Mongolian Economy

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UMNUGOVI THE FUTURE OF DEVELOPMENT

Mining Land of mineral wealth

Guest

Kh.Tumendelger: The island's nature has begun to draw tourists like a magnet **Tourism** The endless allure of the southern Gobi



FIRST MINE WHICH HAS A RICH HISTORY OF HALF OF CENTURY

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TAVANTOLGOI JOINT STOCK COMPANY

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To be a partner in our nation's prosperity by creating a world leading, safe and sustainable copper business together

Natural wealth to enduring value, knowledge and skill

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- Ensuring a safe, healthy, inclusive, and diverse workplace and culture
- Attracting, retaining and motivating people by creating a place where multiple generations are proud to work
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Finding ways to decarbonise our

business as part of the planet's

Finding better ways to mitigate

land, water and air quality

water security

Partnering to support national

the impacts of future closure

the impact of our operations on

decarbonisation journey



PARTNERING FOR PROSPERITY BY:

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COURAGE

We act with courage by showing integrity, speaking up when something is not right and taking decisive action when needed. We are not afraid to try new things. We respond positively in difficult situations and demonstrate commitment to achieving shared goals.

CURIOSITY

We act with curiosity by inviting diverse ideas and collaborating to achieve more together than can be done alone. We are continuously learning, creatively looking for better and safer ways of doing things. We draw inspiration from others and the world around us.



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Editor-in-Chief message

Umnugovi - The future of development

The "Mongolian Economy" magazine is publishing a special issue dedicated to the "Invest Gobi-2023" forum, which outlines the future development prospects of Umnugovi province.

Umnugovi is indeed renowned as a mining province, home to several major mining companies. Notable among them are "Ovu Tolgoi," "Erdenes Tavantolgoi," "Tavantolgoi," "Energy Resources," MAK, and "South Gobi Sands." These companies contribute significantly to both national and local budgets through tax payments. Consequently, Umnugovi is a province that doesn't rely on state budget subsidies but rather contributes its share to the budget. Since 2010, the province has consistently ranked among the top three out of 21 provinces in terms of revenue generated for the state budget. In 2022, it allocated 145 billion MNT to the state budget, accounting for 5.3 percent of the total state budget revenue. Some soums, such as Khanbogd and Tsogt-Tsetsii, have progressed to the extent of aspiring to become cities.

In this special issue, we aim to shed light on the development opportunities that extend beyond the realm of mining in Umnugovi province.

The "Competitiveness Report of Provinces," an annual publication by the Economic Policy and Competitiveness Research Center, has consistently ranked Umnugovi Province as a strong performer in economic and social development over the last five years. In 2022, the province achieved the top ranking in economic performance among 21 provinces and secured the seventh spot in infrastructure development.

Umnugovi is experiencing rapid growth and holds a promising future. Our magazine team had the opportunity to witness this firsthand during our visit to the province. We observed the province's commitment to channeling the benefits of mining wealth into local development and the well-being of its residents. Substantial investments are being made in constructing paved roads and infrastructure, which serves as the foundation for development.

Tourism is an industry poised for significant growth in tandem with the mining sector. About 30 tourist camps are operating in the province, which has great potential and resources for the development of this eco-friendly industry. The province is indeed a land of abundant wealth beneath the surface, complemented by its rich aboveground resources. Umnugovi boasts stunning natural landscapes, historical monuments, and ancient sites that attract tourists.

The development of paved roads leading to key tourist destinations and major investments in tourism infrastructure is already underway. As part of the "Urban and Rural Recovery" initiative, efforts are focused on creating a holistic development strategy that encompasses agriculture, borders, and ports. The influx of people and enterprises into the province, driven by major mining projects, is increasing year by year.

Undoubtedly, there are challenges to overcome. Mitigating the negative



At the Khongor Sand. August 2023

environmental impact of mining remains a significant concern, necessitating a strong commitment to responsible mining practices. Addressing the pressing issue of water scarcity is also paramount, and finding sustainable solutions is a top priority for provincial authorities.

In this special issue, we also cover critical topics such as climate change and desertification.

In conclusion, Umnugovi stands as a region brimming with immense potential to attract both foreign and domestic investments. The province boasts opportunities in mining, renewable energy, tourism, and agriculture that are ripe for foreign investor participation. As Umnugovi's development gains momentum, numerous investment-ready projects await both foreign and domestic investors, painting a bright future for the province.

Editor-in-Chief D.Bekhbayar

ECONOMY



Main essay Shaping development in Umnugovi

In nominal GDP per capita, Umnugovi ranked third after Ulaanbaatar and Orkhon Provinces

Ver the past decade, our country has embarked on significant projects aimed at harnessing its mining resources for economic growth. Umnugovi province boasts three substantial deposits: Tavantolgoi, Oyu Tolgoi, and Naryn Sukhait. Notably, Umnugovi is among the select few provinces making noteworthy strides, serving as a benchmark among Mongolia's 21 provinces, with key players like "Oyu Tolgoi", "Tavantolgoi", "Erdenes Tavantolgoi", "Energy Resources", "Munkh Noyon Suvarga", "Dung Yuan", "Olon Ovoot Gold", "Zuv Zug", MAK, "Chin Hua-MAK Naryn Sukhait", "South Gobi Sands", "Usukh Zoos", "Terra Energy" and "Javkhlant Ord" companies are actively engaged in mineral extraction.

The Economic Policy and Competitiveness Research Center conducts annual assessments of Mongolia's 21 provinces, employing over 180 indicators to produce the "Provincial Competitiveness Report". According to this report, Umnugovi province has consistently ranked within the top four in terms of economic performance and social development over the past five years. In 2022, it clinched the top spot for economic performance among the 21 provinces and secured the seventh position for infrastructure development.

Provinces hosting mega-mining projects experience substantial development and economic growth. In the case of Umnugovi province, mining plays an integral role in its development. As of 2021, there are 14 active mines, contributing a substantial 40% to the province's GDP. In nominal GDP per capita, Umnugovi ranked third after Ulaanbaatar and Orkhon provinces by 2020. The agricultural sector maintains steady growth, while recent years have witnessed a remarkable expansion in the construction and service sectors.

Since the advent of active mining in 2010, Umnugovi province has consistently ranked among the top three out of 21 provinces in terms of revenue contributed to the state. For instance, in 2022, it contributed 145 billion MNT, accounting for 5.3% of the national budget revenue.

Furthermore, the number of enterprises operating in Umnugovi province and their sales income continue to soar. In 2018, there were 2,660 active



enterprises, a figure that has grown to 4,000 by 2022.
 Such rapid growth is not possible in other provinces.
 In parallel with this economic expansion, the province's population, which stood at approximately 22,000 in 2018, has surged to 75,000 today.

The mining sector has undeniably played a significant role in the development of Umnugovi province. However, relying solely on one industry is a flawed approach. Looking ahead, Umnugovi aims to become a main hub for the overall development of the Govi region in Mongolia. To achieve this, the province has adopted a policy aimed at reducing its dependency on the mining sector, opting instead for a diversified and sustainable development path. This strategy involves the development of tourism and agriculture in the central region, mining and tourism in the eastern region, and primarily mining in the western region.

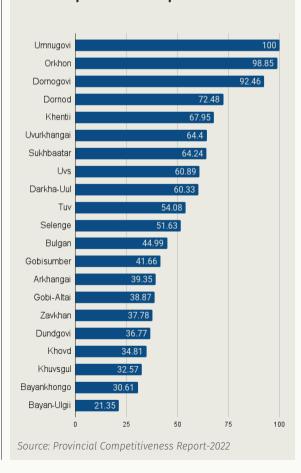
Furthermore, Umnugovi province is actively pursuing policies that promote economic diversification, including support for coal-chemical plants, light industries, agriculture, infrastructure, food production, tourism, and other sectors within the knowledge economy.

In 2022, the resolution to establish an "Industrial and Technology Park " was approved by the Citizen's Representative Khural. The park's electrical infrastructure was completed last year, and work on connecting it to the sewer line commenced this year. The establishment of this park is expected to yield numerous positive outcomes, including stable employment opportunities for residents, proximity Umnugovi possesses a valuable opportunity for cross-border trade and tourism development of work and living spaces, and improved access to education for children.

As the saying goes, development often follows the road. In 2014, a significant milestone was achieved with the opening of the Mandalgovi-Dalanzadgad highway, establishing a crucial road link connecting Umnugovi province to Ulaanbaatar.

Furthermore, the construction of the Dalanzadgad-Gurvantes highway, spanning 302.7 kilometers, commenced in 2014. A substantial 199 kilometers of this highway have already been built, with an investment of 262.5 billion MNT from the local budget. It is anticipated that an additional 80 kilometers of this highway will be completed by 2024.

Economic performance of provinces



► Another noteworthy highway project in Umnugovi province is the construction of a 230-kilometer route connecting Dalanzadgad, Bulgan, and Mandal-Ovoo soums. This project, funded by 775 million MNT from the local budget, is expected to significantly enhance tourism and domestic transportation in the region.

In an effort to position Dalanzadgad as a central hub for tourism, a feasibility study has been approved, and preliminary preparations have commenced for the construction of the "Gurvan Saikhan" airport. This airport complex is designed to receive class 4C aircraft and will offer passenger services.

Umnugovi boasts two major ports: Shiveekhuren-Sehe in Gurvantes soum and Gashuunsukhait-Gantsmod in Khanbogd soum. Gashuunsukhait-



After 2030, the sustainable supply of underground water for cities, industries, and mining activities may become unfeasible Gantsmod handles over 50% of the export volume for copper and coal, which are the primary products of the mining industry, while Shiveekhuren port facilitates approximately 25% of these exports.

A pivotal development in this regard is the construction of a 7.1-kilometer railway that connects Shiveekhuren to China's Sehe port, which commenced in May. This project, undertaken through a public-private partnership, is expected to be completed within six months. Upon the railway's completion, Shiveekhuren port's throughput capacity will double, allowing for the transportation of up to 20 million tons of cargo.

During his official visit to China in 2022, Prime Minister L.Oyun-Erdene and his Chinese counterpart mutually agreed to commence the construction of the Gashuunsukhait-Gantsmod port railway by 2023 and bring it into operation by 2024. This strategic development positions Mongolia to engage in mutually beneficial economic, trade, and investment cooperation with neighboring and third countries.

Umnugovi province possesses a valuable opportunity for cross-border trade and tourism development, leveraging its advantageous geographical location and extensive infrastructure improvements.

It's worth noting that Umnugovi, situated in an arid region of Mongolia, faces challenges related to surface water scarcity. Projections indicate that after 2030, the sustainable supply of underground water for cities, industries, and mining activities in the Gobi region may become unfeasible.

However, addressing industrial water requirements can be achieved through surface water solutions. One example is the "Orkhon-Ongi" ecoproject, which focuses on revitalizing the Red Lake by enhancing the Ongi River's flow, which originates from the Orkhon River. Additionally, under the "Local endowment" program, a dedicated council for monitoring water resources and their use has been established by the Citizen's Representative Khural.

Considering the growth driven by the mining sector, numerous projects and initiatives are poised for launch to diversify the economy and bolster future prosperity. Umnugovi province is diligently assessing its resources and identifying priority sectors for further development, actively translating the plans into action.

infographic

 Provincial budget revenue

 (2018-2022, million MNT)

 2018
 163718.6

 2019
 135590.2

 2020
 128943.4

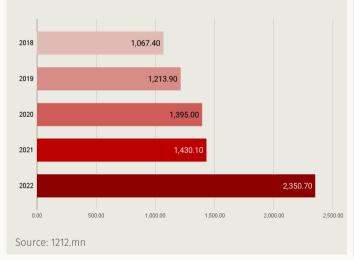
 2021
 171482.7

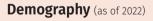
 2022
 356141.8

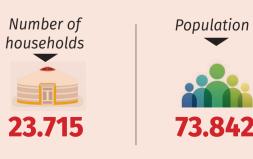
 Source: Governor`s office of Umnugovi

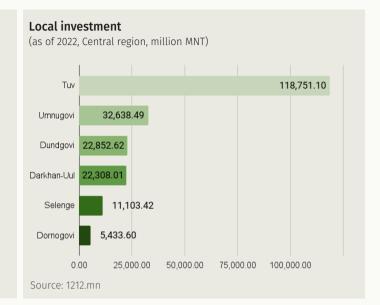
Average monthly salary

(as of 2018-2022.IV, thousand MNT)



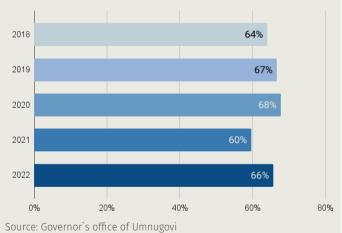






Employment rate

(2018-2022, percentage)



Number of tourists (2022)



Governor

R.Seddorj: Committed to ensuring that no one is left behind in our development efforts



Umnugovi province plays a pivotal role in the Gobi region We interviewed R.Seddorj, Governor of Umnugovi province and discussed the province's development, investments, and major projects.

