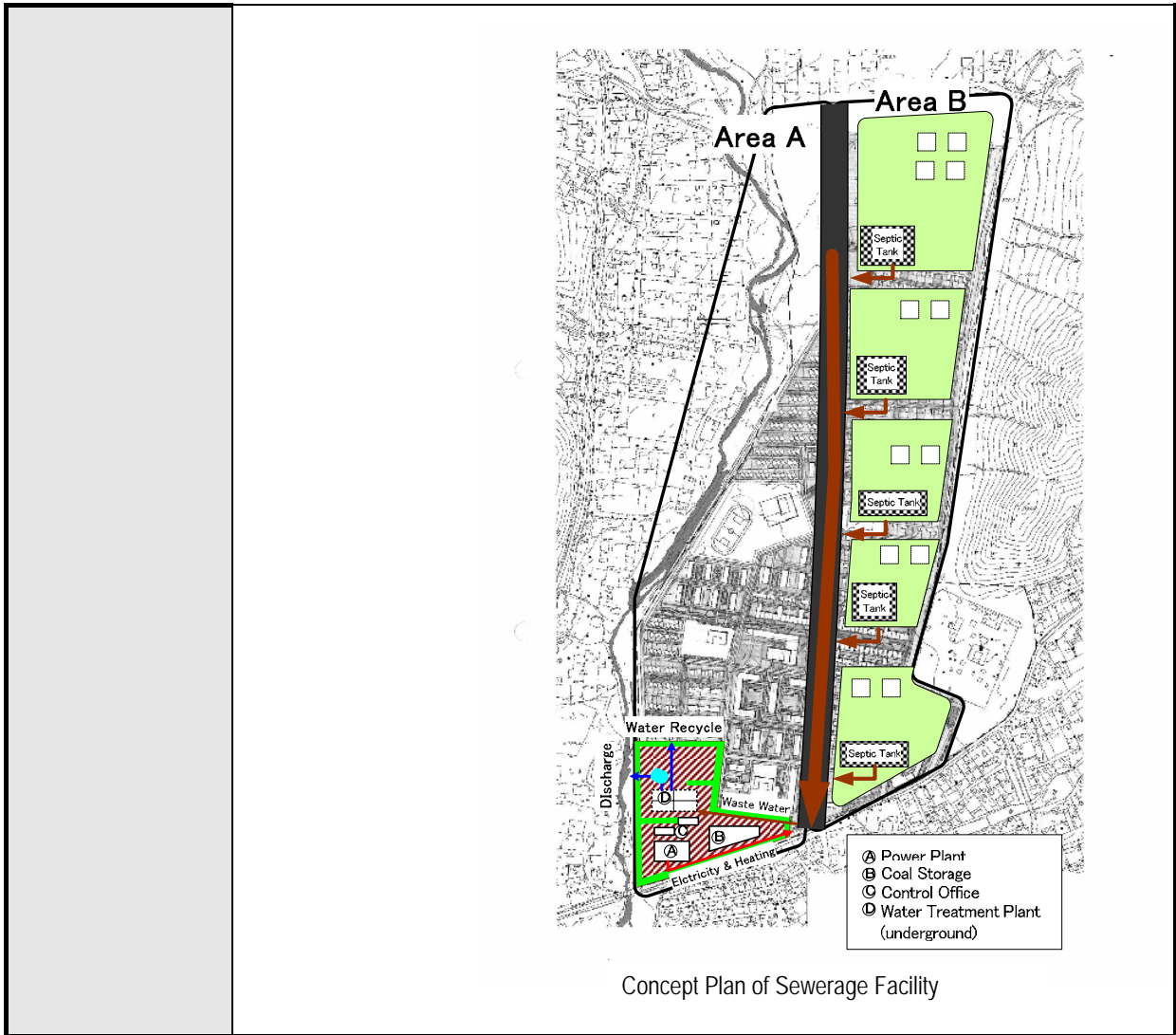


Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies
UWS-SS-08	<b>Cluster Type Sewerage System Development</b>	TA, FA	4.2	USUG	UB City, Inspection Agency, MRTCUD
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	Major item of the project is to construct medium scale Sewerage facility.			UB city citizens	
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To Establish cluster type Sewerage facility in Dambadarjaa.</li> </ul>			<b>Time Required for Completion</b>	
				Preparatory	12 months
				Main Work	18 months
Expected Years	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> <li>Health city</li> </ul>	<ul style="list-style-type: none"> <li>Functional Infrastructures &amp; Utilities Development</li> <li>Sustainable Environment Management</li> </ul>			
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	A	B		C	
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	A	B			
<b>Environmental Key Issue</b>	Impact level: Medium Wastewater treatment technique shall be properly adopted to mitigate water pollution.				
<b>Project Location, Project Concept Scheme, or Drawings</b>	The cluster type sewerage facility will be installed in Dambadarjaa as a model project. Proposed design criteria are:				
	Area A (Apartment area: Medium scale sewerage plant)				
	Type of Plant	Activated Sludge or Contact Oxidation			
	Treatment Capacity	2,000 m <sup>3</sup> / day			
	Water Recycling	200 m <sup>3</sup> / day			
	Lot Area	Approx. 6,000 m <sup>2</sup> (Major facilities are underground)			
	Service Area	50 ha in Area A Approx. 20 ha in Area A (recycled water)			
	Area B (Detached house area: 6 units of small scale JOKASO type septic tank for 500 persons each)				
	Type of Treatment	Contact Oxidation			
	Treatment Capacity	100 m <sup>3</sup> / day each			
Water Recycling	20 m <sup>3</sup> / day each				
Lot Area	Approx. 1,500 m <sup>2</sup> each (Septic tank is underground)				
Service Area	Approx. 8 ha in Area B each				
Medium scale sewerage facility is built in the same area of cluster type power plant described in "HTS-Hs-XX", and covers apartment area in the Area A Treatment facility is constructed underground. It is proposed to recycle a portion of treated water for toilet flushing, gardening, etc. While wastewater from the Area B, basically detached houses will be built, is treated by small scale septic tank (JOKASO).					



Concept Plan of Sewerage Facility

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
EPW-Es-02	<b>New Power Supply System Development</b>	TA, FA	600 (5 <sup>th</sup> plant) 1,000 (for additional plants)	MME	MRCTUD, MET, UB City
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	To develop a new energy source for both power and heating			UB city citizens	
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To establish a new power station (5<sup>th</sup>) to enhance the power supply capacity by 300 MW</li> <li>To study and construct a new power station after the 5<sup>th</sup> power plant to meet the power demand or 945 mW<sup>4</sup></li> <li>To study new energy source instead of coal</li> </ul>			<b>Time Required for Completion</b>	
				Preparatory	12 months
				Main Work	24 months
Expected Years	2011-30				
<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> <li>Health city</li> </ul>	<ul style="list-style-type: none"> <li>Functional Infrastructures &amp; Utilities Development</li> <li>Sustainable Environment Management</li> </ul>			
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	B	C		C	
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	A	B			
<b>Environmental Key Issue</b>	<p>Impact level: <b>Significant</b></p> <p>Large scale land occupation will be required, location shall avoid disturbance of wild life habitat. Exhaust gas level and discharged water shall satisfy the standard. Water usage shall be designed with avoiding interruption of underground water condition.</p>				
<b>Project Location, Project Concept Scheme, or Drawings</b>	<p>This project The project focuses on</p> <p>(1) New power plants The 5<sup>th</sup> power is planned presently with 300 mW of power supply. However, after 2015, more power supply is needed and a additional power plant study to meet the future demand at a peak load of about 1,328 in 2030, about more 945 mW of design capacity for peak load shall be required by 2030.</p> <p>(2) A study for energy source diversification The following energy sources are options for diversification of energy source:</p> <ul style="list-style-type: none"> <li>Oil and Gas: It is expected that oil and gas based energy use becomes feasible due to a reducing price gap and higher efficiency of introducing new technology.</li> <li>Renewable Energy: Solar power generation has already been introduced in rural Mongolia; hence it may be one option.</li> <li>Biomass Energy: It is proposed to introduce electric power generation by sewage sludge and RDF power generation; these technologies can contribute to the mitigation of global warming and environmentally friendly development.</li> <li>Hydropower: Dams to capture surface water are under consideration for water supply.</li> <li>Nuclear power: Nuclear power is another option as a source of clean energy.</li> </ul>				

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

<sup>4</sup> 0.8 is assumed as a load factor for the capacity, thus to meet a peak of 1,328 mW, 1,660 mW is needed. And with the 5<sup>th</sup> plant, the capacity, even with 2<sup>nd</sup> and 3<sup>rd</sup> shot-down, will be a 572 mW of working capacity by 4<sup>th</sup> and 5<sup>th</sup> plants. And more a 756 mW operational capacity or a 945 mW design capacity is required

Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies
HTS-Hs-01	<b>New Heating Source Development</b>	TA, FA	600 (for 5 <sup>th</sup> power station)	MME	UB City, MRTCUD
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	To enhance the heating supply capacity by developing a new heating source			UB city citizens	
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To develop a new power plant with the heating supply capacity of 600Gcal/h</li> <li>To study a new heating source to meet the heating demand</li> <li>To study a cluster system</li> </ul>			<b>Time Required for Completion</b>	
				Preparatory	12 months
				Main Work	36 months (for 5 <sup>th</sup> plant)
	Expected Years	2010-2012 (for 5 <sup>th</sup> plant)			
<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>		UBMP2020
<b>Private Sector Engagement</b>	PPP *		Communities Involvement *		Other Parties
	C		D		C
<b>External Supports</b>	Technical Assistance *		Financial Assistance *		Other Supports
	A		B		
<b>Environmental Key Issue</b>	Impact level: Significant Large scale land occupation will be required. Exhaust gas level and discharged water shall satisfy the standard. Water usage shall be designed with avoiding interruption of underground water condition.				
<b>Project Location, Project Concept Scheme, or Drawings</b>	<p>(1) Construction of the 5th power plant: The project location of the 5<sup>th</sup> power plant is eastside of the City decided by UB City government and is now under international bidding process. However, an environmental study has not been done yet. The project should include a due environment impact assessment. The project is planned to be implemented in three (3) phases of 2010-2012.</p> <p>(2) New heating sources development: New sources of heating of 950 Gcal/h<sup>5</sup> shall be studied to meet the further demand at peak load of 1,979mW in 2030. Especially, feasibility of a cluster system shall be studied to supply heating to the development in the existing Ger area. In the study, energy source shall be also studied in order for versification of energy source.</p> <p>(3) In order to supply to supply a heating in the existing Ger area, a feasibility study on a local cluster type heating supply for the existing northern Ger area should be conducted in accordance with the development framework of this UBMP2030.</p>				



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

<sup>5</sup> Existing reserve (243Gcal/h) and 600 Gcal/h at the 5<sup>th</sup> plant and additional 200 Gcal/h at the 4<sup>th</sup> plant totals 1,043 Gcal/h; and more 950 Gcal/h is needed to meet the 2030 demand, or 1,97 Gcal/h.

Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies
HTS-Hs-02	<b>Rehabilitation of Heat-only -Boiler</b>	TA, FA	3.0 (as 1st phase)	UB City	MRTCUD, MME
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	Project objective is to rehabilitate Heat Only Boilers (HOBs)			Users of household stove	
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To prioritize out-dated heat-only-boiler to be rehabilitated.</li> <li>To rehabilitate old type heat-only-boilers</li> </ul>			<b>Time Required for Completion</b>	
				Preparatory	24 months
				Main Work	24 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>		Air Quality Master Plan by UB	
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	B	C		C	
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	A	C			
<b>Environmental Key Issue</b>	Impact level: Medium Exhaust gas level shall satisfy the standard level.				
<b>Project Location, Project Concept Scheme, or Drawings</b>	<p>It is reported that more than 400 small/medium scale individual HOBs are operated in UB City. Large scale HOBs as well as power plants are attached environmental devices for heat-efficiency improvement and exhaust gas reduction installed reduction devises of pollution in exhaust gas. However, most small/medium HOBs are out-dated most of which are installed in Ger areas. As a result, it is also reported that not negligible level of air pollution load in Ger areas are generated by HOBs.</p> <p>The project aims to rehabilitate and/or replace low efficiency and out-dated boilers; therefore prioritization is important in order to plan an effective HOBs improvement program.</p> <p>The project consists of the following two phases:</p> <p><b>First Phase</b></p> <ul style="list-style-type: none"> <li>To prioritize HOBs to be rehabilitated based on inventory survey. <ul style="list-style-type: none"> <li>Date manufactured</li> <li>Heating capacity</li> <li>Service area</li> <li>Type of fuel and annual consumption</li> <li>Annual volume of exhaust pollution loads</li> <li>Installed environmental mitigation devices</li> </ul> </li> <li>To strengthen legal and institutional enforcement including registration and environmental inspection system.</li> </ul> <p><b>Second Phase</b></p> <ul style="list-style-type: none"> <li>To make rehabilitation programs based on the inventory survey.</li> <li>To take feasibility study for new technology</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									
HTS-Hs-03	<b>Local Cluster Heating System Development</b>	TA, FA	50.0 (excluding pipe line)	MME	UB City, MRTCUD									
<b>Project Description</b>				<b>Expected Beneficiaries</b>										
<b>Main Objectives</b>	Major item of the project is to construct a medium scale heating facility.			UB city citizens										
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To Establish cluster type heating facility in Dambadarjaa.</li> </ul>			<b>Time Required for Completion</b>										
				Preparatory	12 months									
				Main Work	18 months									
	Expected Years	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> <li>Health city</li> </ul>	<ul style="list-style-type: none"> <li>Functional Infrastructures &amp; Utilities Development</li> <li>Sustainable Environment Management</li> </ul>												
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties										
	A	B		C										
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports										
	A	B												
<b>Environmental Key Issue</b>	Impact level: Medium Heating and electric generation technique shall be properly adopted to mitigate air pollution, noise disturbance, etc.													
<b>Project Location, Project Concept Scheme, or Drawings</b>	<p>The cluster type heating facility will be installed in Dambadarjaa as a model project.</p> <p>Proposed design criteria are:</p> <table border="1"> <tr> <td>Type of Plant</td> <td>Coal-based combined power plant</td> </tr> <tr> <td>Service Capacity</td> <td>16 Gcal/h and 3 MW</td> </tr> <tr> <td>Coal Storage</td> <td>50 tons/day with temporary ash pond</td> </tr> <tr> <td>Service Area</td> <td>10,000persons in apartment area</td> </tr> </table> <p>Combined type power plant is recommendable because of effective energy generation. Electric supply will be used for sewerage plant constructed nearby the power plant, public facilities, etc.</p> <p>Green belt will be constructed around facility as a buffer zone.</p>			Type of Plant	Coal-based combined power plant	Service Capacity	16 Gcal/h and 3 MW	Coal Storage	50 tons/day with temporary ash pond	Service Area	10,000persons in apartment area			
	Type of Plant	Coal-based combined power plant												
Service Capacity	16 Gcal/h and 3 MW													
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Service Area	10,000persons in apartment area													

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																																			
HTS-Hn-02	<b>Heating Distribution Network Enhancement</b>	TA, FA	35	Heating Distribution Company	MRTCUD, UB City																																			
<b>Project Description</b>				<b>Expected Beneficiaries</b>																																				
<b>Main Objectives</b>	To improve supply capacity by rehabilitation (replacement) of the old pipes and reduce heat transmission loss and network loss which is estimated at 19.3% of the total heat produced			UB city citizens																																				
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To replace or renovate a 59.2 km of pipes which are outdated and out use</li> </ul>			<b>Time Required for Completion</b>																																				
				Preparatory	12 months																																			
				Main Work	24 months																																			
<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>																																						
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties																																				
	C	E		C																																				
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports																																				
	C	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>	The project is to replace the outdated pipes of main and distribution pipes in order to enhancement of the heating supply capacity.																																							
	<p>Out of all pipes, 74 km (26% of a total of 282 km) of pipes are more than 30 years old and 59.2 km (21%) are dilapidated and cannot be used.</p> <p>This 59.2km length of pipes should be renovated to supply heat efficiently, which is estimated to consist of 30.8 km of main pipes as shown in table below and around 28.4 km of smaller distribution pipes.<sup>6</sup></p>	<table border="1"> <thead> <tr> <th>No.</th> <th>Heating pipeline type</th> <th>Year of utilization</th> <th>Length (m)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>1-a, b, c, d,e / 2-a, b,c / 4-b</td> <td>1959</td> <td>10,918</td> </tr> <tr> <td>2</td> <td>4-a</td> <td>1960</td> <td>1,226</td> </tr> <tr> <td>3</td> <td>2-d, e</td> <td>1961</td> <td>1,398</td> </tr> <tr> <td>4</td> <td>3-c</td> <td>1964</td> <td>900</td> </tr> <tr> <td>5</td> <td>6-f</td> <td>1966</td> <td>1,910</td> </tr> <tr> <td>6</td> <td>3-b,c,d / 6-k / 5-a,b / 9-a,e, f</td> <td>1968</td> <td>11,359</td> </tr> <tr> <td>7</td> <td>5-d,e</td> <td>1969</td> <td>3,110</td> </tr> <tr> <td></td> <td>Total</td> <td></td> <td>30,821</td> </tr> </tbody> </table>				No.	Heating pipeline type	Year of utilization	Length (m)	1	1-a, b, c, d,e / 2-a, b,c / 4-b	1959	10,918	2	4-a	1960	1,226	3	2-d, e	1961	1,398	4	3-c	1964	900	5	6-f	1966	1,910	6	3-b,c,d / 6-k / 5-a,b / 9-a,e, f	1968	11,359	7	5-d,e	1969	3,110		Total	
No.	Heating pipeline type	Year of utilization	Length (m)																																					
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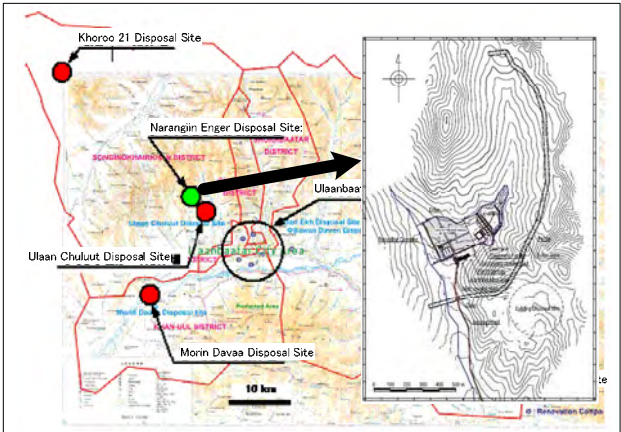
Note: \* Rated as - A: Must; B: Highly Required; C: Needed; D: Conditional; and E: Not Necessary

