



European
Investment
Bank



ШИНЭ ДЭД ТӨВ

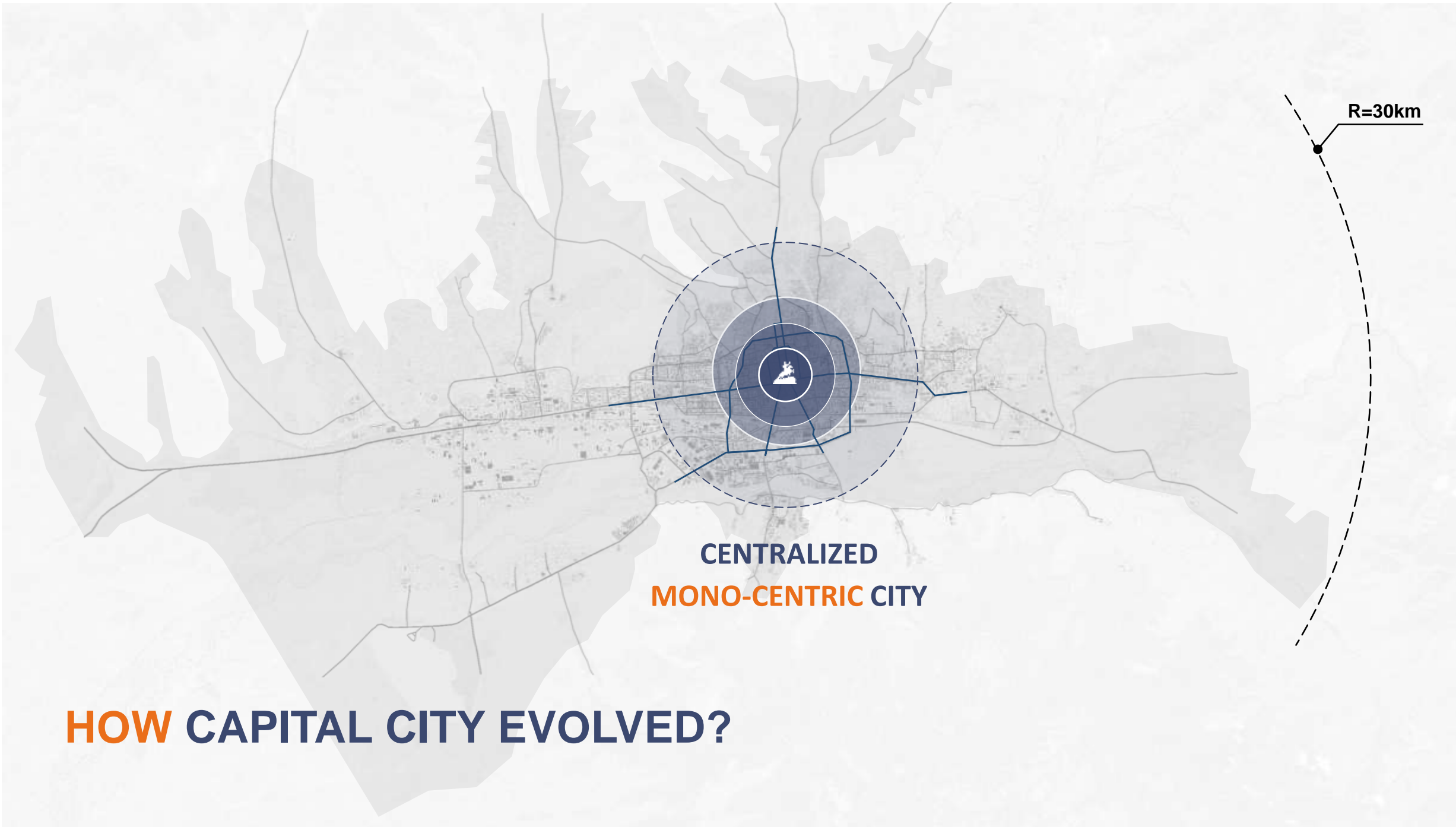
ULAANBAATAR URBAN SERVICES AND GER AREAS
DEVELOPMENT INVESTMENT PROGRAM



INTRODUCTION

ULAABAATAR URBAN SERVICES AND GER AREAS DEVELOPMENT INVESTMENT PROGRAM

2023.05.26



R=30km

**CENTRALIZED
MONO-CENTRIC CITY**

HOW CAPITAL CITY EVOLVED?

ULAANBAATAR CITY DEVELOPMENT APPROACHES

HOW DO WE DEVELOP THE CITY IN LONG TERM?



06
SUBCENTERS

ULAANBAATAR **2020** MASTER PLAN &
DEVELOPMENT APPROACHES FOR 2030

Bayankhoshuu
Selbe
Dambadarjaa
Denjiin 1000
Sharkhad
Tolgoit

FROM **MONO-CENTRIC** CITY
TO **POLY-CENTRIC** CITY



05
SUBCENTERS

ULAANBAATAR **2040** MASTER PLAN

Bayankhoshuu
Selbe
Amgalan
Songolon
New subcenter

FROM **MONO-CENTRIC** CITY
TO **POLY-CENTRIC** CITY



ULAANBAATAR URBAN SERVICES & GER AREAS DEVELOPMENT INVESTMENT PROGRAM

GADIP

RATIONALE



02 CITY CENTERS 06 SUBCENTERS

08 ZONES 47 UNIT SUB-DISTRICTS

Ulaanbaatar 2020 master plan
and development approaches for
2030



2013.12.09

Government of MONGOLIA & ADB
FRAMEWORK FINANCING AGREEMENT (MFF)
APPROVED

2014.05.23

State Great Khural (the Parliament)
FRAMEWORK FINANCING AGREEMENT (MFF)
RATIFIED

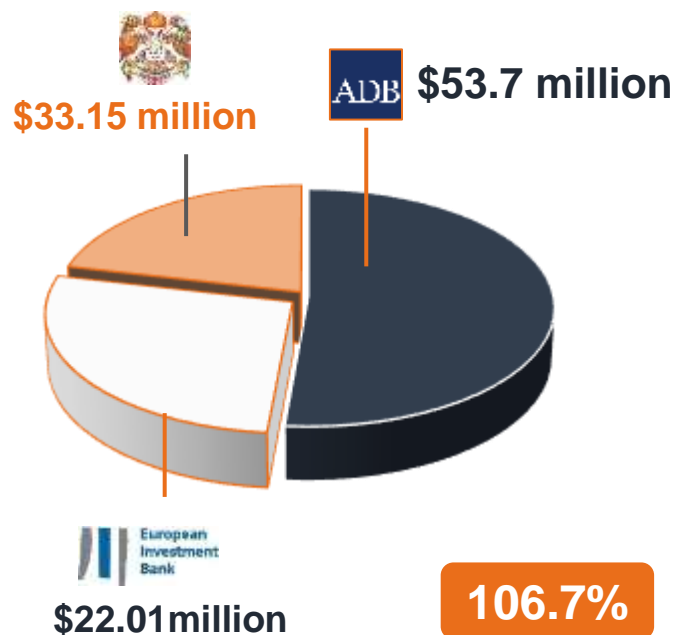


- The development program of Ulaanbaatar ger areas transform into apartment sub-districts
- 'Vision-2050' Long-term development policy of Mongolia
- The five years main direction for the development of Mongolia in 2021-2025
- The Government action plan for 2020-2040
- National program on '150 thousand households-Housing'
- National program for reducing Air and Environmental Pollution for 2017-2025

