



MONGOLIA

**Infrastructure Strategy Review
Making Choices in Provision of Infrastructure
Services**

**Government of Mongolia - External Partners
Technical Meeting
October 10, 2006.**



Mongolia: Infrastructure Strategy

Introduction

- **Factors Shaping Infrastructure Demand**
- **Emerging issues of the Strategy Review**
- **Is the existing model of Infrastructure Development adequate for the future?**

Purpose of the Strategy Review

- **Purpose** – The Infrastructure Review has three objectives:
 - To establish a common understanding of the main cross sectoral issues affecting the infrastructure sector
 - To outline key strategic options to address the identified investment and institutional development gaps.
 - To do so while taking into account the distributional or affordability impact.
- **Timeframe** – The Infrastructure and Energy Strategy Review takes a forward looking view of investment and institutional gaps from 2005 to 2020.

Scope of the Infrastructure Strategy

The Infrastructure strategy includes:

- **Urban development and Water Supply**

- **Energy**
 - Electricity
 - District Heating

- **Transport**
 - Roads
 - Railways
 - Aviation

- **Telecommunications**

Factors Shaping the Strategy

Three main factors shape the infrastructure Strategy:

- **A rapidly changing economy** – has fueled demand for tertiary services and associated infrastructure platform
 - Urbanization in major cities
 - Infrastructure investments needs.
 - Change in the GDP composition
- **A rapid integration into world markets and domestic markets**—will bring Mongolia into world markets
 - Unique geographic position: among two large economies and next to the fastest economy in the world
 - While developing its Regional Development plan.
- **Rapid Mining Development** – will influence how the infrastructure gap will be addressed by private sector in particular

Emerging Issues of the Infrastructure Review– A Summary

The Infrastructure Gap

- The investment gap in certain sectors including the water and sanitation and roads sectors are biggest.
- Institutional development & reform transition requirements are substantial across all the sectors – and the gaps are greatest in strategic planning formulation, project implementation capacity and regulatory reform.

