

**6. Other Relevant data**

- **Site Survey Drawing**
- **Site Soil Investigation Data**

- **Site Survey Drawing**

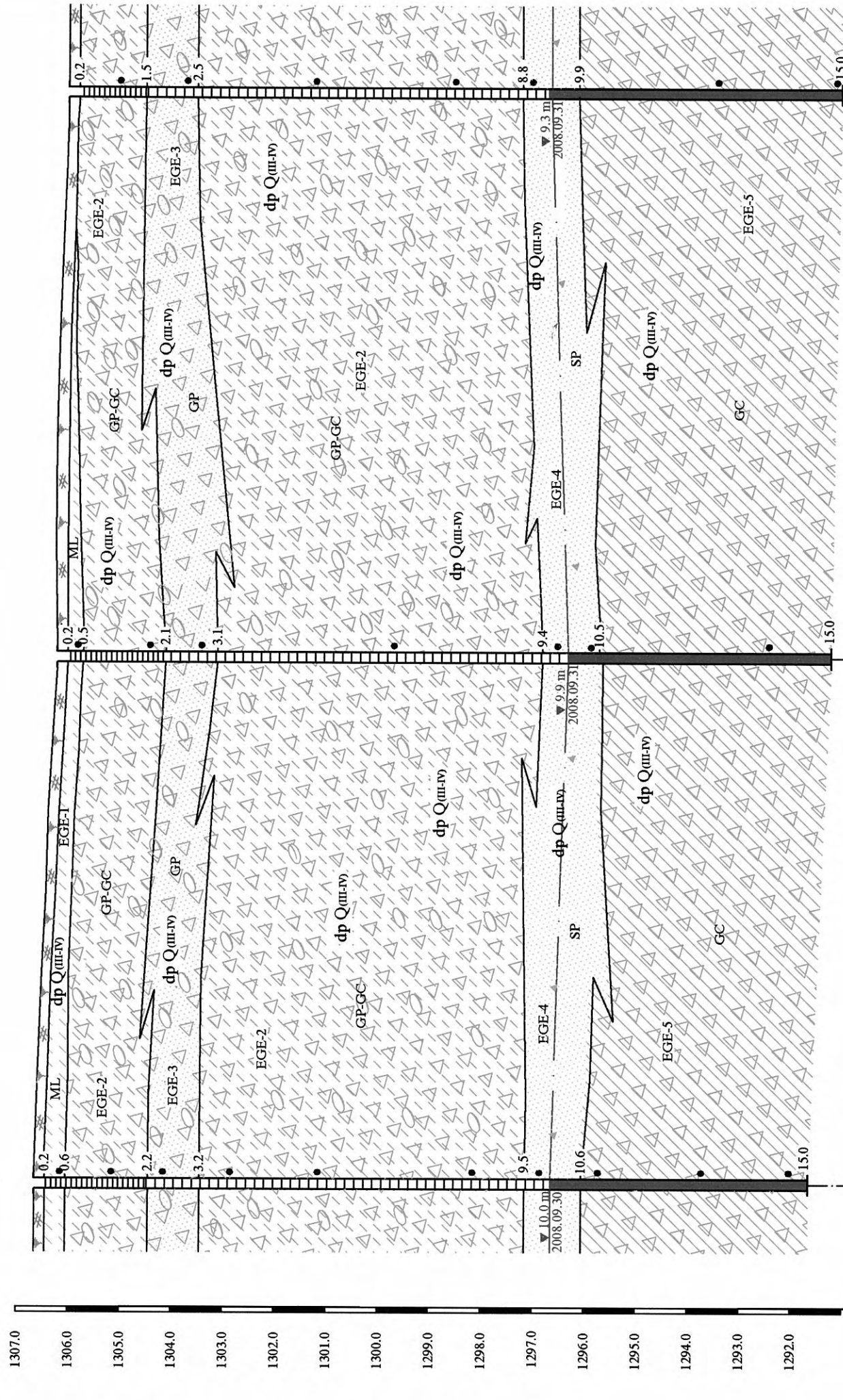


- **Site Soil Investigation Data**

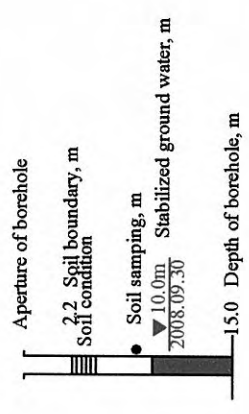
# ENGINEERING-GEOLOGICAL CROSS-SECTION I-I'

Scale: H 1:100  
V 1:400

- LEGEND**
- Top soil: - Dark brown, with vegetation roots
  - EGE-1. Silt - Upper & Modern Quaternary ages, deluvium-proluvium deposits, yellowish brown, dense, moist
  - EGE-2. Poorly graded GRAVEL with sand and clay - Upper & Modern Quaternary age, deluvium-proluvium deposits, yellowish brown, with cobbles, dense.
  - EGE-3. Poorly graded GRAVEL with sand - Upper & Modern Quaternary age, deluvium-proluvium deposits, yellowish brown, with cobbles, dense, slightly moist
  - EGE-4. Poorly graded SAND - Upper & Modern Quaternary age, deluvium-proluvium deposits, yellowish brown, medium dense, moist to wet
  - EGE-5. Clayey GRAVEL with sand - Upper & Modern Quaternary age, deluvium-proluvium deposits, dark brown, dense.
  - Number of Engineering Geological Element
  - Soil age, index of origin
  - Number of Engineering-geological cross-section



