



POLICY PAPER



THE SOCIOECONOMIC
IMPACTS OF THE
WAR IN UKRAINE ON
MONGOLIA

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BACKGROUND

At the outset of the Russia's invasion in Ukraine, the economy of Mongolia was beginning to recover from the adverse impacts of COVID-19 as bilateral trade with both the People's Republic of China and the Russian Federation started to return to pre-pandemic levels (IMF, 2021a). Border closures resulting from the global pandemic and sanctions imposed due to the invasion continue to tear at the socioeconomic fabric of societies, reducing their resilience to other crises and triggering deeper socioeconomic, political, and environmental problems (ESCAP, 2022). In addition to inflationary pressures and a recession faced by Mongolia during pandemic years, the country is bearing the cascading impacts of economic sanctions on Russia since it depends on imports of Russian petroleum products, energy, food, medicine, and agricultural inputs. Pandemic-related border closures with China had also significantly impacted value chains across all sectors (World Bank, 2022a).

Trade between Mongolia and China accounts for approximately 80 per cent of Mongolia's exports and 40 per cent of its imports (World Bank, 2022b). The financial sector in Mongolia is experiencing the effects of reduced foreign direct investment, substantial capital outflows and SWIFT sanctions on Russia. These challenges have an impact on the ability of local banks to fulfill their foreign payment obligations (SWIFT, 2022). According to the International Monetary Fund (IMF), Mongolia's public debt – at 82 per cent of gross domestic product – threatens the country's debt sustainability (IMF, 2021b). Inflation and a high level of debt impact macroeconomic stability, increase the vulnerability of the economy and limit the country's ability to finance its development – a situation that requires innovative financing solutions (UNDP, 2022a).

Cross-border trade restrictions with China, and the repercussions of the war in Ukraine, has impacted businesses and households – especially vulnerable groups, including rural/herder and women-headed households (World Bank, 2022a). This increased vulnerability could hamper the implementation of the country's New Recovery Policy, approved in December 2021 in the wake of COVID-19. The President of Mongolia recently announced that enhancing food security and domestic food supply are the Government's highest priorities (Parliament of Mongolia, 2022). These high-level objectives, however, face strong headwinds. Moreover, food prices and the cost of health and medical care services have increased significantly in 2022, adversely impacting nutrition for children, adolescents, and pregnant women (ERI, 2022).

Energy is another important sector, which has been significantly impacted around the world due to the war in Ukraine. According to an assessment conducted by UNICEF (UNICEF, 2022a), Energy production in Mongolia is overly dependent on Russian and Ukrainian suppliers, while the transmission and distribution of energy is dependent on China. Sanctions adopted in response to Russian military attacks in Ukraine have serious consequences for the supply of main and auxiliary equipment and urgently needed spare parts for thermal power plants in Mongolia. Additionally, there is a risk of failure in the safe and reliable operation of the energy system due to a lack of regular maintenance (UNICEF, 2022a).

It is likely that recent socioeconomic situations reflect not only the indirect impact of the war in Ukraine but also the lasting impact of the COVID-19 pandemic. The Zero-COVID policy of the Government of China, and expansionary domestic policies in Mongolia such as the MNT¹ 10 trillion (3.2 Billion USD¹) economic recovery, the health protection plan implemented in 2021 by the Government of Mongolia also had a lasting impact on the economy (ERI, 2022).

¹ Using the average exchange rate in 2022 (1USD= 3,123.34 MNT)

GLOBAL IMPACT OF THE WAR IN UKRAINE

The invasion has affected the global economy in several ways (UNDP, 2022b). The immediate impact included:

- energy price shocks (import prices, transportation prices, inflation);
- food price shocks (unaffordability, shortages, insecurity);
- cost of financing (price distortions, increased financing needs and interest rates); and
- policy challenges (tight monetary policy, fiscal subsidies).

The second wave of impact includes:

- uncertainty (prolonged war, high economic and financial volatility, fiscal imbalances, capital outflows, limited access to global finance, FDI decline, cryptocurrency speculation);
- slowdown in demand (lower exports, high cost of imports, high cost of travel, lower remittances and tourism earnings);
- exchange rate shocks (strong dollar causing distortion, Forex intervention increasing financial pressure); and
- increased cost of debt financing (dollar-denominated debt is increasing distress for low- and middle-income economies, debt sustainability issues).

These impacts resulted in a slowdown in Mongolian economic growth and persistence in inflation. These negative macroeconomic impacts have affected the economy significantly through the following channels.

Exports: Like any other mineral resource rich economy, Mongolia's growth depends on its export performance. Volatility in commodity prices of minerals reflects global dampening in demand. The situation will lead to a decline in the value of exports if the global economy does not soon recover.

Financial repression: Aggressive contractionary monetary policy worldwide – including in Mongolia – that is designed to fight inflation is impacting businesses negatively. Non-performing loans started to increase in the third quarter of 2022.

Exchange rate and reserve pressures: The foreign exchange rate is appreciating. For instance, between January 2022 and October 2022, the US\$/MNT rate increased by 18 per cent amid high inflationary pressures and rising interest rates. The appreciation of the United States dollar is unfavourable for developing and emerging economies, increasing their vulnerability. It makes dollar denominated investments more attractive particularly in relatively stable economies and results in capital outflows (Damgaard & Munoz, 2022). Mongolia is projected to have one of the largest negative current account balances in the region due to demand for investment and debt-financing needs (ADB, 2022).

Expensive finance and risks: Higher bond yields are indicative of growing borrowing costs that increase fiscal consolidation pressures. The combination of higher speculative returns and no regulatory controls has diverted assets towards cryptocurrency. The crash of FTX has exposed the tip of the iceberg and highlights the need for better regulations in developing countries (IMF, 2022). The diversion of financial assets has reduced liquidity for real investments while a stronger dollar is worsening the debt burden. Capital outflows in emerging market economies are high and the risks of sovereign defaults among developing and emerging economies is significant. Several countries have reached out to the IMF indicating distress and requesting support from the Resilience Sustainability Trust (RST) fund (IMF, 2023). Risks to finance will affect the financing of the Sustainable Development Goals (SDGs) and debt sustainability. Since debts are not on concessional terms in most high-debt Asia-Pacific countries, they are susceptible to potential increases in costs of finance and limited access to external financing (IMF, 2022).