-How do you envision the development of Umnugovi province through regional cooperation?

-It's evident that Umnugovi province plays a pivotal role in the Gobi region. In terms of cooperation with other provinces and creating conditions for collaborative development, I'd like to highlight several key aspects.

Firstly, the four provinces within the Gobi region should adopt unified and coordinated development policies and planning alongside their individual strategies. For instance, our province boasts abundant mining raw materials and resources, while Dornogovi province is in the process of constructing an industrial park. This synergy highlights the potential for complementary economic activities where one province can provide raw materials, and the other can accommodate processing facilities, with necessary infrastructure connecting them. ► Secondly, common challenges and issues, such as pasture land degradation and declining grazing capacity in the Gobi provinces, as well as the shared vulnerability to climate change, must be tackled collectively. As a pillar of the Gobi region, our province is well-positioned to play a central role in addressing these challenges.

-Can you provide an update on the "Local Endowment" program and how it's progressing?

-The "Local Endowment" program of the 2020-2024 Action Plan for the Governor of Umnugovi province has a unique history. In the years 2008-2012, the Democratic Party implemented an initiative to distribute 500,000 MNT in cash to every citizen of the province. However, this practice was discontinued in 2012 due to political parties being prohibited from distributing money to citizens.

Now I would like to provide context for the reintroduction of the "Local Endowment" program. Umnugovi province is home to 16 active mines, with numerous exploration licenses granted. Despite this, the province faces numerous challenges and difficulties in terms of climate change and living conditions. Consequently, it was decided to allocate the revenues and income generated from natural resources to improve the health and education sectors, enhance the quality of life for citizens, stimulate local economic growth, and enhance governance within the framework of the "Local Endowment" program.

Endowment is a five-word acronym. "Х" (хөгжил) signifies development, focusing on economic development that encourages local production, employment, and inclusive growth. "И" (ирээдүй) stands for the future and emphasizes citizen education. We have many projects in the field of education. "Ш" (шударга) represents the establishment of a fair, transparent, open, and corruption-free governance. "И" (итгэл) symbolizes faith and encompasses social policies, social security measures, and health policies, all of which receive significant attention and effort. "Г" (говь) underscores policies aimed at preserving the Gobi region, its water, pastures, and nature.

It can be understood that the development of Umnugovi province is pursued in these five directions. Specifically, we aim to become a province with educated citizens, fair governance, robust health and social protection services, and a well-preserved environment. The "Local Endowment" program's progress is assessed on an annual basis, and for this year, the implementation rate stands at 81.5 percent. As part of this program, approximately 100 kilometers of roads have been constructed using local funds, and ongoing projects include the development of infrastructure networks, provision of heating systems, and the installation of clean water and sewage solutions for the soums.

-16 companies such as "Oyu Tolgoi", "Tavantolgoi", "Erdenes Tavantolgoi", and "Energy Resources" are operating in Umnogovi province. How profitable are these projects for Umnugovi province?

-We have established cooperation agreements with companies that hold mining licenses, as required under The Minerals law of Mongolia. Under these agreements, certain revenues are directed towards the province's development.

For instance, the "Gobi Oyu Development Support Fund," in collaboration with "Oyu Tolgoi," was established seven years ago, and this year, it is allocating 6.1 million US dollars for the implementation of various projects in the province. We also have ongoing projects with "Erdenes Tavantolgoi," amounting to 5 billion MNT annually. "Energy Resources" carries out specific activities as part of its social responsibility, while "Mongolyn Alt" LLC supports the payment of energy tariffs in three soums of the western region. Additionally, this year, the locally-owned "Tavantolgoi" JSC distributed 126 billion MNT as dividends to the province.

These investments and dividends are dedicated to various purposes, including improving medical services, enhancing educational facilities, constructing soum centers, and building roads. Furthermore, an amendment to the Law of Mongolia on administrative and territorial units of Mongolia and their governance has created a new tax environment, with a certain percentage of Corporate Income Tax (CIT) and Personal Income Tax (PIT) being retained in the provinces and soums. While this generates revenue for the local budget, the amount of revenue collected by Umnugovi province to the state budget is increasing every year, with a target of collecting 451 billion MNT by this year.

In our development plans, we carefully consider the social and economic conditions of the soums, ensuring that our budget planning and investments

We aim to become a province with educated citizens, fair governance, robust health and social protection services, and a well-preserved environment adhere to the principle of leaving no one behind. These plans take into account the opinions of soum residents and members of the Citizens Representatives Khural. The Governor's Office also conducts extensive research, incorporating the results into our planning. Our approach is to create plans that align with local characteristics to ensure that no citizen is left behind in the development process.

Our budget planning and investments adhere to the principle of leaving no one behind

-Umnugovi province has a lot of experience in working with mining companies. What challenges and problems still exist in cooperating with mining companies?

-I have substantial knowledge of the challenges faced by mining companies and the considerations necessary for effective communication with local communities. Additionally, as a governor, I am well aware of the responsibilities of both the state and local governments in this regard.

One notable challenge is the absence of management and directors of mining companies, except for "Tavantolgoi," within our province. They are all located in Ulaanbaatar, which can lead to communication issues. This physical distance creates a disconnect between the companies and the local citizens, affecting company-resident relations. To address this, I am actively engaging with mining companies to encourage them to establish offices in Umnugovi and construct employee facilities in the mining areas. This approach aligns with the government's direction. "Oyu Tolgoi," "Tavantolgoi," and "Erdenes Tavantolgoi" companies are actively working towards this goal.

Another challenge lies in the inconsistent implementation of cooperation agreements. To ensure these agreements are adhered to, we are placing emphasis on tripartite councils, cooperation committees, and other collaboration mechanisms.

-What is your perspective on the potential discovery of another deposit akin to Oyu Tolgoi in Umnugovi province?

-There are several promising possibilities in our province. Firstly, there are 11 renewable energy projects in our province that could leverage our abundant solar and wind resources. In a world that's increasingly focused on achieving zero carbon emissions, the reserves of renewable energy present a significant opportunity for economic growth.

Methane gas projects are another area of interest, with four large projects currently under research and in the exploratory phase. All four companies are listed on foreign stock exchanges. The potential for methane gas will become a valuable resource in Umnugovi.

Additionally, there is an exploration at the Kharmagtai site, which holds promise for significant deposits of gold and copper.

Also our province boasts rapidly developing infrastructure, including various railway and road projects. These sectors position us well to potentially discover the next Oyu Tolgoi.

Furthermore, beyond our land resources, the development of human resources is paramount. In this regard, the establishment of a Technology School of the Mongolian University of Science and Technology in Dalanzadgad is a significant step forward. This school has the potential to grow substantially in the future, producing skilled engineers and professionals equipped with the knowledge and technological skills needed to contribute to Umnugovi's development.

-What is the progress of implementing the Urban and Rural Recovery aspect of the New Recovery Policy?

-Urban and Rural Recovery stands as a pivotal objective of the Government, and we're actively pursuing several initiatives to attain this goal.

Firstly, there are many unregistered workers in Umnugovi. We are collaborating with mining companies to find solutions for individuals who have been working in the province for extended periods but have not officially relocated. It is crucial to create conditions that enable mining workers to work and reside with their families in the province.

Secondly, while the government increased civil servants' salaries by 20 percent, the province has taken the initiative to further enhance these salaries within its means. In December 2022, the Citizens Representative Khural approved a provincial budget that included an 80 percent increase in civil servant salaries. This significant step has improved the working and living conditions for approximately 4,500 civil servants in the province, making Umnugovi a more attractive place to work. Additionally, as part of the "Local Support" program, every citizen employed in Umnugovi receives a supplementary 400,000 MNT, further incentivizing residents to work in the province.

Thirdly, the provincial budget is being utilized to purchase apartment units with the aim of providing housing for employees. For instance, in Khanbogd, Tsogtsetsii, and Gurvantes soums, apartment units are procured using local funds and allocated to civil servants or skilled professionals who are relocating ► to work in the region. The "Urban-Rural Recovery" aspect of the "New Recovery Policy" is led by Umnugovi province.

Moreover, our province should improve its business environment through various infrastructure projects that generate numerous employment opportunities.

-How favorable is the environment for foreign investment and doing business in Umnugovi province?

-We have undertaken two primary initiatives. Firstly, our efforts are concentrated on establishing a conducive environment for factories. Over the past three years, we have spent 11 billion MNT to build the infrastructure of Dalanzadgad Industrial Park. Companies interested in establishing factories will have the opportunity to obtain land through a selection process. Various types of facilities, including leather and wool processing, packaging, heavy metals, construction materials, recycling plants, and slaughterhouses, can be constructed within the park. A comprehensive master plan has been developed for the industrial zone, delineating specific locations for infrastructure development. This undertaking is of paramount importance as it promotes investments in Umnugovi, encourages both foreign and domestic investments, and establishes a robust business infrastructure.

Next endeavor is supporting individuals who aspire to initiate businesses in Umnugovi by providing them with financial resources. My proposal to create a dedicated source of credit, designated for small and medium-sized enterprises (SMEs) was backed by the Citizens Representative Khural and the Provincial Democratic Party. In the last two years, Umnugovi province has accumulated 10 billion MNT in the SME Development Fund, and repayments are disbursed to finance companies. This policy is of great significance in facilitating entrepreneurship and business growth in our province.

-What are the dreams of the people of Umnugovi today?

-Two key priorities come to my mind. Firstly, the pressing issue we have been extensively addressing and advocating for at all levels is water. Umnugovi province lacks surface water resources, necessitating the urgent construction of a water pipeline connecting Dalanzadgad and Tavantolgoi. We allocated 1.4 billion MNT from the provincial budget to conduct a feasibility study for the Ulaan Nuur-BulganDalanzadgad-Tavantolgoi water pipeline. This project is imperative and has been a longstanding aspiration shared not only by me but also by the province's residents.

Secondly, the people of Umnugovi have an affinity for the color green and a profound love for trees and plants. Their dream is to cultivate as many trees as possible and live in a green environment. As part of the "Billion Trees" national campaign, we aim to plant 70 million trees by 2030, with mining companies contributing by planting 400 million trees. Infrastructure for seedling preparation and tree planting will be ready by 2025 with investments from the province and enterprises. Numerous forest departments and tree nurseries have already been established. Additionally, construction has commenced on the "Green Wall of Gobi," spanning 100 kilometers in length and 500 meters in width, extending from Dalanzadgad towards Bulgan.

-Umnugovi province has earned the distinction of being the best province in Mongolia in recent years. What has been the key to this achievement?

-Since 2010, Umnugovi province has secured the title of the best province on seven occasions. This remarkable success is the product of collaboration between the people, businesses, and government entities within Umnugovi province, all working cohesively toward a common objective.

The province's consistent presence within the top three spots in the competitiveness ranking of provinces, as reported by the Economic Policy and Competitiveness Research Center, has now spanned 15 years. This accolade is the result of both the continuation and enhancement of policies and initiatives spearheaded by past governors, as well as the implementation of new policies and projects. Notable achievements include the construction of the Dalanzadgad-Gurvantes highway and the opening of new theater and museum facilities in Dalanzadgad. I believe that these accomplishments have significantly contributed to our province's recognition as the best.

Moving forward, our aim is to further build upon these achievements, enhance our efforts, and address the needs of our citizens. It is especially crucial to address the challenges faced by vulnerable social groups, including people with disabilities, the unemployed, and female-headed households. Umnugovi province is committed to ensuring that no one is left behind in our development efforts and will strive to bring progress to every family. A water pipeline project is a longstanding aspiration shared not only by me but also by the residents

Mining

Land of mineral wealth

The province aims to become the driver of the Gobi region's development by fostering value-added productions

Main industry

The pivotal role of the mining sector in the development of Umnugovi province has been evident since 2000. During this period, the mining sector witnessed a substantial surge in production and investment, significantly contributing to overall economic growth of the province. While copper concentrates dominated past exports, the mining and concentration of resources like coal and iron ore

experienced rapid expansion.

Concurrently, Umnugovi province witnessed an upsurge in mining activity and coal exports, after the commencement of transformative projects such as Oyu Tolgoi, Tavantolgoi, and Naryn Sukhait. These milestones ushered in a new era of development in southern Gobi. A groundbreaking moment occurred on September 6, 2009, with the signing of the investment agreement for the Oyu Tolgoi project



Iocated in Khanbogd soum, Umnugovi Province—a historic milestone in Mongolia's mining history. Simultaneously, initial steps were taken to bring the Tavantolgoi mine in Tsogtsetsii soum into economic circulation.