Addressing the Financing Challenge

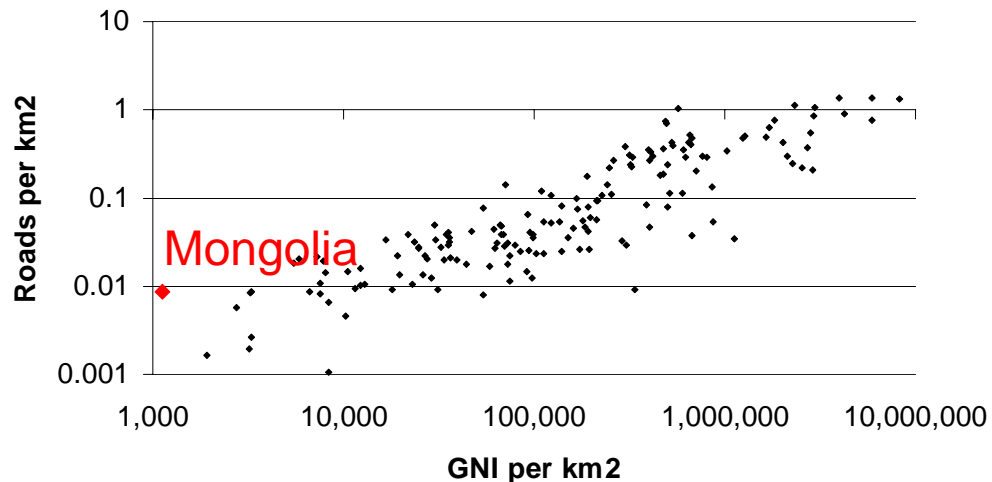
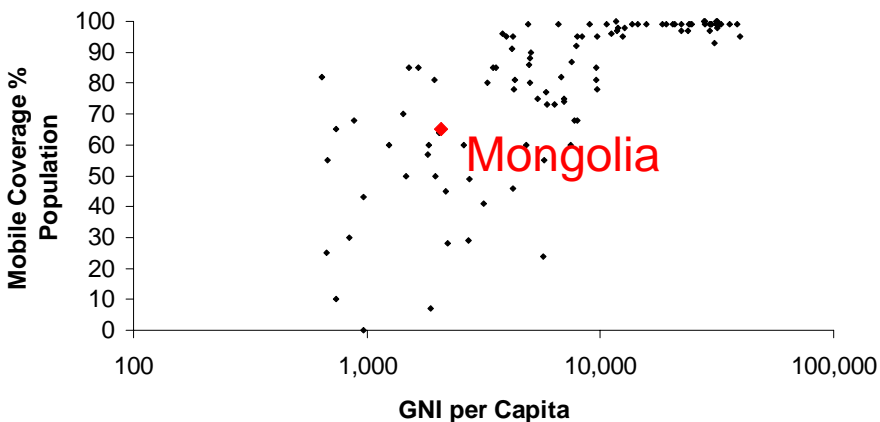
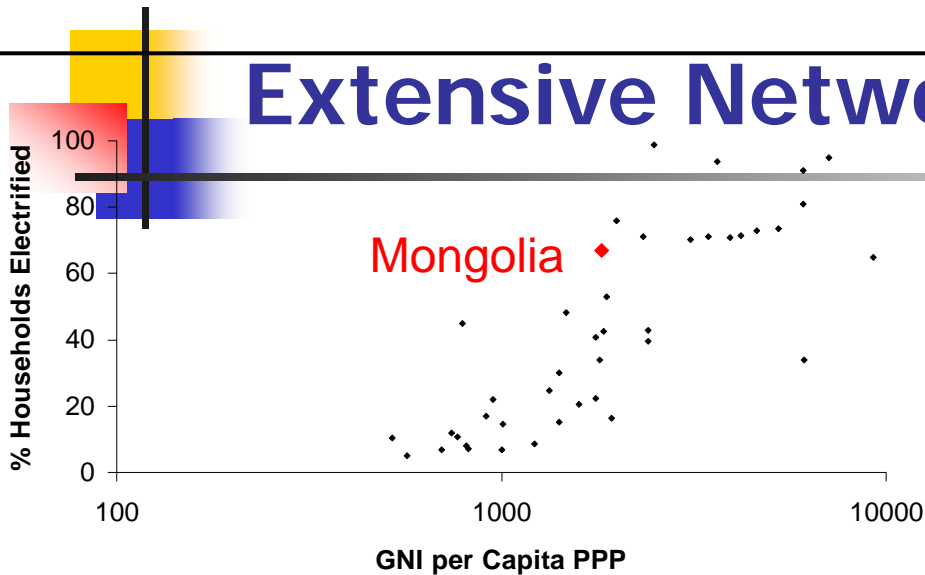
- Estimated investment needs total U\$4.7 billion for the period 2006-2020.
- Borrowing constraints of country is high...about 10% of GDP/yr.
- Prioritization within sectors and increase in the investment efficiency.
- Given Mongolia's sovereign credit rating – which albeit impressive at B+ is nevertheless below investment grade – there will be continued need to judiciously utilize its concessional and government guarantee capacity to meet much of its investments needs.
- Fiscal space will have to be created through contraction of Government current expenditure and increase in efficiency of current assets.