PROGRAM GENERAL INFORMATION

TRANCHE 01

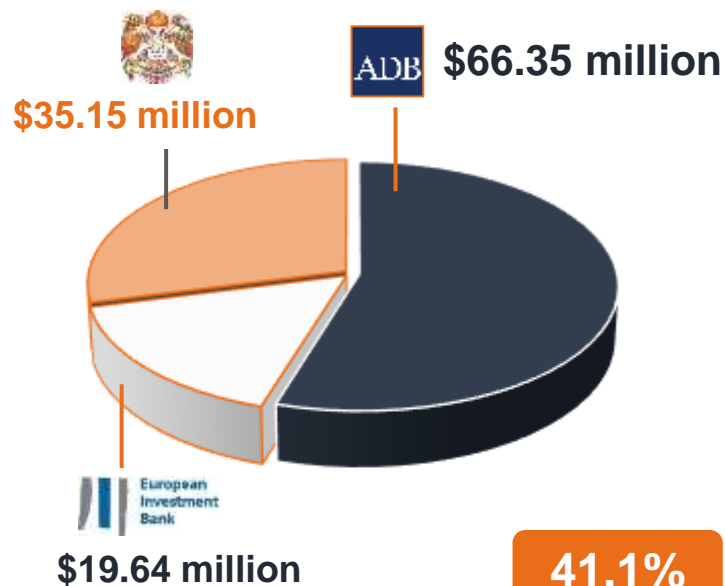
BAYANKHOSHUU SUBCENTER
SELBE SUBCENTER



FINANCING AMOUNT: USD 108.86 million
DISBURSEMENT: USD 105.74 million

TRANCHE 02

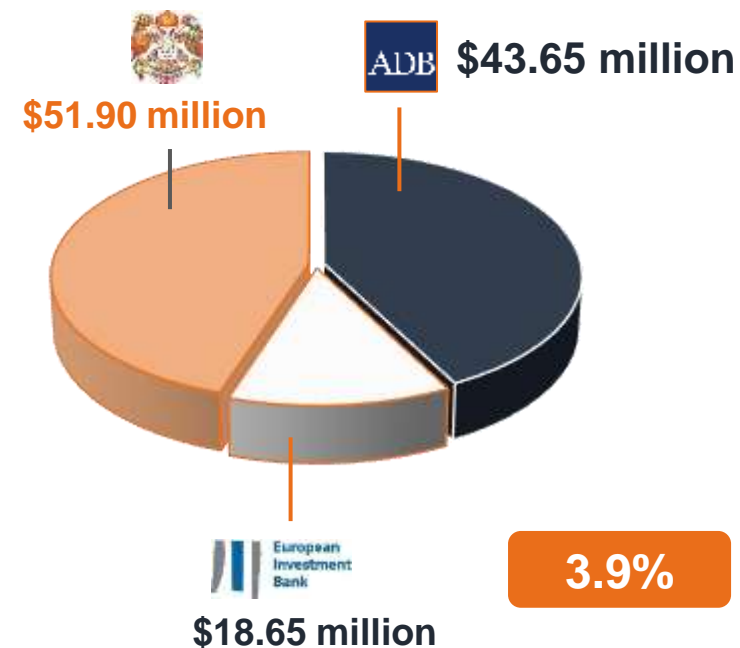
DAMBADARJAA SUBCENTER
DENJIIN 1000 SUBCENTER



FINANCING AMOUNT: USD 121.14 million
DISBURSEMENT: USD 48.55 million

TRANCHE 03

TOLGOIT SUBCENTER
SHARKHAD SUBCENTER



FINANCING AMOUNT: USD 114.2 million
DISBURSEMENT: USD 2.3 million

PROGRAM GENERAL INFORMATION

FROM **MONO-CENTRIC** CITY
TO **POLY-CENTRIC** CITY

Deliver main trunk infrastructure for 6 subcenters in the northern ger areas which has low density and infrastructure, and municipal utility service is poor or nonexistent.

The aim of the program is to facilitate and enhance the socio-economic development of Ulaanbaatar city by creating eco-friendly districts, job creation and regional centers within a city that provide quality services to residents

