface between an individual company and large international organizations and help small and medium-sized entrepreneurs receive information and assistance faster and more efficiently.

MRM-ACE can become a platform for sharing knowledge about commodities and the circular economy. The targeted and efficient use of raw materials requires specialized knowledge and know-how that a start-up company or MSME cannot provide due to the lack of specialized personnel. For similar reasons, MSMEs, a continually evolving circular economy with minimized resource use and waste generation, pollution prevention and carbon mitigation, can neither technically nor organizationally keep track of this. A link between the circular economy and companies would be essential and helpful here.

- The task of such an institution will be:
  - Discuss joint efforts
  - Social and environmental issues and opportunities
  - Business models
  - Skills development
  - Investment direction
- Provide best practices and guidelines.



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