Regional Dimension

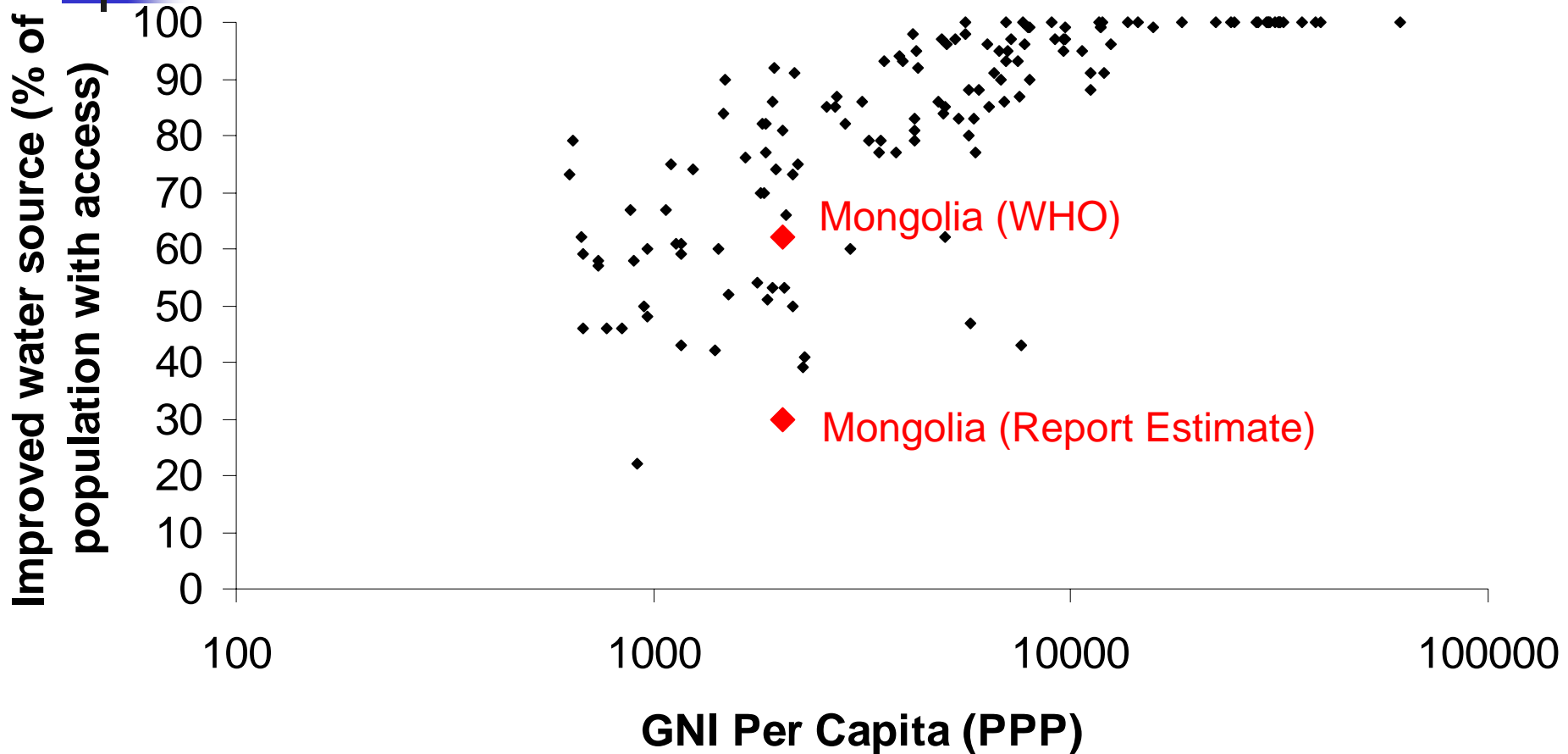
- How best to manage unique geographic position? China-Russia trade has increased by 37% to reach US \$ 29 billion in 2005.
- Diversification of investors in railways would increase access to capital markets.

Extensive Networks...

- Given Mongolia's Income per Capita, it has an Extensive Electricity and Mobile Phone Network Though "service" needs to be qualified.
- Given Mongolia's Economic Density, it Also Has an Extensive Road Network



...Except in Water and Sanitation



Emerging Issues of the Strategy Review – A Summary

Tariff Adjustment and Social Protection

- Tariff adjustments
- Possible targeted subsidies
- Economic growth and employment with Pro environment technologies