TOTAL: \$170.92 million



\$50.61 million



\$91.25 million



\$29.06 million

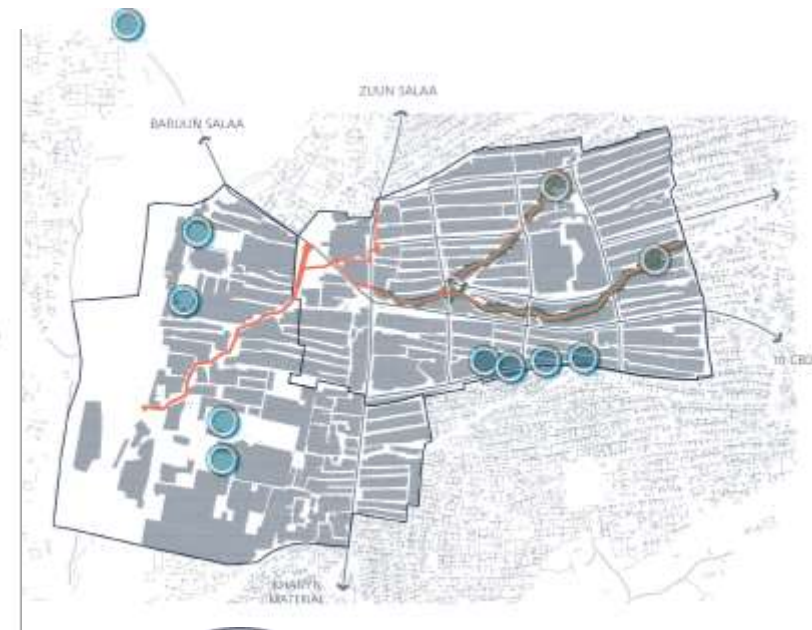
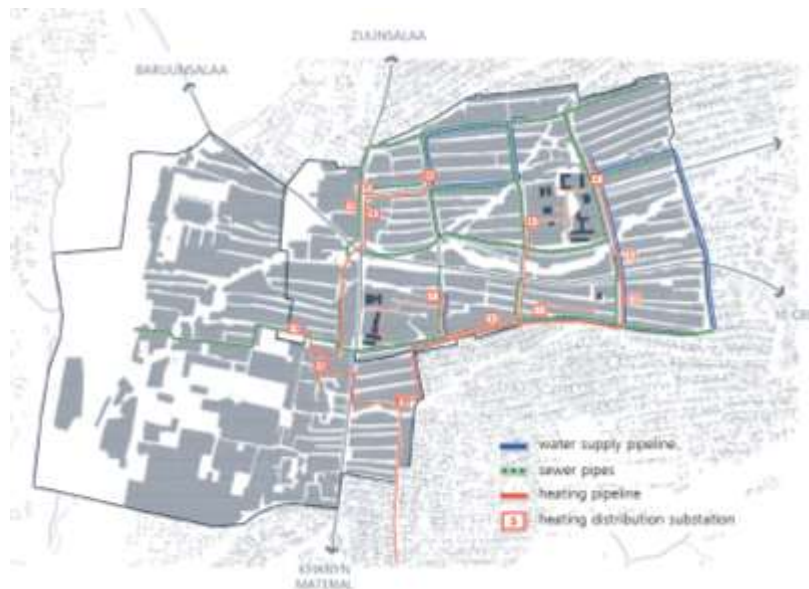
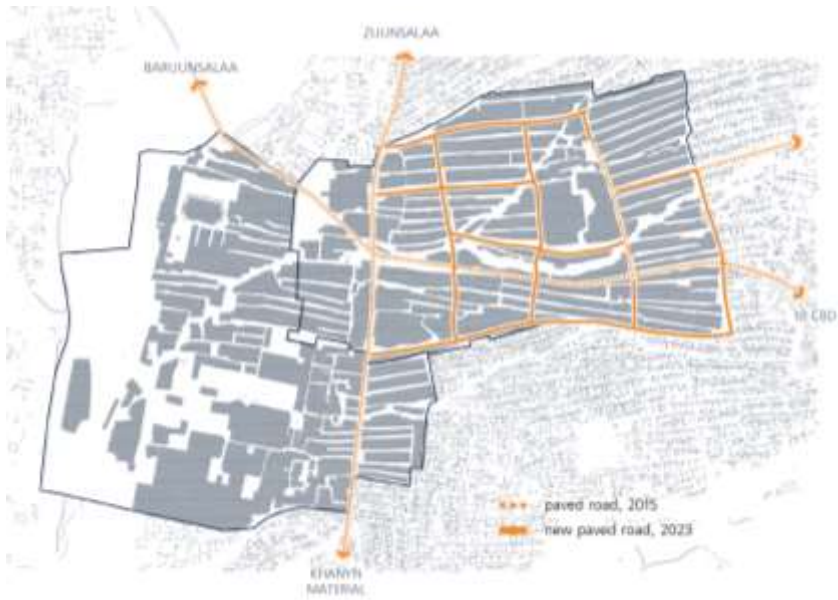
OUR PURPOSE

BAYANKHOSHUU SUBCENTER



ШИНЭ ДЭД ТӨВ

Улаанбаатарын хотын төв бүсийн
улаанбаатар хотын төв бүсийн



ROAD NETWORK

Paved road
Bridges
Pedestrian path

INFRASTRUCTURAL NETWORK

Heat supply
Water supply sewerage
Electrical reticulation
Telecommunication

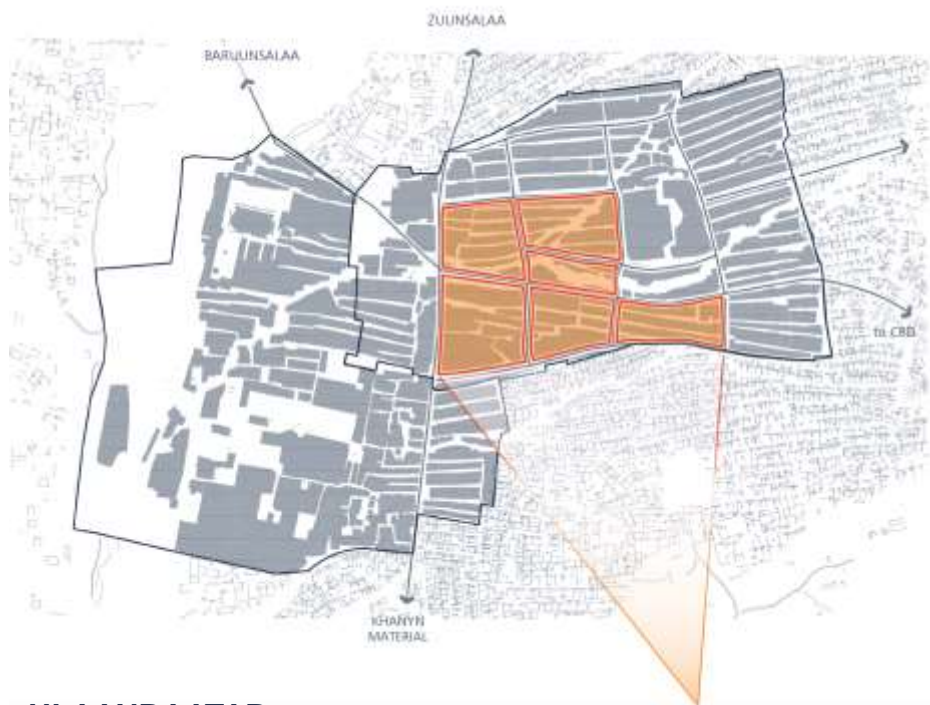
SOCIAL FACILITIES

Kindergarten
Landscaping
Business incubator

**TO CREATE BASIC CONDITIONS FOR
GER AREA DEVELOPMENT**

COMPLETED INFRASTRUCTURE & SOCIAL FACILITIES BAYANKHOSHUU SUBCENTER

NEXT PROGRAMS FOR GER AREA DEVELOPMENT



ULAANBAATAR
GREEN AFFORDABLE HOUSING &
RESILIENT URBAN RENEWAL
SECTOR PROJECT

(AHURP)

ECO-DISTRICT
HOUSING



PLANNED WORKS AT SERVICED LAND OF BAYANKHOSHUU AND SELBE

AHURP



- Recreational/open space
- Public green space
- Mixed-use and low-rise residential area
- Mid-rise residential area
- Mixed-use residential area
- Social facilities
- Social facilities
- Light industrial area
- AHURP boundary of eco district

- Блокын дугаар
- Газар ашиглалт
- BCR
- FAR
- Давхрын тоо
- Блокын талбай (га)