<sup>6</sup> Cost assumption: it is assumed that an average size for main pipes at 500 mm (500 million Tg/ 1 km), and 150 mm for distribution pipes (250 million Tg/1 km) and in addition, 50 % cost escalation in the recent years and 20% contingency.

Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies
HTS-He-02	<b>Coal Quality Improvement</b>	TA, FA	6.0	UB City	MRTCUD, MME
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	The project aims at improvement of coal quality which is basically used by household stoves.			Users of household stove	
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>• Feasibility study of technology of coal improvement</li> <li>• Construction of coal improvement production facility (as a pilot project)</li> <li>• Standardization of quality of coal</li> <li>• Promotion and dissemination of improved coal</li> <li>• Financial assistant system for purchase of coal</li> </ul>			<b>Time Required for Completion</b>	
				Preparatory	12 months
				Main Work	24 months
				Expected Years	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>• Social Housing and Ger Area Improvement</li> <li>• Functional Infrastructures &amp; Utilities Development</li> <li>• Sustainable Environment Management</li> </ul>		Air Quality Master Plan by UB	
<b>Private Sector Engagement</b>	PPP *		Communities Involvement *		Other Parties
	B		C		C
<b>External Supports</b>	Technical Assistance *		Financial Assistance *		Other Supports
	A		C		
<b>Environmental Key Issue</b>	Impact level: Medium Air and water pollution possibility generated by production facility, Confliction between existing raw coal distribution network.				
<b>Project Location, Project Concept Scheme, or Drawings</b>	<p>A proposed project location of construction of coal improvement production facility is No. 2 power plant or Baganuur coal mining site where raw coal is easy to be collected. Basic techniques of improving coal quality are production of semi-cokes or briquette.</p> <p>Recently various kinds of improved coals are produced by domestic and international companies. However some of them are not so efficient that improved coal has not been distributed and prevailed.</p> <p>Hence it is necessary to develop coal quality standard, and to foster positive perception of the citizens. In addition, a financial assistant system is required to enable low income residents to purchase the improved coal.</p>				
	<pre> graph LR     A[Coal Mining Power Plant] --&gt; B[Improved Coal Production Company/Organization]     B --&gt; C[Coal Distribution Company/Organization]     C --&gt; D[Residents Users]     E[Association for Financial Assistance] --&gt; D     F[Government Support] --&gt; B     </pre> <p style="text-align: center;">Basic Scheme of Improved Coal Production and Distribution zSystem</p>				

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



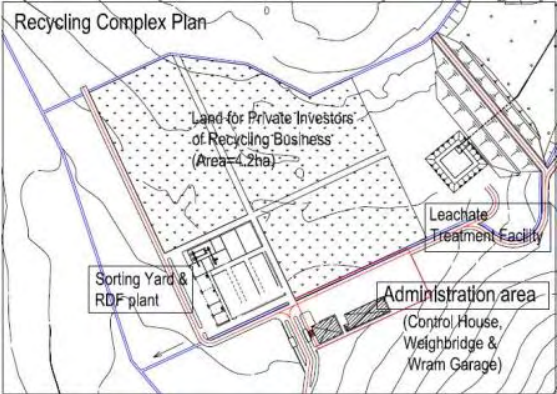
Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies
SWM-Gc-01	<b>Improvement of Solid Waste Dumping Sites and Enhancement of the Management</b>	TA, FA	4.2	CMPUA	MRTCUD
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	Major item of the project is to construct new waste disposal site.			UB city citizens	
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To construct new sanitary landfill site with installing equipment.</li> <li>To establish guideline on monitoring and inspection system.</li> <li>To develop and strengthen regulation on waste dumping.</li> </ul>			<b>Time Required for Completion</b>	
				Preparatory	8 months
				Main Work	12 months
Expected Years	2011				
<b>Rationales</b>	Visions on Ulaanbaatar 2020 & 2030	Related to Key Planning Issues		Relevance to Existing Polices	
	2. Livable city 3. Health city	5. Sustainable Environment Management		M/P on Solid Waste Management by JICA	
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	D	B		C	
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	A	B			
<b>Environmental Key Issue</b>	Impact level: Significant The proposed disposal site is designed achieving sanitary landfills, therefore methane gas generation and pollution by leachate can be minimized. While noise/vibration by operation of equipment for disposal will be generated.				
<b>Project Location, Project Concept Scheme, or Drawings</b>	<p>This project proposed in JICA Project on the Solid Waste Management Plan.</p> <p>The proposed disposal site is located Narangiin Enger near existing Ulaan Chuluut disposal site. It is planned to build with total capacity of 3,151,000 m<sup>3</sup>, and designed sanitary landfills. Installment of equipment is bulldozers, dump trucks, excavators e.g. satisfying 800 m<sup>3</sup>/day of maximum treatment waste volume. Since the design capacity focuses until 2020, construction of other disposal site and/or developing strategy for reduction or recycle of waste are necessary.</p>				
	<p>The new disposal site will be operated by CMPUA (City Maintenance and Public Utilities Agency). It is suggested to recruit approximately 20 additional staff in order to adequately operate the disposal site.</p>				

Source: JICA Solid Waste Management Master Plan, 2007

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

Note2: **CMPUA**: City Maintenance and Public Utilities Agency

### Profile of Priority Project

Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies
SWM-Gc-02	<b>Construction of Solid Waste Separation Facilities</b>	TA, FA	9.0	CMPUA	MRTCUD
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	Major item of the project is to construct waste recycling center.			UB city citizens	
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To sort out recyclable and non-recyclable waste</li> <li>To separate combustibles and non-combustibles</li> </ul>			<b>Time Required for Completion</b>	
				Preparatory	12 months
				Main Work	12 months
Expected Years	2011 (First Stage)				
<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>Sustainable Environment Management</li> </ul>		M/P on Solid Waste Management by JICA	
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	C	B		C	
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	A	B			
<b>Environmental Key Issue</b>	Impact level: Significant      The proposed disposal site is designed as sanitary landfill; therefore methane gas generation and pollution by leachate can be minimized. During operation of equipment for disposal, noise/vibration will be generated.				
<b>Project Location, Project Concept Scheme, or Drawings</b>	<p>This project is proposed in JICA Project on the Solid Waste Management Plan. Waste recycling facility is planned to be constructed beside the new disposal site in Narangiin Enger. The recycling system aims to sort recyclable and non-recyclable materials and to produce RDF (Refuse Derived Fuel). Construction schedule is phased in 3 stages. First stage will be taken as a trial installation of RDF production system with below functions:</p> <ul style="list-style-type: none"> <li>Hand-sorting yard with 20 tons/day of processing capacity.</li> <li>Compressing type of RDF production with 11 tons of production capacity.</li> </ul> <p>The capacity of the facilities is planned to be upgraded to 170 ton/day of sorting and 82 tons/day of RDF production until 2020.</p> <p>The facility will be operated by CMPUA (City Maintenance and Public Utilities Agency). It is suggested to recruit approximately 20 additional staff in order to adequately operate the disposal site.</p>				
	 <p>Source: JICA Solid Waste Management Master Plan, 2007</p>				

