



筑波大学
University of Tsukuba

The Valuation of Environmental Amenities in Urban Land Price: A Case Study in Ulaanbaatar City, Mongolia

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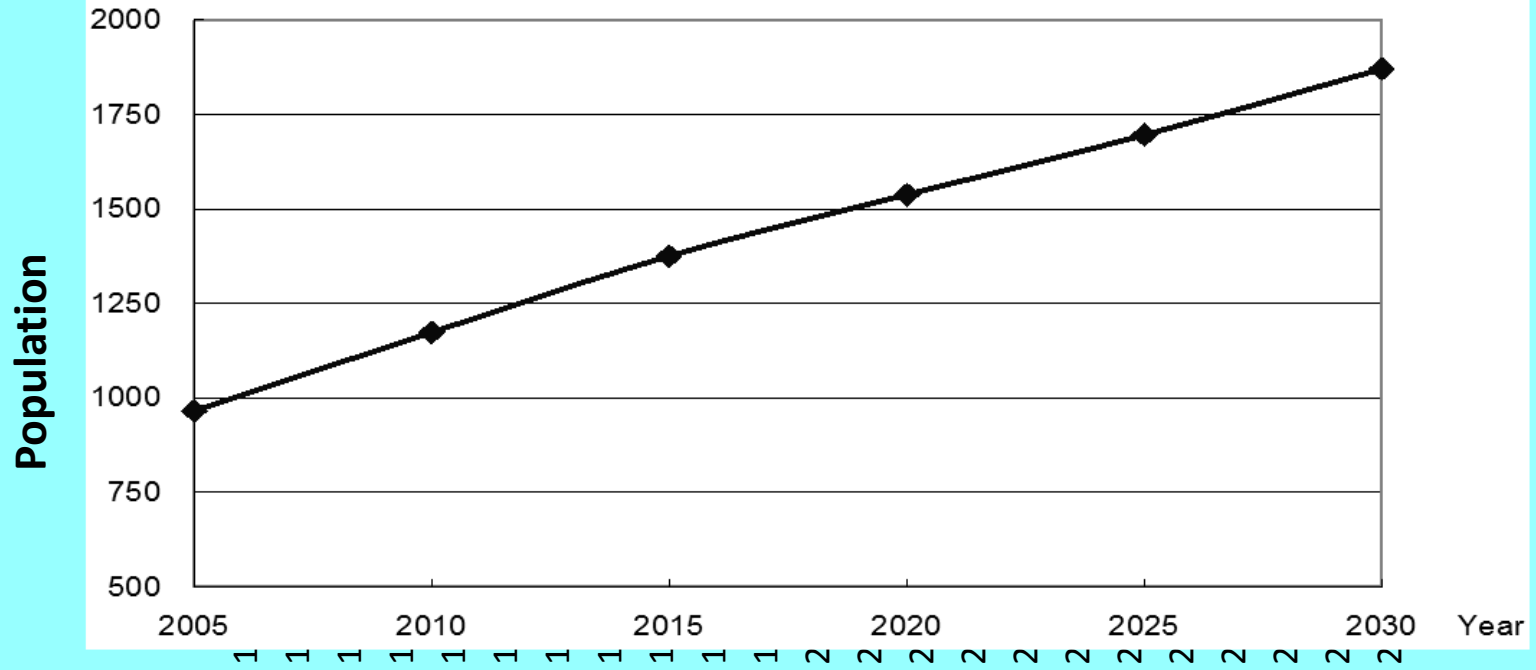
Introduction