SOCIOECONOMIC IMPACT ON HOUSEHOLD LIVELIHOODS AND BUSINESSES

Impacts of COVID-19 and the war in Ukraine on Mongolian households

UNDP commissioned the Economic Research Institute for a survey-based rapid assessment aimed to define the nature and extent of systemic impacts of the ongoing global crisis on both household livelihoods and business environments between March 2022 and September 2022 (ERI, 2022). ERI's rapid assessment also identifies the vulnerable groups² whose livelihoods have been affected by the crisis and the value chains that have been severely disrupted. Recent changes in the socioeconomic environments of households and businesses also reflect the indirect impact of the war in Ukraine and recent shocks such as the pandemic, the Zero-COVID policy in China, and domestic shocks.

The ERI assessment included interviews with 602 vulnerable households, 80 local businesses, and 20 local authorities in Ulaanbaatar, Bayan-Ölgii, Hovd, Selenge, Arkhangai, Umnugovi, and Dornod. To assess the potential impact of recent price increases on the livelihoods of all households, a simulation analysis was conducted on the primary data of 11,199 households from the nationally representative Household Socio-Economic Survey – 2021 by the National Statistics Office (NSO).

Impact of price increases on households

The war in Ukraine has resulted in inflationary pressure, primarily driven by the rising prices of food and oil. The inflation rate was already high due to pandemic related supply disruptions. Additionally, expansionary credit policies during the pandemic increased liquidity in the economy and contributed to price increases.

As of September 2022, overall inflation reached 13.8 per cent, driven by food price increases that put more pressure on low-income groups. For instance, in July 2022, the lowest income group faced an 18.2 per cent inflation rate depending on their consumption shares, while the highest income group faced only 12.9 per cent inflation (Figure 1). Households of single parents with three or more children and households with members with disabilities, or members requiring special care, suffered the most from price increases. Such households are primarily low-income households and tend to spend a larger proportion of their income on food.

Inflation pressure on female-headed households is one to two percentage points higher than male-headed households. A recent rise in the price of flour increased total expenditures for single parents with three or more children. The price increase for vegetable oil produces a similar effect on the expenditure burden of vulnerable households. Herders suffer from gasoline price increases because they must use cars, trucks and motorcycles for their daily activities.

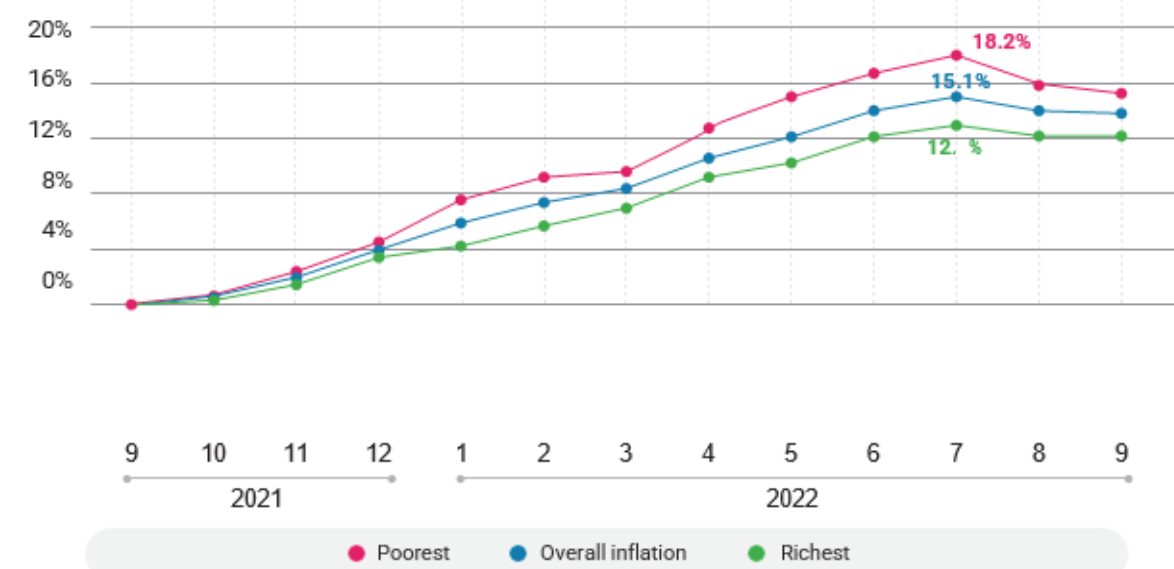
Current state of vulnerable groups

According to the survey results, 67 per cent (404) of households reported that their livelihoods had worsened since March 2022. The factors that affect deterioration in household livelihoods include low income and food and fuel price increases.

The household income of vulnerable groups is reported as insufficient. Indeed, 35 per cent (208) of households could not even meet their daily needs with their current income. This is particularly evident among households headed by a single parent with three or more children, households on food stamps, and households with disabled members. Income insufficiency for everyday household needs is more commonly observed among female-headed households.

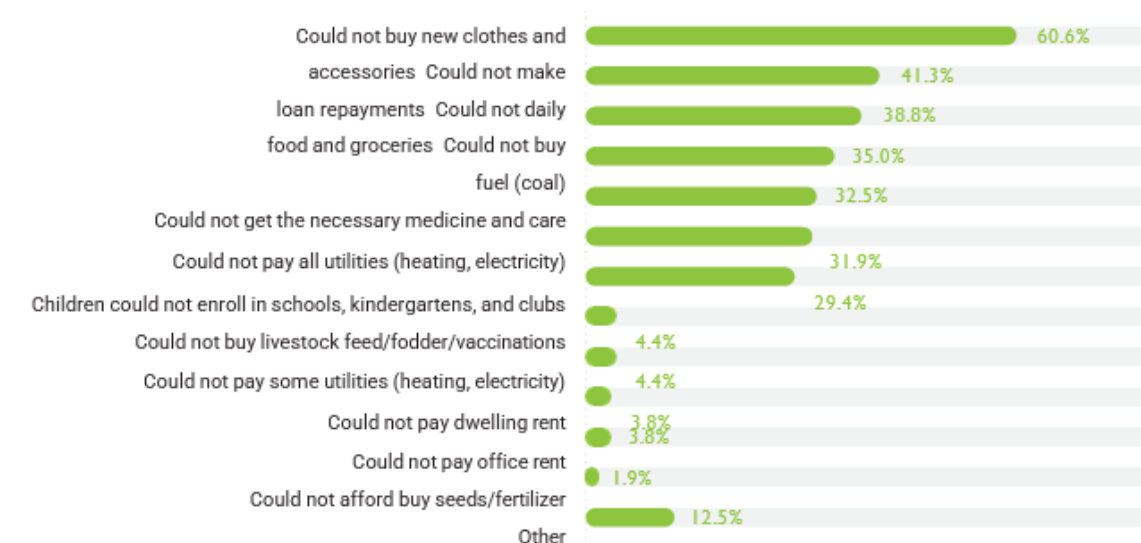
² The different groups of vulnerable households identified are: Households with disabled members or members who need special care; Single parents households with 3 or more children; Households with elderly households heads; Households with heads aged 25 or under; Households that have migrated in the past 2 years; Households beneficiaries of food stamps programs; Herder households; Single elderly people.