Currently, Umnugovi province has 55 enterprises holding exploration licenses and 106 with operational permits, with 16 companies actively engaged in mining activities. This region boasts over 80 mineral deposits and more than 200 mineral occurrences. During the initial phases of mineral extraction and export, Umnugovi's development strategy was closely intertwined with the mining sector.

However, Mongolia recognizes the paramount



Umnugovi province has 55 enterprises holding exploration licenses and 106 with operational permits, with 16 companies actively engaged in mining activities importance of fostering the holistic growth of sectors beyond mining. Adhering to this principle, it's crucial to acknowledge that an exclusive reliance on the mining industry in Umnugovi province could lead to local development stagnation, long-term competitiveness erosion, and the concentration of labor force participation in a single sector. Such a scenario could impede the prospects for diversified economic development in the region in the long run.

Therefore, with revenue from the mining sector, the province has supported various sectors, including education, tourism, science and technology, and infrastructure, in order to promote multifaceted growth which is included in the development policy of the province.

In other words, harnessing natural resources for the benefit of other sectors has enhanced local prosperity and citizens' quality of life. For example, Umnugovi province's regional development program from 2010 to 2015, the construction of mining projects and the basic infrastructure of such projects were carried out in accordance with the urban development policy. Subsequently, during 2015-2020, particular attention was paid to a multitude of projects and programs that were focused on boosting the manufacturing sector, enhancing economic efficiency while improving public services, and environmental preservation, thereby creating economic self-reliance.

In the future, the province aims to become the driver of the Gobi region's development by fostering value-added productions based in mining.

Mining companies operating in Umnugovi province contribute to community development in two ways. At first, through cooperation agreements signed with local administrations, they provide investment and support for the community. For instance, in 2015, Umnugovi province entered into a cooperation agreement with the Oyu Tolgoi company that allowed the establishment of the "Gobi Oyu Development Support Fund," which allocates five million US dollars annually to local development. Over the past six years, more than 100 billion MNT have been invested in the development of Umnugovi province through this fund. Following a similar approach, Erdenes Tavantolgoi JSC established the "Erdenes Tavantolgoi Development Support Fund" in 2020, dedicating three billion MNT to local development. In 2022, these funds were directed towards projects such as the construction of paved roads in Tsogtsetsii soum and infrastructure development in the new residential area.

Secondly, they contribute to community development through tax revenue. The Law of Mongolia on Administrative and Territorial units and their Governance, a fundamental legal framework that regulates citizens' lives and promotes local development, underwent revisions and became effective in 2022. As per this law, 40 percent of corporate income tax is allocated to provincial and local budgets.

A mine boasting a hundred-year legacy

"Tavantolgoi" JSC has emerged as a trailblazer in Mongolia's coal industry, spearheading coal exports. The discovery of coal by local residents in 1934 marked its initial use in daily life.

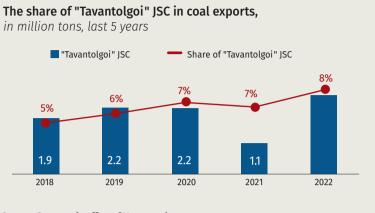
In 1966, mining operations officially commenced following a resolution by the Council of Ministers of the Republic of Mongolia. On December 5, 1994, it transitioned into a state-owned joint-stock company, and in 2004, it undertook its inaugural coal export. By 2011, "Tavantolgoi" JSC had exported a remarkable six million tons of coal, single-handedly constituting 30 percent of Mongolia's total coal exports.

Today, it continues to make substantial contributions to both the local and national economies. Notably, in 2022, its coal production surged by 52 percent, sales by 58 percent compared

Number of mineral exploration and exploitation licenses

(2010-2022, share in territory of the province, in percentage)





Source: Governor`s office of Umnugovi

Tavantolgoi`s

suraed by 52

percent. sales

by 58 percent

compared to

the previous

vear

coal production

to the previous year. With exports totaling 3.2 million tons and 100,000 tons of coal sold domestically, it generated 162.4 billion MNT in revenue and contributed 296.7 billion MNT in state and local taxes.

Umnugovi province holds a 51% stake in "Tavantolgoi" JSC, with the remaining 49% ownership being shared among Mongolians and over 2600 shareholders spanning 23 countries. The company ranks among the top 20 constituents of the Mongolian Stock Exchange TOP-20 index and consistently provides high dividends to its shareholders.

"Tavantolgoi" JSC jointly devised a strategic plan with NUM in the field of environmental protection and conducted fundamental research across four soums in Umnugovi province. Preparations for establishing a tree nursery, a training, research and innovation center in Nomgon soum, materialized last year. Additionally, a tree nursery was established in Dalanzadgad on three hectares, where 1.8 million seedlings were grown.

Furthermore, "Tavantolgoi" JSC has committed to planting 7.5 million trees by 2030, reinforcing its dedication to environmental stewardship.

On the infrastructural front, the company undertook technical rehabilitation on a 53 km stretch of improved dirt road in the Tavantolgoi-Gashuunsukhait direction. As part of their environmental protection endeavors, a fully automated well was constructed in the Bayanbor mountain range in Sevrei soum. These initiatives reflect "Tavantolgoi" JSC's substantial investments in local development and environmental protection.

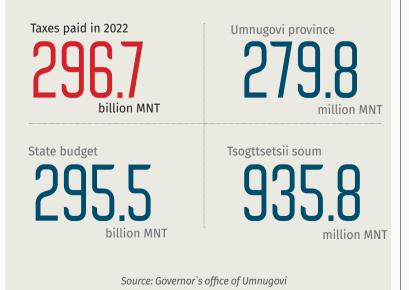
Mining and green Umnugovi

While the mining industry has brought significant advantages to Umnugovi province, it has also posed several formidable challenges. Mining extraction and activities have had a considerable adverse impact on the environment, contributing to issues like desertification, yellow dust storms, the depletion of grazing land for wildlife, soil pollution, and water scarcity. Consequently, the province is committed to transforming mining companies into environmentally responsible entities without opening new mining operations.

To achieve this goal, mining companies are actively engaged in transport infrastructure projects. Moreover, they are taking measures to rehabilitate areas impacted by mining exploration and activities, ensuring these spaces are appropriately restored and returned to local communities.

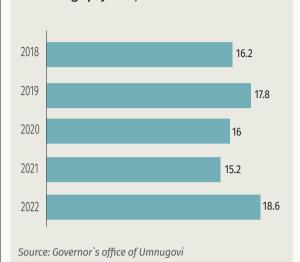
Policy support is directed towards large-scale mining projects that implement eco-friendly technologies, minimizing waste mineral resources and reducing environmental harm. Moreover, provincial authorities have recognized the importance of initiating discussions regarding mine closures. In this forward-looking approach, the province is actively studying international practices, including mine closure clauses in cooperation agreements, and establishing rigorous monitoring mechanisms.

Tavantolgoi JSC tax information (last 5 years)



Mineral resources are abundant in Gobi, but water sources are scarce

Water usage payment, 2018-2022



Furthermore, "Oyu Tolgoi" company, between 2011 and 2021, contributed to Umnugovi province's rehabilitation and greening efforts by planting 427,000 seedlings encompassing 38 species of native and perennial plants. "Energy Resource" company, since 2009, has planted around 30,000 trees at the "Forest strip" project and two tree nurseries.

Mineral resources are abundant in Gobi, but water sources are scarce. Hence, it is imperative to augment the region's water resources. This involves strategies such as collecting surface water and redirecting it to the Gobi region through river flow adjustments, implementing cutting-edge technologies to recycle and conserve water in mining processes, researching rainwater collection techniques, and constructing lakes and ponds. Finding and implementing solutions at the national level has become crucial in addressing this challenge.

Under the auspices of the Citizens' Representative KKhural of Umnugovi province, a council was instituted to oversee water resources and their utilization. Additionally, the "Irrigation II Campaign" has been initiated with the objective of elevating pasture irrigation to 70 percent.

Umnugovi province is steadfast in its commitment to fostering responsible mining practices and fostering closer collaboration with mining enterprises. These endeavors underpin policies aimed at the equitable distribution and efficient utilization of wealth, while also facilitating its integration into other facets of local development and economic support.

Investment

O.Erdene-Urnukh: Investments are oriented towards infrastructure

We had a conversation with O.Erdene-Urnukh, head of the Development and Investment Department of Umnugovi province, about the investment environment.

-Let's begin our discussion with the short and medium-term development and investment policies of Umnugovi Province.

-The primary objective of the medium-term development policy is to enhance the quality of life for citizens and create a safe, comfortable, and supportive community. To achieve this goal, we must first increase household income. This involves employment generating more opportunities, establishing public-private partnership-based factories, and promoting small and mediumsized industries. Secondly, improving the quality of education is another key focus. Plans include constructing new educational facilities or expanding existing ones to boost school attendance rates. Additionally, support will be provided for the establishment of university branches in Umnugovi, along with increased scholarship programs for local students

Addressing issues related to corruption and bribery is vital, as they have a significant negative impact on citizens' quality of life. Government services and activities should be conducted without bureaucratic hurdles and remain free from any interests or bribery.

The next crucial matter is the enhancement of health and social security services. To address this, new hospitals have been constructed in all soums using local finances. Currently, efforts are being made to incrementally enhance the proficiency of healthcare professionals, including doctors, nurses, and medical staff. This involves providing them with additional knowledge and information and upgrading diagnostic equipment and medical devices. Additionally, steps are being taken to alleviate the Our foremost priority is to address the obstacles hindering the development of Umnugovi province



shortage of human resources in this sector. We also need more primary school teachers. Human resource management has been integrated into the provincial development policy.

The environment in Umnugovi province is exceptionally fragile. The Gobi ecosystem is particularly vulnerable to the effects of climate change, posing significant challenges to both human habitation and biological diversity. Consequently, our province is dedicated to actively upholding a long-term policy aimed at countering environmental degradation in a sustainable manner.

In conclusion, Umnugovi Province's policies and investments are oriented towards enhancing education, healthcare, employment, governance, and human rights. These efforts collectively aim to create a more appealing and comfortable living environment in the province, ultimately fostering positive improvements in the overall quality of residents' life.

-What investments and policies are currently in place or planned to promote the growth of the non-mining sector in Umnugovi province?

-The labor force in Umnugovi province has been rapidly shifting towards the mining sector, primarily due to significantly higher salaries compared to other industries. This has led to a shortage of labor in civil service, tourism, and agriculture. To mitigate this shift, the policy is focused on establishing processing plants and supporting small and medium enterprises. As part of this effort, an industrial technology park is under development in Dalanzadgad, with an investment of 11 billion MNT over the last three years. Construction of factories within the park is planned to commence by June 2024, following the completion of all necessary infrastructure work.

Numerous enterprises in Umnugovi province serve as suppliers to mining companies. Consequently, our policy focuses on facilitating an environment conducive for these supplier companies to establish their factories and offices in our province. It is also imperative to generate employment opportunities for mining workers' families and promote light industries. As part of the "Urban and Rural Recovery" policy, we are prepared to offer land and necessary infrastructure support for companies if they opt to open branches in our province.

Furthermore, to improve the production and business environment, financial resources are essential. As a part of this effort, we have allocated 10 billion MNT to the "Small and Medium Enterprises Development Fund" which extends loans to small and medium-sized businesses.

-Tourism is the second most developed industry after mining. Please provide information on the investment and development of the tourism sector?

-Tourism undeniably stands as one of the primary pillars for Umnugovi province's development. Consequently, the most significant investments are channeled into the tourism industry and specially protected areas.

Infrastructure, including airports and road networks, takes precedence as a crucial factor in our tourism development efforts. Once our infrastructure reaches an adequate level of development, the tourism sector in Umnugovi province is poised to enter a new phase. Consequently, we have approved a feasibility study for constructing a new airport that adheres to international standards and boasts six times the capacity of the current airport. It is evident that the aviation sector holds immense potential for tourism growth in Umnugovi province.

Additionally, there's a growing demand among foreign tourists to travel from Umnugovi province to Khuvsgul province directly. To address this, we are pursuing two solutions. Firstly, we are investing in the construction of a highway from Dalanzadgad to Gurvantets to Khermen Tsav, with 186 km of roads already completed. Our next objective is to establish a vertical axis highway connecting Dalanzadgad to Bulgan, Mandal-Ovoo, and Kharkhorin. The feasibility study for this highway is expected to conclude this year.

-What projects and programs are currently in progress to boost production and contribute to the provincial income, considering its capacity to manage its own funds and contribute to the state budget?