Addressing the Institutional Challenge

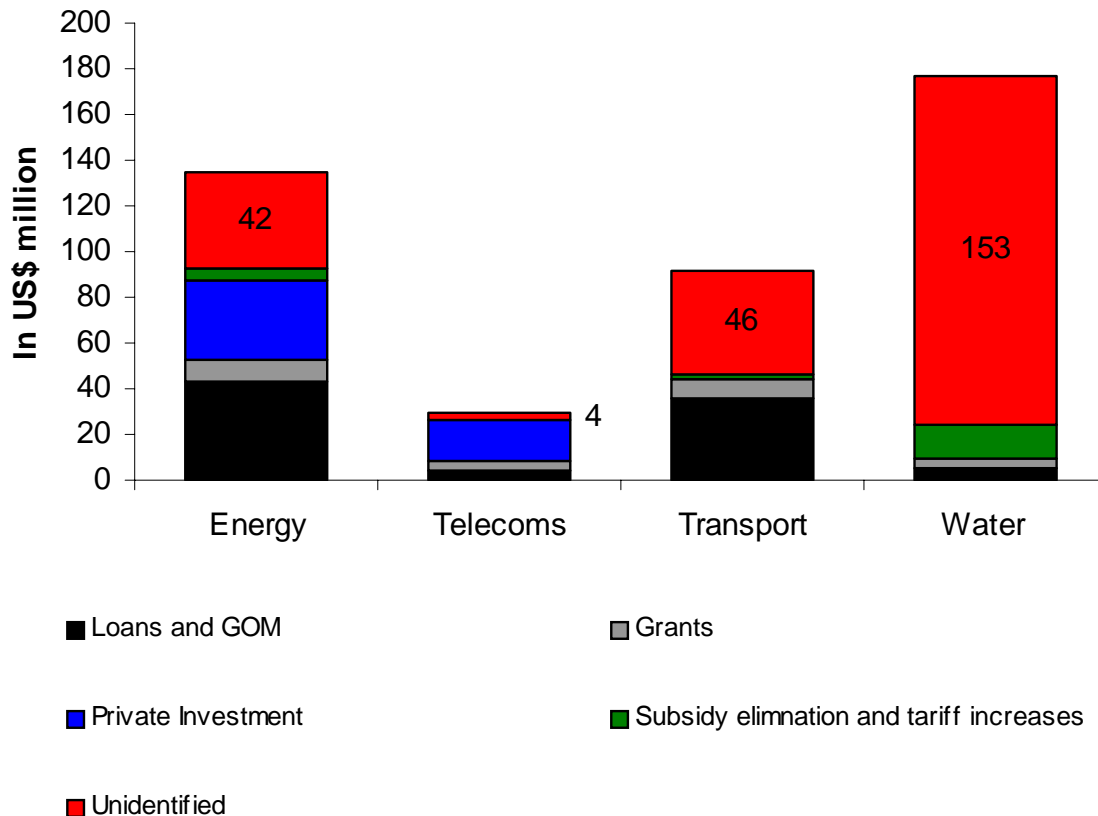
- Selecting economic criteria
- Prioritizing projects for implementation
- Capacity enhancement
- Define prioritization vs Funding sources
- Separation in the roles and responsibilities of the policy and regulatory functions
- Regulatory risk

Mining led Investments

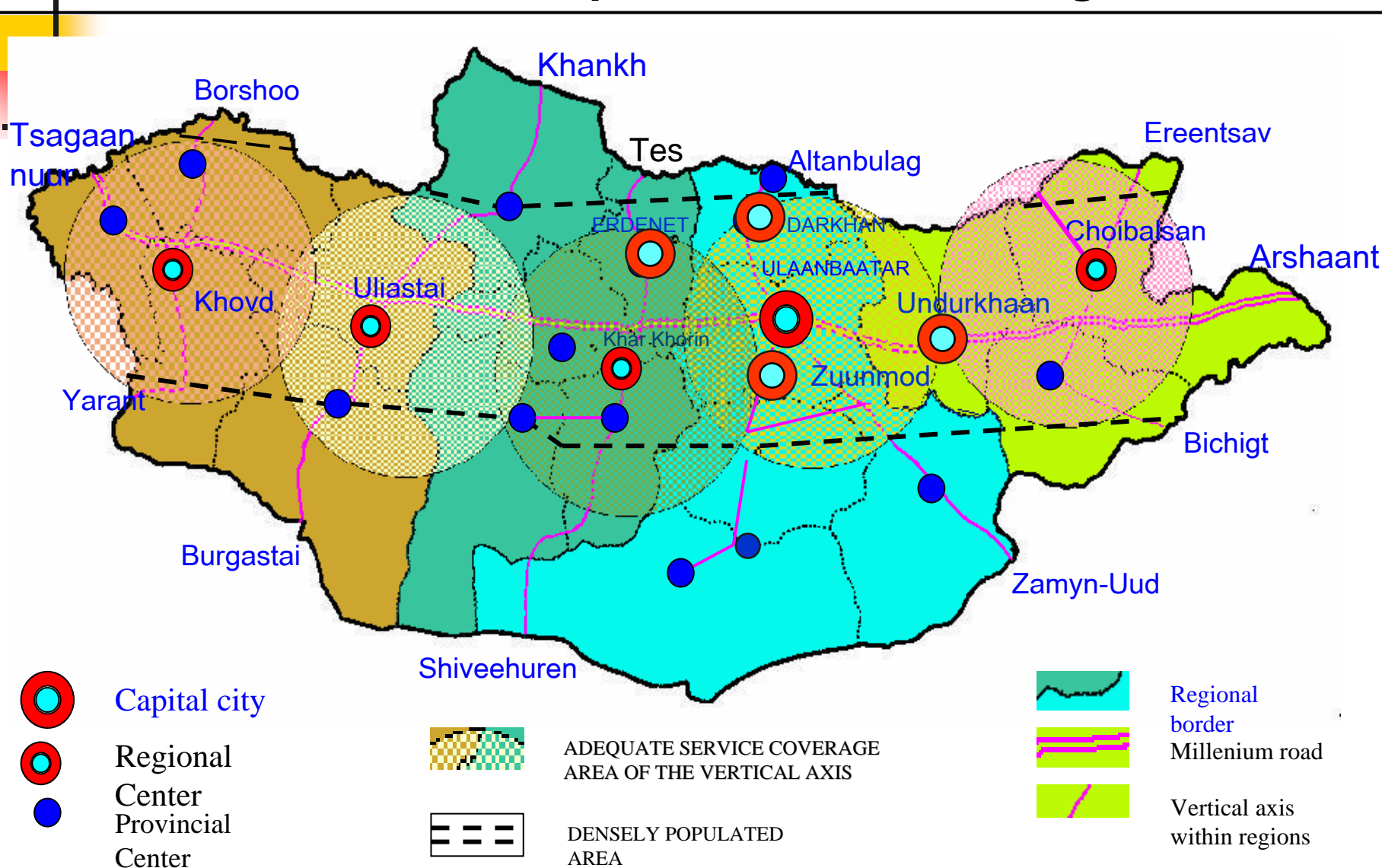
- Creditworthy off-takers of infrastructure services: A strong role for coordination, but a priority for limited public investment?
- Mine development and related infrastructure should be financially viable