Figure 1: Overall inflation and inflation faced by the decile groups (compared with September 2021)



Source: ERI calculation based on HSES-2021 primary data

Figure 2. Challenges faced by the decrease in household income, percentage



Source: Rapid assessment of the impact of global crisis on households and businesses by ERI, 2022

After March 2022, 26.0 per cent (160) of surveyed households experienced a decrease in household income. To improve household income adequacy, households started working more, seeking new loans from banks and non-bank sources, and reducing their electricity and heat consumption. Furthermore, due to reduced household income, households have faced many other challenges, such as not being able to purchase new clothes, make loan payments or even afford daily food and groceries (figure 2).

The income declines and price increases led to a reduction in household consumption. Half of the households surveyed reported that their consumption had declined since March 2022 compared to the previous period. Moreover, households headed by single parents with three or more children, households on food stamps, households with disabled members, and female-headed households experienced an even greater decrease in consumption. Likewise, households in urban areas reported a more pronounced consumption decline than those in rural areas.

Initially, households cut expenses on clothing, household items, fuel, electricity, and travel. Vulnerable households also reduced their non-food consumption and consumption of staple foods such as meat, flour, and vegetables.

For instance, 266 surveyed households (44.2 per cent) have reduced their food consumption since March 2022. Households that experienced a decline in food consumption reported consuming cheaper or lower-quality foods and reducing food portions or the frequency of meals per day for both adults and children. In addition, vulnerable households increasingly borrow food from stores. The situation, therefore, drives an increase in the risk of malnutrition among vulnerable households.

Impact of Covid-19 and the war in Ukraine on businesses

The operations of small and medium enterprises have been challenging, due mainly to the lasting adverse effects of the COVID-19 pandemic. Difficulties such as supply disruptions, a shortage of human resources, and decreases in sales revenue persist. Among the firms interviewed, thirty-five (43.8 per cent) have reported disruptions in their supply chain since March 2022. The ongoing war in Ukraine has resulted in delays and hindered transportation through Russia, further exacerbating the difficulties faced by businesses. On the other hand, there has been a general improvement in import and transit transportation from China, which is a key trading partner for domestic businesses. Earlier restrictions due to the Zero-COVID policy in China, limited the number of vehicles able to cross the border, thus creating problems for manufacturing and trade sectors in Mongolia. Moreover, the recovery of businesses, particularly in sectors such as sewing, trade, and services, has been hampered by the slow return of employees who were temporarily or permanently out of work during the pandemic, especially young women.

The rapidly rising prices of raw materials have had a detrimental impact on the operations of all enterprises. High inflation, not only increases business costs; but also reduce household purchasing power leading to a contraction in market demand. The rising prices of gasoline have further burdened businesses in the agricultural sector, in remote areas, and those dependent on transportation. Many businesses are directly or indirectly affected by the war in Ukraine. In addition to fuel prices, the costs incurred by farmers importing seeds, fertilizers, machine equipment, and spare parts from Russia and Ukraine have been reported to increase significantly. As a result, the price of grains and vegetables will grow. Companies that purchase goods and raw materials from Russia and Ukraine also face supply interruptions and payment delays.

Findings from Big Data analysis of household consumption and business sales

UNDP commissioned a team of researchers from the NSO and the National University of Mongolia (NUM) to conduct a big data analysis on recent trends in household consumption and business sales. The different sources of data include the Household Socio-Economic Survey - 2021, administrative data for households receiving food stamps, Enterprise Census - 2021 data from firms on their recorded purchases and sales in the value-added tax (VAT) online receipt registration system from January 2018 until June 2022. The following key trends were observed from the big data analysis. On the demand side, household expenditure registered in the VAT system increased slightly from January 2018 to June 2022 in real terms (in 2018 prices); however, there was a sharp decline in expenditures during pandemic lockdowns. As Figure 3 indicates, monthly expenditures per person registered in the VAT system declined in November 2020 and there was a sharp decline in February 2022 for all households, including vulnerable groups.

Figure 3: Monthly household expenditures per person registered in the VAT system for some target groups, at 2018 prices

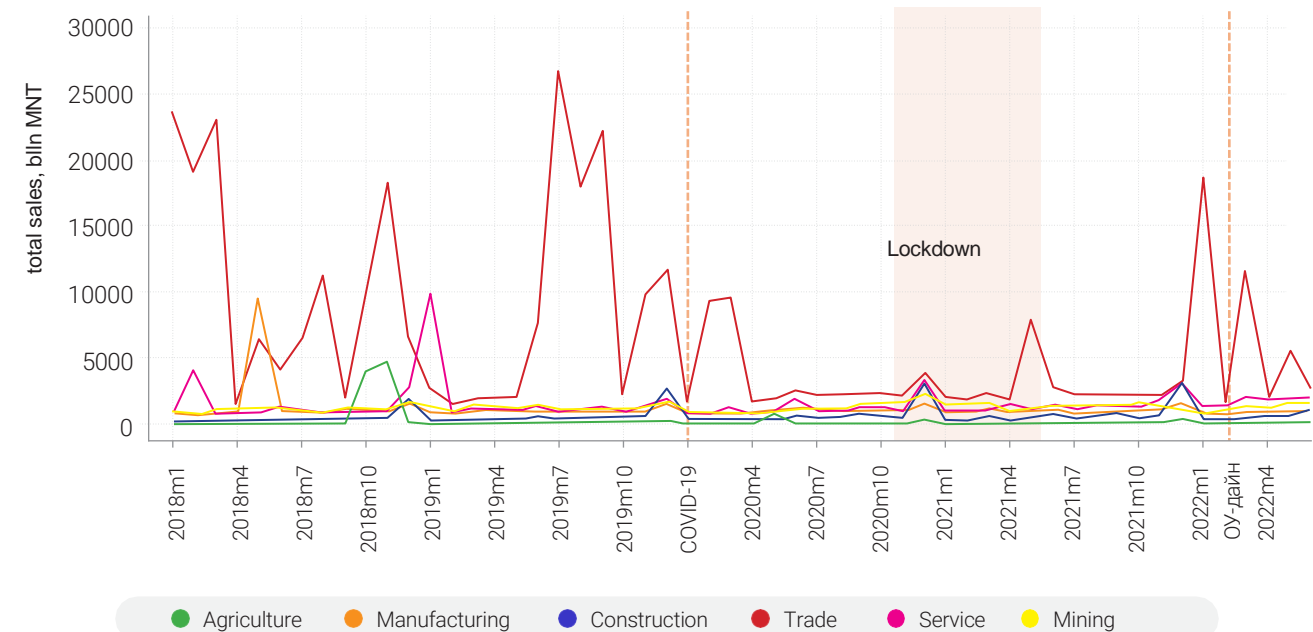


Source: Big data analysis of VAT system by NSO and NUM, 2022

In the figure 3 above, the expenditure of food stamp beneficiaries is consistently much lower than the average household's per person per month expenditure. The expenditure of food stamp beneficiaries is also much lower than in households with a member with disabilities or single-headed households with three or more children.