BAYANKHOSHUU

SELBE

NEXT PHASE ACTIVITIES

THE CENTER FOR POLICY RESEARCH & ANALYSIS OF MUNICIPALITY OF ULAANBAATAR



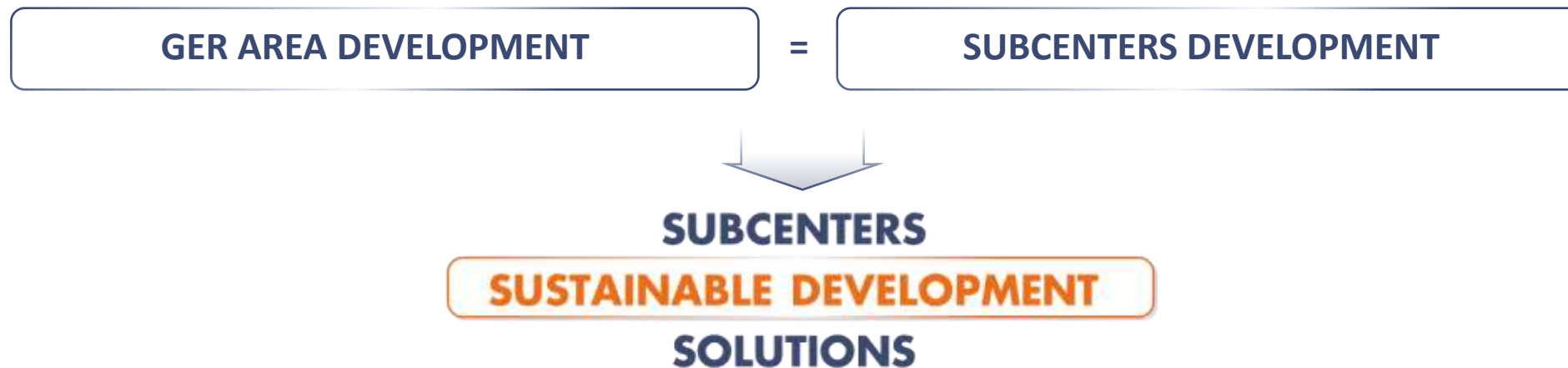
- Project stage:** - Concepts
- Methodology:** - System dynamic modelling
- The rationale of legal:** - 'Vision 2050'
- New Revival Policy

06 SUB CENTERS	UNIVERSITIES	NUMBER OF STUDENTS	INVESTMENT
Bayankhoshuu	NUCB, MSUE	41'389	39 billion 831 million
Selbe	MNUAC	2'089	23 billion 368 million
Dambadarjaa	-	-	-
Denjiin 1000	-	-	-
Sharkhad	MUST, MNUMS	27'694	309 billion 801 million
Tolgoit	-	-	-

506 billion 300 million

RESULTS: TRAFFIC CONGESTION WILL REDUCE TO 25%, AVERAGE SPEED WILL INCREASE TO 13.2 KM/HOUR

OUR FURTHER TASKS



- 01.** | SUBCENTER DEVELOPMENT ORGANIZATION
INSTITUTIONAL DEVELOPMENT & CAPACITY BUILDING FOR SUBCENTER | **NOSK**
- 02.** | TO CREATE
STABLE LEGAL FRAMEWORK
- 03.** | TO PROVIDE IMPLEMENTATION OF
TRANCHE 2&3 SUBCENTERS DEVELOPMENT

OUR FURTHER TASKS

Planned Projects



**INSTITUTIONAL DEVELOPMENT &
CAPACITY BUILDING FOR SUBCENTRE
PILOT**



ULAANBAATAR URBAN SERVICES & GER AREAS DEVELOPMENT INVESTMENT PROGRAM

GADIP

PROJECT IMPLEMENTATION STATUS

SUBCENTER PLANNING

EXPECTED HOUSING ACCORDING TO PLAN

31'567

AHURP
Housing planning by

10'040

Criteria of subcenter



Be fully equipped with social infrastructure



Be have energy-efficient buildings



Be fully equipped with engineering infrastructure



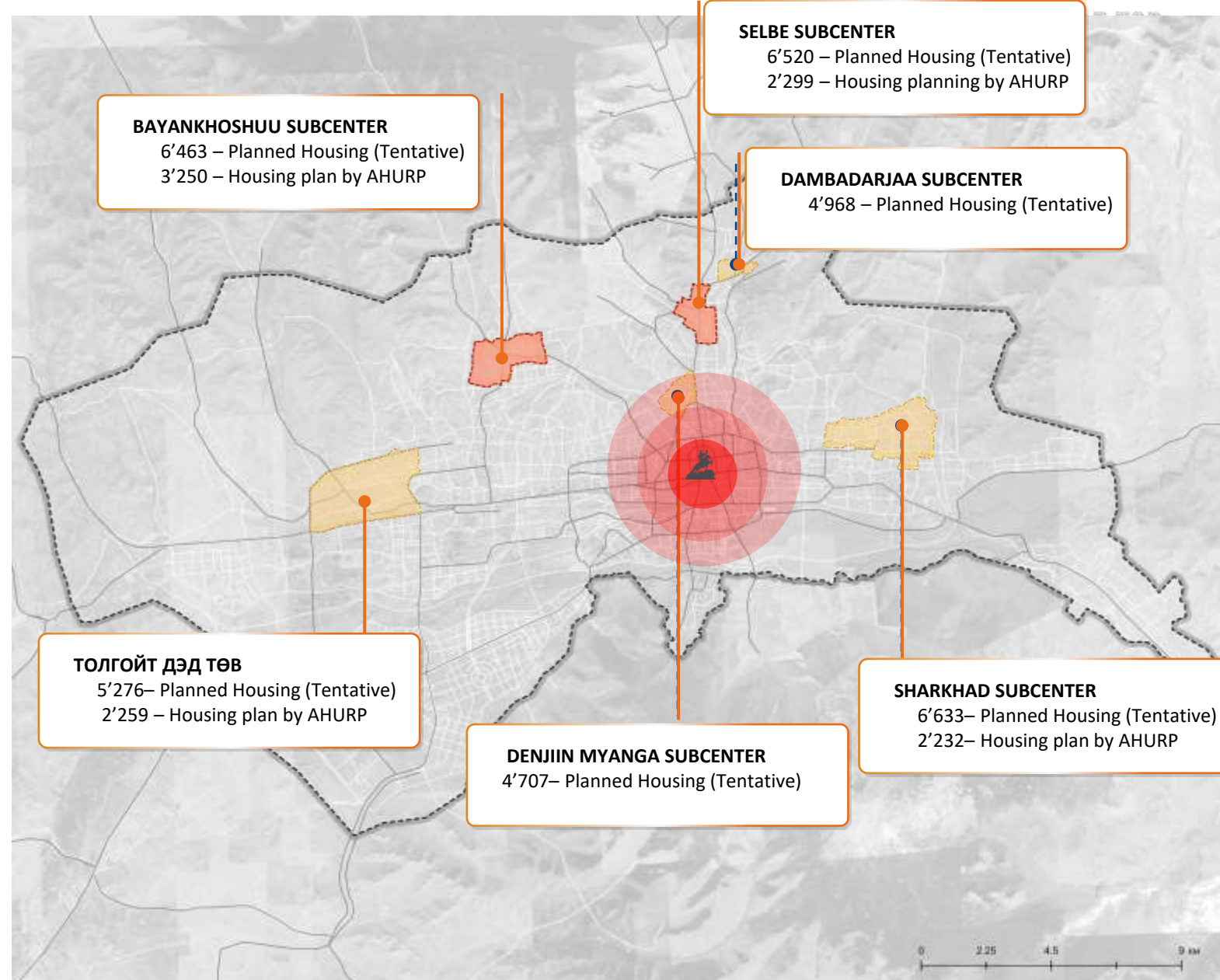
Be have environmentally friendly production and jobs



Be have public parks and green areas



Be have landscaping 30%↑



SUBCENTER PLANNING

INFRASTRUCTURE WORKS

ROAD NETWORK.

