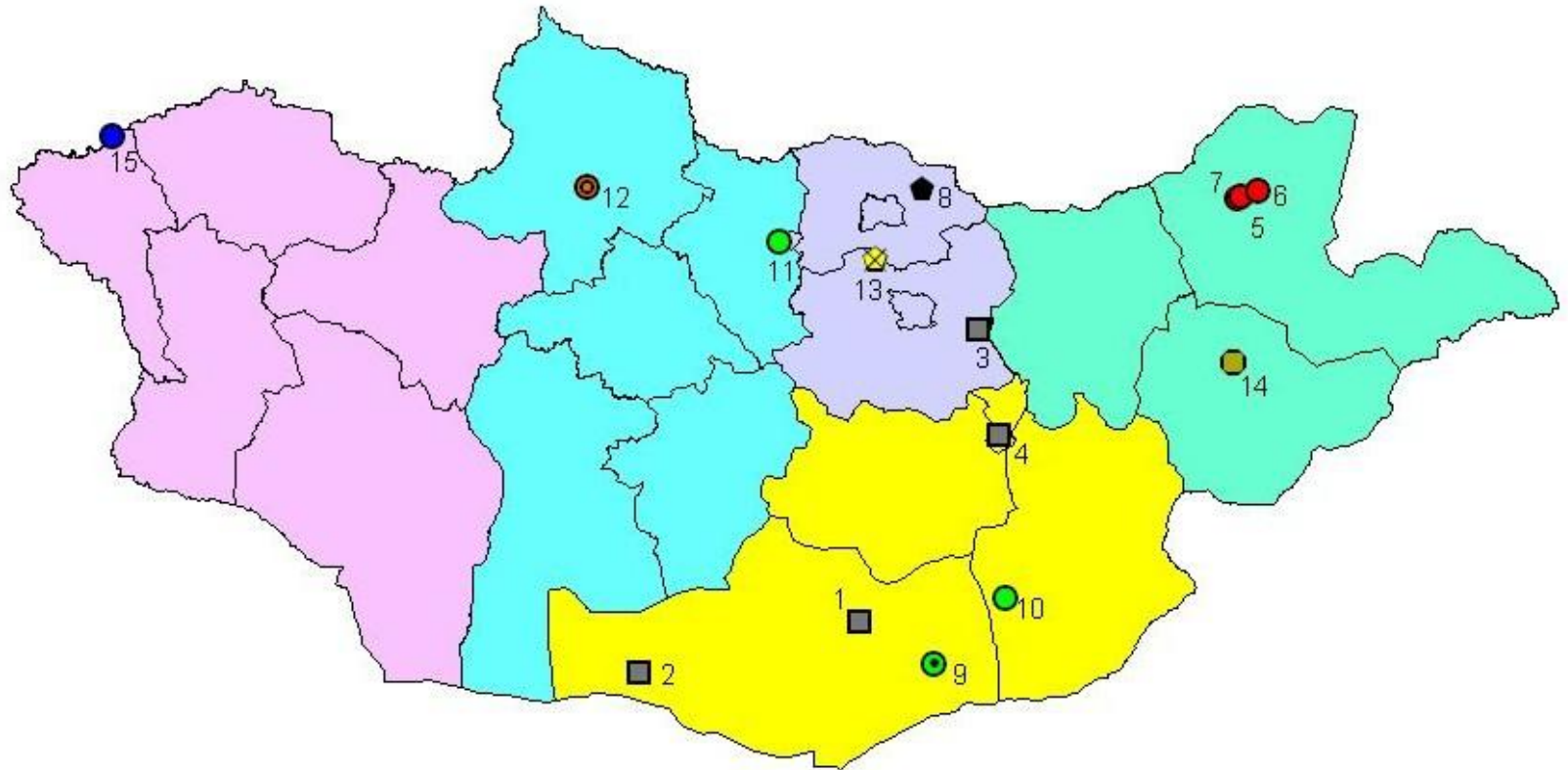


# Minerals and Infrastructure Development in the South



Ministry of Industry and Trade

# The South Region



- The South region comprises Umnugobi, Dornogobi, Dundgobi, and Gobisumber aimags.
- Strategic deposits: 1 – Tavantolgoi, 2 – Nariyn sukhait, 4- Shivee ovoo, 9 – Oyu tolgoi, 10 – Tsagaan Suvarga