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

Note2: **CMPUA**: City Maintenance and Public Utilities Agency

Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies
SWM-Gc-03	<b>Garbage Collection System Improvement</b>	TA, FA	9.3	CMPUA	MRTCUD
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	The proposed project aims to improve garbage collection network system through up-grading hardware, institutional improvement and strengthening social cooperation.			UB city citizens	
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To establish garbage collection network with procurement of garbage trucks and employment of necessary staff</li> <li>To study an appropriate collection fee system.</li> <li>To promote a campaign on beneficitation of waste reducing.</li> </ul>			<b>Time Required for Completion</b>	
				Preparatory	12 months
				Main Work	24 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>Sustainable Environment Management</li> </ul>		M/P on Solid Waste Management by JICA	
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	C	B		C	
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	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 proposed in JICA Project on the Solid Waste Management Plan.  The project focuses on below four tasks.</p> <ol style="list-style-type: none"> <li>To install equipments such as compactors, and to strengthen human capacity in order to improve garbage collection service network in apartment area at first.</li> <li>To develop a rule in garbage collection through cooperation among Government, collection companies and residents. The rule shall include collection schedule, location of temporary stocks of garbage, e.g.</li> <li>To install garbage separated collection in apartment areas based on policy of 3Rs (Recycle, Reuse and Reduction).</li> <li>To develop and improve garbage collection network in Ger areas. It is expected to use budget saved by above activities. In addition, it is proposed to develop a foundation for garbage collection service, cross-subsidy, e.g.</li> <li>To construct work shop facility for daily maintenance and general/minor repair of the equipment. The facility will be operated by UB City, major repair will be sub-contracted to private companies.</li> </ol>				

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

Note2: **CMPUA**: City Maintenance and Public Utilities Agency

Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies
SWM-Rs-01	<b>Solid Waste Recycling System Development</b>	TA	0.0	CMPUA	MRTCUD
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	Major item of the project is to develop waste recycling system.			UB city citizens	
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To establish a feasible waste recycling system, including institutions, recycle markets, people's awareness of recycling.</li> </ul>			<b>Time Required for Completion</b>	
				Preparatory	12 months
				Main Work	12 months
				Expected Years	2011
<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>Sustainable Environment Management</li> </ul>		M/P on Solid Waste Management by JICA	
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	A	A		C	
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	A	C			
<b>Environmental Key Issue</b>	Impact level: Small or less Potential social conflict among waste pickers and existing recycling works shall be considered.				
<b>Project Location, Project Concept Scheme, or Drawings</b>	<p>The purpose of the project is to effectively operate solid waste recycling facility proposed in the other project "SWM-Gc-02".</p> <p>The major components are:</p> <ol style="list-style-type: none"> <li>1) Organization of waste pickers 300 or more waste pickers have worked in the disposal site. It is planned at new NEDS that sanitary landfill will be implemented and the waste pickers will not be allowed to work inside landfill area. In order to support waste pickers livelihood, those waste pickers are encouraged to work at the waste recycling facility. Therefore developing waste picker's organization, since they are working individually at this time, is needed to enhance their involvement in waste recycling.</li> <li>2) Enhancement of recycling market Enhancement of recycling market shall involve private sector and communities. There are existing recycling works operated by mostly small enterprises. It is necessary to consider and involve those works in order to minimize social conflict.</li> <li>3) Public awareness It is necessary to develop separated garbage collection system in order to effectively operate waste separation facility. Therefore public awareness in recycling system is important.</li> </ol>				

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


Note2: **CMPUA**: City Maintenance and Public Utilities Agency

Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies														
HSG-Sh-01	Social Housing Development Project (Sh-01) Reform/Restructure of Mongolian Housing Finance Cooperation (MHFC) (Sh-03)	TA	150.0 for Sh-01	MRTCUD, UB City, MHFC	MOF														
<b>Project Description</b>				<b>Expected Beneficiaries</b>															
<b>Main Objectives</b>	To facilitate development of social housing for the low income households			Citizens in UB City and Mongolian people															
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To construct 20,000 housing units as social housing up to 2020, particularly for low and middle-low income households (Sh-01)</li> <li>To establish the "Social Housing Corporation" in order to achieve the above project through reform of MHFC (Sh-03)</li> </ul>			<b>Time Required for Completion</b>															
				Preparatory	2 yrs														
				Main Work	2~10 yrs														
Expected Years	2013~																		
<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>Well-governed City</li> </ul>	<ul style="list-style-type: none"> <li>Social Housing and Ger Area Improvement</li> </ul>		100,000 Housing Units Program															
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties															
	C	A		D															
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports															
	A	B		C															
<b>Environmental Key Issue</b>	Social housing development will have a medium scale of negative impact during the construction, however, this project will contribute to positive social impact on mitigation of the poverty.																		
<b>Project Location, Project Concept Scheme, or Drawings</b>	<p><b>Social Housing Development Project (Sh-01):</b></p> <ul style="list-style-type: none"> <li>To authorize the overall housing policies as shown in the policy matrix below;</li> <li>To organize the Social Housing Corporation (SHC) responsible for housing provision for the low and middle-low income households in a long-term perspective.</li> <li>To build a housing construction program (20,000 units until 2020) which shall be incorporated into the current policy of "100,000 Housing Construction Policy"</li> <li>To implement the project with financial arrangement by the project ILG-Hs-02.</li> </ul>																		
	<table border="1"> <thead> <tr> <th>Income Group</th> <th>Housing Development (Supply Side)</th> <th>Housing Finance (Demand Side)</th> </tr> </thead> <tbody> <tr> <td><b>High Income</b> (700,000 T/G/M-)</td> <td>Private Sector Consumption tax and import tax Exemption</td> <td>Commercial Bank + Mortgage Corporation (MC)</td> </tr> <tr> <td><b>Middle Income</b> (300,000-700,000 T/G/M)</td> <td>Social Housing Corporation Housing subsidy and internal cross subsidy scheme</td> <td>Escrow account, Long-term housing loans Housing Development Financing Institutions (Housing Development Fund / Central Provident Fund / Others)</td> </tr> <tr> <td><b>Low Income</b> (83,000-300,000 T/G/M)</td> <td>Community &amp; Local Partnership Housing Program with self-help mechanism</td> <td>Community Organization Development Initiatives (CODI) Community mortgage loan and subsidy</td> </tr> <tr> <td><b>Poor People</b> (-83,000 T/G/M)</td> <td></td> <td>Long-term &amp; low interest housing loan / subsidy</td> </tr> </tbody> </table>					Income Group	Housing Development (Supply Side)	Housing Finance (Demand Side)	<b>High Income</b> (700,000 T/G/M-)	Private Sector Consumption tax and import tax Exemption	Commercial Bank + Mortgage Corporation (MC)	<b>Middle Income</b> (300,000-700,000 T/G/M)	Social Housing Corporation Housing subsidy and internal cross subsidy scheme	Escrow account, Long-term housing loans Housing Development Financing Institutions (Housing Development Fund / Central Provident Fund / Others)	<b>Low Income</b> (83,000-300,000 T/G/M)	Community & Local Partnership Housing Program with self-help mechanism	Community Organization Development Initiatives (CODI) Community mortgage loan and subsidy	<b>Poor People</b> (-83,000 T/G/M)	
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<b>Poor People</b> (-83,000 T/G/M)		Long-term & low interest housing loan / subsidy																	
<p><b>Reform/Restructure of Mongolian Housing Finance Cooperation (MHFC) (Sh-03):</b></p> <p>This project shall be linked with the social housing development policy.</p> <p>The provision of social housing is a public duty that is not incumbent only upon the private sector. Taking into account its objectives and mandate, the MHFC could be reorganized into a "Social Housing Corporation", or a national agency, because its stocks are held by UB City (51%), MRTCUD (24.5%), and MOF (24.5%).</p>																			

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

Note 2: MHFC: Mongolian Housing Finance Cooperation, 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
HSG-Sh-02	<b>Temporary Housing Area Development for Resettled Households</b>	TA, FA	84.0	MRTCUD, MSWL, UB City, MHFC	MOF
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	To develop an housing area to accommodate resettled households with rental housing unites			The poor of UB City and its surrounding area	
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To establish a relocation program and make land arrangement for this public-initiated housing project</li> <li>To develop the housing area and rental houses by the Social Housing Corporation to be established (Refer to HSG-Sh-03)</li> <li>To facilitate the relocation program</li> </ul>			<b>Time Required for Completion</b>	
				Preparatory	3 yrs
				Main Work	2-10 yrs
<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>Livable City</li> <li>Well-governed City</li> </ul>	<ul style="list-style-type: none"> <li>Social Housing and Ger Area Improvement</li> </ul>		100,000 Housing Units Program	
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	C	A		C	
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	A	C		B	
<b>Environmental Key Issue</b>	Impact level is "Medium" during the construction stage. EIA needs to be conducted for selection of the land and mitigation of environmentally negative impacts				
<b>Project Location, Project Concept Scheme, or Drawings</b>	<p><b>Relocation Program:</b> To establish a relation program for families residing in: (a) environmentally sensitive areas; (b) flood prone areas; (c) environment conservation area; and (d) outside of the urbanization promotion area; To make the land arrangement for the project (20ha)</p> <p><b>Development of Housing Area and Rental Houses:</b></p> <ul style="list-style-type: none"> <li>To build an action plan for the housing area development</li> <li>To construct rental houses (4,000 housing units) for families to be relocated and resettled.</li> </ul> <p><b>Facilitation of the Relocation Program:</b></p> <ul style="list-style-type: none"> <li>To facilitate the planned relocation program</li> </ul>				
<p><i>Note: This project shall be initiated jointly with Ministry of Social Welfare as well as MRTCUD and UB City. The implementation of the housing area development shall be carried out by the Social Housing Corporation that will be newly reorganized from MHFC.</i></p>					

