

### 3. Profiles of Priority Programs/Projects

The priority programs/projects are profiled with indications of a number of items and assumptions to feature the project as follows:

Name of Project:	Not necessarily identical to Table 1.3.3
Type of Project:	Technical Assistance, Financial Assistance or some other type
Indicative Capital Cost (mil.US\$):	Total investment cost for the project or the program, without considerations of private contribution or cash flow from revenues from the cost recovery-type of projects. Exchange rate is used as of May 2008
Executing Agency:	Prime responsible agency
Relevant Agencies:	Secondary responsible or closely related agencies to be coordinated
Main Objectives:	Issues to be solved
Subprojects/Components:	Components and elements to be involved in/under the project/program
Expected Beneficiaries:	Those who will benefit directly from the project/program
Time Requirements:	Necessary time duration of preparatory work, main work and target year when the project complete
Rationales:	<p>Background conditions to justify the project in terms of relevance with “<b>Visions of UBMP2030</b>”,namely:</p> <ol style="list-style-type: none"> <li>1. <i>World-class Business Center</i></li> <li>2. <i>Livable City</i></li> <li>3. <i>Healthy City</i></li> <li>4. <i>International Tourist Destination City</i></li> <li>5. <i>Well-governed City</i></li> </ol> <p>At the same time, the relevance to <b>key planning issues</b> is examined, namely,</p> <ol style="list-style-type: none"> <li>1. <i>Growth Management towards “Compact City”</i></li> <li>2. <i>Comprehensively balanced urban transport system</i></li> <li>3. <i>Social Housing and Ger area improvement</i></li> <li>4. <i>Functional infrastructure and urban utilities</i></li> <li>5. <i>Sustainable Environmental Management</i></li> <li>6. <i>Building rational legal framework for urban development</i></li> </ol>
Private Sector Engagement:	Requirement of private groups’ involvement in forms of: 1) PPP; 2) Community involvement; and 3) other parties to be engaged. The expected degree of the involvement is scaled in 5 ranks: i.e., A: must; B: highly required; C: needed; D: conditional; and E: not necessary
External Supports:	Required or expected assistance from donors in terms of : 1) Technical assistance; 2) Financial assistance; or 3) Other forms. The degree of the necessity is envisaged in five (5) ranks, i.e., A: must; B: highly required; C: needed; D: conditional; and E: not necessary
Drawings and others:	Indications of relevant drawings, figures and maps necessary to explain the project/program

Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies
UED-Bc-01	Improvement of Incubation Facility Project	TA, FA	20	MME, MFALI, MOFR, UB City	MRTCUD, NUOM, MUST
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	To develop a platform to foster new entrepreneurs who will challenge new business and industries toward the world market.			Investors & workers of business sector & youth in UB City	
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To construct the New Industries and Business Incubation Center (NIBIC)</li> <li>To support star-up activities and R&amp;D for new products in terms of financial, technical and human capacity building aspects</li> </ul>			<b>Time Required for Completion</b>	
				Preparatory	1 yrs
				Main Work	1 yrs
<b>Rationales</b>	Visions on Ulaanbaatar 2020 & 2030	Related to Key Planning Issues		Relevance to Existing Policies	
	<ul style="list-style-type: none"> <li>World Class Business Center</li> <li>Int'l Tourist Destination</li> </ul>	<ul style="list-style-type: none"> <li>Enhancement of industrial competitiveness</li> <li>Diversification of urban economy</li> </ul>		National Development Strategies & Millennium Goals	
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	A	C		C	
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	A	A		A	
<b>Environmental Key Issue</b>	Impact level: Small or less No significant impact is predicted.				
<b>Project Location, Project Concept Scheme, or Drawings</b>	<p>This project is to develop a New Industry and Business Incubation Center (NIBIC) shall have multi-functions to diversify the Ulaanbaatar urban economy:</p> <p><b>Functions:</b></p> <ul style="list-style-type: none"> <li>To provide a variety of <u>training courses</u> for star-up of new business and promotion of R&amp;D for new products and services;</li> <li>To provide real-time international market and financial information and business opportunities;</li> <li>To introduce international partners and opportunities of BPO (Business Processing Outsourcing);</li> <li>To provide consultation services for financial support programs and recruitment of employees and engineers; and</li> <li>To intermediate for establishment of partnership and collaboration with academic and business sectors for R&amp;D and ventures.</li> </ul> <p><b>Facilities and Location:</b></p> <p>The NIBIC shall be constructed in close linkage with Mongolian National University or Mongolian Institute of Science and Technology. The building needs following rooms:</p> <ul style="list-style-type: none"> <li>Training rooms, including one large room to accommodate a max of 500 persons;</li> <li>Rental offices for start-up with common facilities of meeting rooms and experimental laboratories;</li> <li>Library &amp; international business information room and consultation rooms.</li> </ul> <p><b>Technical and Operational Supports:</b></p> <p>Donors' technical supports are needed on a long-term basis to place experts and/or trainers for business incubation, promotion and management.</p>				

Note 1: \* Rated as - A: Must; B: Highly Required; C: Needed; D: Conditional; and E: Not Necessary

Note 2: NIBIC: New Industries and Business Incubation Center, NUOM: National University of Mongolia; MUST: Mongolian University of Science and Technology.

Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies
UED-Sc-02	Development of ICT and Knowledge Industrial Center	TA, FA	50.0	MRTCUD, MME, MFALI UB City	MOFR, NUOM, MUST
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	To foster the ICT and knowledge-based industries and create business opportunities to link with international business environment.			Investors of business sector, higher educational graduates and young generation in UB City	
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To construct an ICT and Knowledge Industry Center to accommodate high-tech industries</li> <li>To provide financial and technical supports for enterprises and ventures to start up or renovate ICT and knowledge based business to explore new international market.</li> </ul>			<b>Time Required for Completion</b>	
				Preparatory	2 yrs
				Main Work	3 -4 yrs
<b>Rationales</b>	Visions on Ulaanbaatar 2020 & 2030	Related to Key Planning Issues		Relevance to Existing Polices	
	<ul style="list-style-type: none"> <li>World Class Business Center</li> <li>Int'l Tourist Destination</li> </ul>	<ul style="list-style-type: none"> <li>Enhancement of industrial competitiveness</li> <li>Diversification of urban economy</li> </ul>		National Development Strategies & Millennium Goals	
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	A	C		C	
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	B	A		B	
<b>Environmental Key Issue</b>	Impact level will be "Medium" during the physical construction of the center. Civil works will cause noise disturbance, dust pollution, etc.				
<b>Project Location, Project Concept Scheme, or Drawings</b>	<p><b>Functions:</b> A Special Purpose Vehicle (SPV) shall be established under a PPP scheme to develop the ICT and Knowledge Industry Center with the following functions:</p> <ul style="list-style-type: none"> <li>To develop <i>an environmentally protected industrial park</i> to accommodate locations of high-tech, ICT and knowledge-based industries with full infrastructures and utilities;</li> <li>To develop and manage a <i>standard factory</i> to rent small scale factories/offices; and</li> <li>To function as "<i>one-stop service center</i>" to provide full supports to foreign investors who intend to establish their new business in terms of consultation services, clearance of administrative permissions and application of investment incentives, financial arrangement, etc.</li> </ul> <p><b>Location and Facility Conditions:</b> The ICT and Knowledge Industry Center shall be developed in one of the proposed new towns.</p> <ul style="list-style-type: none"> <li>The total area needs <i>30 hectares</i>, out of which one third, or <i>10 hectares</i> are used for green, roads, utilities and the administration building.</li> <li>Minimum unit of lot will be <i>2,000 m<sup>2</sup></i>, and several types of lots are prepared with <i>4,000 m<sup>2</sup></i>, <i>8,000 m<sup>2</sup></i>, <i>12,000 m<sup>2</sup></i> and so on.</li> <li>A standard factory shall be constructed near to the administrative building with a total floor area of more or less <i>10,000 m<sup>2</sup></i> (4 story building).</li> </ul> <p><b>Inter-governmental Coordination</b></p> <p>Inter-governmental coordination is crucial to establish this ICT and Knowledge Industrial Center lined with policy to promote foreign direct investments.</p>				

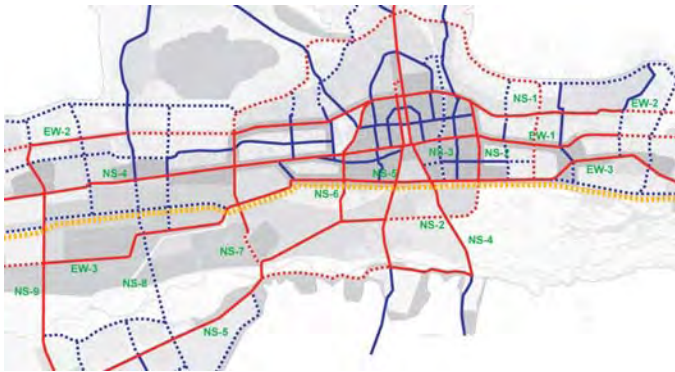
Note 1: \* Rated as - A: Must; B: Highly Required; C: Needed; D: Conditional; and E: Not Necessary

Note 2: NUOM: National University of Mongolia; MUST: Mongolian University of Science and Technology.

Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies
UED-Tm-01	Improvement of Tourism Information Provision Project	TA	5.0	MET UB City	MRTCUD MOFR MIAT
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	To develop a comprehensive tourist information center which shall function to boost Mongolia toward a reputable international tourist destination			Citizens of UB City and its surrounding area	
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To promote public relations on Mongolian attractiveness in major source markets such as Japan, Korea, China; Russian, Turkey and East Europe;</li> <li>To construct a world-class tourist center</li> <li>To develop and diversify tourism products</li> </ul>			<b>Time Required for Completion</b>	
				Preparatory	1 yrs
				Main Work	2 yrs
Expected Yr	2012~				
<b>Rationales</b>	Visions on Ulaanbaatar 2020 & 2030	Related to Key Planning Issues		Visions on Ulaanbaatar 2020 & 2030	
	<ul style="list-style-type: none"> <li>World Class Business Center</li> <li>Int'l Tourist Destination</li> </ul>	<ul style="list-style-type: none"> <li>Enhancement of industrial competitiveness</li> <li>Diversification of urban economy</li> </ul>		National Development Strategies & Millennium Goals	
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	A	C		C	
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	A	C		B	
<b>Environmental Key Issue</b>	Impact level: Small or less No significant impact is predicted.				
<b>Project Location, Project Concept Scheme, or Drawings</b>	<p>This project is to construct a world-class tourist information center in Ulaanbaatar with an aim to make Mongolia be an international tourist destination and develop Ulaanbaatar City as the national gateway.</p> <p><b>Functions:</b> This tourist information center has multiple functions as follows:</p> <ul style="list-style-type: none"> <li>To promote public relations on Mongolian attractiveness in major source markets such as Japan, Korea, China; Russian, Turkey and East Europe;</li> <li>To develop and diversify tourism products, combining natural and cultural resources and urban and rural attractions in association with tour agents and ;</li> <li>To provide international tourists with information kit, including tourist maps, tourist attractions, available tours, performance programs of Opera House and other cultural events, transportation and accommodations, restaurants and others;</li> <li>To show videos, slide shows to introduce the Mongolian history, culture and nature;</li> <li>To run duty-free shops, and develop more attractive souvenir items; and</li> <li>To provide <u>a variety of training courses</u> for those who will start-up and/or enter hospitality business, hotel management, tour agent services, transportation and guide services.</li> </ul> <p><b>Location:</b></p> <p>It is recommended that the Central Post Office building shall be renovated so as to accommodate this main tourist information center, and a few branches shall be located at the eastern and western parts of Ulaanbaatar city and the New International Airport.</p>				

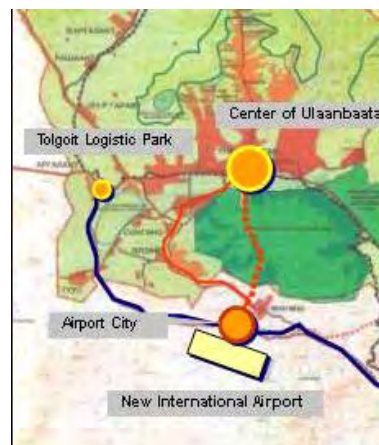
Note 1: \* Rated as - A: Must; B: Highly Required; C: Needed; D: Conditional; and E: Not Necessary

Note 2: MIAT: Mongolian International Air Transportation.

Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies
UTR Rd-01~ 05	Network Development of Arterial Roads	TA, FA	458.1	MRTCUD UB City	MOF
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	To enhance the entire road network structure and release traffic congestions in Ulaanbaatar City			Citizens and road users in UB City	
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To construct missing links of the existing arterial road network, including 5 links which are evaluated to be urgently carried out</li> </ul>			<b>Time Required for Completion</b>	
				Preparatory	1~2 yrs
				Main Work	3~4 yrs
<b>Rationales</b>	Visions on Ulaanbaatar 2020 & 2030	Related to Key Planning Issues		Relevance to Existing Polices	
	<ul style="list-style-type: none"> <li>World Class Business Center</li> <li>Livable City</li> </ul>	<ul style="list-style-type: none"> <li>Growth management for "Compact city"</li> <li>Comprehensively balanced urban transport system</li> </ul>		Improvement of road network in UB City	
	PPP *	Communities Involvement *		Other Parties	
<b>Private Sector Engagement</b>	E	B		D	
	Technical Assistance *	Financial Assistance *		Other Supports	
<b>External Supports</b>	C	A		B	
	<b>Environmental Key Issue</b>	Impact level will be "Medium" during the physical construction of the center. Civil works will cause noise disturbance, dust pollution, etc. EIA is required for each road construction project.			
<b>Project Location, Project Concept Scheme, or Drawings</b>	<p><b>Target Links:</b> The following five (5) links are of high priority to be constructed with a design standard of "arterial road":</p> <ul style="list-style-type: none"> <li>(Rd-01) Network Development of EW-1 (from Gachuurt to 22Km-post through Peace Avenue) : US\$185.8m.</li> <li>(Rd-02) Network Development of EW-3 (Bayanzurkh to Road to Thermal Power Station No.4 through Naryn Zam): US\$164.9m.</li> <li>(Rd-03) Network Development of NS-2 (Eastern section of Middle Ring Road): US\$37.6m.</li> <li>(Rd-04) Network Development of NS-6 (from Ikh Toyruu to Engels Street): US\$12.3m.</li> <li>(Rd-05) Network development of NS-7 (from Chinggis Avenue to Ard Ayush Avenue through Ajilchin Street): US\$57.5m.</li> </ul>				
					

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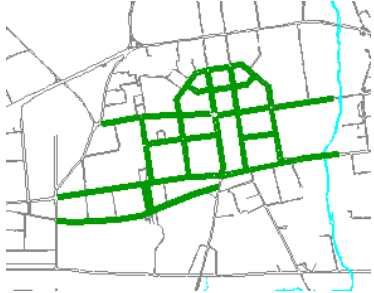
Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies
UTR-Rd-06	Development of Highway to Connect Ulaanbaatar to New Airport/Zuunmod (New International Airport Access)	TA, FA	90.0	MRTCUD UB City	MET MOFR MIAT
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	To develop the Expressway between Ulaanbaatar City and New International Airport / Zuunmod			Citizens of UB City and its surrounding area	
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To construct the expressway (toll way) to/from the New International Airport (45km) which is scheduled to be open in 2015</li> <li>To establish a PPP scheme to implement the project</li> </ul>			<b>Time Required for Completion</b>	
				Preparatory	2 yrs
				Main Work	3 yrs
				Expected Yr	2015~
<b>Rationales</b>	Visions on Ulaanbaatar 2020 & 2030	Related to Key Planning Issues		Visions on Ulaanbaatar 2020 & 2030	
	<ul style="list-style-type: none"> <li>World Class Business Center</li> <li>Int'l Tourist Destination</li> </ul>	<ul style="list-style-type: none"> <li>Growth management for "Compact city"</li> <li>Comprehensively balanced urban transport system</li> </ul>		Improvement of road network in UB City	
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	A	C		C	
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	A	C		B	
<b>Environmental Key Issue</b>	Impact level will be "Medium" during the physical construction of the center and operation. Countermeasures are needed not to cross-cut the ecological corridor for animal movements.				
<b>Project Location, Project Concept Scheme, or Drawings</b>	<p>This project is to construct an expressway for new international airport access. This highway shall be essential to develop the proposed airport city.</p> <p><b>PPP Model Project:</b> This expressway is recommended to be constructed and operated under a PPP scheme with following considerations:</p> <ul style="list-style-type: none"> <li>A responsibility demarcation scheme of public and private sectors should be examined, namely, MRTCUD is responsible to acquire the right of way and necessary land of the expressway, while the private sector shall be responsible for the construction, levy collection, maintenance work and provision of services for users.</li> <li>The private sector may be given some incentives or privileges to use land for development of the Airport City to compensate the viability gap to be accrued from expressway operation.</li> <li>Under the conditions above, the most appropriate mode of PPP should be pursued, e.g., BOT, BTO or Third Sector System.</li> <li>The construction schedule should be accorded with that of the new international airport in such a way that the expressway shall be in use when the airport is in operation.</li> </ul>				



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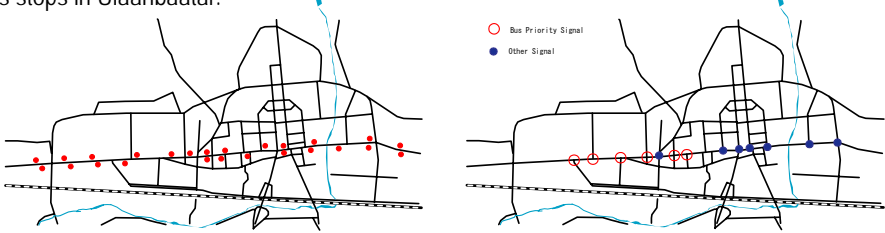
Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies
UTR-Rd-17	<b>Capability Development of Traffic Management</b>	TA, FA	20	UB City Road Dept.	UB City Traffic Police
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	To establish a traffic safety program to continuously reduce the accident rates in Ulaanbaatar City			Road users in Ulaanbaatar	
<b>Sub-projects Components</b>	(i) Identification of problems by studying accident data and major factors affecting safety situation. The output of the study will be the basis for the strategy and action plan. (ii) A long-term vision for traffic safety will be formulated to provide the public and responsible authorities with an idea about the future traffic safety situation. (iii) Overall objectives and long-term targets will be developed and the approach to achieve these objectives and targets will be defined. (iv) Short- and mid-term action plans will be developed. These must be agreed upon by the agencies responsible for each component of the plan.			<b>Time Required for Completion</b>	
				Preparatory	4 months
				Main Work	20 months
				Expected Period	2009-2011
<b>Rationales</b>	Visions on Ulaanbaatar 2020 & 2030	Related to Key Planning Issues		Relevance to Existing Policies	
	<ul style="list-style-type: none"> <li>Livable City</li> </ul>	<ul style="list-style-type: none"> <li>Comprehensively Balanced Urban Transport System</li> </ul>		Improvement of Traffic Management of Ulaanbaatar City	
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	E	C		C	
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	C	C		C	
<b>Environmental Key Issue</b>	Impact level: Small or less	No significant impact is predicted.			
<b>Project Location, Project Concept Scheme, or Drawings</b>	1. Physical Improvement				
	  <p>Road Safety Improvement</p> <p>Road Amenity &amp; Green Space Provision</p>				
2. Capability Development					
1) Human Resource Development					
2) Establishment of Transportation Research Center					
3) Establishment of Traffic Management Coordination Committee					