For monthly business sales a downward trend was observed even before COVID-19 lockdowns, and sales were meagre during the pandemic (Figure 4). Total monthly sales registered in the VAT system declined sharply in February 2022 when the war in Ukraine began. It is a common trend, that sales go up before the advent of winter months as households stock-up and then decline. Similarly, sales go up at the time the Lunar New Year holiday and decline afterwards.

Figure 4: Total monthly sales registered in VAT system, billion MNT, by sector



Source: Big data analysis of VAT system by NSO and NUM, 2022

Sales registered in the VAT system are dominated by the trade sector, followed by the services and manufacturing sectors. During the pandemic, sales in the trade sector decreased significantly due to strict pandemic control measures. Generally, VAT records of monthly sales by firms have recovered gradually since late 2021.



IMPACT ON PUBLIC HEALTH: SUPPLY OF MICRONUTRIENTS AND VITAMINS A AND D

Women’s micronutrient deficiency and risk of mortality

Malnutrition has detrimental effects on the health of women and can cause newborn prematurity, low birth weight, fetal development issues, maternal anaemia and other negative consequences. Between October and November 2022, the United Nations Population Fund (UNFPA) Mongolia undertook a rapid assessment using qualitative and quantitative methods to explore the impact of global crises on the availability and accessibility of micronutrients by pregnant and breastfeeding women, especially the most vulnerable. In the province of Bayan-Ölgii, the prevalence of anaemia in pregnant women is high, when compared with the control group of women included from Dundgovi and the districts of Bayanzurkh and Songinokhairkhan in Ulaanbaatar city.

Supply chain interruption and increasing cost of micronutrients

As the crisis continues, the health-care system of Mongolia faces unprecedented challenges related to supply chain disruptions and the rising cost of micronutrients. Since April 2022, folic acid tablets are only available in some pharmacies and pharmaceutical wholesalers in Mongolia, while injected iron has been scarce in the country and is only available in retail pharmacies. Most iron and folic acid tablets and iron injections are imported from manufacturers in Ukraine. Consequently, supply disruptions in folic acid and injectable iron have led to severe market deficiency (Figure 5).

Figure 5: Market availability and supply chain of micronutrients, and iron/folic acid

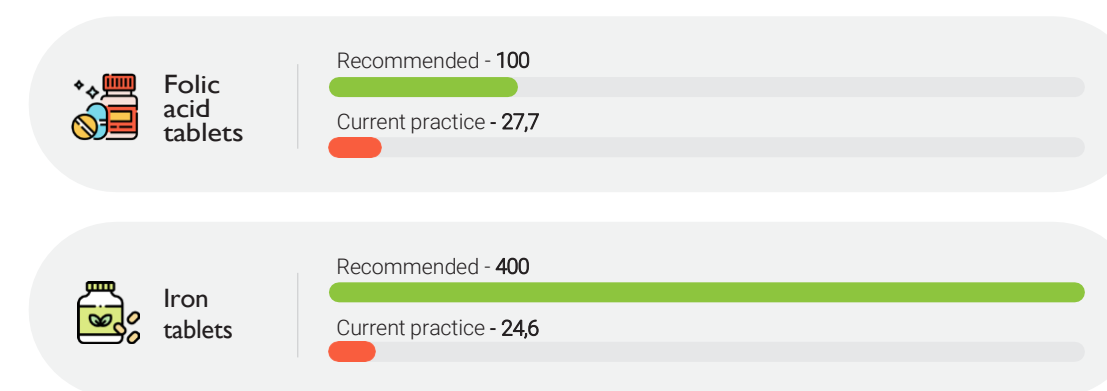


The rising cost of essential goods such as medicine, micronutrient supplements, food and energy in Mongolia and worldwide is a growing concern. The assessment examined the cost of essential micronutrient supplements for pregnant and lactating women. As Figure 5 notes, as of October 2022, the cost of iron injections increased by 11 per cent and prices of iron tablets increased by three per cent compared to January 2021 prices. Since October 2022, hospitals have depleted stocks and been forced to import new iron injections at prices 240 to 300 per cent higher. Supplier pharmaceutical companies attributed the price increase to rising inflation and shipping charges as well as growing costs for raw materials and fuels.

Consumption of iron and folic acid supplements and recommended food intake

Pregnant and lactating survey participants from vulnerable households do not take iron and folic acid tablets as national and international guidelines recommend. For instance, 24.6 is the average number of days iron tablets were taken while 400 days are recommended during and after pregnancy. Women from vulnerable households consumed 16.3 times less than this number. In addition, women took folic acid for just 27.2 days – or three times less than the recommended number (Figure 6).

Figure 6: Current practice of essential supplements for women



All women who participated in the survey buy supplements themselves. The current cost of buying folic acid and iron tablets per woman per recommended duration is MNT 416,000 to 600,000 (USD 133.2 – 192.1). Furthermore, while pregnant and lactating women can theoretically acquire the necessary minerals through a balanced food intake, nearly half of women in vulnerable households do not have enough food at all, let alone food containing the needed minerals.

Micronutrient and Vitamin A and D availability

The micronutrient rapid field assessment undertaken by UNICEF Mongolia and the National Centre for Public Health identifies current supply gaps and supply chain bottlenecks for micronutrient supplementation. It also captures market prices and determines barriers that prevent young children and pregnant and lactating women from accessing multiple micronutrients (MMN) and vitamins A and D. The assessment analyzed data from the national micronutrient supplementation program of the Mongolian government in 61 primary health-care facilities regarding supply and availability of MMNs for pregnant and lactating women and young children under the age of five. The national micronutrient supplementation program provides MMN supplements to pregnant and lactating women and children six to twenty-three months of age and high-dose vitamin A supplementation to children six to fifty-nine months old. Additional information was collected through interviews with the administration of local health departments, caregivers, and women and child caretakers.

According to (UNICEF, 2022b) Mongolia’s consumer prices for medicines are among the highest in Asia, from 2.25 to 5.56 times higher than international reference prices. The pharmaceutical market relies heavily on imported medicines, with only 30 per cent of the domestic market supplied by local medicine manufacturers.