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

Note 2: MHFC: Mongolian Housing Financing Corporation



Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies
LEV-Ep-01	<b>Raising Awareness of Environmental and Living Condition Improvement</b>	TA	2.0	UB City	MECS, MET, MOH
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	To raise awareness and take actions for environmental and living condition improvement.			UB city citizens in Ger areas	
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To prepare guidelines for environmental protection and living condition improvement.</li> <li>To develop community action plans for environmental protection and living condition improvement.</li> <li>To implement pilot projects of selected action plans.</li> <li>To conduct environmental education program in collaboration with schools, NGOs and donors.</li> </ul>			<b>Time Required for Completion</b>	
				Preparatory	2009
				Main Work	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>Social Housing and Ger Area Improvement</li> <li>Sustainable Environmental Management</li> </ul>		M/P on Solid Waste Management by JICA	
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	C	A		B	
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	B	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>	<ol style="list-style-type: none"> <li>To prepare guidelines for environmental protection and living condition improvement <ul style="list-style-type: none"> <li>Review of past and present activities of government, NGOs and donors.</li> <li>Categorize issues and topics for preparation of guidelines (ex. air pollution, water, sewerage, garbage, toilet, etc.)</li> <li>Develop guidelines to promote and raise awareness.</li> </ul> </li> <li>To develop community action plans for environmental protection and living condition improvement <ul style="list-style-type: none"> <li>Organize community meetings to identify problems and prioritize issues of living condition.</li> <li>Develop community action plans including activities, implementation bodies, schedule and budgets.</li> <li>Submit local governments, NGOs and donors to get an approval and request technical and financial supports.</li> </ul> </li> <li>To conduct pilot projects based upon selected action plans. <ul style="list-style-type: none"> <li>To select pilot projects (Khoroo based).</li> <li>To implement and monitor pilot projects.</li> <li>To organize workshops and seminars to introduce guidelines, report pilot project progress and outcomes.</li> </ul> </li> <li>To conduct environmental education program in collaboration with schools, NGOs and donors. <ul style="list-style-type: none"> <li>To conduct environmental education program for children and students.</li> <li>To promote the program to mass media (TV, newspaper, magazine, etc.)</li> <li>To recommend governments to promote environmental education program.</li> </ul> </li> </ol>				

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
LEV-Ce-01	<b>Establishment of Support to Community-based Organizations</b>	TA	2.0	UB City	UB City, MRTAUD
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	To activate community activities based on CBO for living condition improvement.			UB City citizen in Ger area	
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To establish community group among neighboring residents to patrol safety, garbage-thrown, etc.</li> <li>To establish an institutional mechanism to approve CBO (Community Based Organization) as a residential cooperative under the Cooperative Law, which community activities of CBO are legally approved and be supported by governments.</li> <li>To establish CBO based cooperatives for coordination of planning and approval of NADEP, land readjustment project, etc.</li> </ul>			<b>Time Required for Completion</b>	
				Preparatory	2009
				Main Work	2010-2012
				Expected Years	2012
<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> <li>Well-governed City</li> </ul>	<ul style="list-style-type: none"> <li>Social Housing and Ger Area Improvement</li> </ul>			
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	C	A		B	
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	A	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>	<ol style="list-style-type: none"> <li>To establish community group among neighboring residents to patrol safety, garbage-thrown, etc. <ul style="list-style-type: none"> <li>Gather leaders of local governments and residential leaders to organize a community group to work for community activities for security, safety, etc.</li> <li>Provide advice and facilitate to discuss voluntary activities to improve living conditions by UB City, local governments and NGOs.</li> </ul> </li> <li>To establish an institutional mechanism to approve CBO as a residential cooperative under the Cooperative Law, which community activities of CBO are legally approved and be supported by governments. <ul style="list-style-type: none"> <li>Review the Cooperative Law and relevant institutional system and revise to legalize CBO as an independent legal organization which work for public activities such as garbage collection, environmental education, saving, etc.</li> <li>Establish a CBO network in UB City to share activities, lessons learned, and to propose necessary supports to governments.</li> </ul> </li> <li>To establish CBO based cooperatives for coordination of planning and approval of NADEP, land readjustment project, etc. <ul style="list-style-type: none"> <li>Establish CBO with land owners of land readjustment project area and be approved as a cooperative with more than 9 members.</li> <li>Facilitate discussion for land readjustment project to achieve a consensus building for implementation (ex. land value assessment, replotting plan, project implementation plan, etc.)</li> </ul> </li> </ol>				

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

Note2: CBO: Community Based Organization

Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies
LEV-Ce-02	<b>Establishment of Participatory Land and Immovable Asset Assessment System</b>	TA	0.2	UB City	MRTCUD
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	To formulate an agreeable system for land and immovable assets value assessment to facilitate Community-driven Ger area improvement activities			MRTCUD, developers, UB citizens	
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To establish a model system for land and immovable assets value assessment.</li> <li>To conduct a pilot project of land readjustment in selected model Ger areas.</li> <li>To establish a legal and institutional system for land and immovable assets value assessment which community especially land owners agree with.</li> </ul>			<b>Time Required for Completion</b>	
				Preparatory	2009
				Main Work	2010-2014
				Expected Years	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> <li>Well-governed City</li> </ul>	<ul style="list-style-type: none"> <li>Social Housing and Ger Area Improvement</li> </ul>			
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	C	A			
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	A	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>	<ol style="list-style-type: none"> <li>To establish a model system for land and immovable assets value assessment.                             <ul style="list-style-type: none"> <li>Review approaches and experiences of land acquisition of past and ongoing projects.</li> <li>Review proposed "Weighting and Rating System for Land and Asset Value Assessment" of UBMPs.</li> <li>Propose this system among relevant agencies of UB City and revise.</li> </ul> </li> <li>To conduct pilot projects of land readjustment in selected model Ger areas.                             <ul style="list-style-type: none"> <li>Select pilot project sites of model Ger areas (app. 10-20 HH) to examine proposed assessment system.</li> <li>Facilitate residential meetings and study the process of agreement of value assessment.</li> </ul> </li> <li>To establish a legal and institutional system for land and immovable assets value assessment which community especially land owners agree with.                             <ul style="list-style-type: none"> <li>Develop a community-based land and immovable assets value assessment system, based on lessons learned from pilot projects</li> <li>propose governments to legalized this system which apply for land readjustment project, urban redevelopment project, etc.</li> </ul> </li> </ol>				

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
EVM-Ne-01	<b>Development of Forest Protection Management and Monitoring System</b>	TA	4.0	UB City	MET
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	The project aims at strengthening natural environment protection system.			UB city citizens, Government staff in charge of nature protection,	
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To clarify and classify land degraded areas on natural environmental conditions.</li> <li>To provide and promote guidelines for natural environmental protection.</li> <li>To regulate land use in the designated protection areas</li> <li>To establish and strengthen a monitoring system with enforcement power against illegal use.</li> </ul>			<b>Time Required for Completion</b>	
				Preparatory	12 months
				Main Work	12 months
				Expected Years	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> <li>International tourist city</li> </ul>	<ul style="list-style-type: none"> <li>Sustainable Environment Management</li> </ul>		UBMP-2020	
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	D	B		C	
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	A	D			
<b>Environmental Key Issue</b>	Impact level: Small or less In case of resettlement for re-plantation, land occupation process shall be taken through adequate public consultation. Re-plantation plan shall minimize change of current biodiversity.				
<b>Project Location, Project Concept Scheme, or Drawings</b>	<p>Project location will cover all UB city area. Due to rapid and disorder extension of Ger area and summer camps especially northern UB city, deforestation has been accelerated. This situation causes degradation of watershed and flood prone. In addition, illegal tree-cutting in Boghdخان Unur special protected area and Gorxi-Terelzh Nature Park is degrades nature condition.</p> <p>Re-plantation program is a major component of improvement of nature condition. Selection of tree type is one of concerned issues, and maintenance program after plantation is important for sustainability.</p> <p>There are many species of wild lives, some wild lives have long migration routes and wide habitat area.</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
EVM-PC-01	<b>Development of Air Quality Management and Monitoring System</b>	TA	3.0	UB City	MET
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	The project aims at strengthening water quality management system.			Government staff in charge of nature protection, UB city citizens	
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To develop emission standard enforcement.</li> <li>To establish and strengthen air quality monitoring system with enforcement power against violations</li> </ul>			<b>Time Required for Completion</b>	
				Preparatory	12 months
				Main Work	12 months
	Expected Years	2015			
<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>Sustainable Environment Management</li> </ul>		UBMP-2020	
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	D	B		C	
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	A	D			
<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>Ambient air quality has been regularly monitored at 4 stationary monitoring stations, installation of additional 3 monitoring stations and mobile monitoring vehicles are planned. It is expected to monitor air quality condition in Ger areas more clearly.</p> <p>On the other hand, pollution level of exhaust gas from HOBs, more than 400 of which are operated in the city, is not clarified because only a few HOBs are registered and effluent air quality is not monitored well. Therefore it is important that the proposed project covers inventory study of HOBs and industrial facilities and strengthening registration and inspection system.</p> <p>Various government bodies such as Ministry of Nature and Environment, Meteorological Agency also conduct studies on air quality, however these results are not effectively integrated. UB City has established a special section for tackling air pollution. The Project shall also consider how to develop effective network centered on UB City.</p>				
	<p style="text-align: center;">Concept of Air Quality Management in UB City</p>				