Rapid urbanization



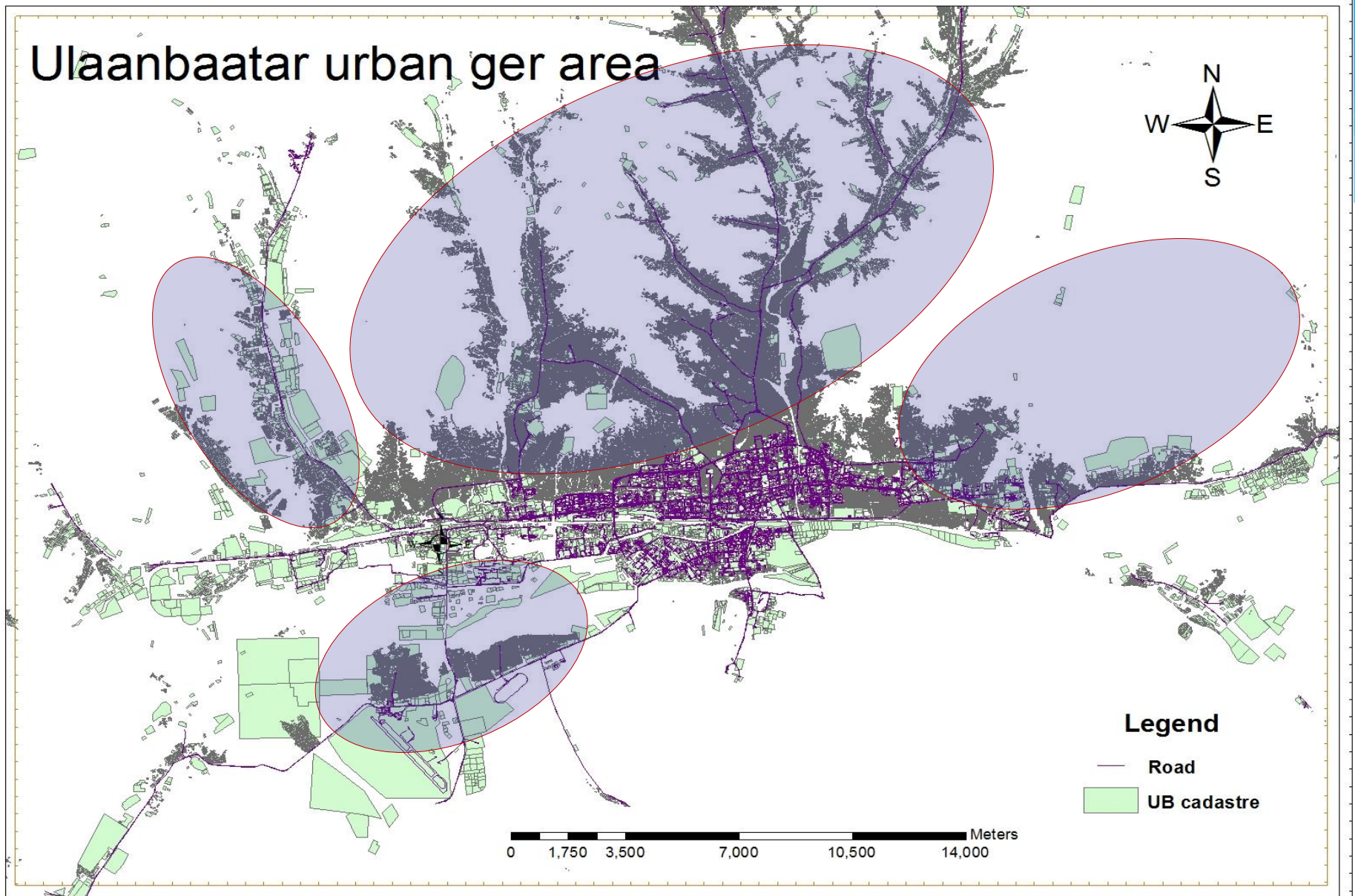
In 1989, 26.8 percent of Mongolian population lived in Ulaanbaatar and by 2010 census, it has reached 45 percent.