-Our foremost priority is to address the obstacles hindering the development of Umnugovi province. To this end, we have plans to construct a state-ofthe-art Dalanzadgad power plant. As Dalanzadgad soum evolves into a city in the long run, a stable electricity supply becomes indispensable. In support of tourism and mining transportation requirements, we initiated a 304.2 km highway project from Dalanzadgad to Gurvantets back in 2013. We anticipate the completion of this road once the remaining 80 km are constructed next year.

Another pressing challenge revolves around the need for skilled human resources in our province, particularly in the mining, construction, road infrastructure, and energy sectors. Consequently, there's a necessity to establish universities and vocational training centers specializing in these fields. Last year, a government decree was issued to establish the Umnugovi Provincial Institute of Technology in collaboration with the Mongolian University of Science and Technology. The Ministry of Education and Science, in conjunction with the "Oyu Tolgoi" company is actively developing the feasibility study for this initiative.

Industrial technology park is under development, with an investment of 11 billion MNT

Agriculture

The foundational industry underpinning development



The province boasts a substantial livestock population of 2.6 million animals, predominantly comprised of goats, which constitute over 60% of the total herd. Furthermore, the province is home to 164,000 camels, accounting for 35% of Mongolia's camel population. Notably, two distinguished camel breeds, Galbin Goviin Ulaan and Khaniin Khetsiin huren camels, are bred here, along with Gobi Gurvansaikhan goats that produce 2-3 times more cashmere than typical Mongolian goats.

The increase in livestock numbers presents both challenges and opportunities. The primary challenge is to integrate livestock into the economic cycle. Despite an annual calving of 800,000 to 1,000,000 cattle in the province, the meat and milk from approximately 200,000 animals can sufficiently meet local demand, necessitating the sale of the surplus to other provinces or foreign markets. To address these challenges, the province is making substantial investments in the livestock industry. Umnugovi province is currently executing several interesting projects that can serve as valuable models for other provinces. The initiation of three slaughterhouses in Nomgon and Tsogt-Ovoo soums, funded by the provincial budget, signals the province's ambition to venture into meat product exports. Furthermore, a milk processing facility and a plant for washing sheep and camel wool are set to become operational this year.

Efforts to bring the raw materials and products

from the Bactrian camels into economic circulation have been actively pursued. Notably, the province, which boasts the largest camel population in our country, provides a monetary incentive for each newborn camel. In 1960, Umnugovi province was home to 194,000 camels, but by 2010, this number had decreased to 83,000. However, starting in 2010, a payment of 5,000 MNT was introduced for every baby camel raised by herder families, significantly contributing to the increase in the camel population. By the end of 2022, the camel count reached 164,800.

Currently, there is an ongoing project to explore the potential export of camel milk, which involves utilizing electric milking machines and advanced farming techniques. This initiative is part of a study conducted by the Food and Agriculture Organization of the United Nations. "We are working to demonstrate that camel milk can gain international recognition and be exported. We believe that the most suitable approach for exporting camel milk, a pure ecoproduct teeming with beneficial bacteria, is through milk drying," explained Sh.Bat-Erdene, the head of the provincial Department of Food and Agriculture. Although 20-30,000 camels give birth in the province, only 11-12 percent of them are milked. If the pathway to exporting camel milk opens, this figure is poised to increase substantially, subsequently enhancing the livelihoods of herders.

A wide variety of vegetables can thrive in the >

Camel milk can gain international recognition and be exported Number of herder households

(2000-2021)



Year	Households
2000	7044
2005	6283
2010	5628
2015	5417
2020	6546
2021	6678

▶ Gobi region, known for its favorable conditions. Heat-loving produce such as melons, tomatoes, watermelons, pumpkins, and cantaloupes grown in the Gobi are renowned for their exceptional flavor compared to those from other provinces. Planting in the Gobi can commence relatively early in spring, as early as May, with a harvest typically reaped in October. This extended growing season, thanks to its high heat balance, provides a 60-day advantage for cultivating potatoes, vegetables, fruits, and other crops compared to the khangai region.

In recognition of these agricultural opportunities, there is a strong focus on developing greenhouse farming in the region. Under the "Local Endowment" program, citizens are offered greenhouses at a 70 percent discount. Additionally, experts from the Mongolian University of Life Science are invited to provide training, guidance, and educational materials, along with seeds and seedlings to boost yields. In the previous year, a total of 600 greenhouses were provided to citizens with concessional loans, and this year, an additional 400 greenhouses are being distributed. Experiments to cultivate "exotic" fruits and vegetables like grapes, pineapples, pears, and sesame seeds are carried out in the agricultural park.

When talking about the development of the agricultural sector in Umnugovi province, one sector that cannot be overlooked is mining. Both sectors rely on human activities that utilize the region's finite and renewable resources. This interplay is particularly evident in Umnugovi province, where mining activities are concentrated.

Sh.Bat-Erdene explains "The province is undergoing a transition from an agricultural to a mining-focused economy. In the 1990s, agriculture contributed over 80 percent to the province's GDP, The province is undergoing a transition from an agricultural to a miningfocused economy but this figure has since dwindled to 18 percent, ceding prominence to the mining sector. This shift is primarily attributed to the rapid growth of mining activities in recent years".

As numerous mines have opened in the province, pasture preservation has emerged as a pressing concern. Many residents have voiced their support for a policy against further mine expansions in the area, believing that there are already a sufficient number of operational mines. Initially, the people of Gobi welcomed large mining projects, but their sentiment has since shifted to disappointment. Their primary source of worry revolves around water availability.

Due to the escalated water usage in mining, the depletion of groundwater, and reduced rainfall due to increasing aridity, more families have resorted to well-tending and temporary relocation to neighboring provinces. Many describe the situation as a "water war" unfolding in the province. In response to this issue, the Irrigation II campaign was launched as part of the "Local Endowment" program, initiated by the provincial governor, R.Seddorj. This ongoing campaign involves the construction of over 100 new wells and water access points annually, with a budget exceeding three billion MNT.

The people of Umnugovi recognize the importance of harmoniously developing their traditional nomadic animal husbandry alongside the influential mining industry, which significantly contributes to both the province's and the nation's economy. They emphasize the need to effectively utilize mining-generated income, foster agricultural products, and facilitate the economic circulation of their eco-friendly products.

Number of camels (1960-2022)

and a second second	1960	194.522
the second s	1970	152.675
	1980	142.851
	1990	127.943
	2000	92.836
VOL ANDRAL	2010	83.765
	2020	166.800
many many with the second	2021	160.580
	2022	164.766

Main projects

Umnugovi - Home to large development projects

Numerous projects in Umnugovi province, for which designs and feasibility studies have received approval, are poised for implementation. Let's highlight some key development projects.

Airport

With the population migration, influx of mining company employees, and growing numbers of domestic and foreign tourists, the need for constructing an international airport in Dalanzadgad soum is evident. The feasibility study for expanding Govi Gurvansaikhan Airport in Umnugovi province into a 4D international airport has been successfully completed, thanks to a 360 million MNT investment from the provincial budget.

This international airport project can be implemented through a public-private partnership.

Auto road

The Dalanzadgad-Bayandalai-Gurvantes highway project in Umnugovi province is a one of the key components of Mongolia's five-year development plan for 2021-2025, as approved by Parliament in 2020. The feasibility study for this 302.7 km road, spanning from Dalanzadgad to Gurvantes, was conducted in 2012 with an investment of 420 million MNT from the local budget. Road and bridge construction commenced in 2013, and as of 2023, 199 km of the road has been built. Completion is expected in 2024, with the remaining 80 km of highway to be constructed from the state budget. This highway will establish a paved connection from



Ulaanbaatar to Shiveekhuren-Sehe ports.

Another significant project with substantial implications for tourism and domestic transportation is the construction of a 230-km paved highway linking Dalanzadgad, Bulgan, and Mandal-Ovoo soums. The province is allocating 775 million MNT for this project. This highway holds great importance for the tourism sector, as it connects Bayanzag and the Hongor River in Umnugovi province to Kharkhorin, the Orkhon Valley, and Khuvsgul Lake.

Power station

Apower station is crucial for Dalanzadgad, the center of Umnugovi province, given the expected annual increase in heat and electricity consumption of 1.5-2 Gcal/h. Projections indicate that, in order to meet future demands, the current capacity will need to be expanded by 4.1 times by 2030.

Recognizing this need, a feasibility study for a new power station was completed last year. This station is expected to generate 367.1 thousand kWh of electricity annually. The proposed 50 MW thermal power plant in Dalanzadgad will supply electricity and heat to the Industrial and Technology Park, significantly boosting the processing and light food industries. It will reduce air pollution in Dalanzadgad by 60 percent and environmental pollution by 80 percent and ensure a heat source for newly constructed apartments. Funding for this project can be sourced from national and local budgets, as well as through public-private partnerships.

An industrial and technology park

An industrial and technology park spanning 100 hectares in the southeast of Dalanzadgad soum is in the planning stages. A comprehensive feasibility study was conducted, taking into consideration the construction of a transport logistics complex to support various industrial projects. The park is envisioned to host seven construction companies, eight light industry enterprises, nine food processing facilities, one animal raw material processing plant, and over 30 other manufacturing units. Additionally, plans include the establishment of a wool and cashmere processing plant, sewing and wool weaving factories, as well as > woodworking and furniture production facilities.

The connection of the industrial technology park to the sewage system, funded by 1 billion MNT from the Gobi Oyu Development Fund, was completed this year. The park's zoning is founded on comprehensive research encompassing the current environmental conditions, ecology, land utilization, socioeconomic factors, economic priorities, and future developmental trends. Furthermore, there are plans to incorporate a marketplace and shopping center for the sale of products manufactured within the park.

Water pipeline

The "Ongi River-Ulaan Lake" project, aimed at regulating the flow of domestic river, is set to be implemented. This initiative will contribute to the availability of surface water for urban development and industrial purposes in Umnugovi province. The feasibility study for the water pipeline project, connecting Ulaan Lake, Bulgan soum, Dalanzadgad soum, and Tavantolgoi, was successfully completed this year, with an investment of 1.4 billion MNT from the provincial budget. Additionally, 1.8 billion MNT has been allocated for the construction of surface water collection ponds in three different locations.

Technology and innovation

To enhance administration service, foster transparency and accountability, and promote innovation, the development of e-governance is crucial. Therefore, Umnugovi province developed the "E-Umnugovi" program, aimed at supporting digital education for children, youth, and residents. This program encompasses initiatives. various including the creation of a conducive business environment in the information technology and communication sector, the training of IT engineers, and the implementation of policies with active participation of residents.

As part of this program, plans are underway to establish a data center in Dalanzadgad, with the feasibility study for the center having been completed in 2021. Additionally, investments of 1 billion MNT in 2021 and 2.9 billion MNT in 2022 were allocated to expand mobile phone and high-speed internet networks in Umnugovi province. Also, last year, as part of intensifying the delivery of public services digitally, civil registration, land management and onestop services were digitized with MNT 500 million from the local budget.

Railway

The feasibility study for a project connecting Shiveekhuren port in Gurvantes soum to Dalanzadgad and Tavantolgoi deposit in Tsogtsetsii soum via railway is currently in progress. This project aims to establish a railway link between the two trade ports in Umnugovi Province, fostering the transportation of domestic and foreign goods. By doing so, it will create vital infrastructure that supports the economic development of the province.

City development

The Government of Mongolia has set its sights on transforming certain soums in the Gobi region into cities. As part of the initiative, a development plan has been devised for Khanbogd, Tsogttsetsii, and Gurvantes soums in Umnugovi province. Initial construction efforts have already commenced to kickstart this development plan.

Tsogtsetsii soum will transform into a modern residential zone, focusing on smart, eco-friendly, and sustainable development up to 2050. This includes the establishment of value-added heavy and light industries, construction of nine new schools, and 12 kindergartens. The plan also encompasses the construction of a hospital, police station, cinema, commercial and service buildings, as well as new residential areas.

The development of Khanbogd soum into a city by 2040 has commenced with investment from the "Ovu Tolgoi" company. The initial phase involves implementing 13 projects spanning three key areas: hard infrastructure, social infrastructure, and business development. "Erdenes Oyu Tolgoi," tasked with this transformation, aims to prioritize sectors like food production, agriculture, and small to medium-scale industries in the first three years. In the medium term, the focus will shift to supporting valueadded production, services, as well as wool, cashmere, leather, and processing industries. Beyond 2030, plans include the development of tourism, infrastructure, IT parks, and other industries.

A comprehensive development plan has been crafted for Gurvantes soum center as a residential area. The plan includes the gradual reduction and improvement of ger districts in the soum center, with the intention of constructing apartment complexes featuring modern engineering facilities. The initial round of investment for this project is estimated at 239.345 million MNT.

"Green Wall of Gobi"

Umnugovi province leads the nation in terms of forest cultivation funds. As part of the "Billion Trees" national campaign, a commitment has been made to plant 70 million trees. Collaborative planning efforts are underway, involving mining companies.