# Government's policy on development of the Southern Gobi region

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- The economic driver and development pillar of the Southern Gobi region is natural resources, including minerals wealth.
- Mine and processing plants will be established on the basis of the region's large mineral deposits.
- The priority is to develop the following mines to become the “**Gobi's development hearth**”:
  - Tavantolgoi coking coal deposit;
  - Oyutolgoi copper-gold deposit;
  - Shivee ovoo coal deposit;
  - Tsagaan suvarga copper deposit

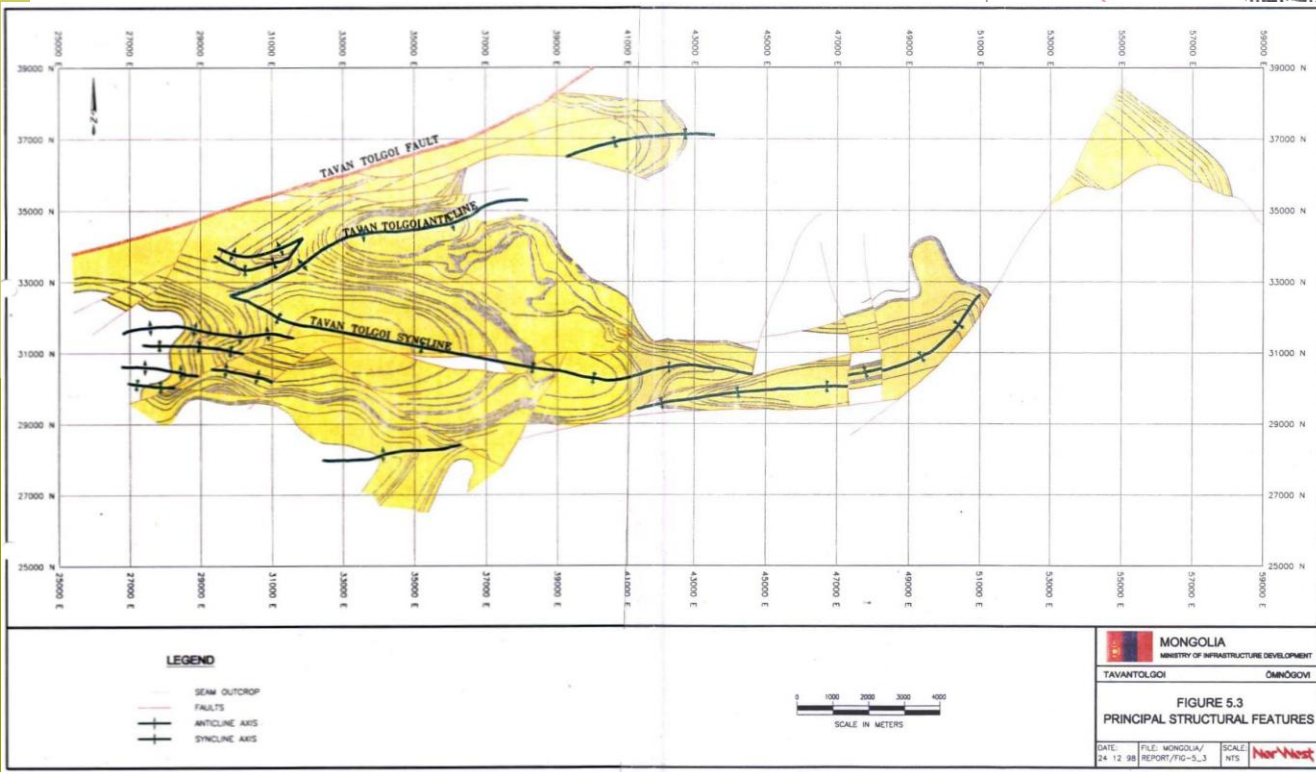
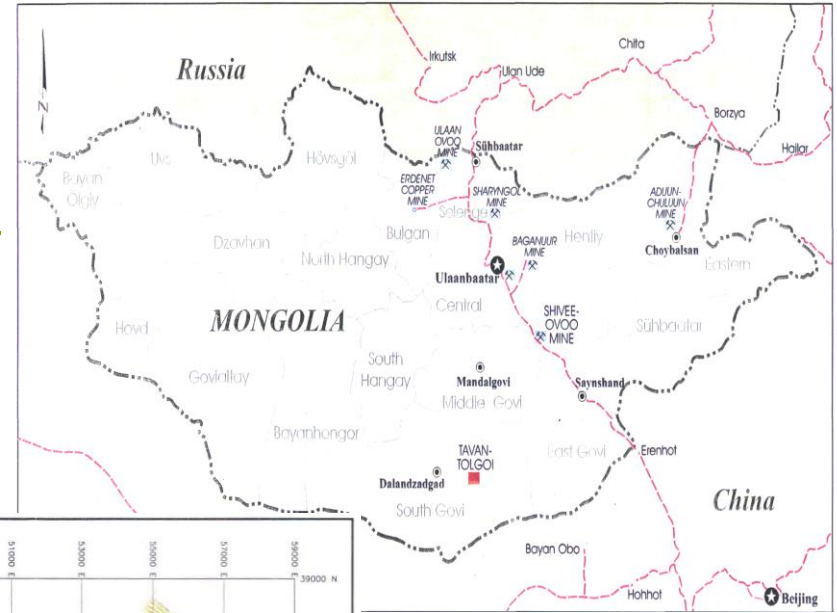
While planning for and realizing infrastructure and other sectors' development.