MMN availability in health-care facilities

Across the Soum, Village and Family Health Centres that participated in the assessment, more than half (52.5 per cent) had no available multiple micronutrient stocks for both women and children. Only 24.6 per cent of health centers had MMN stocks for both women and children; 23 per cent of health centers had stocks for either women or children.

Table 1: Regular supply of MMNs

Regular supply of MMNs		Interview results					
		2020		2021		2022	
		n	%	n	%	n	%
1	MMNs for children	57	72.2	56	70.9	61	29.5
2	MMNs for women	46	58.2	46	58.2	52	42.6

Since 2019, to improve the adequacy of MMNs, most primary health-care facilities have started procurement of MMNs by using a basic budget estimation per citizen. Nevertheless, as the table indicates, the regular supply of MMNs for children and women has decreased significantly in 2022. In 2022, 41.9 of the Soum, family, and village health centres did not procure MMNs for women and children, because 19 per cent of the primary health-care facilities could not find a drug supplier and 6.9 per cent of them experienced budget shortages.

Consumption of MMN supplementation

The national micronutrient supplementation programme data revealed that the vitamin A supplementation coverage was around 85.1 per cent with the highest coverage among children aged 24 to 59 months (88.6 per cent). Children in provinces receive a higher percentage supplementation (87.1 per cent) compared to Ulaanbaatar (79.9 per cent) and coverage was highest among children receiving health-care services from Soum, Village and Family Health Centres (90.5 per cent).

Among the children aged six to 23 months, 45.2 per cent took or are currently taking multiple micronutrient powder (MNP) this year. The average number of MMN sachets consumed in the previous 12 months was 51.1 for children aged six to 11 months – a figure less than the recommended 120 MMN sachets per six-month period. The same figure for women who consumed MMNs during the year was only 29.8 percent. There was a noteworthy difference in MMN consumption between provinces and Ulaanbaatar districts (36.0 per cent vs 14.9 per cent, respectively). Overall, the consumption of multiple micronutrient supplementation among children and pregnant women is clearly inadequate.

Most children under the age of five (94.2 per cent) used vitamin D supplements. Vitamin D intake was relatively high among children in urban areas. Among women in the assessment, 57.7 per cent have taken, or are taking, vitamin D supplements. Vitamin D intake was relatively higher among women living in Ulaanbaatar (68.6 per cent). The percentage of women in Songinokhairkhan district (81.5 per cent) was particularly high compared to the Chingeltei district (56.7 per cent) and provinces (53.1 per cent). On average, women and caretakers of children spent MNT 20.610 and MNT 78.362 to buy vitamin D, respectively.

Among pregnant and lactating women, 61.5 per cent have taken, or are currently taking, iron supplements. Iron supplementation was higher among women living in provinces (67.1 per cent), particularly in Khangai region (85.1 per cent), when compared to the Eastern region (37.4 per cent) and Ulaanbaatar city (48.2 per cent).

IMPACT ON THE ENERGY SECTOR IN MONGOLIA

The United Nations Children's Fund and Nomadic New Energy research team undertook a rapid analysis of the energy sector and energy security in Mongolia as well as the affordability of clean energy technologies for households during the crises (UNICEF, 2022a).

Energy supply and demand analysis/shortfall

The country's demand for energy, both electricity and heating, has increased steadily over the past few years – due mainly to population growth, economic development, and urbanization. Mongolia, however, currently does not have sufficient generation capacity to meet its own needs and thus imports electricity from Russia and China.

Table 2: Dynamics of power production in Mongolia from 2017 to 2021, showing increased imports (GWh)

	2017	2018	2019	2020	2021
Combined heat and power plants	5,826.9	6,152.4	6,346.6	6,493.6	7,109.6
Diesel stations	3.7	3.7	3.0	2.7	1.1
Solar photovoltaics	19.7	51.5	109.0	108.9	156.9
Hydropower plants	84.5	78.2	85.4	83.3	83.1
Wind power plants	154.4	339.0	459.3	457.2	563.0
Total generation	6,089.1	6,624.8	7,003.3	7,145.7	7,913.6
Imports	1,522.5	1,683.6	1,715.8	1,705.6	1,861.8

Source: Energy Regulatory Commission - 2021 Statistics on Energy Performance

Mongolia's energy challenges during crises

The consecutive shocks of COVID-19 and Russia's war in Ukraine have made Mongolia's energy sector even more vulnerable. The crises have caused the following energy supply disruptions. Border restrictions related to China's Zero-COVID policy have caused a shortage in safety reserves of necessary spare parts and made it difficult to provide services to repair main and auxiliary equipment. Due to lockdowns and border closures, equipment needed for the maintenance of thermal power plants was stuck at the border for three to six months due to transportation and logistical challenges. Many suppliers requested supply contract extensions and, in some cases, companies cancelled contracts because of price increases and currency depreciation. The cost of spare parts for power plants increased by 35 per cent to 50 per cent. The approved 2019 state budget, therefore, was insufficient to purchase reserve equipment needed for 2020. Companies did not participate in bidding for the purchase of metal structures, boiler overhaul and fuel oil for thermal stations.

Due to increases in the price of raw materials used in the main operations of the Baganuur, Shivee-Ovoo and Sharyn Gol coal mines – such as diesel fuel, fuel oil, and blasting materials – the mines experienced poor cash flow, thus slowing mining operations.



- Imports of electricity and petroleum products have been constrained by SWIFT sanctions against Russia and adversely affected by exchange rate fluctuations. In Mongolia, 25 per cent of electricity and 90 per cent of petroleum products are imported from Russia in 2022 (NSO, 2023). SWIFT sanctions against Russia have made financial transactions difficult and slow (SWIFT, 2022). The Mongolian energy sector has lost about MNT 30 billion (9.6 Million USD) on payments for imported electricity since the start of the war.
- The surge in energy demand caused damage to power distribution network equipment. The exemption of households and some enterprises from electricity, heat, water, and waste fees for seven months, as part of COVID-19 mitigation measures, led to a 40 per cent increase in electricity consumption in ger residential districts. As a result of excessive use of electric heaters, low and medium power distribution network equipment has been damaged. The surge in electricity consumption was offset by imports from Russia. Also, the Government took measures to increase power capacity in the transmission line from 245 MW to 350 MW in July 2022.
- Both COVID-19 and the Russian war in Ukraine caused delays in scheduled technical inspections and maintenance leading to increased risks and technical failures. Many skilled engineers in the energy sector were infected with COVID-19 hence thermal power plants faced a shortage of engineers and technicians to carry out regular technical inspections of equipment and facilities. Scheduled technical inspections and calibration services, usually carried out by Russian and Ukrainian experts, stopped in the last two years. Such delays have also caused a significant increase in technical failures.
- Supply and transportation system disruptions during the war in Ukraine. Materials and spare parts for main and auxiliary equipment in thermal power plants depend highly on Russia and Ukraine. Large power pumps and high-pressure valves, supplied by both countries, have been cut off. Only 10 per cent of electric motors and 50 per cent of spare parts for turbines ordered by Ulaanbaatar Thermal Power Plant-4 have arrived from Russia. Electrical equipment has not been received. In the beginning of the war in Ukraine, equipment transported from Ukraine to Russia – through the territory of Belarus – was returned to the port of Brest, delaying transportation by two to three months. For two years, Russian and Ukrainian companies did not carry out technical inspections or adjust power transmission substations. Due to exchange rate differences, the Mongolian energy sector has lost about MNT 30 billion (9.6 Million USD) on payments for imported electricity since the start of the war.