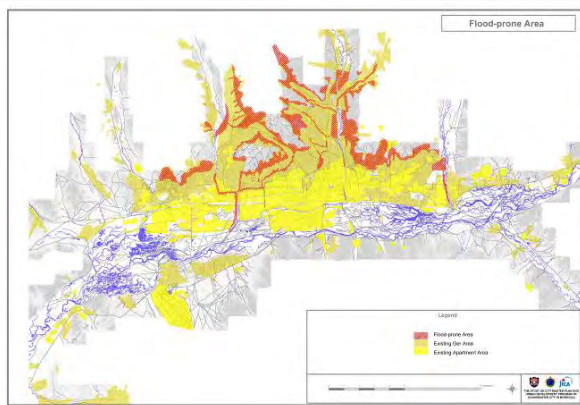
Note: \* Rated as - A: Must; B: Highly Required; C: Needed; D: Conditional; and E: Not Necessary

Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies
EVM-PC-02	<b>Development of Water Quality Management and Monitoring System</b>	TA	2.0	UB City	MET
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	The project aims at strengthening water quality management system.			Government staff in charge of nature protection, UB city citizens	
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To develop discharged water standard enforcement.</li> <li>To establish and strengthen water quality monitoring system with enforcement power against violations</li> </ul>			<b>Time Required for Completion</b>	
				Preparatory	6 months
				Main Work	18 months
	Expected Years	2012			
<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>Sustainable Environment Management</li> </ul>		UBMP-2020	
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	E	C		C	
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	A	D			
<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>Project location will cover all UB city area. River water quality monitoring has been regularly taken with a certain level, however underground water quality monitoring has not been established even though recent rapid urbanization accelerates underground water pollution. Therefore it is strictly recommended to establish regular underground water monitoring system.</p> <p>Due that existing sewerage facilities are designed for treatment of domestic waste water form residential areas, polluted water from industrial sector is critical issue. Although effluent water quality standard are regulated, inspection and enforcement system is low level. This situation leads inappropriate water discharge. It is recommended to establish water quality management based on concept of "Polluters Payment Principle". The management system shall aim at two control as below</p> <ul style="list-style-type: none"> <li>To control and enforce pollution discharge exceeding standard level by penalty against violation, administrative enforcement</li> <li>To enhance and support the polluters to reduce pollution load by installing higher technological treatment system.</li> </ul> <p>In order to control pollution discharge and to enhance effective reduction of water pollution, strengthen of inspection system and registration system of industrial facilities with inventory are also key issue in the water quality management.</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
ANM-Df-01	<b>Enforcement of Relocation from Flood-prone Areas</b>	TA, FA	200	MRTCUD, UB City	MET
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	To relocate residents living in flood-prone areas as a means of disaster prevention			UB city citizens	
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To prepare a hazard map and clarify existing conditions of human settlement in hazardous areas</li> <li>To prepare a resettlement plan to relocate residents from high risk areas</li> <li>To develop a new area and prepare housing units for households to be resettled, based on the resettlement plan</li> </ul>			<b>Time Required for Completion</b>	
				Preparatory	12 months
				Main Work	20 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> <li>Well-governed city</li> </ul>	<ul style="list-style-type: none"> <li>Sustainable Environment Management</li> </ul>		Disaster Management Plan	
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	C	A		B	
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	A	A		B	
<b>Environmental Key Issue</b>	Impact level: Significant Land acquisition for resettlement area shall be taken in the specified proper manner. Installment of public services shall reach the civil minimum level in short-run, and the basic standard level in the medium-run.				
<b>Project Location, Project Concept Scheme, or Drawings</b>	<ul style="list-style-type: none"> <li>To examine and prepare a hazard map indicating flood prone risky areas and environmentally vulnerable areas</li> <li>To prepare regulations for prohibition of human settlements in high risk areas</li> <li>To prepare a resettlement plan to relocate residents in high risk areas (15,000 units)</li> <li>To develop an affordable housing model and implement the resettlement plan based on community-participatory approach.</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
ANM-Go-01	<b>City Parks and Green Network Development</b>	TA	40.0	MRTCUD, UB City	MET, USUG
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	To develop a well-networked park and green system to enhance urban amenities and capacity of disaster prevention			UB city citizens	
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To develop city parks, community parks, green areas and open space based on the UB Master Plan</li> <li>To promote street greening</li> <li>To develop recreational and tourism-related facilities at waterfront areas</li> </ul>			<b>Time Required for Completion</b>	
				Preparatory	12 months
				Main Work	10 Years
	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> <li>International tourist city</li> </ul>	<ul style="list-style-type: none"> <li>Sustainable Environment Management</li> </ul>		UBMP-2020	
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	C	B		C	
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	A	D		D	
<b>Environmental Key Issue</b>	Impact level: Small or less Physical construction of parks and green areas may generate traffic disturbance.				
<b>Project Location, Project Concept Scheme, or Drawings</b>	<ul style="list-style-type: none"> <li>To facilitate development of city parks, community parks, green areas and open space to be reserved, based on the UB Master Plan.</li> <li>To enforce the green development guidelines to apply for all new development for housing, industrial and public service facilities such as roads/streets and utilities.</li> <li>To monitor Land Use Zoning with enforcement against illegal construction and development activities.</li> <li>To regulate green area development through administration to issue of construction and development permissions, etc.</li> </ul>				
	<ul style="list-style-type: none"> <li>To facilitate development of city parks, community parks, green areas and open space to be reserved, based on the UB Master Plan.</li> <li>To enforce the green development guidelines to apply for all new development for housing, industrial and public service facilities such as roads/streets and utilities.</li> <li>To monitor Land Use Zoning with enforcement against illegal construction and development activities.</li> <li>To regulate green area development through administration to issue of construction and development permissions, etc.</li> </ul>				

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

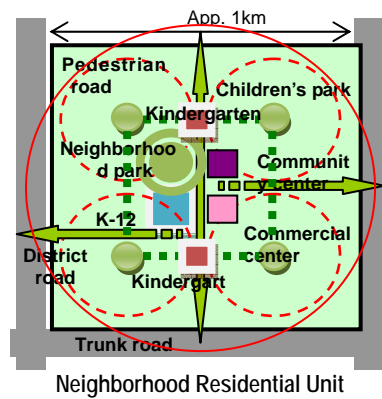
Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies												
SSI-Ed-01	<b>Development of Planning Standard and Guidelines of Educational Facilities</b>	TA	0.5	MECS	UB City, MRTCUD,												
<b>Project Description</b>				<b>Expected Beneficiaries</b>													
<b>Main Objectives</b>	To develop planning standards and guideline for educational facilities under a concept of the catchment area of service			Pre-school children, pupils and students in UB City													
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To inventory and map educational facilities and distribution of pre-school children, pupils and students</li> <li>To revise the existing norm of design and develop planning standards of educational facilities based on the service catchment area.</li> </ul>			<b>Time Required for Completion</b>													
				Preparatory													
				Main Work													
	Expected Years	2009 - 2010															
<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>Social Housing and Ger Area Improvement</li> <li>Functional Infrastructures &amp; Utilities Development</li> </ul>		Master Plan to Develop Education of Mongolia in 2006-2015													
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties													
	C	B		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>The planning standards and guideline for educational facilities shall be developed in the following steps:</p> <ul style="list-style-type: none"> <li>To inventory and map educational facilities in UB City</li> <li>To study service area of each facility with enrolled numbers of children, pupils or students</li> <li>To revise and develop guidelines and standards for educational facility allocation based on each service catchment area such as the concept of neighborhood residential unit</li> </ul> <p>Target is that all households can access to educational facilities within the service catchment area designated as follows:</p> <ol style="list-style-type: none"> <li><u>Kindergarten</u>                      Number of kindergarten children: 100 children for 1000 persons                      Service catchment area: radius = 300-500 m                      Area: 30-40 m<sup>2</sup>/child</li> <li><u>Elementary &amp; Secondary School</u>                      Number of pupils and students: 200 pupils for 1000 persons                      Service catchment area: radius = 500-750 m;                      Area: 18-50 m<sup>2</sup>/pupil</li> </ol>			<p style="text-align: center;">Neighborhood Residential Unit</p>													
	<b>Planning guideline (proposed)</b>			<table border="1"> <thead> <tr> <th></th> <th>Community center</th> <th>Neighboring center</th> </tr> </thead> <tbody> <tr> <td>Household (HH)</td> <td>2300-2600</td> <td>4,600-5,200</td> </tr> <tr> <td>Population (persons)</td> <td>9,000-10,000</td> <td>18,000-20,000</td> </tr> <tr> <td>Educational facility</td> <td>Kindergarten</td> <td>Complex school</td> </tr> </tbody> </table>				Community center	Neighboring center	Household (HH)	2300-2600	4,600-5,200	Population (persons)	9,000-10,000	18,000-20,000	Educational facility	Kindergarten
	Community center	Neighboring center															
Household (HH)	2300-2600	4,600-5,200															
Population (persons)	9,000-10,000	18,000-20,000															
Educational facility	Kindergarten	Complex school															