Note: \* Rated as - A: Must; B: Highly Required; C: Needed; D: Conditional; and E: Not Necessary

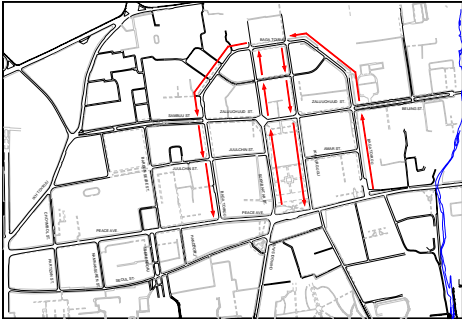


Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies																				
UTR-Pt-01	LRT/BRT Development of the East-west Line (Phase 1)	TA, FA	300.0 (up to 2015)	MRTCUD UB City	MOF MOFR																				
<b>Project Description</b>				<b>Expected Beneficiaries</b>																					
<b>Main Objectives</b>	To mitigate chronic traffic congestions and uplift people's mobility in UB City			Citizens of UB City and its surrounding area																					
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To develop a mass transit system to serve along with Peace Avenue</li> <li>To facilitate sub-center development at major stations and redevelopment activities</li> <li>To control the urban sprawl.</li> </ul>			<b>Time Required for Completion</b>																					
				Preparatory	3 yrs																				
				Main Work	5~6 yrs																				
Expected Yr	2017~																								
<b>Rationales</b>	Visions on Ulaanbaatar 2020 & 2030	Related to Key Planning Issues		Visions on Ulaanbaatar 2020 & 2030																					
	<ul style="list-style-type: none"> <li>World Class Business Center</li> <li>Livable City</li> <li>Int'l Tourist Destination</li> </ul>	<ul style="list-style-type: none"> <li>Growth Management for Compact City</li> <li>Comprehensively balanced urban transport system</li> </ul>		National Development Strategies																					
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties																					
	A	B		C																					
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports																					
	A	A		B																					
<b>Environmental Key Issue</b>	Impact level will be "Large" during the physical construction stage. EIA is required during the project preparation stage.																								
<b>Project Location, Project Concept Scheme, or Drawings</b>	<p>This project is to construct a world-class rapid transit systems in UB City, and the phase 1 project (East-west line, or Line 1) shall be commenced with the highest priority.</p> <p><b>Preparatory Work:</b> Based on the Transport Sector Study financed by ADB, a full scale Feasibility Study should be carried out, and the following should be cleared through the FS.</p> <ul style="list-style-type: none"> <li>Selection of the most suitable mode;</li> <li>Economic, financial and technical feasibilities;</li> <li>Most practical PPP scheme, and organizational structure to implement the Project; and</li> <li>EIA and counter measures against existing constraints.</li> </ul> <p><b>Strong Donors Supports:</b> In order to make this huge investment successful, joint supports of donors (JICA, ADB, World Bank, GTZ etc.) are essential under good coordination.</p>																								
	<table border="1"> <thead> <tr> <th colspan="2">Section</th> <th>Line 1</th> <th>Line 2</th> </tr> </thead> <tbody> <tr> <td rowspan="4">Length (km)</td> <td>At grade</td> <td>15.6</td> <td>10.6</td> </tr> <tr> <td>Elevated</td> <td>6.0</td> <td>6.2</td> </tr> <tr> <td>Underground</td> <td>5.0</td> <td>3.8</td> </tr> <tr> <td>Total</td> <td>26.6</td> <td>20.6</td> </tr> <tr> <td colspan="2">No. of Stations</td> <td>17</td> <td>12</td> </tr> </tbody> </table>		Section		Line 1	Line 2	Length (km)	At grade	15.6	10.6	Elevated	6.0	6.2	Underground	5.0	3.8	Total	26.6	20.6	No. of Stations		17	12		
Section		Line 1	Line 2																						
Length (km)	At grade	15.6	10.6																						
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	Underground	5.0	3.8																						
	Total	26.6	20.6																						
No. of Stations		17	12																						

Note: \* Rated as - A: Must; B: Highly Required; C: Needed; D: Conditional; and E: Not Necessary

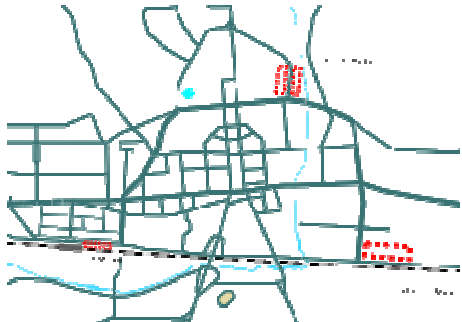
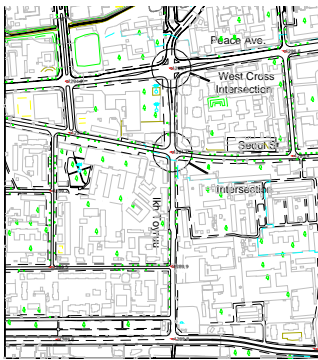



Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies
UTR-Pt-05	<b>Bus Service Improvement</b>	TA, FA	70	UB City Transport Div.	MRTCUD Transport Dept.
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	To improve service level of public transport by introduction of modern system, sophisticate design and facilities			Road users in Ulaanbaatar	
<b>Sub-projects Components</b>	(i) Smart Bus Stop (ii) Bus Location Information System (iii) Transit Signal Priority (iv) Bus Route and Schedule Rationalization (v) Bus Fleet Renewal (vi) Bus Fare Rationalization			<b>Time Required for Completion</b>	
				Preparatory	6 months
				Main Work	12 months
				Expected Period	2009-2010
<b>Rationales</b>	Visions on Ulaanbaatar 2020 & 2030	Related to Key Planning Issues		Relevance to Existing Polices	
	• Livable City	• Comprehensively Balanced Urban Transport System		Improvement of Traffic Management of Ulaanbaatar City	
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	C	C		C	
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	C	C		C	
<b>Environmental Key Issue</b>	Impact level: Small or less In case of physical construction of bus stop, it is possible to disturb traffic.				
<b>Project Location, Project Concept Scheme, or Drawings</b>	1. Smart Bus Stop To replace bus stops with new design at 77 bus stops located in the developed area among 545 bus stops in Ulaanbaatar.				
					