Furthermore, the concomitant crises have reduced household access to clean energy technologies. During this challenging period, small and medium enterprises in the energy sector have suffered slow business turnover and poor sales. The installed capacity of clean energy in 2021 was 616 kW, a decrease from 2020 (689 kW); however, there was an increase in 2022 (889 kW) due to the implementation of the regulation allowing companies and individuals with their own renewable energy sources to supply surplus energy back to the main grid. During the COVID 19 pandemic, the project implementation period was delayed by six months on average due to restricted movement in and out of the city, border closures, and lockdowns. In 2021 and 2022, transportation prices increased by two to three times compared to 2020. Business turnover decreased by four to five times due to longer transportation times and slower turnover of goods due to supply chain bottlenecks. The cost of imported materials increased by 10 to 15 per cent as the exchange rate of the MNT against foreign currencies fell by 15 to 30 per cent, and the price of raw materials purchased domestically increased, making contracts made in MNT unprofitable. Since the war in Ukraine began, the supply of photovoltaics and spare parts slowed and prices have risen. In particular, shipments from Europe have stopped.

Enabling environment for low-carbon energy transition and financing

In 2019, Mongolia updated its nationally determined contribution (NDC) plans to reduce greenhouse gas emissions by 22.7 per cent versus the business-as-usual/baseline scenario by 2030 (Government of Mongolia, 2019). However, current Government actions do not yet appear to reflect a full commitment to these goals. Specifically, Mongolia is developing its renewable energy source capacities slowly, while in parallel it continues to focus on coal to meet growing energy needs. Such a practice will undermine low-carbon development plans.

Growth and the needs of the economy in terms of energy resilience. Concurrently, Mongolia's demand

for energy has increased at an average annual rate of five per cent. Economic development, urbanization and population growth are key factors behind increased energy consumption, and industrial sectors such as mining use the most energy in the country. With promising long-term development prospects, it is expected that the country's energy demand will continue to grow. In addition, by 2045 the country's population is expected to reach 5 million, about 54 per cent higher than in 2018.

Climate change and implications for Mongolia.

Due to a combination of political, geographic, and social factors, Mongolia is recognized as vulnerable to climate change impacts and is ranked sixty-seventh out of 181 countries in the 2020 ND-GAIN Index (Global Green Growth Institute, 2021).

Mongolia faces far higher rates of warming than the global average.

As Mongolia's Third National Communication to the United Nations Framework Convention on Climate Change notes, temperatures in the country rose by an average 2.24°C between 1940 and 2015. At the same time, there is both a decline in annual precipitation levels, and an increase in the frequency of thunderstorms and short high-intensity rainfall events (ADB, 2021). Indeed, climate change is leading to chronic drought and increased exposure to storms and floods. Current climate change impacts on Mongolia are especially harmful to rural communities because they are highly dependent on natural resources and closely experience the impacts of environmental change. The changing climate is driving migration to Ulaanbaatar's ger residential districts where reduced access to services, poor living conditions and lack of income opportunities enforce a cycle of vulnerability.



CONCLUSIONS

The ongoing war continues to have substantial impacts on countries that share close economic ties in trade, investment and labour with Russia and Ukraine. Mainly, economies experience these impacts indirectly through disruptions in food and energy supplies, rising commodity prices and economic uncertainty. The period since the outbreak of the war in Ukraine precisely overlaps with the period after the Government of Mongolia cancelled the heightened level of disaster preparedness established nationwide to combat the spread of COVID-19 and reduce risks; the difficulties caused by the pandemic, however, are still present. Given the performance of foreign trade and gross domestic product, there are no strong signs that the war directly impacts the economy of Mongolia. The country imports fuel and electricity supply mainly from Russia; the flow has been uninterrupted and there has been no delay in the transfer of related payments. In addition, the export and import of other goods and commodities are less dependent on Russia.

While direct macro-level impacts on the economy appear few, at the micro level many Mongolian businesses are directly impacted by the war in Ukraine. In addition to fuel, costs for farmers directly importing seeds, fertilizers, machine equipment, and spare parts from Ukraine and Russia will rise dramatically. As a result, the prices of grains and vegetables have increased. As well, companies that buy goods and raw materials from these countries face supply interruptions and payment delays. There is a risk of a decline in the mining sector's production since Russia suspended export of explosives to other countries, including Mongolia.

Certainly, the global crises have aggravated the challenges in Mongolia's energy sector over the past decade. The production side of the energy sector is overly dependent on Russian and Ukrainian suppliers. Sanctions adopted in response to Russian military attacks continue to have significant consequences for the supply of main and auxiliary equipment and urgently needed spare parts to thermal power plants. In addition, the public procurement budget is not aligned with swelling prices and depreciation of the MNT, thus creating risks to the reliability of power generation and distribution. **In the 2023 to 2026 period, Mongolia will face energy shortages. In addition, there is a risk of failure in the safe and reliable operation of the entire energy system due to non-performance of regular maintenance. Lack of affordable clean technologies in the market worsens the situation.**

Due to the war in Ukraine, the global market price of fuel and food has grown considerably, thereby impacting household livelihoods across Mongolia. Inflation, which has risen rapidly since the pandemic, places more pressure on low-income and welfare-dependent families than on other families. The FAO food price index reached its' highest level in history this year in March 2022 with a value of 159.7 (FAO, 2022). In recent months, pensions for vulnerable groups, welfare incomes, and wages have remained stagnant despite price increases. As a result, **livelihoods have deteriorated – particularly in the group of vulnerable households.** Typically, households meet consumption needs by using savings and taking out new loans. When prices rise, vulnerable households are the first to cut essential non-food expenses such as clothing, household appliances, fuel, electricity, and transportation. To this extent, the living conditions of family members decline. In particular, **children – who already lagged in education during the pandemic – face further limitations on educational opportunities and intergenerational upward mobility.**

Supply chain disruptions and inflation exacerbate food insecurity for vulnerable households. Food products represent a more significant share of consumption in poor households. Due to sharp increases in food prices, however, predominantly **low-income households with many children, female-headed households, and households receiving food stamps reduce food consumption, including nutritious foods such as meat and vegetables.** To survive, vulnerable households increasingly borrow food from neighborhood shops. For herders and farmers, who produce a significant part of their own food consumption, rising fuel prices have substantially increased the cost of farming. Rural households, therefore, are also taking measures to reduce essential needs, sell more livestock, and take out loans.