In the previous year, 1.5 billion MNT was planned to support the implementation of the "Billion Trees" national campaign and the "Green Wall" project. The "Green Wall" project spans 100 kilometers, stretching from Dalanzadgad to Bulgan.

Management

N.Enkhbat: Committed to forging a novel development model that harmonizes mining, animal husbandry, and tourism

-Can you share with our readers the development history of Umnugovi province?

-Umnugovi province, with its 92-year history, vast area, harsh climate, abundant natural resources, and hardworking people, has seen significant development over the past 30 years since transitioning from a centrally planned economy to a free market society. This development can be divided into two parts.

Before the transition to a free market society, Umnugovi province had a history of initiating foreign and border trade. On September 25, 1989, trade representatives of our province visited Bayannuur city of Inner Mongolia Autonomous Region for the first time, and on February 23, 1990, Umnugovi province started border trade with Bayannuur province. Subsequently, the Gashuunsukhait port was opened in June 1992, and the Shiveekhuren port was opened in November of the same year.

A new era of Gobi's development commenced with the surge in mining production in 2000, the start of coal exports in 2004, and the launch of projects like Oyu Tolgoi, Tavan Tolgoi, and Naryn Sukhait. Prior to the mining boom, Umnugovi province possessed only one locally-owned mine, and its economy relied heavily on agriculture, animal husbandry, and tourism. The Citizens Representative Khural of Umnugovi province has defined a community development policy that encompasses the growth of mining, traditional animal husbandry, and tourism.

Mining impacts both livestock and tourism negatively. It is not easy to develop these three sectors simultaneously, but Umnugovi province is committed to forging a novel development model that harmonizes mining, animal husbandry, and tourism. Achieving this necessitates establishing infrastructure for mining that can also serve tourism, alongside a well-structured development zoning



plan that benefits animal husbandry. In recent years, continuous investments and supportive policies have led to a resurgence in the livestock industry, with an increased number of herders and livestock. Currently, Umnugovi province hosts 16 operational mines and **>**

▶ has welcomed approximately 26,000 tourists to over 30 tourist camps in the first eight months of this year. The province is home to more than 2.6 million animals and over 2,300 herding families.

Umnugovi province stands as a focal point for substantial mining ventures, infrastructure projects backed by both foreign and domestic investments, pivotal export ports, efficient mining and transportation logistics, and a wealth of business prospects. This dynamic landscape has not only attracted entrepreneurs and investors but also individuals from across Mongolia who seek opportunities to enhance their livelihoods. Our province contributes significantly to the state economy and the well-being of thousands of citizens.

-Umnugovi province leads all provinces in many development indicators. But apart from achievements, what are the problems? What measures is the provincial administration taking to solve those?

-Annually, the Economic Policy and Competitiveness Research Center assesses provinces using over 180 indicators categorized into four key groups: economic performance, governance efficiency, business efficiency, and infrastructure. Umnugovi province consistently secures a topfour ranking out of the 21 provinces, primarily attributable to the pivotal role of the mining sector.

As of today, there are 55 enterprises with exploration licenses and 106 enterprises with operating permits in our province, 16 of which are engaged in mining activities. All this has a positive effect on national and local budgets, jobs, wages, and trade and services, but it also creates negative effects and difficulties, such as loss of ecological balance, pasture, and water scarcity, and reduced opportunities for nomadic herding.

Developing responsible mining, adopting ecofriendly technologies, enhancing collaboration between mining operations and local communities, concurrent development of mining and traditional livestock farming, and addressing mine waterrelated challenges are critical priorities. The local administration is actively amending cooperation agreements with mines to include provisions mandating reduced environmental impact, elevated rehabilitation efforts, and the adoption of advanced water-efficient technologies.

Another pressing issue is mine closure. With mine reserves expected to deplete in the coming years, it is crucial to proactively address mine closure plans, provide comprehensive information to local communities, and ensure they have a clear understanding of the post-mining scenario. Anticipating the future state of these areas after mining concludes is a concern shared by all soums with mining activities. To tackle this challenge, we are developing a forward-looking policy, encompassing the study of international experiences, incorporating mine closure provisions within cooperation agreements, and implementing diligent monitoring measures.

The foremost concern for the people of the Gobi region is the availability of water. Largescale projects and mining operations, which serve as the primary economic foundation of the country, consume substantial amounts of water. At present, all development and mining activities in Umnugovi exclusively rely on groundwater sources. While dry beneficiation technology for coal is being introduced at the mines, there is an imminent need to expedite the water diversion project from the Khangai region. The successful execution of this project should receive strong support from government policies.

The "Khukh Mori" project, aimed at supplying surface water to the Gobi, has been incorporated into the New Recovery Policy. We are actively engaged in the essential planning and research required for its implementation. The entire Gobi region eagerly awaits the swift realization of this project.

Local communities are taking proactive measures within their own capacities to address water supply issues. Initiatives like the Irrigation II campaign and the Gobi+Water program are being implemented. In line with these efforts, technical and economic feasibility studies have been conducted at the provincial level to facilitate the realization of the "Orkhon-Ongi" project. Over the past three years, more than 300 new wells have been drilled to enhance water supply and artificial ponds have been constructed in various areas to capture surface water for agricultural use.

It is worth noting that a decade ago, water could be sourced at depths of 50-100 meters, but today,

Our province contributes significantly to the state economy and the well-being of thousands of citizens There are 55 enterprises with exploration licenses and 106 enterprises with exploitation permits

drilling to depths of 150 meters or more may yield no water. Had the project to channel water to the Gobi been initiated at least two years earlier, the landscape of the Gobi region would be significantly different today, there would have been more construction development, substantial advancements in the nation's economy and the well-being of its people and a more developed agriculture sector.

The next challenge pertains to the development and accessibility of the social sector in Umnugovi Province. Despite an officially registered population of 73,000, there are no major settlements in proximity to the mines. Consequently, many enterprises operating in the vicinity of the mines employ their workforce through organized camps, resulting in a significant mobile population. This influx places additional strain on healthcare institutions. These institutions operate under a workload 2-3 times higher than that of other soums, often struggling with insufficient human resources and budgetary constraints.

Another pressing issue is the shortage of human resources in the social sector. Rural areas often face the challenges of overburdened workers in healthcare, education, and public service who receive low wages. To address this concern, specific policies have been put into action at the local level. As part of the "Local Endowment" program, increased investment in the social sector has been allocated to enhance working conditions and provide necessary technical equipment. Furthermore, the Citizens Representative Khural has approved substantial salary hikes for public service employees, with increments ranging from 60-100 percent. Specifically, healthcare and education sector employees will receive an additional monthly stipend of 400,000 MNT each, public administration employees will receive 210,000 MNT per month and public service workers will receive a monthly raise of 600,000 MNT.

-Umnugovi province is putting a lot of effort into infrastructure development and implementing many projects. Can you tell us about these projects?

-The center of Umnugovi province is more than 600 km away from Ulaanbaatar, while the centers of the soums are also distant from the provincial center, with approximately 100 km separating each soum from the others. Addressing infrastructure concerns over such a vast area requires substantial financial resources and time. Consequently, infrastructural improvements are being carried out incrementally. These initiatives include the establishment of paved roads connecting the province and soums, integration into the central region power grid, the introduction of 4G mobile internet networks and fiber optic cables, as well as the development of soum centers' infrastructure.

Currently, Noyon, Sevrei, and Gurvantes soums receive electricity from China, while other soums are linked to the central region power grid. Moreover, each soum possesses a semi-automatic boiler for autonomous heating. In 2014, Umnugovi province was connected to Ulaanbaatar through a paved road, marking a significant milestone for regional development. Unfortunately, in recent years, the transportation of smokeless fuel and coal has taken a toll on this road, leading to damage.

Road construction efforts are ongoing across Umnugovi province. In 2019, the Oyu Tolgoi-Khanbogd road was completed with investment from Oyu Tolgoi. Furthermore, in 2021, a 59.6 km paved road from Tsogtsetsii to Shar teeg was finished with funding from the state budget. This road serves as a crucial vertical axis route in Mongolia, connecting Altanbulag to the Gashuunsukhait port.

In 2014, Umnugovi province initiated a 320 km paved road construction project in the direction of Dalanzadgad-Gurvantes, funded by the local budget. Over the course of a decade, more than 170 billion MNT from the local budget was invested to construct 150 km of paved road. An additional 55 km of road construction is currently underway. This road plays a pivotal role in the development and promotion of tourism in the western region of Umnugovi province.

Apart from its mining resources, Umnugovi province boasts numerous natural attractions, making it a significant tourist destination. Approximately 70-80 percent of foreign tourists visiting Mongolia go to the Gobi region. The local government has established policies and programs to further enhance tourism, capitalizing on the area's natural beauty, cultural heritage, and local communities. To bolster tourism, the improvement of roads and air transportation infrastructure is deemed paramount.

► A feasibility study, financed by the local budget, has been conducted to upgrade the Dalanzadgad airport to international status. This move would enable tourists to travel directly to Dalanzadgad city without transiting through Ulaanbaatar. From Dalanzadgad, tourists could access flights to Hovd province, Alshaa, Bayannuur provinces of the Inner Mongolia Autonomous Region, and potentially to and from Hohhot and Beijing, significantly improving regional connectivity and tourism prospects.

-What policies are the province following to develop the soums evenly?

-Mongolia's long-term development policy, "Vision 2050," the Urban-Rural Recovery policy, and the Umnugovi Province Development Master Plan all share common goals of decentralization, reducing urban-rural disparities, and fostering rural development. The government offers various incentives to individuals and businesses relocating from the capital to rural areas. Under the "Local Endowment " program, approved by Umnugovi province's Citizens Representative Khural, efforts are made to enhance living conditions in rural areas. This includes expanding water and heating networks, providing housing, improving healthcare and education services, increasing the salaries of public servants, and creating recreational spaces for citizens. With the support of "Oyu Tolgoi" and "Erdenes Tavan Tolgoi" companies, urban development plans for Khanbogd and Tsogtsetsi soums have been made, and essential infrastructure projects are underway. Other soums plan their investments based on their unique characteristics, resources, and geographical location, aligning them with the broader development policy. Soums like Bayandalai, Khankhongor, and Tsogt-Ovoo have developed benchmark development plans through citizen participation.

Dalanzadgad is gradually transforming into a city akin to Darkhan and Erdenet. In 2012, the Citizens Representative Khural of the province decided to establish a new residential area in Dalanzadgad, complete with theaters, museums, sports complexes, government institutions, schools, and kindergartens, all funded locally. The underground infrastructure of the area is already built. This residential area is expanding as planned, keeping pace with the growing population and housing developments.



As the population and urban infrastructure of Dalanzadgad are expanding, challenges related to the thermal power plant's capacity have emerged. This year, a feasibility study for a new power plant was developed using local funds and presented to the Government of Mongolia for an investment solution to address the project. Dalanzadgad now has a new source of drinking water, a sewage network has been installed in the ger district areas, and a new sewage treatment plant has been constructed with the support of the Asian Development Bank.

Umnugovi province serves as a crucial transport and logistics hub, housing major projects that underpin the nation's economy. Numerous mines operate in the region, along with two significant export ports. While these developments positively impact the country's economy and overall growth, they also pose challenges and impinge on the rights of local residents. Responsible and irresponsible mining practices coexist in the region, resulting in ecological imbalances, water scarcity, and prolonged droughts.

The provincial administration, herders, and citizens have supported various mining projects with domestic and foreign investments, contributing to the country's overall welfare. When it comes to projects that harm the environment and disrupt the well-being and livelihoods of local residents, the local administration endeavors to safeguard the interests of the community. We work to convey the concerns and conditions of the local population to the government, project developers, and license holders.

The Gobi region eagerly awaits the swift realization of this project

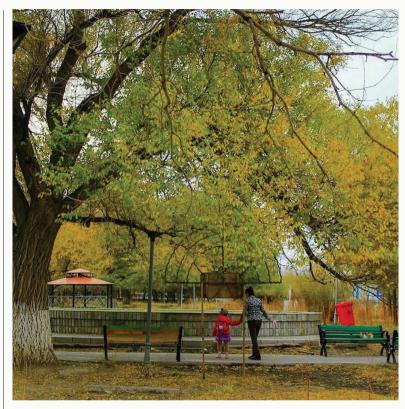
Green development

Green Gobi

The residents of Umnugovi have long held a deep reverence for their mountains, water sources, and land. This profound respect is likely rooted in the challenging conditions they face, including a scarcity of life-sustaining water and the harsh climate. As a result, the people of Umnugovi hold the color green and all forms of vegetation in high regard. Their aspiration is to plant an abundance of trees and to live in a green environment. In 1953, Umnugovi province established the nation's first green park, spanning an impressive 900 meters. This park remains home to indigenous Gobi trees that were planted seven decades ago, including a substantial grove of elm trees.