	2. Bus Location Information System 3. Transit Signal Priority 4. Bus Route and Schedule Rationalization To improve bus service and offer better services by the following tasks: 1) develop a mechanism to make bus service more demand responsive, 2) collect passenger count data, 3) review and re-structure bus routes, and 4) adjust time schedules to meet the daily demand pattern 5. Bus Fleet Renewal To Replace 625 aged large buses with more fuel efficient that emit less pollutants (400-bus replacement project underway as of Dec.2008) 6. Bus Fare Rationalization To rationalize bus fare by the following tasks: 1) collect financial data for impact study of bus fare hike, 2) develop mechanism to review and adjust bus fare, and 3) promote bus use by conducting a public information campaign.				

Note: \* Rated as - A: Must; B: Highly Required; C: Needed; D: Conditional; and E: Not Necessary

Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies
UTR-Tm-01	<b>Traffic Congestion Reduction</b>	TA, FA	30	UB City Road Dept.	MRTCUD
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	To cope with chronic traffic congestion in Ulaanbaatar City			Road users in Ulaanbaatar	
<b>Sub-projects Components</b>	(i) One-way system in the CBD (ii) Turn restrictions along Peace Avenue (iii) On-street parking management in the CBD (iv) Intersection geometric improvement.			<b>Time Required for Completion</b>	
				Preparatory	6 months
				Main Work	36 months
<b>Rationales</b>	Visions on Ulaanbaatar 2020 & 2030	Related to Key Planning Issues		Relevance to Existing Polices	
	• Livable City	• Comprehensively Balanced Urban Transport System		Improvement of Traffic Management of Ulaanbaatar City	
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	D	C		B	
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	C	C		D	
<b>Environmental Key Issues</b>	Impact level: Small or less      In case of physical construction, it is possible to disturb traffic.				
<b>Project Location, Project Concept Scheme, or Drawings</b>	(i) One-way system in the CBD				
	(ii) Turn restrictions along Peace Avenue (iii) On-street parking management in the CBD				
				<ul style="list-style-type: none"> <li><span style="color: red;">—</span> No on-street parking</li> <li><span style="color: yellow;">—</span> No on-street parking except cut sidewalk parking</li> <li><span style="color: green;">—</span> On-street parking allowed</li> </ul>	
	(iv) Intersection geometric improvement. First-priority intersections (30) Second-priority intersections (15)				

Note: \* Rated as - A: Must; B: Highly Required; C: Needed; D: Conditional; and E: Not Necessary

Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies
UTR-Tm-02	<b>Removal of Traffic Bottlenecks and Construction of Missing Links</b>	TA, FA	82	UB City Road Dept.	MRTCUD
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	To cope with chronic traffic congestion in Ulaanbaatar City. To formulate arterial road network towards Master Plan 2030.			Road users in Ulaanbaatar	
<b>Sub-projects Components</b>	Traffic Management at Public Markets (Narantuul, Bar's, and 100 Ali. The Nalantuul Market) Traffic Management Improvement for Ikh Toyruu (West) Traffic Management at Peace Avenue and Sukhbaatar Intersection Opening of Juulchin (Khudaldaany) Street Widening of Western Section of Naryn Zam Elimination of 4 Staggered Intersections Construction of 4 Flyovers Construction of 3 New Primary Road			<b>Time Required for Completion</b>	
				Preparatory	12 months
				Main Work	48 months
	Expected Period	2009-2015			
<b>Rationales</b>	Visions on Ulaanbaatar 2020 & 2030		Related to Key Planning Issues		Relevance to Existing Polices
	<ul style="list-style-type: none"> <li>Livable City</li> </ul>		<ul style="list-style-type: none"> <li>Comprehensively Balanced Urban Transport System</li> </ul>		Road Improvement in Ulaanbaatar City
<b>Private Sector Engagement</b>	PPP *		Communities Involvement *		Other Parties
	B		C		C
<b>External Supports</b>	Technical Assistance *		Financial Assistance *		Other Supports
	B		B		C
<b>Environmental Key Issues</b>	Impact level: Significant Construction of fly over will lead noise disturbance, traffic disturbance, dust pollution. Construction activities shall be properly managed.				
<b>Project Location, Project Concept Scheme, or Drawings</b>	(1) Traffic Management at 3 Public Markets				
	1) Narantuul 2) Bar's 3) 100 Ali				
	(2) Traffic Management Improvement for Ikh Toyruu (West)			(3) Traffic Management at Peace Ave & Sukhbaatar IS	
					

(4) Opening of Juulchin Street



(5) Widening of Western Section of Naryn Zam



(6) Elimination of 4 Staggered Intersections

- 1) Olympic St/Ikh Surguul St,
- 2) Tsagdaagiin St/Erkhuu St
- 3) Amarsanaa St./ Khasbaatar St
- 4) Police St/Tokyo St



(7) Construction of 4 Flyovers

- 1) Sapporo Flyover
- 2) Bayanburd Flyover
- 3) Tuul Jin Pan Flyover
- 4) Eastcross Flyover





(8) Construction of 3 New Primary Road

- 1) Construction of New Road along Western Dike of Selbe River
- 2) Construction at Unur to connect Ard Ayush Avenue to Tolgoit Street
- 3) Construction of New Road to connect Ajilchin Street to Chinggis Avenue

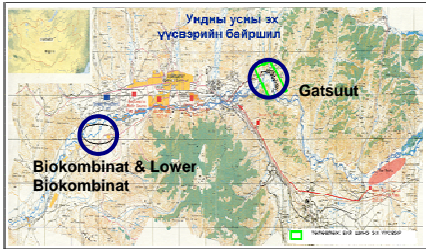
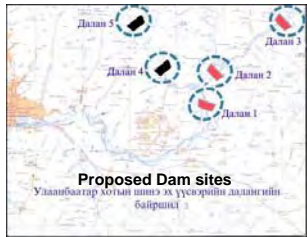


Note: \* Rated as - A: Must; B: Highly Required; C: Needed; D: Conditional; and E: Not Necessary

Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies
UTR-Tm-03	<b>Capability Development of Traffic Management and Traffic Safety Promotion</b>	TA, FA	20	UB City Road Dept.	UB City Traffic Police
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	To establish a traffic safety program to continuously reduce the accident rates in Ulaanbaatar City			Road users in Ulaanbaatar	
<b>Sub-projects Components</b>	(i) Identification of problems by studying accident data and major factors affecting safety situation. The output of the study will be the basis for the strategy and action plan; (ii) A long-term vision for traffic safety will be formulated to provide the public and responsible authorities with an idea about the future traffic safety situation; (iii) Overall objectives and long-term targets will be developed and the approach to achieve these objectives and targets will be defined; and (iv) Short- and mid-term action plans will be developed. These must be agreed upon by the agencies responsible for each component of the plan.			<b>Time Required for Completion</b>	
				Preparatory	4 months
				Main Work	20 months
<b>Rationales</b>	Visions on Ulaanbaatar 2020 & 2030	Related to Key Planning Issues		Relevance to Existing Polices	
	• Livable City	• Comprehensively Balanced Urban Transport System		Improvement of Traffic Management of Ulaanbaatar City	
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	E	C		C	
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	C	C		C	
<b>Environmental Key Issue</b>	Impact level: Medium Physical improvement needs civil works causing noise disturbance, traffic disturbance, etc.				
<b>Project Location, Project Concept Scheme, or Drawings</b>	1. Physical Improvement				
	 <p>Road Safety Improvement</p>		 <p>Road Amenity &amp; Green Space Provision</p>		
2. Capability Development					
4) Human Resource Development					
5) Establishment of Transportation Research Center					
6) Establishment of Traffic Management Coordination Committee					

Note: \* Rated as - A: Must; B: Highly Required; C: Needed; D: Conditional; and E: Not Necessary



Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies
UWS-Wr-02	<b>New Water Supply Source Development</b>	TA, FA	160	USUG	MET, USUG, MRTCAD
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	To improve water supply capacity by development of new water sources			UB city citizens	
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To develop water resource at Lower Nalaiha (Gatsuut)</li> <li>To study and develop the water resource at Biokombinat and lower Biokombinat</li> <li>To study feasibility of dam construction at the Tuul and Terej Rivers</li> </ul>			<b>Time Required for Completion</b>	
				Preparatory	12 months
				Main Work	months
				Expected Years	2012-20
<b>Rationales</b>	Visions on Ulaanbaatar 2020 & 2030	Related to Key Planning Issues		Relevance to Existing Polices	
	<ul style="list-style-type: none"> <li>Livable city</li> <li>Health city</li> </ul>	<ul style="list-style-type: none"> <li>Functional Infrastructures &amp; Utilities Development</li> <li>Sustainable Environment Management</li> </ul>		JICA Water Resource Study (1995), WWWMP 2020	
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	B	D		C	
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	A	B			
<b>Environmental Key Issue</b>	Impact level: Small or less Water pollution accident by replacement or installment of pump shall be minimized.				
<b>Project Location, Project Concept Scheme, or Drawings</b>	<p>The sub-projects of this program are proposed in the JICA Water Resource Development plan, French water master plan, and Russian idea for water resource development.</p> <p>(1) Lower Nalaikha (Gachuut) water source (41,000 m<sup>3</sup>/d, 41 wells, 10.7 km of water collection pipelines, 21 km of transmission pipeline, 2 reservoirs (6,900 m<sup>3</sup> x 2).<sup>1</sup></p> <p>(2) The Upper source and the Central water source are to be used more by development of water resources at Biokombinat (66,000 m<sup>3</sup>/d) and lower Biokombinat (92,400 m<sup>3</sup>/d) near a New City Center Area..</p> <p>(3) To study surface water collecting dams on the Terej River and Tuul River, which have potential amount from 50,000 m<sup>3</sup>/d to 425,000 m<sup>3</sup>/d, according to USUG, to meet the further demand in 2030, or 510,000 m<sup>3</sup>/d for high scenario case, and 367,700 m<sup>3</sup>/d for low scenario case.</p>				
					

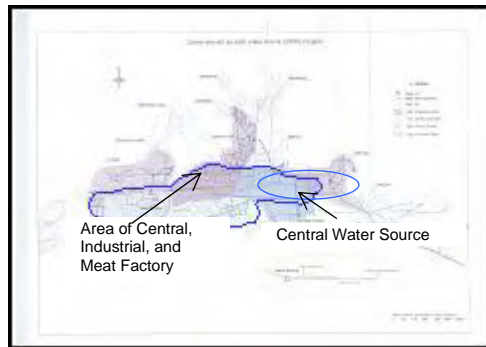
Note1: \* Rated as - A: Must; B: Highly Required; C: Needed; D: Conditional; and E: Not Necessary

Note2: WWWMP: Water & Wastewater Master Plan

<sup>1</sup> This project requires about 29 mil. US\$ and Central water source at Biokombinat & Lower Biokombinat is estimated at some 130 mil. US\$.



Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies
UWS- Ws-01	<b>Improvement of Water Supply Capacity</b>	TA, FA	25	USUG	MET, MRTCUD
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	To improve water supply capacity by improvement of the existing distribution network and renovation of pumps			UB city citizens	
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To Replace old pipes to reduce the leakage and to maintain a drinking water of good quality</li> <li>To rehabilitate the pumps stations</li> </ul>			<b>Time Required for Completion</b>	
				Preparatory	12 months
				Main Work	10 years
<b>Rationales</b>	Visions on Ulaanbaatar 2020 & 2030	Related to Key Planning Issues		Relevance to Existing Polices	
	<ul style="list-style-type: none"> <li>Livable city</li> <li>Health city</li> </ul>	<ul style="list-style-type: none"> <li>Functional Infrastructures &amp; Utilities Development</li> <li>Sustainable Environment Management</li> </ul>		WWWMP 2020	
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	C	D		C	
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	B	B			
<b>Environmental Key Issue</b>	Impact level: Medium New water supply source shall be developed in consideration with balance of underground water condition. In case of dam construction, impact on natural environment such as disturbance to wild life habitat will be significant.				
<b>Project Location, Project Concept Scheme, or Drawings</b>	The projects includes the following (1) Rehabilitation of old pipes <ul style="list-style-type: none"> <li>Replacement of old pipes to reduce the leakage. Water pipes (100 to 600 mm) of a total 51,275 m, especially around Sukhbaatar square, the Industrial water source area and Meat Complex water source area</li> </ul> (2) Pump station enhancement <ul style="list-style-type: none"> <li>Replacement of 30 pumps in the Central source</li> </ul>				



Note: \* Rated as - A: Must; B: Highly Required; C: Needed; D: Conditional; and E: Not Necessary

Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies
UWS-Ws-04	<b>Water Demand Management Program</b>	TA, FA	9	USUG	USUG, MET
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	To reduce the amount of water consumption by introducing water meters, awareness raise, and water price revision, preferably to down to 150 liters per person per day while the current average consumption per person for metered households is 125 liters per day			UB city citizens	
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To install meters of water consumption at households whose apartments do not have water meters</li> <li>To promote campaign to raise peoples awareness to save and conserve water through wise usage of water</li> <li>To revise water price for cost recovery and social justice</li> </ul>			<b>Time Required for Completion</b>	
				Preparatory	12 months
				Main Work	24 months
		Expected Years	2010-2012		
<b>Rationales</b>	Visions on Ulaanbaatar 2020 & 2030	Related to Key Planning Issues		Relevance to Existing Polices	
	<ul style="list-style-type: none"> <li>Livable city</li> <li>Health city</li> </ul>	<ul style="list-style-type: none"> <li>Functional Infrastructures &amp; Utilities Development</li> </ul>		WWWMP 2020	
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	D	A		C	
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	B	C			
<b>Environmental Key Issue</b>	Impact level: Small or less Public consultation is recommended to build consensus especially against tariff reform.				
<b>Project Location, Project Concept Scheme, or Drawings</b>	<p>The project is planned by USUG and the project focuses on below.</p> <p>(1) Installation of water meters</p> <ul style="list-style-type: none"> <li>Installation of water meters for individual households is an effective way to reduce water consumption. According to USUG, water meters need to be installed in more than 54,600 households. Four meters<sup>2</sup> are needed for each household, totaling 218,000 sets of water meters.<sup>3</sup></li> </ul> <p>(2) Campaign of public awareness raising</p> <ul style="list-style-type: none"> <li>Water conservation should be promoted among people by campaign activities including educational programs, various PR activities, educational curriculum and so on.</li> <li>Water tariff revision</li> <li>Water tariffs shall be revised to improve the financial viability and reduce water demand.</li> <li>The tariff structure should also be revised to ensure equitability between apartment dwellers and residents of the Ger areas (water kiosk users).</li> </ul>				

Note1: \* Rated as - A: Must; B: Highly Required; C: Needed; D: Conditional; and E: Not Necessary

Note2: WWWMP: Water & Wastewater Master Plan

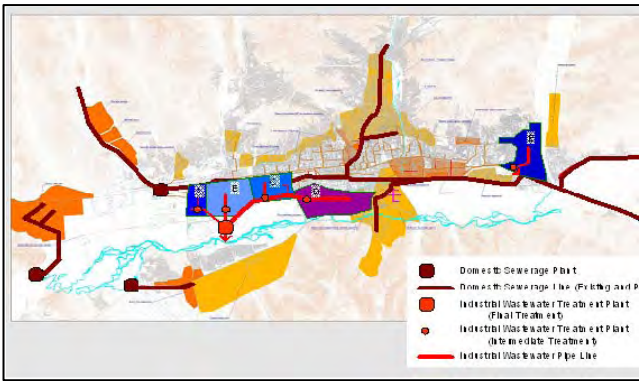
<sup>2</sup> Four meters are two for drinking water (in and out) and two for both room in and out).

<sup>3</sup> The estimated cost of this will be US\$6.5 million.

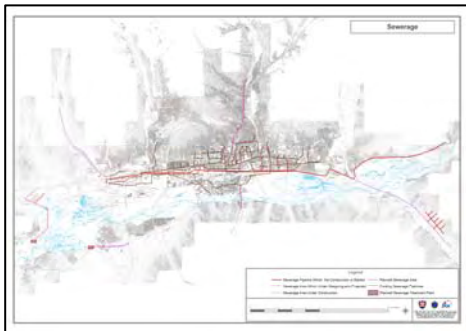
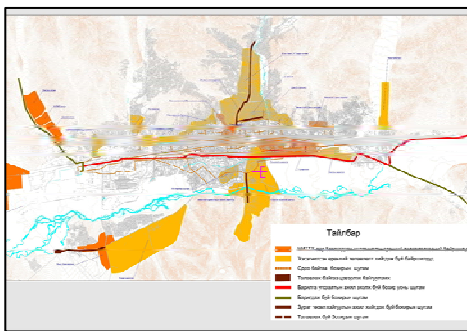
Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies
UWS-Ss-01	<b>Central Wastewater Treatment Plant (CWWTP) Capacity Enhancement</b>	TA, FA	140	USUG	MET, MRTAUD
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	To improve the capacity of the existing Central Waste Water Treatment system, by up-grading the facility and equipment			UB city citizens	
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To increase the capacity of the Central Waste Water Treatment Plant from the existing 170,000 m<sup>3</sup>/day to 325,000 m<sup>3</sup>/day</li> </ul>			<b>Time Required for Completion</b>	
				Preparatory	12 months
				Main Work	Total 10 years for 6 Phases
<b>Rationales</b>	Visions on Ulaanbaatar 2020 & 2030	Related to Key Planning Issues		Relevance to Existing Polices	
	<ul style="list-style-type: none"> <li>Livable city</li> <li>Health city</li> </ul>	<ul style="list-style-type: none"> <li>Functional Infrastructures &amp; Utilities Development</li> <li>Sustainable Environment Management</li> </ul>		WWWMP 2020	
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	C	E		C	
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	A	A		B	
<b>Environmental Key Issue</b>	Impact level: Small or less Public consultation is recommended to build consensus especially against tariff reform.				
<b>Project Location, Project Concept Scheme, or Drawings</b>	<p>This project is proposed in WWWMP 2020, with 6-phased schedule to increase the capacity of the Central Waste Water Treatment Plant from the existing 170,000 m<sup>3</sup>/day to 325,000 m<sup>3</sup>/day.</p> <p>(3) Phase 1(2009~2010): Retrofit &amp; light upgrade of CWWWTP                      To preserve its current capacity of 177,500 the minor investments</p> <ul style="list-style-type: none"> <li>Renewal of sludge pumps at primary settler level</li> <li>Redesign of aeration system and improvement of the air flow control system at biological tanks stage</li> <li>Enlargement of total surface o the secondary clarifiers</li> <li>Implementation of sludge treatment line including the reshaping of the drying bed area</li> </ul> <p>(4) Phase 2 - Phase 5: new four treatment units, each of which with a capacity of is 60,000 m<sup>3</sup>/d. Each phase is 2-year construction period. Period to build new units for Phase 2: 2009~2010, Phase 3: 2012-2013, Phase:4 2014-2015, Phase 5: 2016-2017.</p> <p>(5) Phase 6 (2018-2019): Full conversion of CWWWTP to a new CWWTP, and in 2020 it will become operational in full scale.</p> <p>The CWWTP will have a capacity of 315,000 ~ 340,000 m<sup>3</sup>/d.</p>				