Borehole number	BH-1	BH-2	BH-3
Artificial elevation, m	1306.65	1306.00	1306.00
Distance between boreholes, m	41.0	44.0	



Soil condition	
Sandy soil	Clayey soil
slightly moist	
moist	semi hard
wet	hard

**SOIL TRADE LLC**  
MONGOLIA  
Geotechnical Investigation & Construction Design

Client: "Yamashita Sekkei" LLC  
 Represented by: A. Batsaikhan  
 Approved by: J. Battsetseg

Project name: "Biodiversity Conservation Center"  
 Date: Sep 23, 2008  
 Date: Sep 23, 2008

Scale: Y 1:100 X 1:400

Page: 1-1





Figure 3.1

Soil Trade LLC

# REPORT OF BOREHOLE: BH-1

Standart Penetration Test (SPT)

CLIENT: Yamashita Sekkei LLC  
 PROJECT: "Biodiversity Conservation Center"  
 LOCATION: 11th khoroo, Khan-Uul district

SURFACE RL: 1306.65 m  
 HOLE DEPTH: 15.0 m  
 GROUND WATER LEVEL: Detected 10.0 m Stabilized 10.0 m

HOLE DIA: 168, 146, mm  
 DRILL RIG: URB-50M  
 DRILLER: Soil Trade LLC  
 DATE: 08.30.2008  
 LOGGED: T.Renchindorj

Depth, m	Started depth, m	Ended depth, m	Thickness of stratum, m	Graphic log	Soil / Rock Material Description		Standard Penetration Test						Ground water level	Sampling			
					Description of soil	Depth, m	Number of blows every 15 cm	Number of blows every 15 cm						Depth, m	Symbol of sampling		
								15cm	30cm	45cm	0	10				20	30
0.0	0.2	0.2	0.2														
	0.2	0.6	0.4		ML	Top soil: Sandy - Dark brown, with vegetation roots											
1.0					GP-GC	Silt - Upper & Modern Quaternary ages, deluvium-proluvium deposits, yellowish brown, dense, moist	53/30	15	22	31							
2.0	0.6	2.2	1.6				37/30	13	16	21							
3.0	2.2	3.2	1.0		GP	Poorly graded GRAVEL with sand - Upper&Modern Quaternary age, deluvium-proluvium deposits, yellowish brown, with cobbles, dense, slightly moist	47/30	12	19	28							
4.0						Poorly graded GRAVEL with sand and clay - Upper&Modern Quaternary age, deluvium-proluvium deposits, yellowish brown, with cobbles, dense.	57/30	16	22	35							
5.0							51/30	14	20	31							
6.0					GP-GC	Poorly graded GRAVEL with sand and clay - Upper&Modern Quaternary age, deluvium-proluvium deposits, yellowish brown, with cobbles, dense.	59/30	17	24	35							
7.0							53/30	17	19	34							
8.0							60/30	12	31	29							
9.0							49/30	13	22	27							
10.0	3.2	9.5	6.3		SP	Poorly graded SAND with gravel - Upper&Modern Quaternary age, deluvium-proluvium deposits, yellowish brown, medium dense, moist to wet	31/30	9	13	19							
11.0	9.5	10.6	1.1				58/30	16	25	33							
12.0							59/30	17	24	35							
13.0					GC	Clayey GRAVEL with sand - pper&Modern Quaternary age, delluvium-proluvium deposits, dark brown, semi hard to hard	59/30	19	26	33							
14.0							67/30	21	30	37							
15.0	10.6	15.0	4.4				66/30	23	31	35							







## **7. References**

- **Attachment-1  
Equipment Plan  
(Quantity by Request and Evaluation)**
- **Attachment-2  
Review Table for Requested Equipment**
- **Attachment-3  
Specification of Equipment, Procurement  
Source, Country of Origin And Necessity  
of Local Agent**