Despite being the largest province in terms of land area, having the smallest population, and facing limited water resources, Umnugovi province consistently leads the nation in annual tree planting efforts. Residents of the province and the soum centers have planted trees in their yards, and herders planted trees near their wells. Notably, recent years have seen successful endeavors in planting fruit trees and shrubs such as apples, gooseberries, and plums. Kh.Otgonmunkh, the head of Umnugovi province's Department of Environment and Tourism, said "Goviin Tugul" cooperative, led by Ch.Odsuren, annually harvests 14 tons of seabuckthorn from two hectares of land, using it to produce sea buckthorn drinks and juices. Many individuals are acquiring land and actively participating in tree planting initiatives. The province's "Local Endowment" program incentivizes and provides financial support to those who plant trees."

Umnugovi province has taken significant steps to bolster its forestry efforts, including the establishment of new forest departments in three soums and the initiation of seedling preparation and planting activities. As part of the "Billion Trees" national program, 70 million trees will be planted by 2030, mining companies will plant 400 million trees, and infrastructure for seedling preparation and planting sites will be developed by 2025. Through



One noteworthy project is the "Green Wall of Gobi," stretching over 100 kilometers in length and 500 meters in width the collaborative investments of the province and local businesses, several forest departments and tree nurseries have been set up. One noteworthy project is the "Green Wall of Gobi," stretching over 100 kilometers in length and 500 meters in width, extending from Dalanzadgad to Bulgan.

Umnugovi province has initiated a second irrigation campaign, focused on well construction for herders and pasture irrigation within the framework of "Local Endowment" program. In the past year, approximately 100 new wells have been constructed and existing ones have been repaired. Given Umnugovi's scarcity of surface water, these efforts are essential, and the province allocates three billion MNT annually for new well projects. The demand for pasture irrigation has grown significantly, especially in the eastern soums where water sources are scarce, sometimes requiring drilling up to 200 meters deep.

Khairkhan bag of Khanbogd soum has no water resources at all. The Government of Mongolia has plans for surface water development, but progress has been slow, prompting the province to take the lead in investing and conducting feasibility studies for the Ulaan Lake-Dalanzadgad-Tavantolgoi water pipeline. In addition, in Bayandalai, Khanhongor, Sevrei, and Bulgan soums, artificial ponds are being built to collect flood water, protect springs, and improve water flow.

Climate change is increasingly affecting Mongolia's Gobi region, with noticeable impacts over the past three years. Drought conditions have become permanent in Khurmen, Noyon, Gurvantes, and Sevrei soums, leading to a concerning trend where many herders have migrated to other provinces and soums, with no plans of returning to their homeland.

The global consensus emphasizes the importance of tree planting and green infrastructure to combat climate change. Yet, in the Gobi region, characterized by limited surface water and rainfall, these initiatives remain challenging. Umnugovi province has undertaken many projects focused on constructing ponds and green infrastructure. However, it's evident that addressing climate change necessitates collective efforts beyond a single province or region. Nevertheless, Umnugovi province continues to collaborate with mining companies and citizens to implement various initiatives in this regard. A feasibility study for Ulaan Lake-Dalanzadgad-Tavantolgoi a water pipeline has been developed

Umnugovi province has been waiting for many years to implement large-scale projects such as "Orkhon Ongi", "Khuh Mori", and "Kherlen Gobi", which aim to divert excess rain and flood water from the Khangai region to the Gobi. The implementation of the "Khukh Mori" project is crucial to restore the natural ecology of four provinces, improve regional water use, and increase water supply in the Gobi region. The "Orkhon Ongi" project will enhance the flow of the Ongi River, which originates from the Orkhon River, and nourish the Red Lake, providing a reliable water source for the population, mining, and agriculture of the Gobi region. With the improvement of water supply in the Gobi region, the possibility of building a hydroelectric power plant has been discussed for many years, but concrete work has not been done.

The examples above highlight that while Umnugovi province is actively investing in and developing green infrastructure to address climate change, water supply remains a significant challenge. Beyond local initiatives, it is imperative for Mongolia to promptly provide support and take decisive action on the matter of Gobi irrigation.

Our southern neighbor has set remarkable examples by planting trees throughout their land. Why can't Mongolia's Gobi region also have trees, water, and oases? This embodies the core aspiration of the people of Umnugovi for a Green Gobi.



Tourism The endless allure of southern Gobi

ne key to success lies in the native heritage. Umnugovi, besides its prominent mining industry, boasts a rich tourism heritage. A study has indicated that 70-80 percent of tourists visiting Mongolia choose Umnugovi province as their destination. The province boasts an array of attractions that draw both domestic and international tourists, including Shar Tsav, Nemegt, the ancient Tea Road, Hurdet Cave, Bayanzag (the site of the

70-80 percent of tourists visiting Mongolia choose Umnugovi province as their destination first dinosaur egg discovery), the picturesque Yolyn Am, Hongor Sands, Gobi Gurvansaikhan, and Galbyn Gobi.

N.Enkhbat, the chariman of the provincial Citizens' Representative Khural, emphasized in an interview with our magazine, "Mining will progress as it does, and road transport and infrastructure will improve. However, tourism is the primary industry that will propel our province forward".



► In recent years, Umnugovi's administration, governmental and non-governmental organizations responsible for the sector, as well as local residents, have significantly prioritized and invested in the tourism industry. Substantial construction projects, funded by the local budget, have been undertaken. In an effort to boost tourism, the province has designated 2023 as the "Year of Visiting Umnogovi", spearheading initiatives under the banners of "Open Umnugovi" and "Motherland - My Gobi." These endeavors encompass construction projects valued at over 930 million MNT.

Umnugovi province has strategically divided its tourism industry into three primary zones. In recent years, there has been a heightened focus on improving essential infrastructure, including roads, electricity, and communication networks, to enhance accessibility to these zones.

Notably, a paved road is currently under construction to connect Gurvantes soum in the western region, thereby significantly reducing the distance to the remote Hermen Tsav and Nemegt Formation, which hold immense appeal for tourists. In the eastern zone, a paved road project is also underway, connecting Tavan Tolgoi to Hangi Mandal. This road will pass within three kilometers of the Yellowstone Dinosaur Trail, the largest tourism cluster in the eastern zone. These infrastructure developments will serve as pivotal arteries for extending tourism growth from the central zone to both the western and eastern zones.

Efforts are underway to preserve the rare and vital biodiversity in the Gobi, a valuable tourism asset, and to ensure the sustainability of Gobi's springs. Additionally, initiatives are in place to establish ecological corridors for migratory wild animals. These measures encompass the safeguarding of springs in Sevrei, Bayandalai, Bulgan, and Khankhongor, including the installation of automatic devices with solar panels in abandoned wells to create reservoirs. The protection of Nutsgeni spring in the Bulgan soum area proved to be a significant development, effectively welcoming the migratory path of the Dalmatian pelican, a species listed in the Red Book.

Moreover, there is an ongoing establishment of tourist information centers, public restrooms, service centers featuring accommodation points, dining facilities, and coffee shops in nationally protected areas and tourist destinations. Notably, the information center managed by the "Bayanzag-Flaming Cliff" NGO, founded by the residents of Bulgan soum, serves as a noteworthy model for the entire country. Additionally, the development of a camel caravan memorial monument, commemorating the historical Tea Road that connected Asia and Europe, will serve as a significant and enticing tourist attraction.

A budget of MNT 600 million has been allocated for the construction of an integrated complex featuring Japanese Michino-eki-style amenities, including heating, electricity, and a clean water network. This

Umnugovi has prioritized and invested in the tourism industry complex will also house public restrooms, a small-scale food production facility, a store for "Made in Bulgan soum" branded products, and serve as the Bulgan soum tourism and environmental information center. According to the proposed model and architectural plans, this complex is slated for completion next year, setting the precedent for similar complexes to be built in other soums. The management of these facilities will be entrusted to local NGOs.

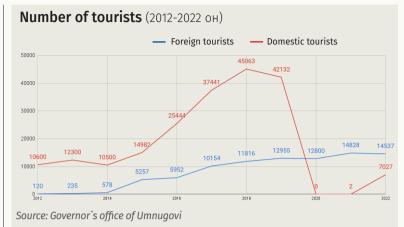
Kh.Otgonmunkh, the Head of the Department of Tourism and Environment, emphasized "We are committed to regularly host events that engage citizens and showcase the unique wonders of the Gobi region. These events aim to genuinely bolster the income of local residents. Currently, "Wonderful Gobi," a tourism association, is responsible for organizing events like the "Tumen Camel Festival," "Golden Sand-Sand Dunes Festival," and "Saikhan Yak Festival" through contractual agreements. Looking ahead, we envision a greater role for private sector and NGO collaboration, allowing for a more diversified and comprehensive approach, as opposed to solely relying on government initiatives".

Kh. Tumendelger, the head of the association, said "The province has made substantial investments in safeguarding historical and cultural landmarks and specially protected areas. These efforts also encompass infrastructure development through active involvement with local NGOs".

As he noted, the upsurge in mining activities has led to a shift in people's attitudes, sparking a heightened interest in environmentally friendly services. Consequently, citizens are increasingly drawn to sectors like tourism, food production, and services, with many establishing coffee shops, restaurants,

A major developments in the field of tourism

- Paved road from Dalanzadgad to Gurvantes
- Dinosaur National Park in Nemegt Formation
- Yol complex in Yolyn Am
- International airport in Dalanzadgad
- Paved road from Dalanzadgad to Saikhan-Ovoo of Dundgovi
- International "Gobi Research Center"
- Reintroduction of wild Bactrian camel and gazelle



and hotels along tourist routes. However, this trend brings to the fore the pressing issue of bolstering environmental awareness and tourism education among citizens.

Kh.Tumendelger underscored that "Tourism is a professional industry. Its success hinges on professional planning, management, and organization".

In light of this, the province's Department of Environment and Tourism is actively coordinating a range of training sessions and workshops. These initiatives are aimed at enhancing the quality of services provided by tourist camps, guesthouses, public restrooms, and food establishments along tourist routes For example, a delegation comprising members from the "Wonderful Gobi" tourism association, tourist camp management personnel, and government officials will partake in the JATA international tourism exhibition in Osaka, Japan, scheduled for October. This visit will enable them to glean insights into Japanese tourism development, foster collaborative relationships, and accumulate valuable experience.

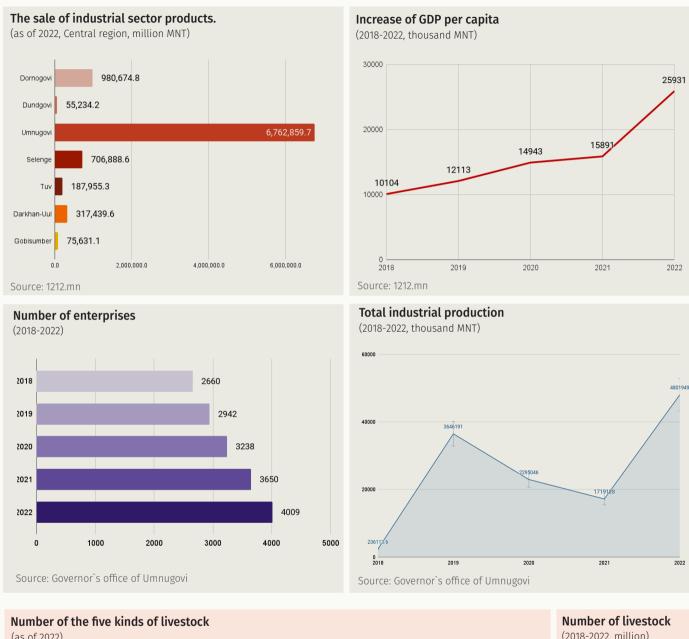
The province is gearing up for a series of ambitious projects and initiatives, including the promotion of night tourism, facilitating private-sector investment in a five-star hotel, establishing intra-province flights, and constructing an international airport.

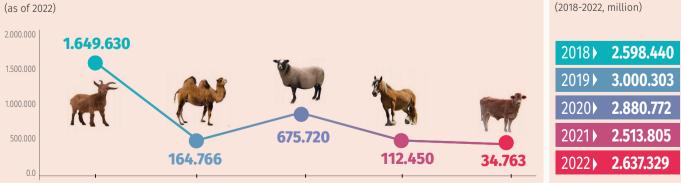
Umnugovi province has consistently directed its mining-derived revenue towards the tourism sector, recognizing its pivotal role in shaping the region's future development. This forward-thinking approach sets a promising precedent. With continued investment and effective policy management, the potential for tourism development exists in every province across Mongolia. Umnugovi province stands as the vanguard, seizing and realizing this opportunity.

mitted to regularly host events that showcase the unique wonders of the Gobi

We are com-

infographic





Guest

Kh.Tumendelger: The island's nature has begun to draw tourists like a magnet

We interviewed Kh. Tumendelger, the head of the Wonderful Gobi tourism association.