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											
SSI-Ed-02	<b>Acceleration Program for Pre-school and School Facility Development</b>	FA	200	MECS	MRTCUD, UB City											
<b>Project Description</b>				<b>Expected Beneficiaries</b>												
<b>Main Objectives</b>	To facilitate construction of pre-schools and schools to meet the guidelines to be developed (100 places for 6,000 pupils)			Students												
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To Construct educational facilities based on the standards and guidelines of the programs SSI-Ed-01: <i>Development of Planning Standard and Guidelines of Educational Facilities</i></li> <li>To develop guidelines and standards for the educational facilities of kindergartens, primary and secondary schools</li> </ul>			<b>Time Required for Completion</b>												
				Preparatory	2009 - 2010											
				Main Work	2010 - 2020											
<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> <li>Health City</li> </ul>	<ul style="list-style-type: none"> <li>Social Housing and Ger Area Improvement</li> <li>Functional Infrastructures &amp; Utilities Development</li> </ul>		Master Plan to Develop Education of Mongolia in 2006-2015												
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties												
	C	A		C												
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports												
	B	A		B												
<b>Environmental Key Issue</b>	Impact level: Medium In case of physical construction of schools, land acquisition might be needed. Civil works will cause noise disturbance, dust pollution, etc.															
<b>Project Location, Project Concept Scheme, or Drawings</b>	Educational facilities shall be developed so that all households can access to educational facilities within the service catchment area designated service area based on the program SSI-Ed-01: <i>Development of Planning Standard and Guidelines of Educational Facilities</i> .															
	<p>1. Kindergarten</p> <ul style="list-style-type: none"> <li>- Number of facilities: 100 children for 1000 persons</li> <li>- Service catchment area: radius = 300-500 m</li> <li>- Area: 30-40 m<sup>2</sup>/child</li> </ul> <p>2. Elementary &amp; Secondary School</p> <ul style="list-style-type: none"> <li>- Number of facilities: 200 pupils for 1000 persons</li> <li>- Service catchment area: radius = 500-750 m</li> <li>- Area: 18-50 m<sup>2</sup>/pupil</li> </ul> <p style="text-align: center;"><b>Planning guideline (proposed)</b></p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th>Community center</th> <th>Neighboring center</th> </tr> </thead> <tbody> <tr> <td>Household (HH)</td> <td>2300-2600</td> <td>4,600-5,200</td> </tr> <tr> <td>Population (persons)</td> <td>9,000-10,000</td> <td>18,000-20,000</td> </tr> <tr> <td>Educational facility</td> <td>Kindergarten</td> <td>Complex school</td> </tr> </tbody> </table>						Community center	Neighboring center	Household (HH)	2300-2600	4,600-5,200	Population (persons)	9,000-10,000	18,000-20,000	Educational facility	Kindergarten
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Population (persons)	9,000-10,000	18,000-20,000														
Educational facility	Kindergarten	Complex school														

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Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies																			
SSI-He-01	<b>Development of Planning Standard and Guidelines of Health Care Facilities</b>	TA	0.5	MOH	MRTCUD, UB City																			
<b>Project Description</b>				<b>Expected Beneficiaries</b>																				
<b>Main Objectives</b>	To develop planning standards and guideline for health care facilities under a concept of the catchment area of service.			Citizens of UB City and its surrounding area																				
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To inventory health care facilities and their location maps with distribution of population</li> <li>To revise the existing norm of design and develop planning standards based on the service catchment area in concept of neighborhood residential unit for each clinics, and hospitals by level</li> </ul>			<b>Time Required for Completion</b>																				
				Preparatory																				
				Main Work																				
	Expected Years	2009 -2010																						
<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>Livable City</li> <li>Health City</li> </ul>	<ul style="list-style-type: none"> <li>Social Housing and Ger Area Improvement</li> <li>Functional Infrastructures &amp; Utilities Development</li> </ul>	Health Sector Strategic Master Plan 2006-2015																					
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *	Other Parties																					
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<b>Environmental Key Issue</b>	Impact level: Small or less No significant impact is predicted.																							
<b>Project Location, Project Concept Scheme, or Drawings</b>	The program shall be conducted in the following steps: <ul style="list-style-type: none"> <li>To inventory health and medical facilities in UB City with statistical data of each facility</li> <li>To revise the health and medical facilities allocation based on the following standards:</li> </ul> The development target is "All households can access to health and medical facilities within the designated service catchment area."																							
	<b>Clinic and/or hospital for primary health care</b> <ul style="list-style-type: none"> <li>- Number of beds required: 9 beds for 1000 persons</li> <li>- Service catchment area: radius= 1-2 km</li> <li>- Area: 60-300 m<sup>2</sup>/bed</li> </ul>																							
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Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies																			
SSI-He-02	<b>Acceleration Program for Health Care Facility Development</b>	FA	200	MOH	MRTCUD, UB City																			
<b>Project Description</b>				<b>Expected Beneficiaries</b>																				
<b>Main Objectives</b>	To facilitate construction of clinics, hospitals and/or medical service facilities to meet the guidelines to be developed above (120 primary Health Center).			Patients and UB City Citizens																				
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To develop health care facilities based on the standards and guidelines of the programs SSI-He-01: <i>Development of Planning Standard and Guidelines of Health Care Facilities</i></li> <li>To develop clinics</li> <li>To develop hospitals in a referral system</li> </ul>			<b>Time Required for Completion</b>																				
				Preparatory	2009 - 2010																			
				Main Work	2010 - 2020																			
<b>Rationales</b>	Visions on Ulaanbaatar 2020 & 2030	Related to Key Planning Issues		Relevance to Existing Policies																				
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<b>Environmental Key Issue</b>	Impact level: Small or less In case of physical construction of health care facilities, land acquisition might be needed. Civil works will cause noise disturbance, dust pollution, etc.																							
<b>Project Location, Project Concept Scheme, or Drawings</b>	<p>Healthcare facilities shall be developed based on the planning guidelines and standards designated in the SSI-He-01: <i>Development of Planning Standard and Guidelines of Health Care Facilities</i> so that all households can access to health care facilities within the service catchment area designated service area as follows:</p> <p><u>Clinic and/or hospital for primary health care</u></p> <ul style="list-style-type: none"> <li>- Number of beds required: 9 beds for 1000 persons</li> <li>- Service catchment area: radius= 1-2 km</li> <li>- Area: 60-300 m<sup>2</sup>/bed</li> </ul>																							
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Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies
ILG-Ud-01 Ud-03	<b>Legal Enhancement of Urban Planning and Urban Development-related Administration (Ud-01)</b> <b>Training Program for Urban Planning Administration and Capacity Building (Ud-03)</b>	TA	5.5	MRTCUD, UB City	MJIA, NUOM, MUST
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	To develop the legal framework to be enforced for orderly and fair development, based on the committed master plan of UB City			Citizens in UB City and Mongolian people	
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To draft the legal framework necessary for implementation of the master plan, based on the Urban Development Law;</li> <li>To strengthen the planning capacity of government officials concerned.</li> </ul>			<b>Time Required for Completion</b>	
				Preparatory	1 yrs
				Main Work	3 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>Livable City</li> <li>Well-governed City</li> </ul>	<ul style="list-style-type: none"> <li>Growth management for "Compact city"</li> </ul>		National Development Strategy	
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	E	C		D	
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	B	E		D	
<b>Environmental Key Issue</b>	No environmental impacts from the project				
<b>Project Location, Project Concept Scheme, or Drawings</b>	<p><b>Legal Enhancement of Urban Planning and Urban Development-related Administration (Ud-01)</b></p> <ul style="list-style-type: none"> <li>To organize the working group to draft the legal framework necessary for implementation of the master plan, based on the Urban Development Law;</li> <li>To draft new and additional sub-laws, rules and regulations, administrative guidelines relevant to zoning system, urban development, building construction, public service provision and improvement of <i>Ger</i> areas;</li> </ul> <p><b>Training Program for Urban Planning Administration and Capacity Building (Ud-03)</b></p> <ul style="list-style-type: none"> <li>To prepare the capacity development program on a multi-year basis (5 years) for government officials of the Ministry and the City concerned in terms of urban planning, development management, environmental administration, execution of the master plan, so on;</li> <li>To organize the training programs with cooperation of donors and universities. The program includes: seminars/workshops, intensive training class at Universities (NUOM and MUST), short-term training abroad.</li> </ul>				