- **Attachment-1  
Equipment Plan  
(Quantity by Request and Evaluation)**

## Attachment-1 Equipment Plan (Quantity by Request and Evaluation)

No.	Equipment	Application	Requested quantity						Consultant's evaluation											Evaluation	Comment								
			Study & training			Enlightenment & dissemination			Study & training						Enlightenment & dissemination														
			Staff & Ranger	Open Lab.	Seminar	Exhibition(fresh water eco system)	Exhibition	Information	Total	Activity	Open Lab.	Multi purpose hall	Seminar(1&2)	Seminar(3)	Computer Lab.	Exhibition(fresh water eco system)	Exhibition	Information	Information center			Others							
1	Portable global positioning system	Confirmation of observation point	850						850	18													B	Basic equipment for ranger training					
2	Compass	Confirmation of route to destination	850						850															C	Equipment to be replaceable by the equipment NO.1				
3	Chainsaw	Disforestation or disposition of the felling log woods or cutting off the ice block.	30						30	2														B	Basic equipment for ranger training				
4	Engine auger	Making hole for observation of water condition of under surface ice	30						30		1														B				
5	Rubber boat	To be used as the transport and carrying equipment which are need for research and ranger patrol of the fresh water area in national park or any Sanctuary	10						10	1															B	Basic equipment for fishery resource research			
6	Outboard engine	Power source for boat	10						10	1																B			
7	Wireless radios	To use for communication between the patrol troop and local head quarter office.	850						850	1																	B		
8	Digital camera	Recording ranger activity or wild animal life to show the audience who are keen to know present situation of the nature environment or problems and how to conserve for the natural resources.	850						850		8																	B	
9	Video camera		850						850	9																		B	Basic equipment for ranger training
10	Binoculars	To use for observation for research of animal life and forest ecology and poacher for through out the day	850						850	18																		B	
11	Infrared binoculars		850						850	9																		B	
12	Handy distance measure	To use for measuring of river width etc.	850						850	18																		B	
13	Counting apparatus	To use for counting purpose	850						850		18																	B	
14	Rubber chest boots	To use for activity in the water	850						850					4														B	Basic equipment for fishery resource research
15	Rubber glove		850						850																			C	Procurable by self-help
16	First aid set	For disaster and casualty	850						850																			C	
17	Flash light	For night work	850						850	9																		B	Basic equipment for ranger training
18	Helmet	For securing safety at observation and survey	850						850																			C	
19	Simple stretcher	For transport of casualty	850						850																			C	Procurable by self-help
20	Blanket	For night observation and ranger patrol	850						850																			C	
21	Water bottle	For water supply in long lasting work	850						850																			C	
22	Motorbike	For ranger patrol	850						850																			C	Equipment not to be met with the project aim
23	Megaphone	Warning to violator and poacher	850						850	9																		B	Basic equipment for ranger training
24	Smoke candle	Denotation of emergency occurrence	850						850																			C	Article specified as export ban from Japan
25	Balloon	Denotation of emergency occurrence and stationary measurement	850						850																			C	Procurable by self-help
26	Tent set	Patrol and observation work through night	850						850																			C	
27	Echo finder	To find out bottom condition, water depth and fishery resource of river and lake				4			4		1																	B	
28	Apparatus for collecting mud sample	To collect samples for bottom sediment in river and lake working with echo sounder				4			4		1																	B	Basic equipment for fishery resource research
29	Apparatus for collecting water sample	For sample collection of water quality in the river and lake				4			4		1																	B	
30	Plankton net	For sample collection and plankton distribution survey in the river and lake				4			4		1																	B	
31	Glass ware for experiment	For storage of collected samples (mud, water, plankton etc.) and experiment		4					4		1																	B	Basic equipment for Open Lab.
32	Thermometer	Measurement for water temperature at observatory point	4						4		2																	B	Basic equipment for fishery resource research
33	Psychomotor	Measurement for humidity at observatory point	4						4																			C	
34	Barometer	Measurement of air pressure at observatory point	4						4																			C	Equipment not to be met with the enlightenment & dissemination
35	Anemoscope	Measurement for wind direction and speed at observatory point	4						4																			C	
36	Climometers	Measurement for topography at observatory point.	4						4	2																		B	Basic equipment for ranger training
37	Cassette recorder	To record the wild birds chirping	4						4																			C	Equipment to be replaceable by the equipment NO.9
38	Throwing net					10			10						5													B	Basic equipment of fish catch for exhibition of resource survey training
39	Drug net	To use for collecting sample fish for aquarium for display or research purpose				10			10						1													B	
40	Gill net					10			10						5													B	
41	Lure	Artificial bait for fish catch				10			10																			C	
42	Flag and flout	For fixing fishing tools				10			10																			C	Procurable by self-help
43	Scoop net	Auxiliary tool for catching sample fish				10			10						5													B	Basic equipment of fish catch for exhibition of resource survey training
44	Bucket	Auxiliary tool for catching sample fish				10			10																			C	Procurable by self-help