ROAD:	22km
RCC BRIDGE: (24m,30m,60m)	3

MAIN TRUNK INFRASTRUCTURE.

- HEATING NETWORK	46km
HDS:	44
Heating plant: (28MW, 63MW, 93MW)	3
- Water supply	59km
Pump station:	6
- Sewerage	48km
Pump station:	2

ENGINEERING PREPARATORY MEASURES

Flood protection channel:	16.8km
Groundwater drainage:	7.6km

SOCIAL FACILITIES

APARTMENTS. 20 UNITS, 50*2 UNITS, 126 UNITS

EDUCATION AND DEVELOPMENT BUILDINGS.

KINDERGARTENS*4 & PRIMARY SCHOOL

BI & TRAINING CENTER*2, COMMUNITY DEVELOPMENT CENTER

SOCIAL AND SHELTER HOUSES.

SHELTER HOUSE

PRIMARY HEALTH CARE CENTER

FIRE AND RESCUE STATION

SPORT COMPLEX

TELECOMMUNICATION SERVICE CENTER BUILDINGS

LANDSCAPING AND GREEN AREAS. 23.6 Ha

TRANCHE 1: COMPLETED CIVIL WORKS IN BAYANKHOSHUU SUBCENTER

Road:	6.5km	Water supply:	10.9km
		Sewerage:	15km
		35/10kV	
Heating network:	27.9km	Electricity network:	6.3km
HDS:	14	Telecommunication network:	2.9km
ES:	5	Landscaping and green areas:	4.65ha
		Flood protection	4.7km

SOCIAL FACILITES

- 240 children kindergarten
- BI & training center
- Telecommunication service center
- 20 units APT with service facilities
- V=1000m3 water reservoir

LOCATION **162 ha**

Songinokhairkhan, 7,8,9,10,11,28

CURRENT POPULATION **8'367**
(2'197 HOUSEHOLDS)

PLANNED POPULATION **29'083**
(6'463 HOUSEHOLDS)



TRANCHE 1: COMPLETED CIVIL WORKS IN SELBE SUBCENTER

Road:	6.8km	Water supply:	9.3km
Bridge: (24m,30m,60m)	3	Sewerage: 35/10kV	15km
Heating network:	9.9km	Power supply:	3.5km
HDS:	15	Telecommunication network:	5.5km
ES:	3	Landscaping and green areas:	3.01ha
		Flood protection:	2.1km

SOCIAL FACILITIES

- 28MW Heating plant
- BI & training center
- Telecommunication service center
- 240 children kindergarten
- V=1000m3 water reservoir

LOCATION **156 ha**

Chingeltei, 14,18 Sukhbaatar, 13,14

CURRENT POPULATION **10'910**
(2'920 HOUSEHOLDS)

PLANNED POPULATION **23'500**
(6'520 HOUSEHOLDS)



TRANCHE 1: KEY ACHIEVEMENTS

SELBE SUBCENTER

35 public buildings & 50 units apartment already connected with heating network, raw coal consumption reduced by **7'500 ton/year**



A volume of road congestion of zuslan road and the intersection of 7 buudal has been reduced to **30%**.



25'000 citizens were able to connect with a reliable potable water source.



The opportunity was created that **3'000 households** could be connected to high-speed fiber optic cable



In the future, **6'520 households** (**23'500** population) will be settled in Selbe subcenter.

BAYANKHOSHUU SUBCENTER

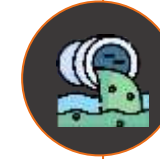
27 public buildings & 800 units apartments are connected with district heating network, raw coal consumption reduced by **11'000ton/year**



A volume of road congestion of Jantsan road and the intersection of the final bus stop of baynkhoshuu has been reduced to **50%**.



25'000 citizens were able to connect with a reliable sewage network



Connected with reliable **Electrical Source 35/10kV** substation



In the future, **6'463 households** (**29'083** population) will be settled in Bayankhoshuu subcenter



TRANCHE 2: ONGOING CIVIL WORKS



Rental apartment building
with 126 units



Fire and rescue station



Sport complex



Shelter house



240 children
kindergarten



Urban park



Community development
center



Bayankhoshuu square
/ Urban plaza

TRANCHE 2:

Planned infrastructure & social facilities in **DAMBADARJAA SUBCENTER**

Road:	2.8km	Power supply:	6.6km
Heating network:	2.6km	Telecommunication network:	5.9km
HDS:	5		
SG:	1		
ES:	2		
Water supply:	2.3km	Flood protection:	1.7km
Sewerage:	3km	Groundwater drainage:	1.5km

SOCIAL FACILITIES

- 63MW Heating plant
- 150 children kindergarten
- Telecommunication service center