The **disruption in micronutrient supply for vulnerable populations is important to note. In the Mongolian pharmaceutical market, iron, and especially folic acid supplements, are in extremely low supply.** The dire situation is likely to escalate due to stockouts. About 20,000 pregnant and lactating women have been affected

by micronutrient deficiency, especially iron. Iron and multiple micronutrient supplements taken by pregnant and lactating mothers are insufficient to prevent anaemia during pregnancy and reduce the risk of abnormal fetal development. More than half of Soum, Village and Family Health Centers (52.5 per cent) reported no available MMNs for women or children. Only 24.6 per cent of health centers had MMNs stocks for both women and children; 23 per cent of health centers had stocks for either women or children.

Since February 2022, the **operations of small and medium enterprises have faced multiple challenges.** The main reason of concern is the lasting adverse effect of the pandemic. Difficulties such as supply disruptions, a shortage of human resources, and falling sales revenue remain. In addition, due to the war in Ukraine, transportation through Russia has been delayed. At the same time, import and transit transportation from and through China, the leading trade partner of domestic businesses, has been slow due to its Zero-COVID policy – a situation that creates difficulties for the manufacturing and trade sectors. Additionally, employees who were temporarily or permanently out of work due to strict curfews during the pandemic, especially young women, have been slow to return to work, hindering the recovery of businesses such as sewing, trade, and services.

The **rapidly increasing prices of raw materials has had a negative impact on the operations of all enterprises.** High inflation increases business costs while lowering household purchasing power and reducing market demand. Gasoline prices have increased businesses costs in the agricultural sector, in remote areas, and for those dependent on transportation. Due to the widespread deterioration of household livelihoods, sales by producers of non-food goods and providers of trade services are low.

One of the signs that the economy of Mongolia is vulnerable to external shocks is the local currency depreciation throughout 2022; the situation has harmed household livelihoods and increased business expenses through the rising price of imported products. To prevent depreciation and a shortage of foreign currency reserves, banks have taken measures to restrict foreign currency transactions; this step has led to disruptions and increased costs, especially for importing enterprises. Similarly, measures to reduce the money supply and restrict loans – implemented to reduce high inflation and the depreciation of the MNT – will cause additional problems for enterprises that have not recovered their operations and are short on cash because limited loan access and rising interest rates swell costs.

Looking ahead, **2023 and 2024 will be challenging, especially for financing debt and implementation of the new recovery policy and achieving SDGs.** On the other hand, a likely global recession will deteriorate exchange rates further. Persistent inflation can reduce real growth thereby increasing uncertainty and risk. Ultimately, a curtailed growth rate in advanced economies will impact prospects for China, thereby posing further risks for landlocked countries like Mongolia.

RECOMMENDATIONS

Based on recent assessments of the socioeconomic impacts of COVID-19 and the war in Ukraine on households and businesses in Mongolia, the following policy measures are recommended:

Leave No One Behind

1. Implement targeted social assistance programs to provide financial support and essential resources to vulnerable households, including single parents with multiple children, households with disabled members, and low-income households. This can include cash transfers, food subsidies, and access to healthcare services.
2. While it is vital to tighten monetary policy to reduce underlying inflation, adjustments should be made to minimize the negative impact on vulnerable households and small businesses that suffer more from high inflation. When consumer prices increase, it is important to expand the pensions and allowances of vulnerable citizens in line with inflation.
3. It is likewise necessary to create more business opportunities for self-employed people in small and medium-sized industries – especially women and other vulnerable populations.
4. Provide financial support, such as low-interest loans and grants, to SMEs affected by the pandemic and trade disruptions.
- 5.
6. Households not targeted through social protection measures also face cost pressures caused by price increases for non-food items and gasoline. The government should identify vulnerable households on a regular basis and target support and social protection measures accordingly.

Food Security

1. In the short term, the Government of Mongolia should focus on fighting inflation and supporting vulnerable households. Inflation needs to be stabilized, including for food and essential goods and services.
2. Implement measures to stabilize food prices and essential commodities. This can include price controls, subsidies for basic food items, and strategic reserves to ensure availability and affordability.
3. Encourage diversification of trade partners and reduce reliance on Russia and China. Explore new markets and strengthen trade relations with countries not directly affected by the war.
4. Invest in infrastructure development, particularly in transportation and logistics, to mitigate the impact of border closures and disruptions in trade routes. Improve transportation networks to ensure the smooth movement of goods and reduce costs.
5. Measures to reduce supply-side price fluctuations – such as developing ports, infrastructure, and light and heavy industries – require an extended period for completion. In the immediate future, it is necessary to pursue other public intervention measures for increasing the supply of meat, flour, vegetables, medicine, and gasoline such as building up reserves for emergency situations.
6. To build resilient food systems, better food price monitoring mechanisms should be put in place in coordination with the main price monitoring agencies: Ministry of Food, Agriculture and Light Industry and the National Statistical Office. To increase transparency regarding the root causes of the price effect on vulnerable groups, it is critical to improve price analysis and to research appropriate guidelines and policies.

7. Expand domestic agriculture activity urgently. The latest innovations and advancement in new technologies such as green houses, drip agriculture, hydroponics and aquaponics have been tested in Mongolia and can be scaled up to increase food supply.
8. The agriculture industry is highly sensitive to climate impact. Agriculture and food are high financial risk industries that people are reluctant to invest in as the agriculture output depends on the vagaries of nature. The Government needs to provide risk coverage and agricultural loans at subsidized cost to encourage local agricultural producers to use new technologies.
9. Invest in warehousing and cold storage, in partnership with the private sector, by providing interest subsidies and related tax exemptions for de-risking public private partnerships in food production hubs.
10. Build more resilient domestic food systems and promote domestic value-added production while supporting women and the most vulnerable groups.
11. To prevent malnutrition, it is imperative to improve the supply and quality of meals in schools and kindergartens on an urgent basis, given the severe risk of reduced food consumption among vulnerable children. Monitor the situation on a bi-weekly or monthly basis.