No.	Equipment	Application	Requested quantity						Consultant's evaluation											Comment									
			Study & training			Enlightenment & dissemination			Study & training						Enlightenment & dissemination						Evaluation								
			Staff & Ranger	Open Lab.	Seminar	Exhibition/Fresh water eco system	Exhibition	Information	Total	Activity	Open Lab.	Multi purpose hall	Seminar(1/2)	Seminar(3)	Computer Lab.	Exhibition/Fresh water eco system	Exhibition	Information	Information center			Others							
45	Fish container	For temporary storage of caught fish				1																				A	Basic equipment for transportation of fish for exhibition		
46	Fish tank	For transportation of live sample fish				1																						A	
47	Tube hose					30M																						B	
48	Oxygen feeder	Supply tools of oxygen for the transportation of live sample fish				4																						A	
49	Oxygen pressure regulator					2																						A	
50	Portable generator	To generate electricity outdoors				2																					C	Out of scope in this project	
51	Air stone	Supply tools of oxygen for the transportation of live sample fish				2																					C	Equipment to be replaceable by the equipment NO.48	
52	Gas chromatograph-mass spectrometry	Quantitative measurement of organic in liquid		1																							C	Equipment not to be met with the project aim	
53	Gas chromatograph with ECD,FID detectors	Measurement of chloral organic in gas and liquid		2																									C
54	Ion chromatograph	Measurement of anion and cation mainly in liquid		2																									C
55	Micro wave oven	Measurement for heavy metal		1																									C
56	Vacuum evaporator	Removal of impurity		3																									C
57	Draft chamber	A properly used and properly functioning fume hood exhausts hazardous gases, dusts, mists, and vapors from a confined location and helps protect workers from inhalation exposure		2																								B	Basic equipment for Open Lab.
58	Desiccators cabinet	For drying glass ware experimental equipment		10																								B	
59	Refrigerator	To stock reagent and sample		10																								B	
60	Spectrophotometer	Elemental analysis of specimen		10																								C	Equipment not to be met with the project aim
61	Microbalance	For weighing of reagent		2																								A	Basic equipment for Open Lab.
62	Atomic absorption spectrometer	For measurement of heavy metals		1																								C	Equipment not to be met with the project aim
63	Vapor generator for arsenic	Extracting arsenic in agent		1																								C	
64	Mercury analyzer	Measurement of mercury		1																								C	
65	Mineral oil analyzer	Measurement of oil in water and soil		1																								C	
66	Fourier transform infra red spectrometer	Analysis and measurement of chemical flocculant production		1																								C	
67	Air sampler (high volume and low volume)	Measurement of heavy metal and organic matter in dust		10																								C	
68	PM10 particle beta gauge	Measurement of dust in air		5																								C	
69	Emission Dust analyzer	Measurement of dust in exhaust gas		2																								C	
70	Flue gas analyzer	Measurement of CO, CO2, Nox, Sox, HS in exhaust gas		2																								C	
71	Automobile exhaust particle analyzer	Measurement of toxicity in auto emission		2																								C	
72	Automobile exhaust particle analyzer	Measurement of dust in auto emission		2																								C	
73	pH meter	For pH analysis		2																								A	Basic equipment for Open Lab.
74	Laboratory and portable conductor-meter	Measurement of water conduction		2																								C	Equipment not to be met with the project aim
75	Ion meter with selective electrodes	Measurement of agent in water		2																								C	
76	Digital pipette	For use of micro-titration		10																								B	Basic equipment for Open Lab.
77	Ultra pure distillation apparatus	Producing ultra pure water		2																								C	Equipment not to be met with the project aim
78	Demineralizer	Producing water for experiment and cleaning of analyzing equipment		2																								B	Basic equipment for Open Lab.
79	Distillation apparatus			6																								C	Equipment not to be met with the project aim
80	Thermo bath	Warming water up to standard temperature		1																								A	Basic equipment for Open Lab.
81	Stand bath	Storing with standard temperature		1																								C	Equipment not to be met with the project aim
82	Multi position heating mantle	Analysis organic material with high temperature		1																								C	
83	Kjeldahl apparatus	Waste water measurement and Standard analysis		10																								C	
84	Ultrasonic cleaner	Cleaning experiment equipment		1																								A	Basic equipment for Open Lab.
85	Magnetic stirrer	Even agitation of fluid to be tested		10																								B	
86	Water pump	Pouring water pump		2																								C	Equipment not to be met with the project aim
87	Centrifuge	Segregation of element in fluid to be tested		2																								C	
88	Shifter	Analysis soil by shifter		2																								C	
89	Soil grinder	For cracking soil		2																								C	
90	Orbital shaker	Even agitation of fluid to be tested		3																								B	Basic equipment for Open Lab.
91	Dry cabinet	Drying filter and glass ware equipment		5																								B	
92	Micro wave oven	Burning test of specimen		3																								C	Equipment not to be met with the project aim
93	Freezer	Frozen storage of reagent and biotic piece		3																								B	Basic equipment for Open Lab.
94	Desiccators	Drying test specimen		3																								B	
95	Under ground water level meter	Measurement for under ground water level		10																								C	





- **Attachment-2**  
**Review Table for Requested Equipment**



## Attachment-2 Review Table for Requested Equipment

Evaluation Criteria	Overall Evaluation
○ Suitable	Rank A Equipment to be met with the Project aim and to be pertinent and essential for practical enforcement to the achievement
△ Further study to be required	Rank B Equipment to be nearly same as Rank A category but the quantity to be reviewed.
× Unsuitable for the project aim	Rank C Equipment not to be met with the project aim. Equipment to be concerned its increase of maintenance and management cost. Equipment for which proper personnel with necessary skills are unconfirmed. And equipment to be replaceable by the equipment categorized in Rank A.