LOCATION **70.7 ha**

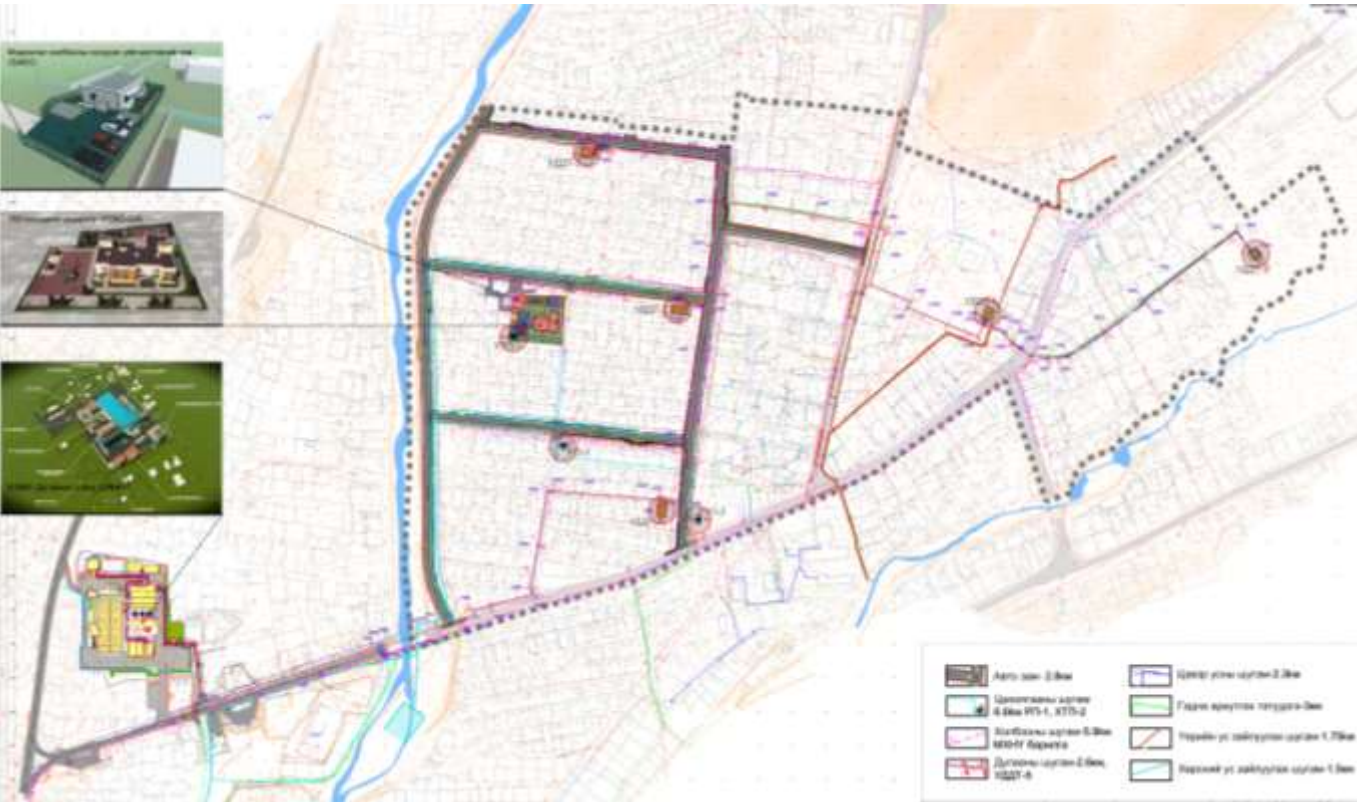
SUKHBAATAR, 16,18

CURRENT POPUATION **4'236**
(1'145 HOUSEHOLDS)

PLANNED POPUATION **7'105**
(1'973 HOUSEHOLDS)



TRANCHE 2: PLANNED INFRASTRUCTURES IN DAMBADARJAA SUBCENTER



ROAD & INFRASTRUCTURAL NETWORK

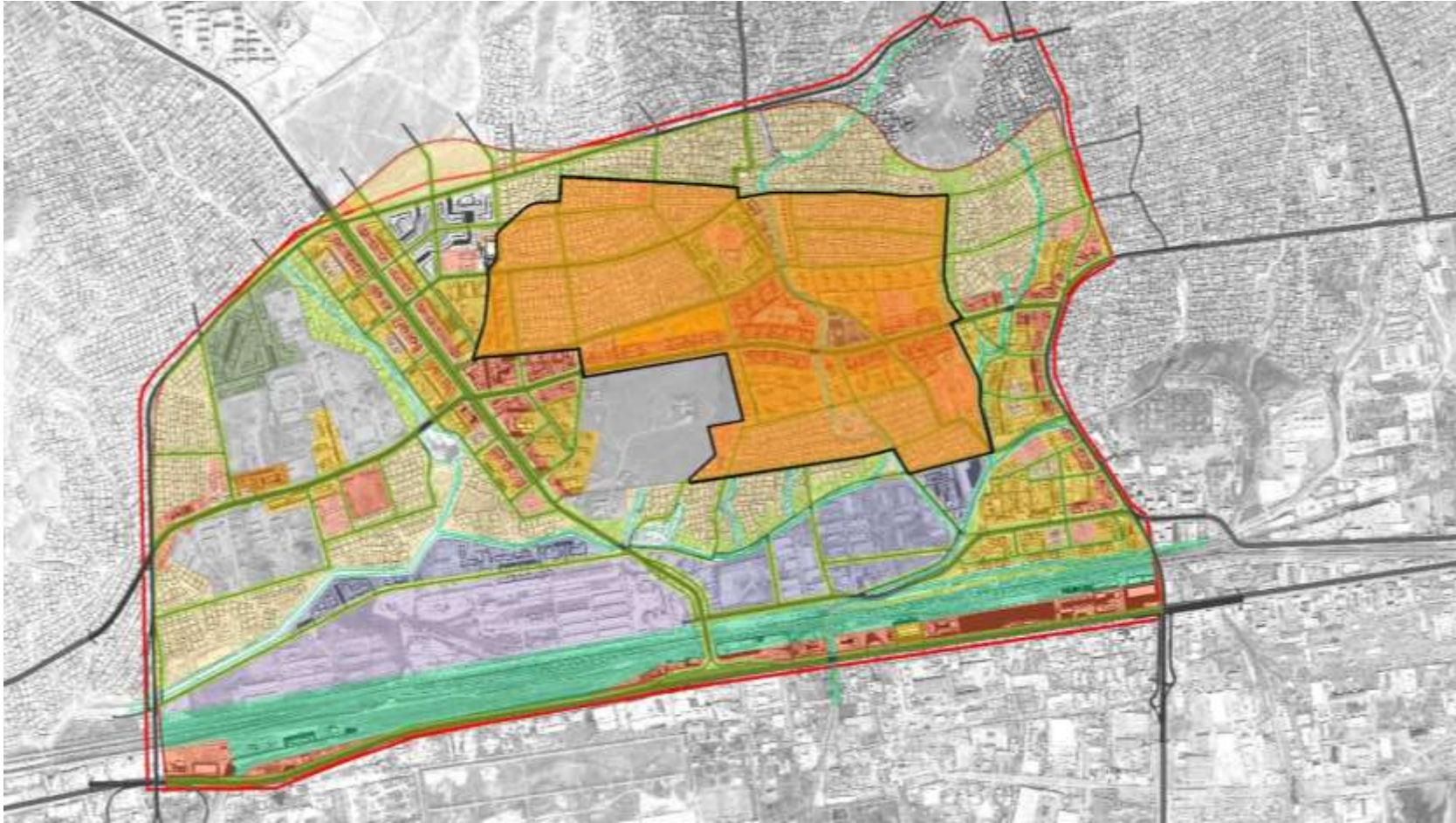
DAMBARJAA FLOOD PROTECTION CHANNEL

Capacity	• Flood protection:	0.88km
	• Drain water pipeline:	0.87km

Physical progress: 74%



TRANCHE 3: TOLGOIT SUBCENTER



LOCATION **150 HA**

1, 2, 3, 34 and 35th khoroo,
Songinokhairkhan district

PARTIAL MASTER PLAN IN '23 UNIT NEIGHBORHOOD'

TRANCHE 3:

Planned infrastructure & social facilities in **TOLGOIT SUBCENTER**

Paved road:	5.3km	Electricity cables:	17km
Heating pipelines:	2.5km	Telecommunication network:	7.1km
HDS:	5	Public green space	
ES:	10	Flood protection channel:	5.3km
Water supply:	5.3km		
Sewer pipe:	6.2km		

SOCIAL FACILITIES

- 640 children secondary school
- Business incubator
- Primary healthcare center
- Telecommunication service center

LOCATION **153 ha**

Songinokhairkhan, 1,2,3,34,35

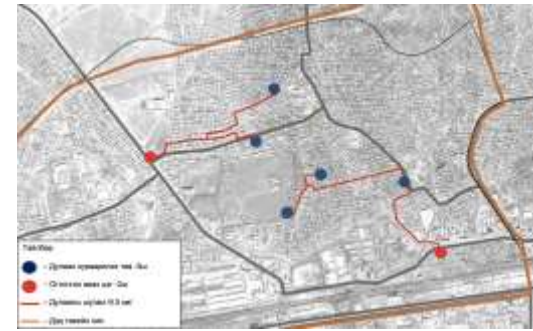
CURRENT POPULATION **6'860**
(1'846 HOUSEHOLDS)

PLANNED POPULATION **21'105**
(5'276 HOUSEHOLDS)



TRANCHE 3: TOLGOIT SUBCENTER

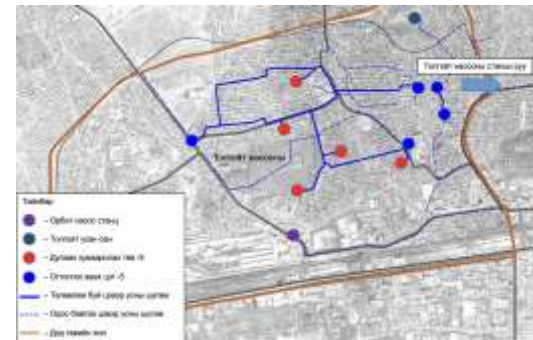
Work	Description	Quantity
ROAD NETWORK	4 lane road	3.27 km
	2 lane road	2.6 km
	Bicycle path	5.7 km
	Flood water drainage	3 no.s
	Pedestrian way	5.87 km
FLOOD PROTECTION	Flood channel	4.6 km
	Sediment retention pond	2 nos
	Surface water drainage system	5.7 km
WATER SUPPLY AND NETWORK	Water pipeline	6.0 km
	Pumping station, 4600 m3/day	1 no.s
SEWAGE NETWORK	Sewage pipeline, d100-1000	7.1 km
DISTRICT HEATING NETWORK	Heating pipeline	3.16 km
	Heating substation	5 no.s
TELECOMMUNICATION NETWORK	Fiber optic cable	4.3 km
	Primary duct (4+0), (9+0)	3.7 km
	Telecommunication data center	2 no.s
	25-30m high TC tower	1 no.s
POWER SUPPLY NETWORK	10kV power transmission line	13 km
	10kV switchgear & control facilities at tie-in point	1 no.s



Heating network



Road network



Water supply



Sewerage



Telecommunication network



Power supply

TRANCHE 3: TOLGOIT SUBCENTER

Contract No	TBC Training center at Tolgoit subcenter
Location	Tolgoit Subcenter
Physical progress	13.5%



Contract No	TFP Flood protection channel
Location	Tolgoit Subcenter
Physical progress	70%



TRANCHE 3: TOLGOIT SUBCENTER



DESCRIPTION

BUSINESS INCUBATOR AND TRAINING CENTER IN TOLGOIT SUBCENTER

PHYSICAL PROGRESS:

28%

COMPLETION DATE:

Q4 2023



DESCRIPTION

PRIMARY HEALTHCARE CENTER IN TOLGOIT SUBCENTER

COMPLETION DATE:

Q4 2024



DESCRIPTION

SECONDARY SCHOOL IN TOLGOIT SUBCENTER

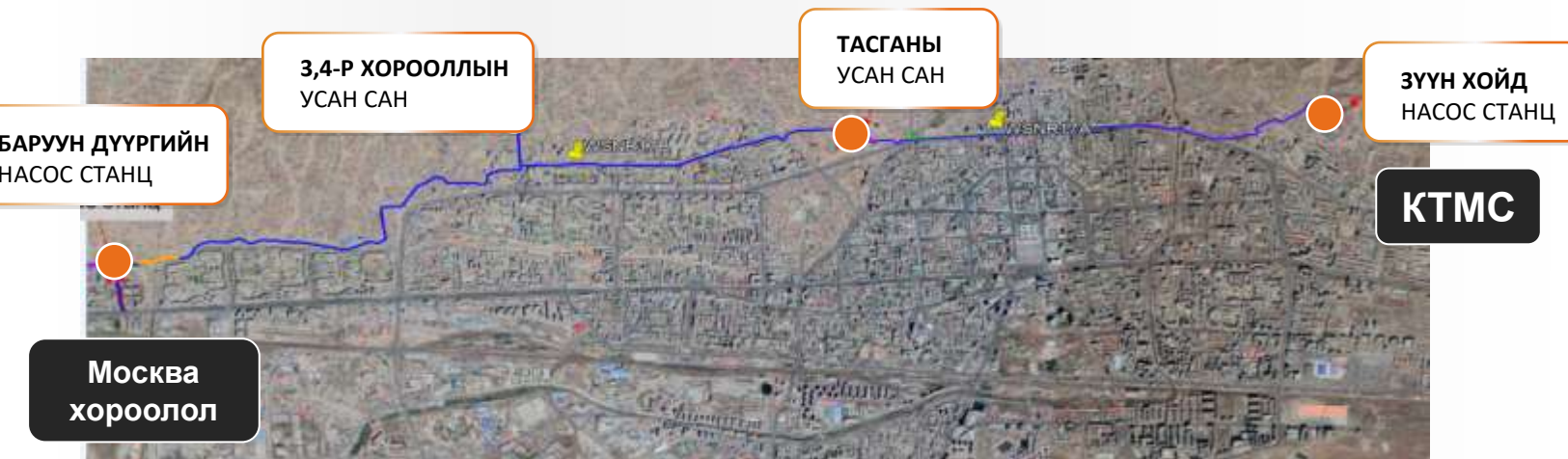
(640 children)

COMPLETION DATE:

Q4 2024

WORKS CONNECTED WITH SUBCENTERS

NORTH EAST WATER RESERVOIR TO TASGAN WATER RESERVOIR
D630MM WATER SUPPLY PIPELINE /HDPE/, L=8070M WITH FITTINGS AND
FROM TASGAN WATER RESERVOIR TO WESTERN AREA WATER RESERVOIR
D900MM- WATER SUPPLY PIPE /HDPE/, L=4010 M
D600MM- SEWAGE DRAINAGE DUCTILE IRON PIPE, L=1684.23 M



**TOTAL LENGTH: 12KM /WATER SUPPLY PIPE/
 1.68KM /SEWER PIPE/**

DESCRIPTION OF WATER SUPPLY NETWORK:

D900mm pipe: **4.01km**
 D600mm pipe : **8.07km**

SEWER PIPE

D600mm pipe: **1.7km**

WORK PROGRESS

WATER SUPPLY PIPE 88% (Remaining work 1km)
SEWER PIPE 100% Completed.