-What's the state of tourism in Umnugovi province?

- In the 1920s, Roy Chapman Andrews, a renowned researcher from the American Museum of Natural History, introduced the Gobi region to the world.

The Juulchin Gobi tourist camp was established in 1963 and was one of Mongolia's earliest rural tourist camps. It was privatized in 1993. The establishment of the first private sector tourist camps such as Tuvshin Tour, Khanbogd, and Duut Manhan in Sevrein Hongor sands in 1991 marked the first time that the people of Umnugovi truly started to benefit from the tourism industry.

In 1997, a tourism development policy document, commonly referred to as the first Master Plan of Umnugovi province, was established. An updated version of the plan was introduced in 2008, which suggested a structure for further tourism development. The program has undergone subsequent revisions and was last updated in 2019.

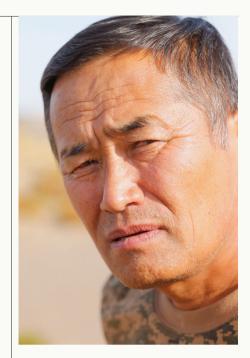
The Tourism for All initiative, launched by the World Tourism Organization, aims to promote tourism and at the same time reduce poverty and increase opportunities for tourism-related employment. In Umnugovi Province, the "Tourism-Household Income" program and the Mongolian ger operating rules have been implemented to assist herders and residents in organizing their ger hotels.

Umnugovi province has significantly invested in tourism, focusing on historical and cultural landmarks, protected areas, and popular destinations. Local NGOs have played a critical role in developing the required infrastructure. While the level of development is relatively high, there is still considerable room for further improvement.

-Umnugovi province is experiencing rapid development in the mining sector, but there is a growing interest in tourism among its citizens.

-With the rise of the mining industry, there has been a shift towards sustainable and environmentally friendly practices. More and more people are recognizing the importance of responsible mining and its impact on local communities, especially regarding how it might impact climate change.

The increased interest of residents in tourism, food production, and service industries is evident in the recent establishment of many coffee shops, restaurants, and hotels in Dalanzadgad



and along major tourist routes. As a result, there is a growing need to focus on educating citizens about the natural environment and tourism.

Tourism is a professional industry that requires proper planning, management, and organization. Understanding this fact and approaching tourism professionally is crucial to ensure its success.

-Tourism is on the road to recovery. How have tourist attitudes changed since the COVID-19 pandemic?

-Many people are seeking out pristine and untouched natural environments following the COVID-19 pandemic. One such location is Mongolia, which American John Hall, a famous mammalogist, described as an "island" between Russia and China with a remarkably intact natural environment and wild animal population.

Mongolia's rare and critical biological species, nomadic culture, historical artifacts, and monuments have been relatively understudied and kept secret for over 70 years. However, since the democratization of the 1990s, these treasures are now being newly discovered and begun to draw tourists like a magnet. ► International organizations like WWF and TNC have recognized Mongolia as one of the last lands that is least affected by human influence, with the largest population of freely migrating wild animals in the desert.

Many of Mongolia's wild areas are among the top 200 eco-regions in the world, including the Gobi Desert. Despite its reputation as a barren wasteland, 33 rare and endangered species of Gobi animals are listed in the Red Book of Mongolia. It's crucial to raise awareness of these unique and precious species worldwide.

The Gobi Desert in Mongolia has been called the "Serengeti of the North" by researchers. It is home to a group of six amazing animals. These include the wild Bactrian camel, Mongolian wild ass, goitered gazelle, mazaalai bear, Mongolian wild horse, and saiga antelope. The Mongolian Gobi is the only place where these animals can be found. There are ongoing efforts in the Umnugovi province to reintroduce the wild Bactrian camel and gazelle to the area.

-Umnugovi province is developing many significant tourism projects along the renowned Tea Road. Can you provide some more information on this?

-According to Roy Chapman Andrews, who conducted research in the Gobi desert during the 1920s, a settlement of ancient people exists 600 miles northwest of the Chinese Kalgan, on the trade route to Khovd. This trade route is famously known as the Tea Road, which was used to transport various goods, including silk crepes and textiles, and is essentially the same as the Silk Road.

The Tea Road can be traced back to a four-meter-wide road that started in Beijing, China, passed through Hohhot, and traveled on to Gashuunsukhait, Khanbogd, Bayan-Ovoo, Khanhongor,

"Tourism-Household Income" program has been implemented

and Bulgan soum areas of Umnugovi. During his travels at Bayanzag, Roy Chapman Andrews encountered Mahmood traders with 200 camels carrying silks, crepes, and fabrics to Khovd and beyond. This road predates even Marco Polo's travels. Currently, efforts are being made to develop this old road into a tourist attraction, which involves significant construction work.

Memorial columns will be erected after tea route researcher O.Sukhbaatar and the Ulaanbaatar Tourism Association identify important road stations along the Tea Road. An auto tour and camel rides on certain routes will also be developed to create an exciting tourist attraction.

-The settlement of ancient people can also become a tourist attraction.

-During the 1990s, a Mongolian-Russian-American expedition worked here. A Polish research team arrived four years ago and they had a belief that the ancient people should have originated from there.

Located approximately 60 km from Bulgan soum lies the Stone Age monuments of Tsahiurt Valley. This vast valley spans 10,000 square km and contains remnants from the Stone Age. Additionally, Talingar Shal, a small lake in the area, has numerous historic materials around its edge, such as fire pits and stone tablets. This location was the production site of stone weapons and is considered the most significant place where ancient people used to live. Further planning should be done in this area.

-You are a bird enthusiast and researcher. Lately, there has been an increase in bird-watching tourism.

How is this trend developing?

-Mongolia plays a vital role in the lives of migratory birds, as almost half of them lay eggs and breed here. The country is home to over 520 documented bird species, and thanks to the increasing number of young bird researchers, and photographers, new species are regularly discovered. The Galba Gobi of Khanbogd, Gurvansaikhan Mountain, and Bordon Gobi of Nomgon are essential bird habitats in Umnugovi province. The Gobi is one of the four principal migratory routes for birds, and visitors can observe many bird species during their migration up close. Bird watchers mainly come from England, Europe, and Japan.

In recent years, bird and wildlife watching has become a popular tourist activity in Mongolia, with many visitors coming to see leopards as well as argali sheep, ibex, and Mongolian wild ass in the Gobi. Seeing a leopard is a dream for any mammalogist. Involving local people in leopard sighting tours could help protect the species from poaching and make them a tourist attraction.

The time has come to start the "Gobi" movement and the Gobi research initiatives. Also we are striving to establish an international scientific center dedicated to Gobi studies, situated in the Yolyn Am. Regrettably, the Gobi Gurvan Saikhan mountains are witnessing the near-extinction of the white mushroom, along with the drastic decline of Pallas' pica, various bumblebees, and butterflies that once thrived abundantly.

Humanity has, for too long, taken more from Mother Earth than it has given back, resulting in dire consequences such as drought, aridity, and desertification. This underscores the urgent need for scientific research and analysis that will benefit both life and the environment.

Digital development

Ts.Deneedorj: Prioritizing digital education for children and youth



Many public service institutions have adopted the e-office program

We interviewed Ts.Deneedorj, the deputy governor of Umnugovi province, about the digital shift.

-What strategies are being implemented to advance digital government? How many government services are available online for Umnugovi province's citizens?

-Umnugovi province initiated the digitalization of public services, aiming to provide citizens with efficient and prompt services. Since 2017, various public institutions within the province, including the Provincial Citizen's Representative Khural, the Governor's Office, 22 agencies under the Governor, and all 15 soum administrations, have adopted the e-office program. This transition has significantly enhanced the coordination among government entities, reduced paper usage, expedited government decision-making processes, and enabled the swift and timely delivery of public services to citizens. Additionally, we have implemented a system for digitally receiving citizens' feedback, complaints, and requests.

Umnugovi province is characterized by a mobile population, including a significant number of temporary residents alongside the local inhabitants. This dynamic demographic profile results in a high demand for public services, especially in soums like Khanbogd, Tsogttsetsii, Gurvantes, and Dalanzadgad, which are home to various mining companies. To address these challenges and provide convenient services to citizens, substantial investments have ▶ been channeled into digitizing government services through the "Local Endowment" program.

For instance, in 2022, we installed eight electronic kiosks in densely populated soums such as Gurvantes, Tsogttsetsii, Khanbogd, Bayan-Ovoo, Nomgon, Manlai, and Dalanzadgad. This initiative, funded with over 800 million MNT from the local budget, aimed to simplify access to essential land management services. Additionally, this year, we have issued a tender for the installation of kiosks in the remaining soums. Property registration services are now available online in Gurvantes, Tsogttsetsii, and Khanbogd soums, enabling citizens to efficiently access these services through kiosks and eliminating the need for them to travel to the provincial center for property registration needs.

As part of the digital transition outlined in "Vision-2050" and the "New Recovery Policy," a public service center has been established in Gashuunsukhait port, which boasts the largest population. This center facilitates the provision of public services to coal transport drivers and local residents. Additionally, in June, the Department of Digital Services was set up, and the "Khurdan" center commenced its operations in Dalanzadgad. Currently, this center offers 440 types of services from 39 different organizations to the citizens. The province has invested over 100 million MNT to open a public service center and the "Khurdan" center at Gashuunsukhait port and Dalanzadgad.

-What percentage of the province's total territory is covered by the 4G network?

-Umnugovi is Mongolia's largest province, encompassing a vast area. Currently, 15 soum centers and 59 bags have access to the 4G network provided by mobile operators Mobicom, Unitel, Skytel, and G-Mobile. Citizens can efficiently access government services through the "e-mongolia" digital government service system. We are actively working to expand internet access to every household in the soums, enhance internet speed, and extend mobile phone network coverage to remote areas. In the coming year, 4G mobile phone networks will be deployed in an additional 14 locations.

-Could you provide information about the implementation process and results of the "E-Umnugovi" program?

-The "E-Umnugovi" program, which aims to

support digital education for children, youth, and citizens, has been incorporated into the "Local Endowment" program. This initiative includes the creation of an open learning system and the development of a unified platform for electronic and distance learning to facilitate electronic education across all levels of educational institutions.

As part of this effort, investments are being directed towards digitizing various sectors while implementing the "Inspire 2021 Umnugovi" project, which aims to promote universal e-education. For instance, in 2023, there are plans to establish an information technology center and data center in Dalanzadgad, funded by the local budget. Additionally, an e-herdsman platform for herders and a tourism app will also be developed.

-What policies are in place to promote digital education in the province, and what is the current status of personnel and human resources with expertise in information technology and communication to support this initiative?

-In 2021. "Inspire 2021 Umnugovi." a collaborative event between the Governor's Office of the Umnugovi province and "Empasoft" LLC, featured activities such as "Digital shift for Everyone", "Digital employee training," and "Taking Your Business to the Next Level" for students, parents, and teachers interested in information technology. The event also featured training sessions for IT professionals of public service and teachers, as well as meetings with administrative units and organizations. Additionally, a budget of 650 million MNT has been allocated within the "E-Umnugovi" program for the development of the "E-Province" platform.

Umnugovi province currently faces a shortage of skilled human resources in the field of information and communication technology. To address this, the local government offers scholarships and job opportunities to students pursuing studies in this field. With the establishment of the Institute of Technology, a branch of the Mongolian University of Science and Technology in Dalanzadgad, the province can now provide local training for information technology specialists. For the current year, a budget of 1.6 billion MNT has been allocated to the "E-Umnugovi" program, aimed at promoting digital education among children, youth, and citizens.

1.6 billion MNT has been allocated to the "E-Umnugovi" program, aimed at promoting digital education

Business

Made in Umnugovi



n recent years, the province has witnessed rapid growth in various industries beyond mining The province province proudly ranks among the top four out of the 21 provinces in terms of registered enterprises. Additionally, the province boasts a working-age population of more than 31,000 citizens. Out of the 4,189 enterprises registered in Umnugovi province, a total of 1,967 are operating on a regular basis. In 2022, the province witnessed the opening of 12 new factories and the expansion of 30 existing ones.

Given its status as an active mining and export region, Umnugovi province provides a favorable environment for entrepreneurs, small and medium industries, as well as suppliers. To illustrate, in the first half of 2023, Oyu Tolgoi LLC alone procured goods and services amounting to \$136.4 million USD from 98 local suppliers. This partnership has resulted in a cumulative procurement value of \$1.285 billion USD since 2010.