Realistic Planning

- Even with growing private investment and pricing reform, hard investment choices are needed to respond to a financing gap which may still equal \$245m/yr...



Regions, Pillar Centers, Vertical and Horizontal Infrastructure Axis, Adequate Service Coverage Area





Challenges for Urban Development

Human capacity

- Lack of capacity for urban development and planning
- Due attention is not given to the urban planning at both community and Government levels.

Land management

- Land ownership preceded the planning process
- Informal settlement and Unplanned construction
- Land Management Master Plans are lagging behind of Urban Development Master Plans.

Economic issues

- Uncoordinated activities between the financial and construction sectors
- Lack of advanced economic management method results in inefficient or poor quality of constructions.

Environment and ecology

- Air pollution due to smoke generated by the increasingly expanded ger areas.
- Urban green plantation per person is 5 times lower than international standard
- The land plots for development purposes are being awarded destroying existing green areas.

Current situation in Housing sector

- Housing sector's market activity has started from 83.0 state owned apartments privatization for free to the citizens who lived there in 1997-2000.
- 10.9 thousand apartments was constructed in 2000-2005.
- In 2005 277.5 thousand sq.m apartments was built which were increased number of national housing foundation to 7371.2 thousand sq.m.
- Composition of dwellings of Mongolia:

Apartments	22.0%
Private houses	24.8%
Public houses	2.3%
Ger	50.9%

- Apartment area per person is 6.7 sq.m in city, 5.6 sq.m in countryside. This numbers shows:
 - Under 30-40 percents of our country formal standard
 - Under twice from international norm.
- Only 20 percents of total population live in comfortable apartment which is connected to urban service system, and satisfied health condition.

Problems in Housing sector

- Difference in living condition in Ger and Apartment districts



- Affordability

- Purchasing power is lower

- Lack of long-term housing financing system

- Insufficient public investment in housing sector

Public investment projects in Housing sector



- Determine the state of water supply and sewage system and plan future needs within the framework of the MDG
- Provisions stated in the Government action plan:
 - To ensure normal and reliable operation of water supply and sewage systems.
 - To provide good quality water consistent with the required standards to urban and rural population
 - To introduce advanced and efficient technology to urban fresh and waste water systems.
 - To connect ger districts to the central fresh and waste water systems.