RESULTS

- To improve the reliability of the water supply system in Ulaanbaatar
- The **main water supply line will be put into operation** to increase the availability of water supply to consumers in the Ger areas.

WORKS CONNECTED WITH SUBCENTERS

REHABILITATION OF CONCRETE AERO TANK AND CIRCULAR RESERVOIR CONSTRUCTION OF ULAANBAATAR CENTRAL WASTEWATER TREATMENT PLANT



DESCRIPTION

- Circular reservoir construction
- Rehabilitation/ retrofit of concrete aero tank
- New technology /selector and precast repair of 4 corridors of 5 aeration tanks

RESULT

- Lifespan of aero tank has extended.
- Improved wastewater treatment.
- Capacity of aero tank has risen by 30.000m³/day

COMPLETED DATE

2018

SUPPLY AND INSTALLATION OF PUMP EQUIPMENT, SCADA SYSTEM REHABILITATION AND COMMISSIONING OF PUMPING STATIONS WATER AND WASTEWATER TREATMENTS PLANTS



DESCRIPTION

43 km of fiber optic cable
Integrated control and monitoring SCADA system installed,
The 10-point branch pump was renewed and installed with a control with a frequency converter.

RESULT

- Conditions have been created to monitor and manage the operation of water supply stations through unified management.
- Energy costs save **250 million MNT** per year.

COMPLETED DATE

2018

WORKS CONNECTED WITH SUBCENTERS

Bayanzurkh district

Installation of water supply, sewage, hot water, heating network and electrical connections for “Tsaiz-eco” town



- Secondary heating and water supply connection: 0.27 km
- District heating and water supply connection: 0.324 km
- Sewerage connection: 2.3 km
- Water supply connection: 0.27 km
- 10kV cable line: 3.6km
- Construction of 2 pieces of 2x630kV closed sub station
- Heating distribution substation

Completed date: **2021**

Khan-Uul district

Basic urban utility service facilities in the “Morin davaa” new land areas



- Water reservoir
- Water supply
- Sewer pump station
- Sewer pipe
- 10kV distribution facility
- Power supply
- Telecommunication network

Work Progress:
Completed date:

★★★ АЛБАНЫ НУУЦ

1000m3
6.24km
2
2.78km

6.4km
4km
92%
Q3 2023

The task of solving the infrastructure of schools and kindergartens operating in the air quality improvement zone of the capital with independent advanced technology



- Gas boiler installation - 9ea/schools
- Water purifier installation - 5ea/schools
- Electrical system / diesel generator - 4ea/schools
- Sewerage water system installation - 1ea/school

Work Progress:
Completed date:

85%
Q3 2023

WORKS CONNECTED WITH SUBCENTERS



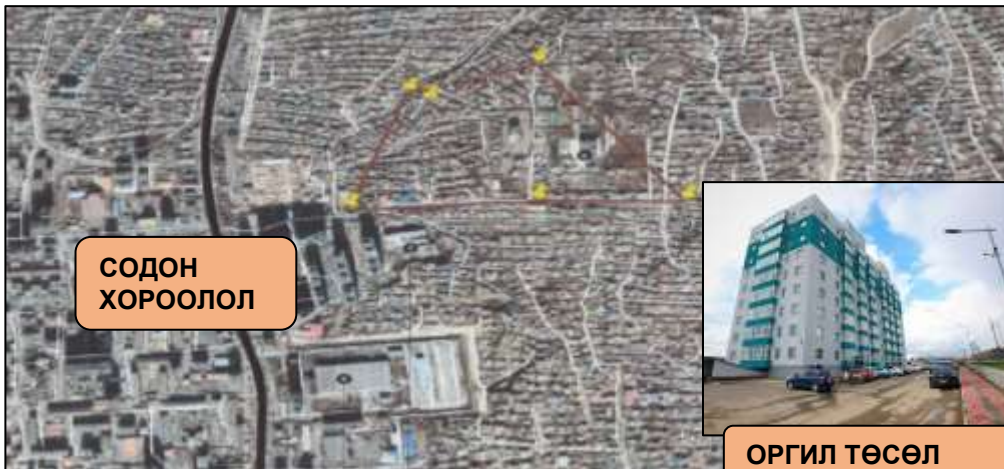
Location: Songinokhairkhan district

Heating network

- Heating network D500mm **1.21km**
- Thermal well **7**
- Work on the access channel of the heat network under the railway
- Work on the access channel of the heat network under the road

Supply and installation of domestic hot water and heating distribution network connections in Tolgoit subcenter (Tsergiin hothon)

COMPLETED DATE: Sep 2023



Location: Songinokhairkhan district

Heating network: **0.76km**

Heating distribution substation : **3**

Water supply: **1.3km**

Sewer network: **3.04km**

Supply and Installation of Water supply, sewage, hot water and heating distribution network connections in Bayankhoshuu Subcenter (Orgil)

COMPLETED DATE: Sep 2023

OUTSTANDING ISSUES AND SOLUTION

No.	Issues	Solution	Timeframe
1	The Loan agreement of MFF is going to expired in December 2023, there is a need of MFF extension by 3 years until December 2026	<ul style="list-style-type: none"> Sufficient funding from the capital city should be allocated timely manner; The committed investments should be allocated in the MUB budget for 2023-2026. 	Q2 2023
2	<p>GADIP PMO requested a total of 28 billion for Civil Works construction for the year of 2023. However, only 8 billion MNT was approved by the MUB.</p> <p>In order to continue the project within the planned timeframe, additional 20 billion MNT is required.</p>	Budget revision	2023
3	Tolgoit Subcenter needs 37Gcal/hr heating demand. However, MOE has provided only 26Gcal/hr and 11Gcal/h district heating technical conditions of Tolgoit subcenter is pending from MOE.	Making relevant decisions by the Ministry of Energy	May 2023
4	The outstanding budget for construction and land acquisition of 93MW “Denjiin myanga” gas-fired heating plant should be allocated from either state or capital city budgets.	<p>Budget revision:</p> <ul style="list-style-type: none"> Land acquisition 10.36 billion MNT; Construction work 47.41 billion MNT 	Nov 2023



ШИНЭ ДЭД ТӨВ

УЛААНБААТАР ХОТЫН ГЭР ХОРООЛЛЫГ
ХӨГЖҮҮЛЭХ ХӨРӨНГӨ ОРУУЛАЛТЫГ
ДЭМЖИХ ХӨТӨЛБӨР

FROM **MONO-CENTRIC** CITY
TO **POLY-CENTRIC** CITY



THANK YOU FOR ATTENTION