No.	Equipment	Consistency	Necessity	Skill level	Management system	Maintenance management system	Maintenance management expenses	Quantity relevancy	Overall evaluation
<b>Ranger training &amp; Training activity</b>									
1	Potable GPS	○	○	○	○	○	○	△	B
2	Compass	○	△	---	---	---	---	---	C
3	Chainsaw	○	○	○	○	○	○	△	B
4	Rubber boat	○	○	○	○	○	○	△	B
5	Outboard engine	○	○	○	○	○	○	△	B
6	Wireless radios	○	○	○	○	○	○	△	B
7	Video camera	○	○	○	○	○	○	△	B
8	Binoculars	○	○	○	○	○	○	△	B
9	Infrared binoculars	○	○	○	○	○	○	△	B
10	Handy distance measure meter	○	○	○	○	○	○	△	B
11	Emergency kit	×	---	---	---	---	---	---	C
12	Flash light	○	○	○	○	○	○	△	B
13	Helmet	×	---	---	---	---	---	---	C
14	Stretcher	×	---	---	---	---	---	---	C
15	Blanket	×	---	---	---	---	---	---	C
16	Potable water container	×	---	---	---	---	---	---	C
17	Motorbike	×	---	---	---	---	---	---	C
18	Megaphone	○	○	○	○	○	○	△	B
19	Smoke candle	×	---	---	---	---	---	---	C
20	Advertising balloon	×	---	---	---	---	---	---	C
21	Tent set	×	---	---	---	---	---	---	C
22	Clinometer	○	○	○	○	○	○	△	B
<b>Laboratry Training for Survey &amp; Practice</b>									
1	Engine auger	○	○	○	○	○	○	△	B
2	Digital camera	○	○	○	○	○	○	△	B
3	Counting apparatus	○	○	○	○	○	○	△	B
4	Echo finder	○	○	○	○	○	○	△	B
5	Adopting mud for sample	○	○	○	○	○	○	△	B
6	Adopting water for sample	○	○	○	○	○	○	△	B
7	Plankton net	○	○	○	○	○	○	△	B
8	Glass ware, Container	○	○	○	○	○	○	△	B
9	Thermometer	○	○	○	○	○	○	△	B
10	Hygrometer	×	×	---	---	---	---	---	C

11	Barometer	×	×	----	----	----	----	----	C
No.	Equipment	Consistency	Necessity	Skill level	Management system	Maintenance management system	Maintenance management expenses	Quantity relevancy	Overall evaluation
12	Anemoscope	×	×	----	----	----	----	----	C
13	Cassette recorder	○	△	----	----	----	----	----	C
14	Gas chromatograph-mass spectrometry	×	×	----	----	----	----	----	C
15	Gas chromatograph with ECD.FID detector	×	×	----	----	----	----	----	C
16	Ion chromatograph	×	×	----	----	----	----	----	C
17	Micro wave oven	×	×	----	----	----	----	----	C
18	Vacuum evaporator	×	×	----	----	----	----	----	C
19	Draft chamber	○	○	○	○	○	○	△	B
20	Desiccators cabinet	○	○	○	○	○	○	△	B
21	Refrigerator	○	○	○	○	○	○	△	B
22	Spectrophotometer	×	×	----	----	----	----	----	C
23	Electronic balance	○	○	○	○	○	○	○	A
24	Atomic absorption spectrometer	×	×	----	----	----	----	----	C
25	Vapor generator for arsenic	×	×	----	----	----	----	----	C
26	Mercury analyzer	×	×	----	----	----	----	----	C
27	Mineral oil analyzer	×	×	----	----	----	----	----	C
28	Fourier transform infra red spectrometer	×	×	----	----	----	----	----	C
29	Air Sampler(high and low volume)	×	×	----	----	----	----	----	C
30	PM10 particle beta gauge	×	×	----	----	----	----	----	C
31	Emission dust analyzer	×	×	----	----	----	----	----	C
32	Flue gas analyzer	×	×	----	----	----	----	----	C
33	Automobile exhaust particle analyzer	×	×	----	----	----	----	----	C
34	Automobile exhaust particle analyzer	×	×	----	----	----	----	----	C
35	pH meter	○	○	○	○	○	○	○	A
36	Laboratory and portable conductor-meter	×	×	----	----	----	----	----	C
37	Ion meter with selective electrodes	×	×	----	----	----	----	----	C
38	Digital pipette	○	○	○	○	○	○	△	B
39	Ultra pure distillation apparatus	×	×	----	----	----	----	----	C
40	Distilling apparatus	○	○	○	○	○	○	△	B
41	Ionized water distillation apparatus	×	×	----	----	----	----	----	C
42	Thermo bath	○	○	○	○	○	○	○	A
43	Stand bath	×	×	----	----	----	----	----	C
44	Multi position heating mantle	×	×	----	----	----	----	----	C
45	Kjeldahl apparatus	×	×	----	----	----	----	----	C
46	Ultrasonic cleaner	○	○	○	○	○	○	○	A
47	Magnetic stirrer	○	○	○	○	○	○	△	B
48	Water pump	×	×	----	----	----	----	----	C
49	Centrifuge	×	×	----	----	----	----	----	C
50	Shifter	×	×	----	----	----	----	----	C
51	Soil granider	×	×	----	----	----	----	----	C
52	Shaker	○	○	○	○	○	○	△	B
53	Drying cabinet	○	○	○	○	○	○	△	B
54	Microwave oven	×	×	----	----	----	----	----	C
55	Freezer	○	○	○	○	○	○	△	B
56	Desiccators	○	○	○	○	○	○	△	B