# Government's policy on development of the Southern Gobi region

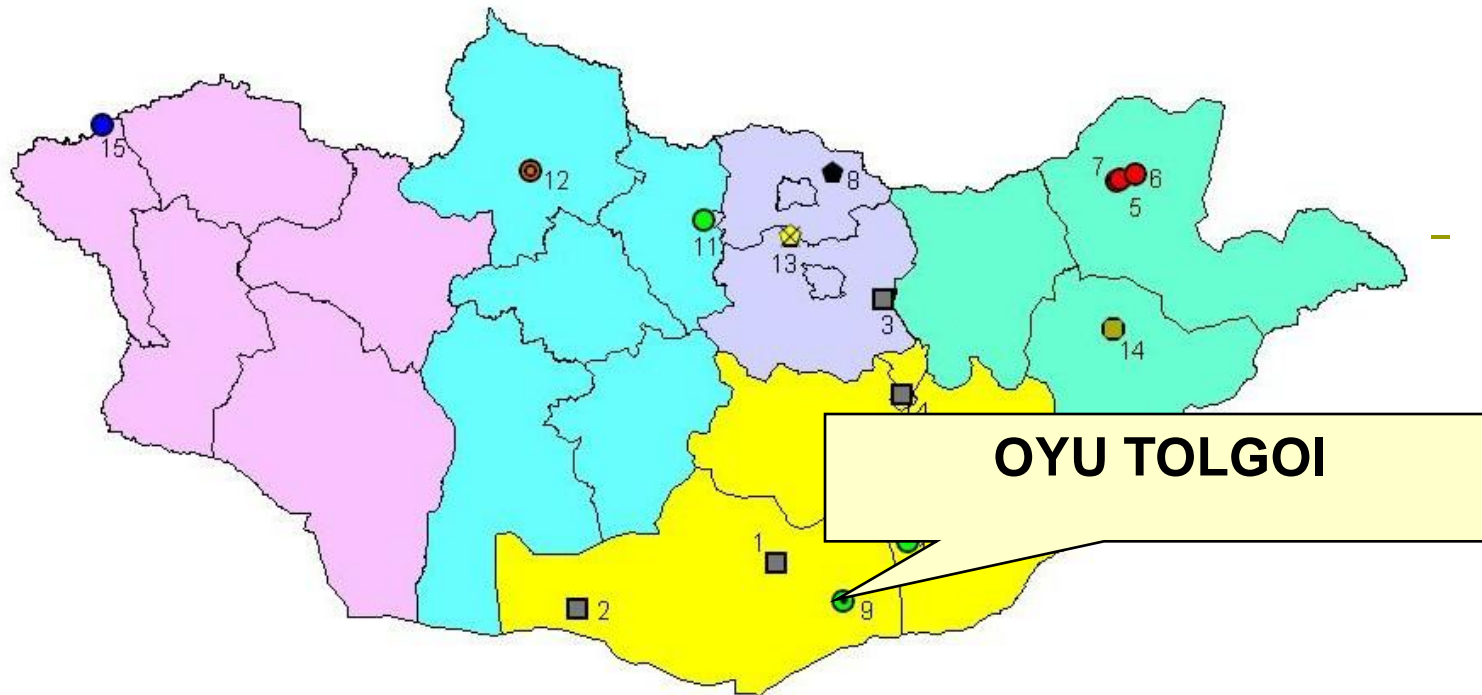
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- ❑ The policy focus shall be to have extraction plants produce not only concentrate, but also other value-added products.
- ❑ The development “**corridor**” or the main road connecting the development hearth to the world market will be an Asian highway and/or railroad between Zamyun-Uud and Altanbulag free trade zone. Thus future infrastructure development shall be connected and/or aligned with the main road.
- ❑ An **industrial park** will be established in the Southern part of Mongolia's Gobi region as extraction and processing plants are constructed and infrastructure and urban development takes place thereby putting the regional development and Mongolian people's welfare onto a new era of development.