000 persons



Ger district expansion

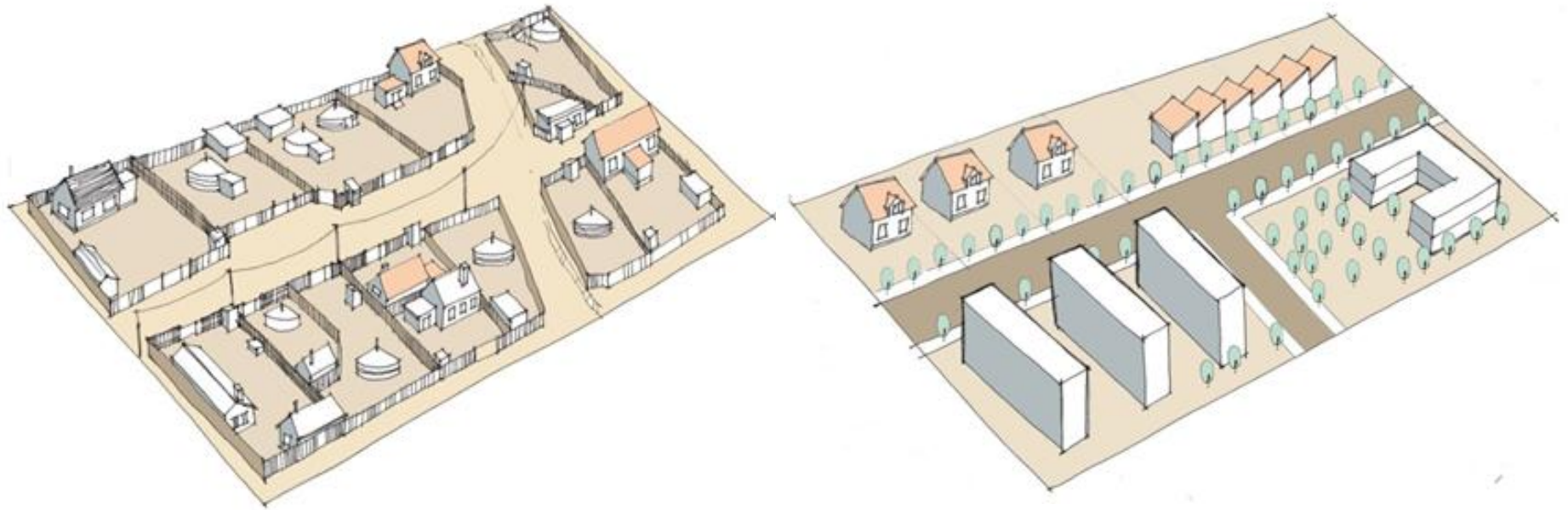
Ulaanbaatar urban ger area



Introduction

Master plan

Redevelopment of Ger district through building apartments /Municipal office has started redevelopment project on the 20 designated Ger areas/



Discussion

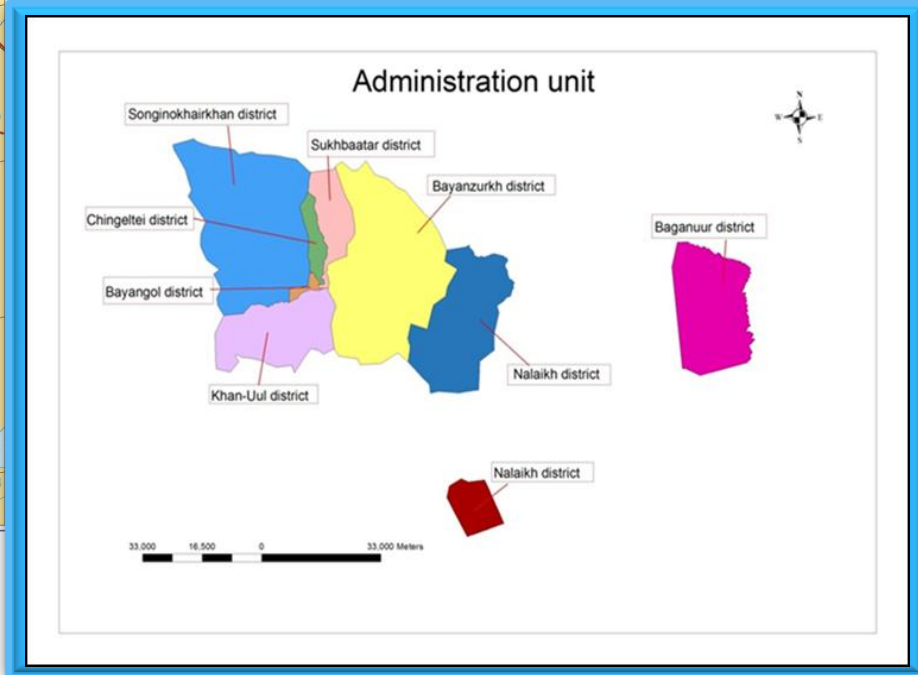
- * The amount of compensation to be paid to Ger residents does not reflect the current living condition
- * Low amount of land price, land privatization process has been retarded and investments into land have been delayed
- * Current land evaluating method does not consider environmental amenities in the base value

Objective of the study

1. To re-evaluate land price taking into account environmental amenities using hedonic price approach
2. The result of study leads to recommendation for future actions in Ulaanbaatar city