Ways to address the challenges

- Bottom-up approach with high professional participation
- Collaborate Cities' Master Plans with the current socio-economic changes
- Introduce advance methodology and standards of urban planning
- Training and re-training of the urban planners and specialists
- Create an unified database on construction, urban planning, land management and land ownership
- Create bureaucracy-free access to the coordination of urban development zoning and land management
- Improve coordination between financial and construction sectors
- Develop management for protection of river basins and places of natural beauty

Further objectives

- Improve sector's legal environment
- Urban planning with public participation
- Establish improved housing infrastructure
- Supply affordable housing to lower income people
- Improve the situation of Ger Area citizen
- Establish long-term housing financing system

Challenges in ICT sector



Key problems:

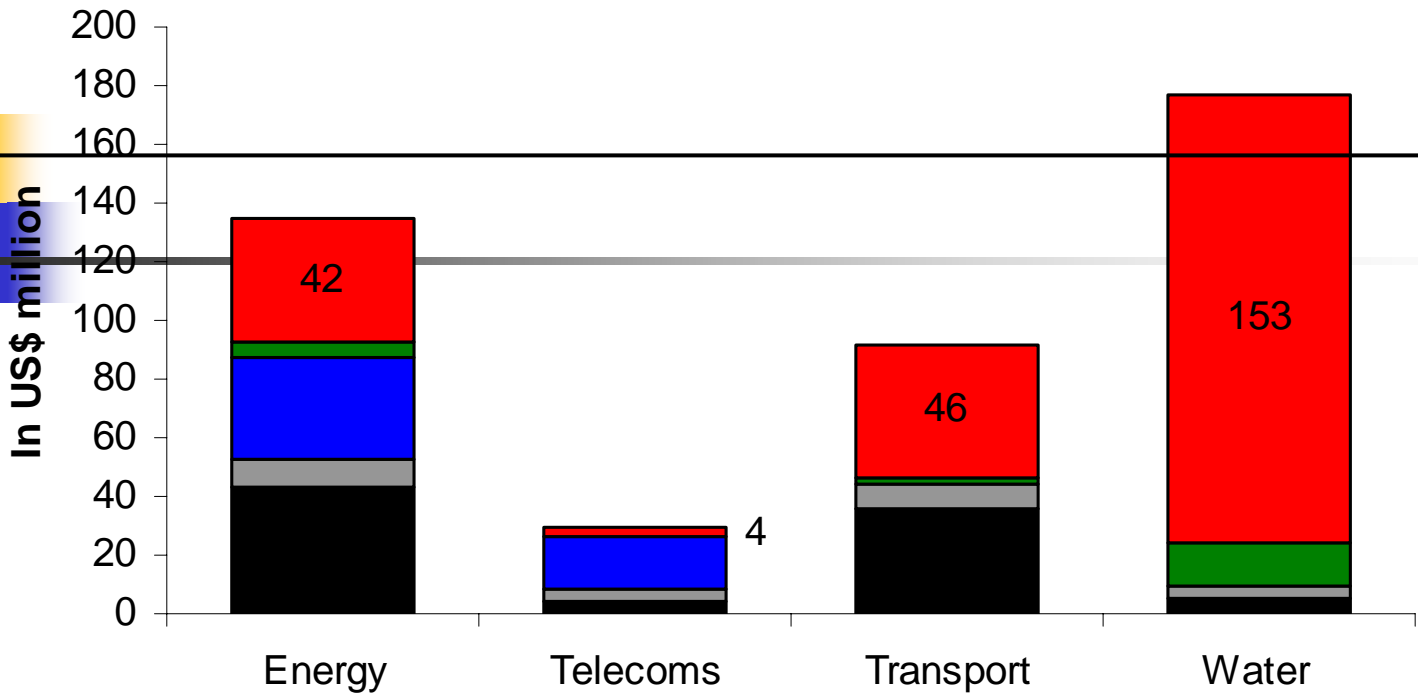
- Lifestyle and population density
- Terrain and natural conditions
- Lack of basic infrastructure
- Legal and regulatory environment
- Digital divide (urban and rural areas)
- Constraints of investment for ICT infrastructure

uture actions



Key Success Factors:

- Improvement of legal and regulatory environment
- Implementing of the e-Government and e-Mongolia National Program
- Strong Political & Governmental Leadership
- Restructuring and Privatization of Mongolian Telecom Network
- Bridging Digital Divide
- Investing Human Resource Development
- Partnership with Private Sector and Civil Society



- Loans and GOM
- Grants
- Private Investment
- Subsidy elimination and tariff increases
- Unidentified

Source: "Worldbank - Mongolia Infrastructure Strategy" Preliminary draft