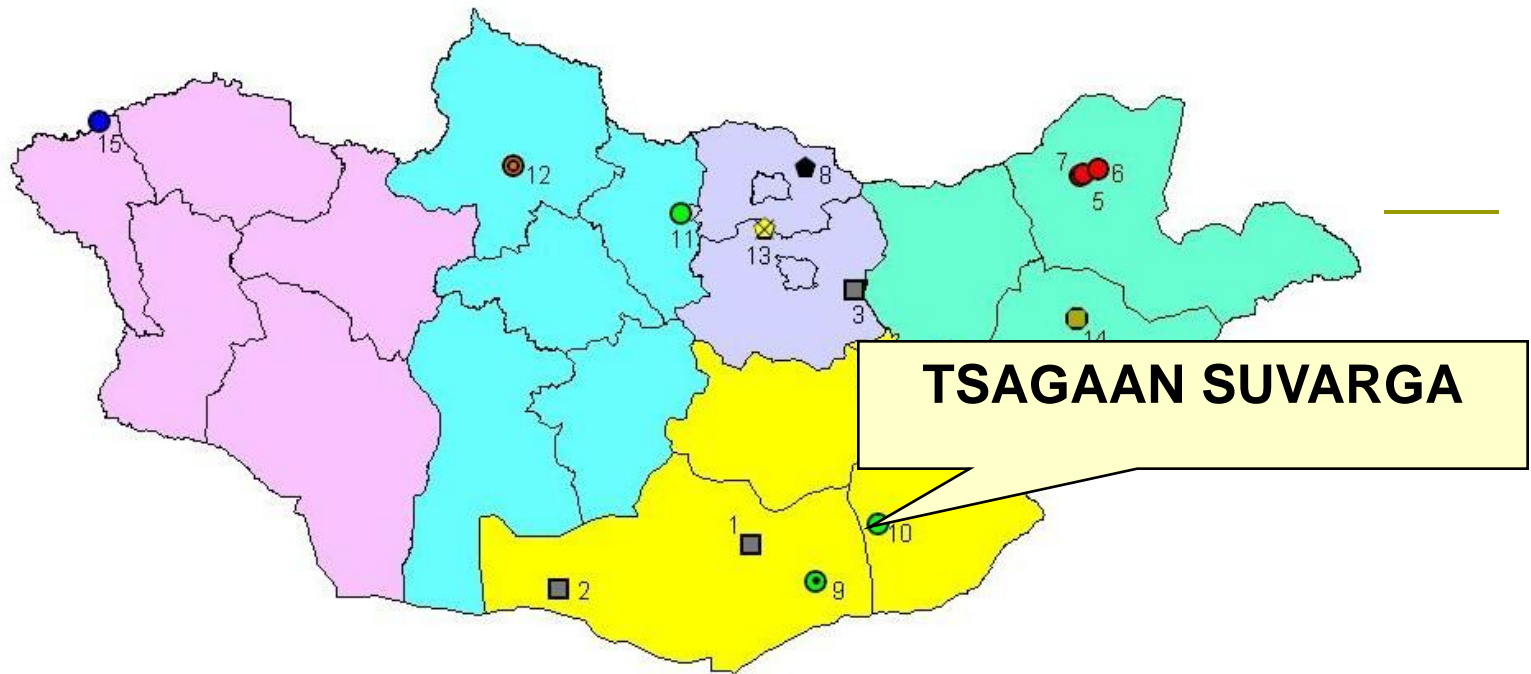
# TAVANTOLGOI



Total reserves  
6.4 billion tons,  
in particular:  
Established reserves:  
4.5 billion tons,  
of which coking coal:  
1.9 billion tons.