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
ILG-Ud-05	<b>Development of “Neighborhood Area Development Plan (NADEP)” for Ger Area Improvement</b>	TA	-	MRTCUD	UB City
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	To develop “Neighborhood Area Development Plan (NADEP)” for each Neighborhood Unit/ Khoroo under UBMP-2030.			Government staff in charge of nature protection, UB city citizens	
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To formulate the community and public service development guidelines (NADEP planning guideline) under a neighborhood unit concept.</li> <li>To institutionalize NADEP planning system under UBMP-2030.</li> <li>To implement pilot projects for NADEP formulation.</li> <li>To facilitate a community-driven activities for public service provision in cooperation with UB City government.</li> </ul>			<b>Time Required for Completion</b>	
				Preparatory	2009-2010
				Main Work	2011-2019
	Expected Years	2020			
<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> <li>Well-governed City</li> </ul>	<ul style="list-style-type: none"> <li>Social Housing and Ger Area Improvement</li> </ul>			
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	C	A			
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	A	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>	<ol style="list-style-type: none"> <li>To formulate the community and public service development guidelines (NADEP planning guideline) under a neighborhood unit concept. <ul style="list-style-type: none"> <li>Review model area project in Unur and Dambadarjaa of JICA-UBMPS and share understanding of significance and contents of NADEP system.</li> <li>Develop guidelines for NADEP planning including infrastructure development, housing development, land and asset assessment, land readjustment project, etc.</li> </ul> </li> <li>To institutionalize NADEP planning system under UBMP-2030. <ul style="list-style-type: none"> <li>Discuss about NADEP among governments and relevant agencies.</li> <li>Legalize and institutionalize NADEP as a community driven planning system.</li> </ul> </li> <li>To implement pilot projects for NADEP formulation <ul style="list-style-type: none"> <li>Select model Ger areas (app. 7,000- 10,000 population) and conduct pilot project for NADEP formulation.</li> <li>Dispatch UB government staffs, experts and lawyers to develop NADEP plan and examine its technical and financial feasibility.</li> <li>Get an approval from UB government as a legal District Plan.</li> </ul> </li> </ol>				

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

Note2: NADEP: Neighborhood Area Development Plan

Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies
ILG-Hs-01 Hs-02	<b>Institutional Development for Social Housing Policy and Program (Hs-01)</b> <b>Financial Capacity Building Related to Social Housing Development (Hs-02)</b>	TA	3.0	MRTCUD UB City	MOF MHFC
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	To develop an institutional mechanism to provide social housing and affordable housing for low-income households who have no access to commercial banks			The poor of UB City and its surrounding area	
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To review the existing housing policies</li> <li>To establish a Social Housing Corporation</li> <li>To arrange financial sources</li> </ul>			<b>Time Required for Completion</b>	
				Preparatory	2 yrs
				Main Work	1 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>Livable City</li> <li>Well-governed City</li> </ul>	<ul style="list-style-type: none"> <li>Social Housing and Ger Area Improvement</li> </ul>		100,000 Housing Units Program	
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	C	A		C	
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	A	C		B	
<b>Environmental Key Issue</b>	Impact level is none				
<b>Project Location, Project Concept Scheme, or Drawings</b>	<p><b><u>Review of Long-term Housing Policy:</u></b>                      The current policy of "100,000 Housing Units Construction Program" should be reviewed in terms of public and private roles and responsibilities                      Construction industry should be further fostered, placing special policy on vocational education and skilled-labor training, and construction material production under an import substitution policy.</p> <p><b><u>Establishment of "Social Housing Corporation (SHC)":</u></b>                      The provision of social housing is a public duty that is not incumbent only upon the private sector. Taking into account its objectives and mandate, the MHFC could be reorganized into a "<i>Social Housing Corporation</i>"                      As one of its targets, the role of SHC is to provide at least 10% of the total housing stock for low-cost housing.                      Provision of <i>rental houses</i> is also expected to act as temporary accommodations for immigrants and students in UB City and for seasonal workers.</p> <p><b><u>Arrangement of Financial Sources for SHC:</u></b></p> <ul style="list-style-type: none"> <li>Issuance of national bond for social housing</li> <li>Institutional arrangement in such way that Mongolia Development Fund, Housing Development Fund and National Pension Fund will be utilized as long-term loans for social housing projects</li> </ul>				

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

Note 2: MHFC: Mongolian Housing Financing Corporation

Code	Name of Project	Type of Project	Indicative Capital Cost (Mil. US\$)	Executing Agencies	Relevant Agencies
DFS- Fs-02 Fs-06 Fs-07	<p><b>Formation of Community-based Financing System (Fs-02)</b></p> <p><b>Comprehensive Policy Reform of “Public Service Tariff Structure (Fs-06)</b></p> <p><b>Preparation of Implementation Framework for PPP-based Public Service and Urban Development Projects (Fs-07)</b></p>	TA	1.0 for Fs-06 1.0 for Fs-07	MRTCUD, UB City	MJIA, MOF
<b>Project Description</b>				<b>Expected Beneficiaries</b>	
<b>Main Objectives</b>	To strengthen the financing basis to implement urban development projects and maintain public services quality			Citizens in UB City and Mongolian people	
<b>Sub-projects Components</b>	<ul style="list-style-type: none"> <li>To formulate a community-based financing mechanism (Fs-02)</li> <li>To restructure a new tariff system of public services (Fs-06);</li> <li>To prepare guidelines for PPP scheme (Fs-07).</li> </ul>			<b>Time Required for Completion</b>	
				Preparatory	1 yrs
				Main Work	3 yrs
	Expected Years	2013~			
<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> <li>Well-governed City</li> </ul>	<ul style="list-style-type: none"> <li>Growth management for “Compact city”</li> <li>Functional infrastructure and utilities development</li> </ul>		National Development Strategy	
<b>Private Sector Engagement</b>	PPP *	Communities Involvement *		Other Parties	
	A	B		D	
<b>External Supports</b>	Technical Assistance *	Financial Assistance *		Other Supports	
	A	C		D	
<b>Environmental Issue</b>	No environmental impacts from the project				
<b>Project Location, Project Concept Scheme, or Drawings</b>	<p><b>Formation of Community-based Financing System (Fs-02):</b> Refer to <u>Chapter 13, Vol.2: Main Text</u></p> <ul style="list-style-type: none"> <li>To organize two model projects (Unur and Dambadarjaa) of Ger area improvement;</li> <li>To plan a community-based financing (as shown in Chapter 13, Vol.2: Main Text), involving five parties: (1) community leaders; (2) financial institutions such as commercial banks and mortgage security organization; (3) government sector (MRTCUD and UB City); (4) private developer(s); and (5) international donor(s).</li> </ul> <p><b>Comprehensive Policy Reform of “Public Service Tariff Structure (Fs-06)</b></p> <ul style="list-style-type: none"> <li>To review the current tariff level of public services such as electricity, heating, water supply, public transportation, solid waste management, from a viewpoint of “<i>financial viability</i>” of the service to keep quality service sustainably;</li> <li>To examine a system for the tariff restructuring based on changes social and economic conditions;</li> <li>To draft the guidelines of amendment of the current tariff.</li> </ul> <p><b>Preparation of Implementation Framework for PPP-based Public Service and Urban Development Projects (Fs-07):</b> Refer to <u>Chapter 15, Vol.2: Main Text</u></p> <ul style="list-style-type: none"> <li>To organize a working group jointly with MRTCUD, MOF, UB City and representatives from the private sectors to pursue a feasible and applicable PPP scheme;</li> <li>To prepare guidelines for PPP scheme and draft its legislative framework for infrastructure development and public service provision with technical assistance of donors.</li> </ul>				

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