57	Under ground water label mater	×	×	---	---	---	---	---	C
58	Water sample for borehole	○	△	---	---	---	---	---	C
No.	Equipment	Consistency	Necessity	Skill level	Management system	Maintenance management system	Maintenance management expenses	Quantity relevancy	Overall evaluation
59	Grab sample for bottom sediment	○	△	---	---	---	---	---	C
60	Air sampling mini pump 0.5 L/min,5L/min.	×	×	---	---	---	---	---	C
61	Air sampling pump 10-20L/min	×	×	---	---	---	---	---	C
62	Air sampling pump 10-20L/min	×	×	---	---	---	---	---	C
63	Dray gas meter	×	×	---	---	---	---	---	C
64	Portable noise label meter	×	×	---	---	---	---	---	C
65	Portable radio meter	×	×	---	---	---	---	---	C
66	Low background beta counter	×	×	---	---	---	---	---	C
67	Voltage power stabilizer	○	×	---	---	---	---	---	C
68	Portable power generator	×	×	---	---	---	---	---	C
69	Air quality monitoring station	×	×	---	---	---	---	---	C
70	Wet only precipitation collector	×	×	---	---	---	---	---	C
71	Biosafety cabinet	×	×	---	---	---	---	---	C
72	Scanning transmission electron microscope	×	×	---	---	---	---	---	C
73	Transmission electron microscopy image	×	×	---	---	---	---	---	C
74	Biological microscope	○	○	○	○	○	○	△	B
75	ELISA apparatus	×	×	---	---	---	---	---	C
76	E-coli counter	○	○	○	○	○	○	○	A
77	Thermo state	×	×	---	---	---	---	---	C
78	Autoclave	○	○	○	○	○	○	△	B
79	Reagents	×	×	---	---	---	---	---	C
80	Incubator	○	○	○	○	○	○	○	A
81	Electronic balance	○	○	○	○	○	○	△	B
82	Dissect kit	○	○	○	○	○	○	△	B
Natural environmental information									
1	Laptop computer	○	○	○	○	○	○	○	A
2	Desktop computer	○	○	○	○	○	○	○	A
3	Desktop computer	○	○	○	○	○	○	○	A
4	DVD edit system	○	○	○	○	○	○	○	A
Display & freshwater ecology management									
1	Rubber chest boot	○	○	○	○	○	○	△	B
2	Rubber glove	○	△	---	---	---	---	---	C
3	Throwing net	○	○	○	○	○	○	△	B
4	Drug net	○	○	○	○	○	○	△	B
5	Gill net	○	○	○	○	○	○	△	B
6	Lure tackles	○	△	---	---	---	---	---	C
7	Flag and float	○	△	---	---	---	---	---	C
8	Scoop net	○	○	○	○	○	○	△	B
9	Bucket	○	△	---	---	---	---	---	C
10	Water container	○	○	○	○	○	○	○	A
11	Plastic tank	○	○	○	○	○	○	○	A
12	Air stone	○	△	---	---	---	---	---	C
13	Tube hose	○	○	○	○	○	○	○	A
14	Oxygen feeder	○	○	○	○	○	○	○	A

15	Oxygen regulator	○	○	○	○	○	○	○	A
16	Pressure regulator	○	×	---	----	---	---	---	C
17	Portable petrol operation pump	○	○	○	○	○	○	○	A
No.	Equipment	Consistency	Necessity	Skill level	Management system	Maintenance management system	Maintenance management expenses	Quantity relevancy	Overall evaluation
18	Hose	○	○	○	○	○	○	△	B
19	Water circulation aquarium	○	○	○	○	○	○	○	A
20	Stand by water tank	○	○	○	○	○	○	○	A
	Water pump and horse								
21	Hand cart	○	○	○	○	○	○	△	B
22	Apparatus fumigation	○	○	△	○	×	△	○	C
Audio Video & Printing and Binding									
1	Large -size projector	○	○	○	○	○	○	○	A
2	DVD player	○	○	○	○	○	○	○	A
3	DVD rack	○	○	○	○	○	○	○	A
4	Amp	○	○	○	○	○	○	○	A
5	Speaker	○	○	○	○	○	○	○	A
6	Electrical screen	○	○	○	○	○	○	○	A
7	Microphone set	○	○	○	○	○	○	○	A
	Microphone of Tie clip type								
	Wireless microphone								
	Antenna for tuner								
	Dynamic microphone								
	Stand for microphone								
8	Simultaneous interpreter system	○	○	○	○	○	○	○	A
	Microphone								
	Transmitter table top								
	Portable receiver								
	Ear phone								
9	Video conference set	○	○	○	○	○	○	○	A
10	Liquid crystal panel projector	○	○	○	○	○	○	○	A
11	Visual presenter	○	○	○	○	○	○	○	A
12	Color printer	○	○	○	○	○	○	○	A
13	Liquid crystal screen	○	○	○	○	○	○	○	A
14	Copier machine	○	○	○	○	○	○	○	A
15	Monitor	○	○	○	○	○	○	○	A
16	Digital printer	○	○	○	○	○	○	○	A
17	Video camera	○	○	○	○	○	○	○	A
18	Tripod for video camera	○	○	○	○	○	○	○	A
19	Single lens reflex digital camera	○	○	○	○	○	○	○	A
20	tripod for distal camera	○	○	○	○	○	○	○	A
21	Lightning apparatus	○	○	○	○	○	○	○	A
22	Microphone	○	○	○	○	○	○	○	A
23	Digital recorder	○	○	○	○	○	○	○	A
24	Speaker	○	○	○	○	○	○	○	A
25	Head phone	○	○	○	○	○	○	○	A
26	Easy book binding machine	○	○	---	○	○	○	○	A
	bind with glue								