Reserves	Copper, million tons	Gold, tons
Total reserves	32.1	987
Of which: registered reserves	4.0	236.4



Reserves	Ore reserves, Million tons	Annual extraction and concentrate production capacity, million tons	Copper concentrate rate, thousand tons	Copper concentrate production capacity, tons/year	Total
Copper ore	240,0	7,6	150,0	5000,0	
Employment		1000		200	1200

## Upcoming mining and extraction projects

<i>No</i>	<i>Project name</i>	<i>Investment, million USD</i>	<i>Products</i>	<i>Annual extraction capacity, million tons</i>	<i>Job creation</i>
1	Oyu tolgoi	2.7	Copper concentrate, gold, silver	30-50	3,000-5,000
2	Tsagaan suvarga	0.5	Copper concentrate, cathode copper	7.5	1,000-1,200
3	Tavan tolgoi	1.5	Coal	15-30	1,200-2,000
	<b>Total</b>	<b>4.7</b>			<b>8,200</b>

# INFRASTRUCTURE: ROADS

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- ❑ Road routes crucial for strong mining development in the Gobi region:

## Phase I:

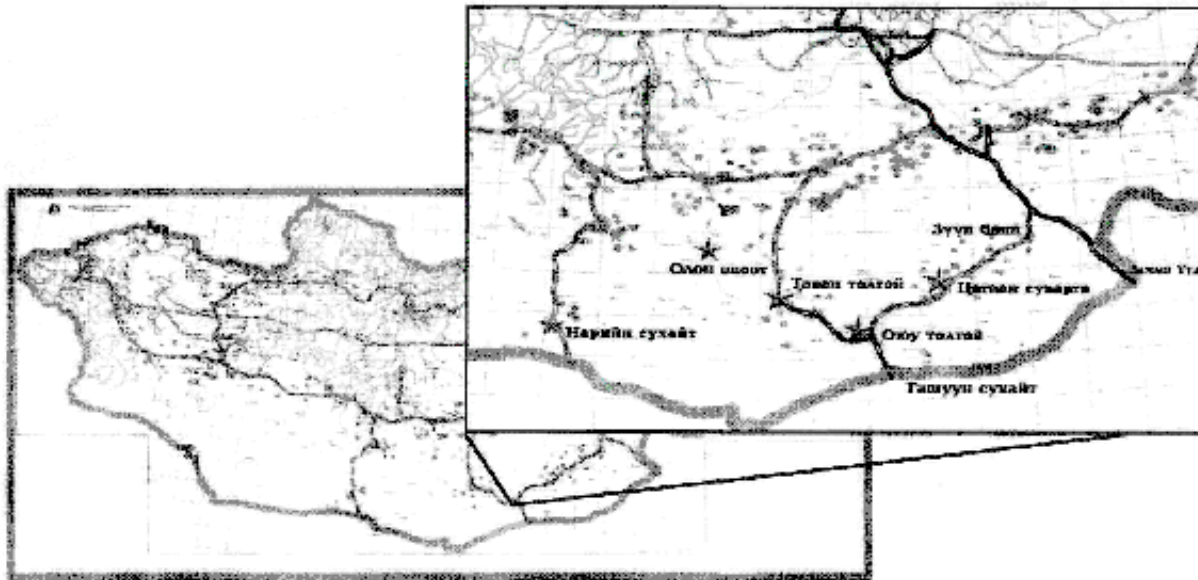
- ❑ AMMI Company and Ministry of Road, Transport, and Tourism signed a MoU in May 2007 to build initially a gravel road of 105 km on the Oyutolgoi-Gashuun sukhait route and upgrade to a paved road using the company's funds.
- ❑ *Build a road on the Tavan tolgoi-Oyu tolgoi route to connect to the Oyu tolgoi-Gashuun sukhait road.*

## Phase II:

- ❑ Build a road on the Ulaanbaatar-Dalanzadgad-Tavan tolgoi route.
- ❑ Build a road from the middle of the UB-Choir-Zamyn-Uud route to create the Sainshand-Tsagaan suvarga-Oyu tolgoi road