Study area

- **Capital city, average elevation:** 1350 m above the sea
- **Territory:** 470.4 thousand ha, 0.3 % of total country territory



- **Settled:** since 1778
- **Density:** 280/km²
- **Population:** 46% of total population, 2012
- **Administration:** 9 districts

Environmental amenities

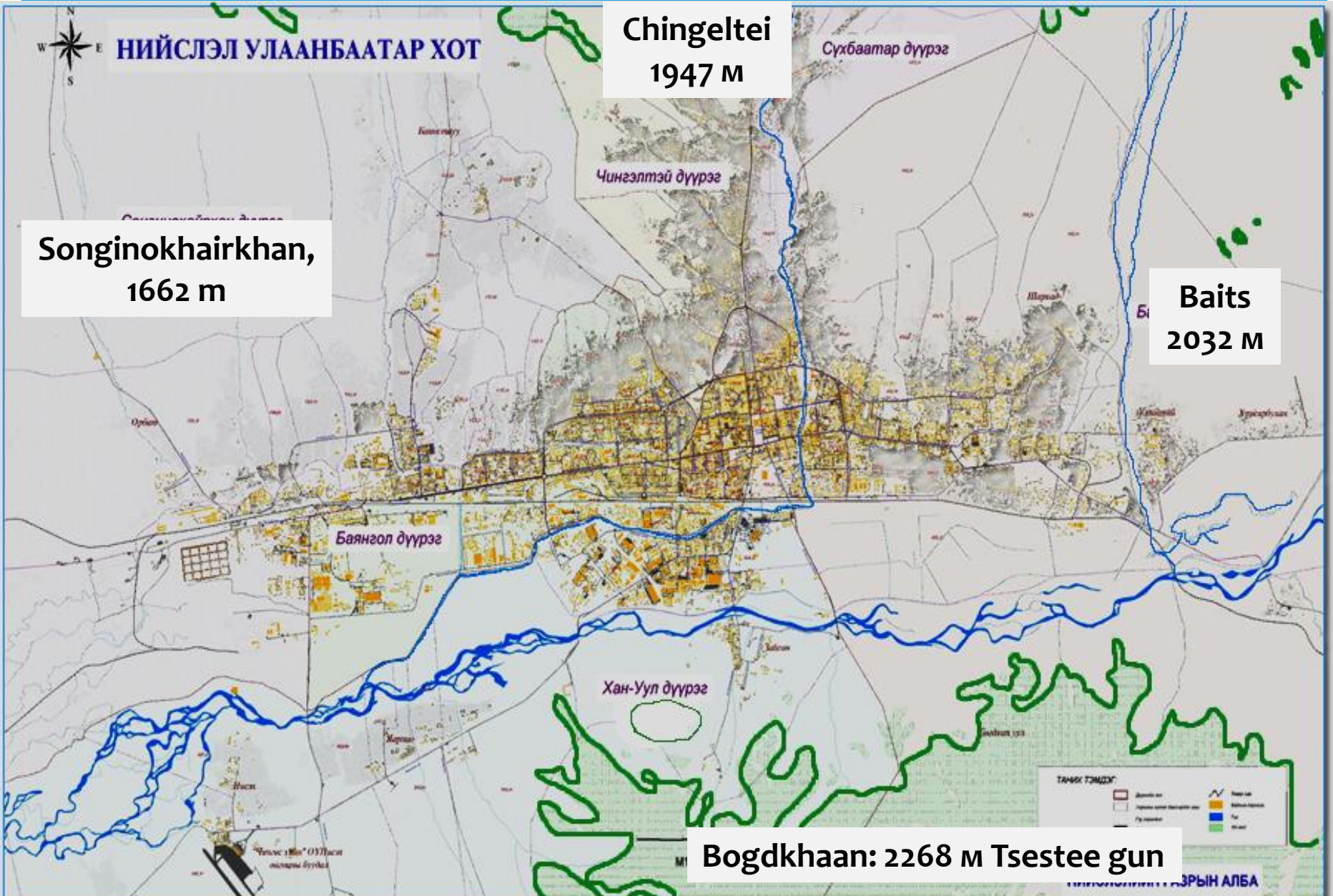
НИЙСЛЭЛ УЛААНБААТАР ХОТ

Chingeltei
1947 м

Songinokhairkhan,
1662 м

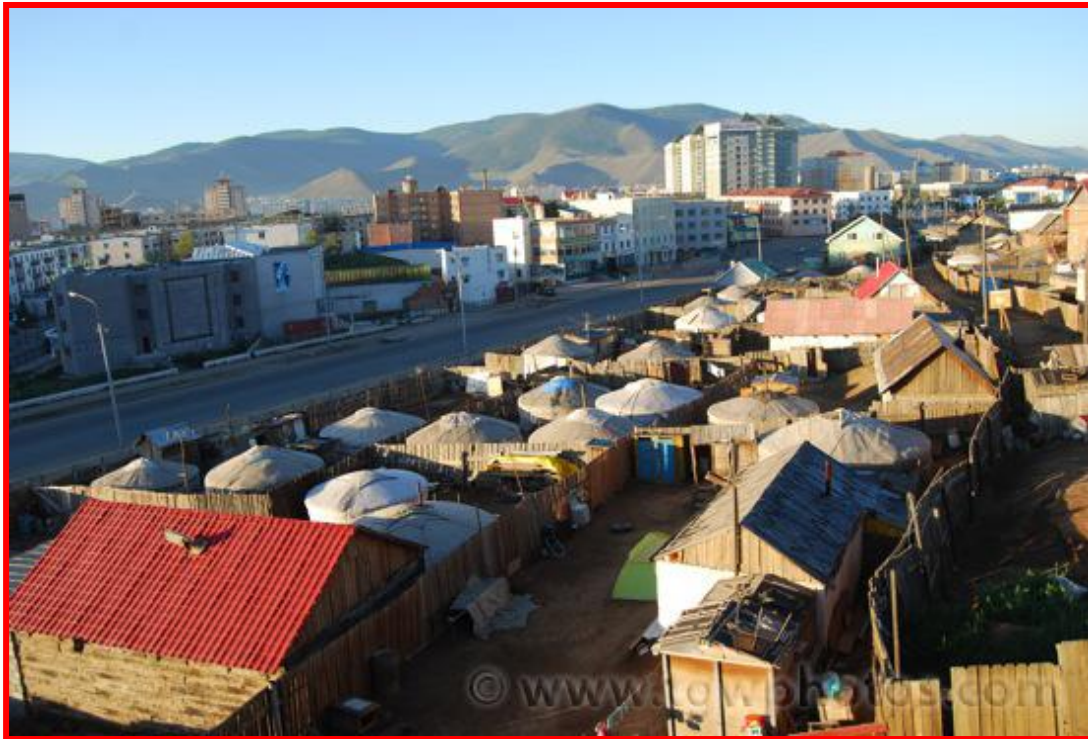
Baits
2032 м

Bogdkhaan: 2268 м Tsestee gun



Ger districts

- * Located North area of Ulaanbaatar
- * No heating and water supply system



- * In 2011, **59.8** percent of Ulaanbaatar city's household live in Ger district
- * Total territory **470.4** thousand ha → **10.5** thousand ha ger district
- * Apartment water use 204 L/capita
- * Ger water use 7 L/capita

Method

- Analyze price of land market data
- Determine variables using correlation analysis and define which most influence is on the land price
- Do regression analysis for determine current land price

Data collection

606 single families residential land sold at the market in 2012 (Administration of Land affairs, Construction, Geodesy and Cartography).

Land market data: price, land size, housing structures, administration unit.

Cadastral map –ArcGIS

6. Further work

- Literature review
- Analyze the data
- Variables and get results using hedonic price approach
- Give a recommendation to urban administration office for redevelopment of ger district

References

- * Administration of Land affairs, Construction, Geodesy and Cartography. 2010. Annual Report of land Use-2010. Ulaanbaatar.
- * O. Nyamsuren. 2012. Cadastral Valuation on Urban Land Purpose. Khukh Mongol printing.
- * JICA., Ministry of Construction and Urban Development. 2009. City Master Plan and Urban Development Program of Ulaanbaatar City. JICA. Page 8.
- * Ulaanbaatar City, Government Urban Planning, Research and Design Institute. 2013. The Ulaanbaatar City Urban Planning Policy and UB city “Master plan” up to 2020. Ulaanbaatar.
- * www.umch.ub.gov.mn



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Thank you for your attention

What I do	December	January	February	March
Data analysis				
Literature review				
Introduction				
Result				
Discussion				