	bind with hole								
Furniture									
1	Chair with small table	○	○	---	○	○	○	○	A
2	Stand for lecture	○	○	---	○	○	○	○	A
No.	Equipment	Consistency	Necessity	Skill level	Management system	Maintenance management system	Maintenance management expenses	Quantity relevancy	Overall evaluation
3	Table with blind board	○	○	---	○	○	○	○	A
4	Chair with caster	○	○	---	○	○	○	○	A
5	White board	○	○	---	○	○	○	○	A
6	Desk for instructor and trainees	○	○	---	○	○	○	○	A
7	Stand for printer	○	○	---	○	○	○	○	A
8	Chairs for trainees	○	○	---	○	○	○	○	A
9	Screen	○	○	---	○	○	○	○	A
10	Computer desk	○	○	---	○	○	○	○	A
11	Shelves type rocker	○	○	---	○	○	○	○	A
12	Holding stand for chair	○	○	---	○	○	○	○	A
13	Data compilation and retention shelves	○	○	---	○	○	○	○	A
14	Sample custody shelves	○	○	---	○	○	○	○	A
15	Magazine rack A	○	○	---	○	○	○	○	A
16	Magazine rack B	○	○	---	○	○	○	○	A
17	Partition desk	○	○	---	○	○	○	○	A
18	Table with blind board	○	○	---	○	○	○	○	A
19	Table for laboratory	○	○	---	○	○	○	○	A
20	Chair for laboratory	○	○	---	○	○	○	○	A
21	Cabinet for data	○	○	---	○	○	○	○	A
22	Open shelves	○	○	---	○	○	○	○	A
23	Office desk	○	○	---	○	○	○	○	A
24	Office chair	○	○	---	○	○	○	○	A
25	Table	○	○	---	○	○	○	○	A
26	Drawer with caster	○	○	---	○	○	○	○	A
Computer network									
1	Server	○	○	○	○	○	○	○	A
2	Router	○	○	○	○	○	○	○	A
3	UPS	○	○	○	○	○	○	○	A
4	Hub	○	○	○	○	○	○	○	A
5	Lan cable	○	○	○	○	○	○	○	A
6	Server rack	○	○	○	○	○	○	○	A

\* Cost estimation for Router, Hub, Lan cable for computer network is handled architectural work field.

- **Attachment-3**  
**Specification of Equipment, Procurement**  
**Source, Country of Origin And Necessity**  
**of Local Agent**