## ТӨМӨР ЗАМ

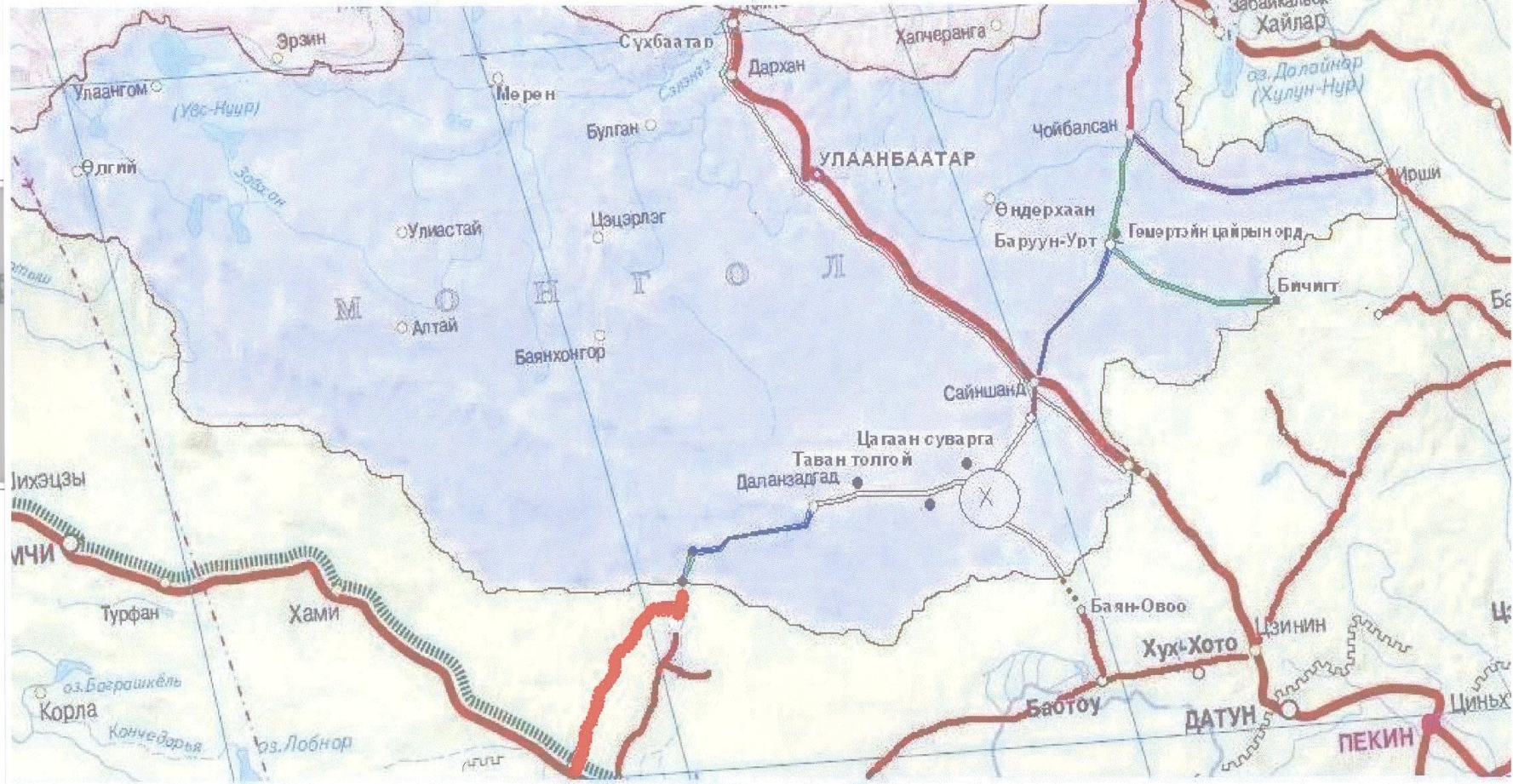


1-Р ҮЕШЭГ (ТАВАНТОЛГОЙ-ОЮУТОЛГОЙ-ГАШУУНСУХАЙТ)

- ❑ Plan to build a narrow gauge railroad of 270 km on the Tavan tolgoi-Oyu tolgoi-Gashuun sukhait route.
- ❑ MRTT defines the railroad development in the Gobi region in the following three areas:
  1. Zuun bayan-point x-Tavantolgoi
  2. Shiveekhuren-Nariyn sukhai
  3. Tavantolgoi-Dalanzadgad-Nariyn sukhait

# RAILROAD NETWORK OPTIONS

рын болон дунд хугацаанд шинээр  
игуулах төмөр замын сүлжээ



- /Нэгдүгээр шат/
- /Хоёрдугаар шат/
- /Гуравдугаар шат/
- /Дөрөвдүгээр шат/

# ENERGY

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Meet energy demand for the development of the Gobi region and deployment of Tavantolgoi, Oyutolgoi, Tsagaan suvarga, and other large deposits from domestic sources:

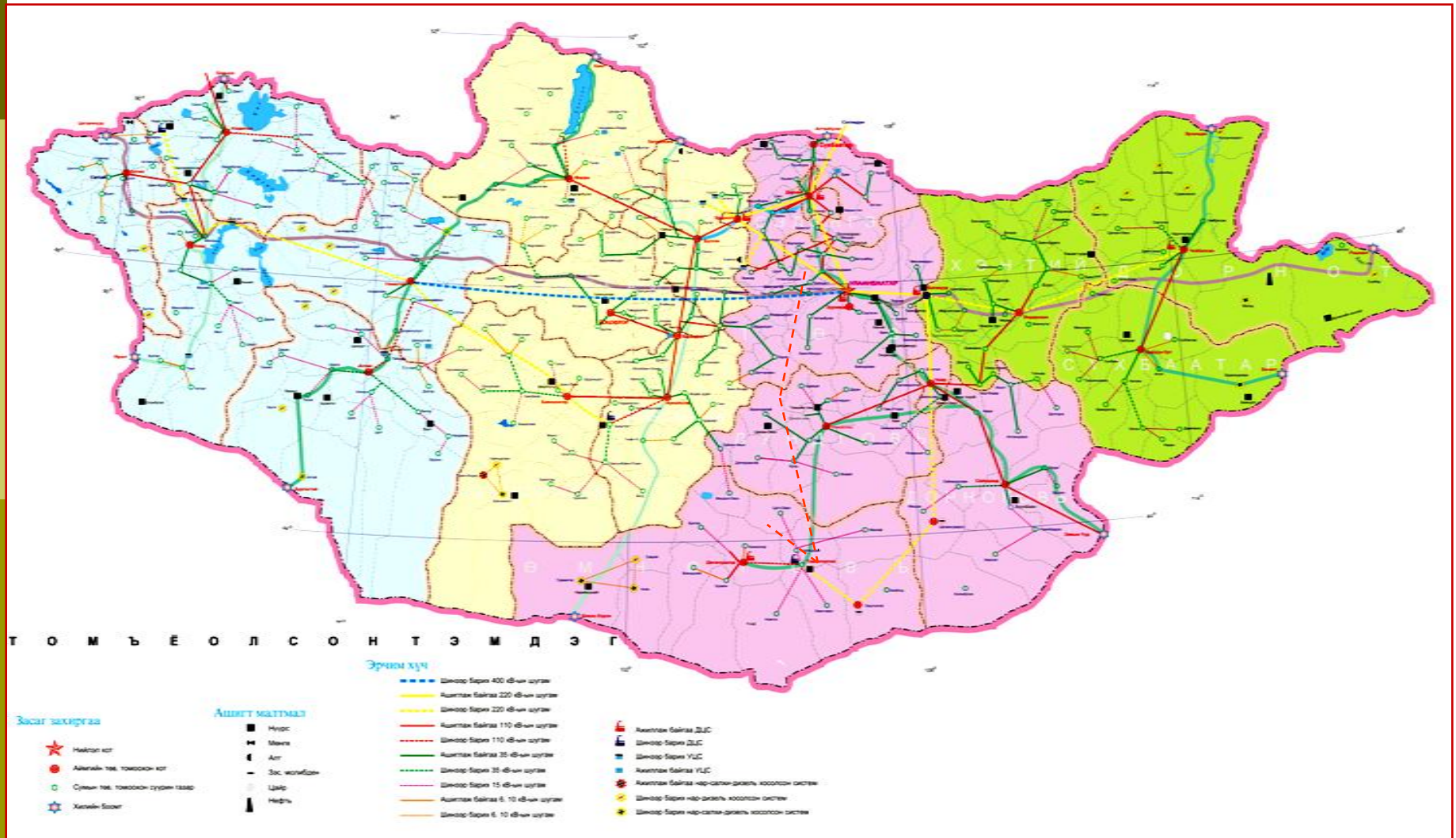
## **Phase I:**

- ❑ Program on Mongolia's integrated energy system adopted under Parliament Resolution No. 10 of 2007: 220kW high-tension gridline on the *Ulaanbaatar-Mandalgobi-Oyutolgoi* route in 2007-2012;
- ❑ In addition, Ivanhoe Mines Mongolia, INC (AMMI, LLC) is planning to finance the construction of a 70-140 mW power plant at the Oyutolgoi site. The Tsagaan tolgoi deposit, Nomgon soum is to supply coal for the power plant.