Note1: \* Rated as - **A**: Must; **B**: Highly Required; **C**: Needed; **D**: Conditional; and **E**: Not Necessary

Note2: **WWWMP**: Water & Wastewater Master Plan

Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies
UWS-Ss-03	<b>Improvement of Industrial Wastewater Treatment System</b>	TA, FA	60.0	USUG	Inspection Agency, MRTCUD
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	Main objective of this project is to improve industrial waste water treatment system			UB city business sectors UB Citizen	
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To renovate Khargia industrial wastewater treatment facility,</li> <li>To develop a new industrial waste water treatment facilities in the newly developed industrial estate</li> </ul>			<b>Time Required for Completion</b>	
				Preparatory	12 months
				Main Work	18 months
	Expected Years	2020			
<b>Rationales</b>	Visions on Ulaanbaatar 2020 & 2030	Related to Key Planning Issues		Relevance to Existing Polices	
	<ul style="list-style-type: none"> <li>Livable city</li> <li>Health city</li> </ul>	<ul style="list-style-type: none"> <li>Functional Infrastructures &amp; Utilities Development</li> <li>Sustainable Environment Management</li> </ul>		UBMP-2020	
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	B	E		C	
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	B	B			
<b>Environmental Key Issue</b>	Impact level: Significant      Some types of industrial activities generate toxic discharge containing heavy metals, cyanide compounds, VOC, e.g. Treatment methodologies shall be selected based on installed industrial facilities.				
<b>Project Location, Project Concept Scheme, or Drawings</b>	<p>The existing industrial zone has not a well managed industrial wastewater treatment plant. The Khargia Industrial WWTP has not been operated properly due to its outdated and dilapidated facilities. It is planned to redevelop the Central Industrial Zone whose concept plan has been formulated by the UPRDI. New industrial wastewater treatment plan (or replacement of Khargia Industrial WWTP) is recommended. Various types of industrial facilities will be installed, discharged water contains various pollutions. Therefore it is proposed to establish a 2-step treatment system.</p> <p>The first step targets specific elements, especially toxic substances depending on type of industry, and then remaining common elements and domestic wastewater from houses, offices, etc. which are located in the industrial zone are treated in the second step.</p>				
	 <p style="text-align: center;">Concept of Industrial Wastewater Treatment System</p>				

Note: \* Rated as - A: Must; B: Highly Required; C: Needed; D: Conditional; and E: Not Necessary

Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies
UWS-Ss-05	<b>Rehabilitation of old pipelines of sewerage</b>	TA, FA	30	USUG	MRTCUD
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	To improve waste water treatment capacity by rehabilitation of sewer pipes			UB city citizens	
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To replace decrepit sewage pipes by new pipes</li> </ul>			<b>Time Required for Completion</b>	
				Preparatory	12 months
				Main Work	months
	Expected Years	2012-20			
<b>Rationales</b>	Visions on Ulaanbaatar 2020 & 2030	Related to Key Planning Issues		Relevance to Existing Polices	
	2. Livable city 3. Health city	4. Functional Infrastructures & Utilities Development 5. Sustainable Environment Management		WWWMP 2020	
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	B	D		C	
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	C	B			
<b>Environmental Key Issue</b>	Impact level: Small or less Pollution or contamination to soil by waste water during the replacement or installment of pipes shall be minimized.				
<b>Project Location, Project Concept Scheme, or Drawings</b>	<p>Out of a 158 km sewer discharge system in UB City, 110 km of pipelines are more than 40 years old. These old sewer pipes experience high levels of leaking waste water and need to be replaced by new pipes.</p> <p>To meet the future demand, some sections of collectors should have their discharge capacity expanded. In the short term, the approved detailed master plan of 12 projects under the 40,000 housing unit projects plan includes some new collector construction and expansion of pipes.</p>				
	 <p style="text-align: center;"><b>Sewerage Network</b></p>	 <p style="text-align: center;"><b>Detailed Plan by UB City</b></p>			

Note1: \* Rated as - A: Must; B: Highly Required; C: Needed; D: Conditional; and E: Not Necessary

Note2: WWWMP: Water & Wastewater Master Plan

Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies
UWS-Ss-06	<b>Household-based Sewerage Treatment</b>	TA, FA	8.0	USUG	MRTCUD
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	To introduce small scale sewage treatment system in the existing Ger area			Residents in Ger areas	
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To study environmental friendly household-based system such as combined type septic tank, ECO-SANITATION.</li> <li>To promote above system including establishment of financial supporting system</li> </ul>			<b>Time Required for Completion</b>	
				Preparatory	6 months
				Main Work	50 months
Expected Years	2015				
<b>Rationales</b>	Visions on Ulaanbaatar 2020 & 2030	Related to Key Planning Issues		Relevance to Existing Polices	
	2. Livable city 3. Health city	3. Socail Housing and Ger Area Improvement 4. Functional Infrastructures & Utilities Development 5. Sustainable Environment Management		UBMP-2020	
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	B	A		C	
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	B	C			
<b>Environmental Key Issue</b>	Impact level: Small or less Treated water shall satisfy water quality standard. It is recommendable to install treatment tank under the ground. Household sewerage treatment shall be maintained properly to keep its capability.				
<b>Project Location, Project Concept Scheme, or Drawings</b>	<p>The biggest problem in sanitation is that huge volume of untreated wastewater has been discharged especially from Ger areas where dwellings are not connected to the central network. It is planned to improve the existing WWTP, to extend sewerage network. However such developments need huge cost and long time to plan and implement, while population increasing in Ger areas is accelerating water pollution.</p> <p>The project focus is a first phase of step-by-step approach on wastewater treatment. The objective is recognized as a minimum requirement for short-term or urgent introduction. Even though its efficiency may not be so drastic, it can be expected to decelerate rapid water pollution by the existing poor treatment. Especially this measure can be applicable to low income residents, peri-urban, or summer houses, e.g. The plan is to install ECOSAN or shield type pit latrine to 10,000 households for five years.</p> <p>It is also proposed to establish financial supporting system, such as a kind foundation, for residents to purchase said pit latrine, Septic tank (and combined type septic tank) is more functionable, however these are costly (approximately US\$3,000 – 10,000 per household). The project also aims at possibility of septic tank.</p>				



Note: \* Rated as - A: Must; B: Highly Required; C: Needed; D: Conditional; and E: Not Necessary