Umnugovi province has many enterprises that serve as suppliers to the mining companies. To support these supplier companies, the provincial administration is creating an environment conducive to establishing their factories and offices in the province, while also providing essential infrastructure support. In recent years, the province has witnessed rapid growth in various industries beyond mining, including construction, transportation, warehousing, hospitality, banking and insurance service.

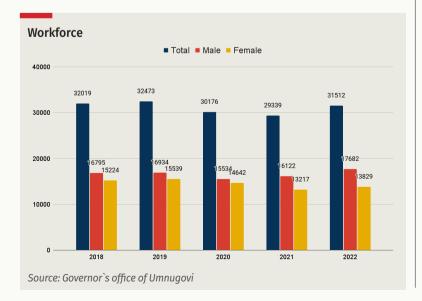
Umnugovi province derives a significant portion of its GDP from sectors such as livestock,

tourism, wholesale and retail trade. The province is home to over 60 food factories and more than 160 food production and service centers, collectively employing over 2,600 individuals, effectively meeting the food requirements of the local population.

In 2019, the "Business Innovation Development Center" was established in Dalanzadgad, offering training and guidance to entrepreneurs on various aspects, including business ethics and supply chain management.

During the same year, the Governor's Office, Oyu Tolgoi Company, and the "Business Innovation Development Center" jointly organized an expo for small and medium-sized businesses, under the slogan "Let's produce in the Umnugovi." Embracing the national "Made in Mongolia" policy, "Oyu Tolgoi" LLC entered into purchase agreements with nine small and medium-sized entrepreneurs of Umnugovi, totaling 10.5 million US dollars or 27.8 billion MNT.

Furthermore, to bolster local entrepreneurs and job creation, five billion MNT was allocated to the Small and Medium Enterprises Support Fund in 2022. This year, a new loan project was introduced, with a three percent interest rate and a repayment period of up to five years. In 2022, concessional loans amounting to 5 billion MNT were extended to 42 enterprises, followed by an allocation of 3.1





billion MNT to 26 enterprises in 2023.

Numerous

efforts are

underway to

support the

private sector

in Umnugovi

province

The Governor's office is implementing the "Local Producer" program, which includes plans to establish an "Industrial and technology park" in Dalanzadgad, featuring seven factories in its initial phase. Moving forward, products labeled "Made in Umnugovi" that reflect unique characteristics of each soum will be created.

Tourist companies play a pivotal role in Umnugovi province's business sector, with tourism ranking as one of the most significant contributors to the local economy, second only to mining. Consequently, the local government is dedicated to supporting and investing in the tourism industry through various policies and initiatives. To enhance the income of local residents, regular events showcasing the distinctive features of the Gobi region are planned. For example, "Tumen Camel Festival," "Golden Sand-Sand Dune Festival," and "Saikhan Yak festival" are organized by the "Wonderful Gobi" tourism association. Furthermore, the "Tourism -Household Income" program has been launched to foster economic benefits for local households.

Numerous efforts are underway to support the private sector in Umnugovi province. These efforts include crafting favorable policies, facilitating access to necessary financing, and conducting assessments of entrepreneurs' current situations while exploring opportunities for expanding their activities in the future.

Tavantolgoi JSC

D.Artag: "Tavantolgoi" JSC, has played a pivotal role in the development of Umnugovi



Over the past six years, the company has paid 755 billion MNT in taxes and fees

We interviewed D.Artag, the Executive Director of "Tavantolgoi" JSC, to discuss the company's collaboration with the local administration and the mine's future development.

-Could you elaborate on how "Tavantolgoi" JSC has contributed to the economic and social development of the province and soums since its establishment?

-"Tavantolgoi" JSC, the oldest coal company with a 57-year history in Mongolia, has played a pivotal role in the development of Umnugobi province. It has provided more than 20% of the total provincial budget and over 90% of Tsogtsetsii soum's budget. The company creates employment opportunities for more than 5,000 individuals, including 73 subcontractors and contractors.

Moreover, "Tavantolgoi" JSC is responsible for approximately 10% of Mongolia's coal exports and boasts a shareholder base of more than 3,000 domestic and foreign investors. It consistently contributes substantial taxes and payments to the national budget each year. Over the past six years, the company has paid 755 billion MNT in taxes and fees to both the state and local governments. Additionally, since 2007, it has allocated 356.5 billion MNT in dividends to Umnugovi province. In 2022 alone, "Tavantolgoi" JSC contributed 296.7 billion MNT in taxes and fees to national and local budgets. ► The company's stock has performed well, reaching a share price of 11,000 MNT, and it is recognized as one of the standout companies in the history of the Mongolian stock market, primarily due to its consistent dividend payments. In the previous year, it achieved a profit of 331 billion MNT and distributed dividends totaling 291.3 billion MNT, equivalent to 5,530 MNT per share. Furthermore, "Tavantolgoi" JSC is a regularly included in the list of the top 100 enterprises in Mongolia.

-How do you assess the collaboration between the province and the company?

-Despite experiencing fluctuations in coal market prices, we have remained committed to fulfilling our 2023 business plan in strict adherence to the Law on Mining Products Exchange, government resolutions, and the decisions and guidance provided by the Provincial Citizens' Representative Hural and the Board of Directors of the company. An example of our commitment is the recent transfer of an 18.5 km highway, used by "Oyu Tolgoi" LLC, for the exclusive use of "Tavantolgoi" JSC. This initiative will increase coal exports, thereby enhancing the economic potential of the province and delivering greater benefits to the 75 thousand residents of Umnugovi province.

-What challenges does the company currently face?

-In recent years, our company has encountered several challenges and is actively addressing them. Firstly, foreign trade with China was disrupted due to the COVID-19 pandemic, and the post-pandemic crisis is still affecting operations. However, with the approval of the Law on Mining Products Exchange, new conditions have emerged for working within a revised legal framework and engaging with buyers. Additionally, our company's office and staff facilities are situated in an area licensed for use by Erdenes Tavantolgoi JSC. The dusty environment in this location adversely affects the health of our employees and the smooth functioning of the company. Moreover, our current equipment does not fully meet modern requirements.

-Could you share details about the upcoming projects and developments planned by Tawantolgoi JSC?

-To ensure economical, efficient, and

Transportation of coal by rail between the Ereen and Mandal will boost sales revenue and profitability environmentally responsible utilization of deposit resources while minimizing waste and pollution, we have conducted medium and short-term comprehensive mine planning. Our future plans include conducting a detailed calculation of coal reserves, creating a three-dimensional block model of the reserves, and initiating detailed exploration work to assess coal quality as part of the feasibility study and long-term mine planning.

In our efforts to enhance transparency in mining operations and implement advanced modern mining technology, we have introduced the "Pitram" control and management system on a trial basis. External mineral surveyors perform measurements every two months, and we generate plans and reports on a quarterly, monthly, and weekly basis. These initiatives not only improve our ability to monitor mining performance but also establish a historical data archive.

We are developing a 60-hectare customs control area, where maintenance facilities, offices, and laboratories will be constructed.

The system of coal loading by coal-buying enterprises for export using their own equipment has been abolished. Coal piles are now sorted by quality at the mine's customs control area for transportation. Additionally, soil removal and extraction activities, previously performed under direct contracts, but in accordance with the law, open tenders were announced in two batches and contracts were signed..

Following the 2021 updated feasibility study by "Erdenes Tavantolgoi" JSC, the potential risks associated with the absence of a designated mine soil dump area and a coal export transportation road were addressed and resolved by a joint working group from both companies.

Looking ahead, to enhance mining operations and create value-added products, we plan to conduct feasibility studies for the construction of a coal concentrator and a rail-based coal loading and transportation terminal. Furthermore, we aim to implement a conveyor system to improve economic efficiency. It is also anticipated that transportation of coal by rail between the Ereen and Mandal will reduce dependence on a limited number of current buyers, enhance border port capacity, and further boost sales revenue and profitability.

Gobi's wealth to Gobi's people



In 2023 the fund's investment surged to 122 billion MNT yu Tolgoi, one of Umnugovi Province's three strategic deposits, represents a significant copper mining endeavor achieved through the collaboration between the Mongolian Government and the Rio Tinto Group. It is poised to play a pivotal role in the global mineral resources sector in coming years.

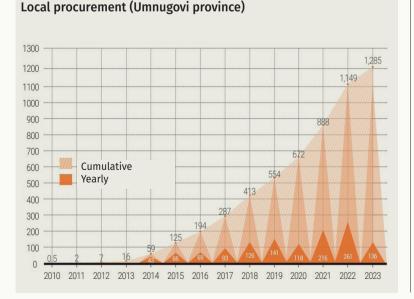
In 2015, Oyu Tolgoi LLC inked a Cooperation Agreement with Umnugovi province and Khanbogd, Manlai, Bayan-Ovoo, and Dalanzadgad soums. This agreement outlines Oyu Tolgoi LLC commitment to supporting critical domains such as local environmental enhancement, animal husbandry and pasture management, safeguarding historical and cultural heritage, fostering tourism, and assisting local entrepreneurs while the local government pledges its support for the Oyu Tolgoi project and the operations of Oyu Tolgoi LLC. The company channels an annual investment of five million US dollars into projects and initiatives aimed at bolstering the sustainable development of Umnugovi province, through the Gobi Oyu Development Support Fund. During the first half of this year, Oyu Tolgoi LLC procured \$136.4 million worth of goods and services from 98 registered suppliers in Umnugovi province. Since 2010, the value of these acquisitions has reached \$1.285 billion.

In 2023, the fund's investment surged to 122 billion MNT, providing financing for a total of 385 projects and programs. Oyu Tolgoi's investments make a substantial contribution to the attainment of local sustainable development objectives, with 90% of the funding allocated to social infrastructure projects such as schools, kindergartens, hospitals, sports facilities, museums, heating systems, water treatment plants, waste disposal sites, flood control **>**

► structures, and wells for herders. One noteworthy example is, in 2022, with an investment of 10.9 billion MNT, the "Gobi Nature and History Museum" was opened in Dalanzadgad. This museum boasts world-standard decor and equipment in its exhibition halls and houses a collection comprising over 4,000 exhibits.

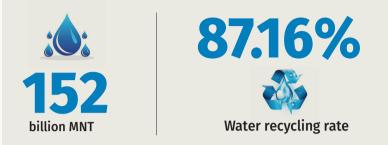
The company has established a Natural Plant Nursery in Khanbogd soum, dedicated to cultivating, preserving, and propagating desert and arid region plants for use in mining rehabilitation. In 2017, a state-of-the-art, fully automated, laboratorycontrolled, independent clean water supply facility was built in Khanbogd soum, thanks to a \$6.9 million investment from the fund. It is not only the first such facility in the region but also in all of Mongolia.

A project aimed at transforming Khanbogd, Tsogtsetsii, and Gurvantes soums into cities centered around the mining industry has been incorporated into the Umnugovi province governor's "Local Endowment" program. Among these, a feasibility study has been completed for the development of Khanbogd soum as a city, with funding from Oyu Tolgoi company. Furthermore, Khanbumbat airport was constructed in 2012 with investment from Oyu Tolgoi LLC. Over the next five years, \$50 million will be allocated through the Gobi Oyu Development Support Fund for the development of Khanbogd city.



Over the next five years, \$50 million will be allocated for the development of Khanbogd city

Water usage payment (2013 - 2023, II quarter)



Oyu Tolgoi company actively engages in various education and human development initiatives, encompassing the construction and enhancement of school and kindergarten facilities, the development of training programs, and the provision of scholarships. Since 2010, over 3,732 students and young individuals have enrolled in such programs.

Moreover, through the "Gobi Oyu-Student Scholarship" program, 405 students received full tuition scholarships, 2.5 billion MNT was allocated for subsidized loans benefiting 75 small and medium enterprises in the province, and 3 billion MNT was contributed locally to enhance the well-being of Umnugovi Province residents. This outreach positively impacted 780,000 people and led to the creation of 484 permanent jobs.

In addition, Oyu Tolgoi company allocates two percent of its total funds annually to a 10year deposit, specifically designated to support the education of children and youth, who represent the future generation of Umnugovi Province. Since the inception of this deposit in 2016, it has accumulated a total of 2.3 billion MNT.

The Gobi Oyu Development Support Fund, responsible for executing investments made by the Oyu Tolgoi project, envisions numerous projects to promote societal welfare in the future.

These represent only a handful of the successful initiatives undertaken by the Oyu Tolgoi project, which continues to exert a sustainable and meaningful influence on the development of Umnugovi province. As the mine reaches full operational capacity by 2030, the contributions, significance, collaborations, reputation, procurements, and socioeconomic influence of Oyu Tolgoi will expand further, ushering in an even more promising future for Umnugovi province.

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