## **Phase II:**

- ❑ Build power plant with capacity of not less than 300 mW at the Tavantolgoi site to support the Oyutolgoi production with energy supply.
- ❑ 110kW high-tension gridline on the *Oyutolgoi-Tsagaan suvarga* route.

# INTEGRATED POWER NETWORK



# WATER SUPPLY

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- ❑ Precisely estimate the demand for technological and consumption water for the development of the Tsagaan suvarga and Oyutolgoi copper deposits, and Tavantolgoi coal deposit
- ❑ Intensify hydrogeological surveys in the region to make justifiable estimates of water reserves and improve water use and protection
- ❑ Preliminary projections indicate that phreatic water at the Balgas Red Lake will be used for coal production and construction of the power plant at the Tavantolgoi deposit, Galba Gobi and Guniyn Khooloi phreatic water for copper production at the Oyutolgoi deposit, and Tsagaantsav phreatic water for the copper production at the Tsagaan suvarga. A comprehensive hydrogeological survey must be conducted in the near term to establish and confirm the potential water reserve and utilization mode.
- ❑ If it will be proven that above resources do not have enough reserves, other sources will be sought for.
- ❑ Work out a project to meet the water demand by adjusting the water flow of surface resources in near-by areas to ensure a stable water supply to production in the Gobi region, in the future focus on risk mitigation and improvement of local water supply, explore availability of loans and aid for financing this project.

**The following activities will be implemented under the strategic objective of estimating the region's natural resources comprehensively from ecological and economic perspectives and making the right technological choice :**

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- ❑ Abate adverse impacts of geological surveys and mining production to the environment and undertake environmental rehabilitation in accordance with approved plan of works
- ❑ Attract foreign investment into projects to protect water resource basins, rationalize and strictly control the water usage, increase the use of surface water, and expand phreatic water exploration works

**The following activities will be implemented under the strategic objective of providing conditions for increased population growth, curbed out-migration, and satisfied living in the home place and advancing human development :**

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- ❑ In implementing the projects, ensure that Mongolian workers are trained and get expertise, offered a compensation package closer to international standards and that addresses their welfare, train and re-train engineering and technical staff at international education organizations
- ❑ Set up a participatory framework for framing and implementing policies that reflect specific circumstances of the Gobi region
- ❑ Involve more public discussions and other participatory approaches in decision-making pertaining to the Gobi region at all Government levels
- ❑ Get views of local people regarding taxation, payments, and licensing
- ❑ Improve efficiency of services offered by Government agencies
- ❑ Develop and implement a strategy to attract workers and professionals to the Gobi region and advance their expertise

**The following activities will be implemented under the strategic objective of providing conditions for increased population growth, curbed out-migration, and satisfied living in the home place and advancing human development :**

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- ❑ Allocate a portion of receipts from minerals development to local and regional development funds to implement phased measures for local development
- ❑ Create jobs for local people, deliver and intensify social and cultural services to the region, develop near-by coal and construction materials deposits, stabilize population settlement and employment
- ❑ Carefully and systematically plan urban development in areas adjacent to large deposits, coordinate deposit development and combine their potentials, offer a comprehensive solution to provision of production, services, culture and education, and utilities services, align some important processes with the regional development policy and various incentives
- ❑ Focus on improvement of the region's business climate

# Project outcome

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- ❑ A mining/metallurgic/energy production nexus supported by strategic deposits.
- ❑ Shift from minerals extraction at strategic deposits to minerals processing to advance the level of product processing.
- ❑ Over seven years until 2015 over 8,000 jobs created in the Southern Gobi region making a significant contribution to improving the welfare of more than 32,000 people.
- ❑ National qualified personnel trained and strengthened.
- ❑ A smelter with capacity of 500,000 tons built at the Oyutolgoi deposit extracting 30-60 million tons of ore annually.
- ❑ Tavantolgoi production standing at 20 million tons per year; a power plant built; coking coal supplied to domestic metallurgic plants as well as exported.
- ❑ Local infrastructure, construction, services, food, and agriculture developed as large project come on stream.
- ❑ Sustainable social development established.

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THANK YOU FOR YOUR  
ATTENTION