Health and Nutrition

1. Strengthen data collection and timely analysis in government departments with specific reference to health and nutrition outcomes. Monitoring and evaluation of nutrient-specific strategies, sociocultural factors, dietary patterns, and individual behaviors is proven to be more effective in improving health outcomes. More quality data is needed to understand the elements that contribute to the success of evidence-based policies.
2. It is vital to monitor the supply of micronutrients and therapeutic foods. Hence, it is critical to further improve monitoring and evaluation as well as the reporting mechanism for micronutrient supplementation.
3. The Government of Mongolia would do well to implement Integrated Result Based Management (IRBM) into planning and budgeting at all levels in the health-care system. IRBM would ensure assessments and the provision of medicines and micronutrient supplements, aligning availability with price changes, inflation, exchange rate fluctuations, and unusual demand patterns.
4. Specify budgets for micronutrient supplements under a primary health-care budget and continue capacity- building of national and subnational health professionals regarding micronutrient supplementation policy and the development of regulations.
5. Update the essential medicines list, including therapeutic milk and ready-to-use therapeutic foods. Procure essential supplements like iron and folic acid in a timely manner to make these more accessible and cost-effective for pregnant and lactating women. Early initiation of procurement in accordance with the updated budgeting method is crucial. It will make these essential supplements more accessible and affordable and will significantly reduce out-of-pocket costs for consumers.
6. Severely malnourished children need access to treatment. High-dose vitamin A and vitamin D should be provided to children in vulnerable households in a timely manner. To reduce the cost and make iron and folic acid supplements more accessible, the Government of Mongolia can support suppliers of iron and folic acid supplements through the tax environment and by fast tracking the new medicine approval system where necessary.²
7. In the midterm, welfare programmes with high participation, such as the child allowance for primary caregivers, should be prioritized in government spending under programmes for vulnerable groups



8. In the long-term, it is essential to update policies and regulations related to antenatal care (ANC) and postnatal care. These policies should be intersectional including women with disabilities and other vulnerable groups. Government agencies should develop a comprehensive clinical guidelines that includes clear recommendations for nutritional assessment and supplement intake, such as diagnosis and management of iron deficiency anemia. Provide women-centered ANC as a critical aspect of health-care services and integrate community-based interventions to enhance nutritional status and prevent anemia.

9. To improve efficiency, build coherence between relevant policy documents and the collaborative efforts of stakeholders working in maternal and newborn health care, such as midwives, obstetricians, and general practitioners.

10. Government ought to collaborate with health-care service providers in maternal and newborn health to identify innovative and effective methods to promote awareness of supplementation guidelines. To do so, employ counselling skills to improve knowledge of the consequences of inadequate micronutrient intake by pregnant women. In addition, the Government can train health-care providers to manage and monitor supplement and food intake by pregnant and lactating women.

Energy Sector

Mongolia is encouraged to adopt a just transition in the energy sector. Recent global crises have aggravated the challenges the energy sector already faced in the past decade. Based on analysis by energy sector experts, the following policy recommendations will help Mongolia both in the short- and long-term.

Short-term (2023-2025):

1. Conduct energy budget reviews and adopt result-based planning and budgeting methods in energy-related establishments, including the Ministry of Energy and government departments.
2. Update the budgeting method for energy maintenance service/work that is aligned with increases in price and inflation and is adjusted for exchange rates. Early initiation of procurement, in accordance with the updated budgeting method, is crucial to avoid disruption to energy production and services.
3. Mongolia is facing the risks associated with the legacy power system inherited from the Russian Federation. As the systems age and to prevent the risk of damage or interruption of power lines built during the Soviet era, it is necessary to have a backup import system during the war in Ukraine. To reduce dependence on Russian and Ukrainian suppliers, alternative suppliers should be identified with consideration of affordability and value for money.
4. Ensure transition to international standards in the energy sector (IEC, ISO, ASTM, etc.).
5. Introduce feed-in-tariff that addresses peak hour demand and supply for households to create an incentive mechanism for supporting clean energy technologies. This will encourage households and small businesses to install renewable energy systems and recover the cost through net metering (SEIA, 2022).

6. Encourage de-risking investments by households in renewable energy-based clean cooking and heating systems by leveraging subsidies for widespread adoption:

- a. speed up the approval process for a renewable energy system;
- b. switch to smart controlling systems in power transmission and distribution companies;
- c. introduce a renewable portfolio standard to increase production of energy generated by renewable energy technologies; and
- d. develop a carbon market in coordination with the tax system and support the creation of a compliance carbon credit exchange and trading platform.

Midterm to long-term (2026–2030)

1. Diversify energy sources to reduce dependence on Russia. This can be done by investing in and developing renewable sources such as solar and wind.
2. To ensure reliable operation of Mongolia's electric power system, seek and deploy opportunities to connect with the electric power system of Inner Mongolia in China.
3. Address regulatory and policy hurdles in time for the development of renewable energy systems to sell power to neighboring countries through a future Northeast Asian Super Grid.
4. Encourage power transmission and distribution companies to switch to smart controlling systems. For instance, during the Covid-19 lockdown there was an opportunity to use drones for inspection and diagnosis.
5. Introduce a renewable portfolio standard (RPS) to increase production of energy generated from renewable energy technologies. Specific renewable energy technologies and generators should be well defined for this reason.
6. Develop a carbon market in coordination with the tax system and create a carbon credit exchange and trading platform.
7. To attract foreign investment in renewable and alternative energies, Mongolia will need to make renewable energy commitments, prepare a roadmap for a just energy transition, use a sustainable finance framework, and announce energy compacts.

Other Policy Measures

1. Evaluate distributional and negative impacts of subsidies by the Government of Mongolia when implementing any subsidy programme, such as mortgage loan discounts, coal based electricity and heating subsidies, and gasoline price subsidies. Provide targeted subsidies to vulnerable households in areas which can improved their productivity and lift them out of poverty.
2. Welfare and subsidy reforms will be effective only when broader fiscal policy reforms are made. To reduce the state budget deficit and thereby increase access to much-needed targeted programmes, it is necessary to make significant cuts to inefficient budget expenditures, reduce state involvement, and make privatization reforms.
3. It is also important to expand the tax base and include all eligible citizens and enterprises in the tax net, thus ending tax exemptions for the value added tax, personal income tax, corporate income tax, and the livestock tax. Also, build the capacity of the tax administration and train them on tax evasion to increase tax revenues.

2 - According to UNFPA 2022 The current approval and registration process for new medicines can take six to twelve months.



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