Attachment-3 SPECIFICATION OF EQUIPMENT, PROCUREMENT SOURCE, COUNTRY OF ORIGIN AND NECESSITY OF LOCAL AGENT

No.	Equipment	Specification	Final Quantity	Procurement Source	Country of origin	Necessity of local agent	
						Spare parts for consumable	Maintenance
1	Portable GPS	Type: Water proofing, Display: Display with back light, Precision: within 20m	18	Japan	USA/EU/China	----	---
2	Chainsaw	Type: Petrol operate, Engine displacement: 30cc or more, Cutting capacity: approx. 300mm or more, Fuel tank: 200cc or more.	2	Japan	Japan	----	---
3	Engine auger	Type: Petrol operate, Displacement: 30cc or more, Auger length: 600mm or more, Auger diameter: 130mm or more	1	Japan	Japan	----	---
4	Rubber boat	Capacity: 6 crew, Type: Heavy duty, Dimension: 400cm x 160cm or more, Maximum loading: 30PS or more, Attachment: Paddle, Foot pump, Board chair, Anchor Life jacket and Ring float	1	Japan	Japan	----	---
5	Outboard engine	Type: 4 cycle engine, Engine power: 10PS or more, Attachment: Engine stand of 80cm or more	1	Japan	Japan	○	○
6	Wireless radios	HF for base: Reception approx. 0.5-30MHz, Transmission: approx. 1.5-30MHz, Output: approx. 100W. HF for vehicles: Reception approx. 0.5-30MHz, transmission: approx. 1.5-30MHz, Out put: approx. 100W, 12VDC. VHF for vehicles: Frequency 136-175Hz, Output: approx. 25W. VHF for portable: Frequency 136-174 MHz, Output: approx. 5W. Attachment: AC and DC battery charger.	1 set	Japan	USA/EU	----	---
7	Digital camera	Type: Single -lens reflex, Effective pixels: Approx. 10 million. Image record method: JPEG Recording media More 2GB, purchasable in Mongolia, Lens: Zoom lens Optics 10 x more, Digital zoom 4 x more, Electronic flash included, LCD size; more 2 inches, With battery charger for 220ACV & tripod	8	Mon-golia	ASEAN/China	----	---
8	Video camera	Recording media: HDD, Recording capacity: 100GB or more, Effective moving pixels: Approx. 1.3 million or more. Zoom: Optics 10 x more, Digital zoom 40 x more, LCD size; more 2.5 inches, With battery charger for 220ACV & tripod	9	Mon-golia	ASEAN/China	----	---
9	Binoculars	Zoom: 8-20x or more, 1000m of vision: 70-30m or more	18	Japan	Japan	----	---
10	Infrared binoculars	Zoom: 5x or more	9	Japan	USA	----	---
11	Handy distance measure apparatus	Type: Distance measurement by laser and water proof system, Capacity of measurement: Approx. 500m Indication : in digital	18	Japan	EU	----	---
12	Counting apparatus	Type: Manual reset function, Capacity of counting: 3 digit or more	18	Japan	Japan	----	---
13	Rubber chest boot	Size: L;2units, M;2units	4	Japan	Japan	----	---
14	Flashlight	Bulb: 20W/6W, Irradiation range: 500m or more, Power : Chargeable battery	9	Japan	Japan	----	---
15	Megaphone	Output: Approx. 10W, Range distance: Approx. 250m or more	9	Japan	Japan	----	---
16	Echo Finder	Display size: 6 model color liquid crystal 320 x 240 dot or more, Size: W234 x H217 x D78mm approx. 1.4kg Voltage: DC11- 35V , Wattage: 12 W, Sounding Range: 0~/100m, Fish Finder 2 cycles adscription, Partial enlargement/fixd enlargement in bottom, Enlargement scale: x 2, 4, 8, Warning for depth alarm: in range/out of range, Fish finding alarm: 2 levels	1	Japan	Japan	----	---

No.	Equipment	Specification	Final Quantity	Procurement Source	Country of origin	Necessity of local agent	
						Spare parts for consumable	Maintenance
17	Adopting mud for sample	Type: Ekman-barge with rope, Size: Approx. 150 x 150mm	1	Japan	Japan	----	---
18	Adopting water for sample	Type: High funnel type, Capacity: Approx. 1000cc, Material: Transparency glass or plastic	1	Japan	Japan	----	---
19	Plankton net	Caliber: 40cm Length: 100-120Cm, Size of mesh: NXX 17, Flow meter: Digital analog 2 digit or more	1	Japan	Japan	----	---
20	Plankton net	Caliber: 40cm, Length: 100-120Cm, Size of mesh: NXX 13	1	Japan	Japan	----	---
21	Glass ware, Container	Beaker: 100/300/500ml, Triangle flask: 100/300/500ml, Flat bottom flask: 300/500ml, Petri dish, Examinations tube, Funnel, Screw bottle, Pipette, Mess-cylinder, Burettes, Mortar, Retort stand, Burettes stand, Pipette stand, tripod, Wire net, Stand of examination tube, Nipper of examination tube, Burner, Alcohol lamp, Nipper of beaker	1	Japan	Japan	----	---
22	Thermometer	Purpose: Measurement of water temperature, Type: Digital type with bar type sensor, Temperature range: -10~+60°C	2	Japan	Japan	----	---
23	Clinometers	Purpose: Measurement of inclination of geographical features, Reading form: Direct read, Digital or analog	2	Japan	Japan	----	---
24	Throwing net	Nylon fiber multi, Mesh size: Approx. 5mm, Number of mesh : Approx. 1,500, Circumference : Approx. 14m, Net height: 2.7m, Weight: Approx. 3.5kg	1	Japan	Japan	----	---
25	Throwing net	Nylon fiber multi, Mesh size: Approx. 7.5mm, Number of mesh : Approx. 900, Circumference : Approx. 13m, Net height: Approx. 2.3m, Weight: Approx. 3.7kg	2	Japan	Japan	----	---
26	Throwing net	Nylon fiber multi, Mesh size: Approx. 30mm, Number of mesh : Approx. 400, Circumference : Approx. 17m, Net height: Approx. 3m, Weight: Approx. 5kg	1	Japan	Japan	----	---
27	Throwing net	Nylon fiber multi, Mesh size: Approx. 50mm, Number of mesh : Approx. 240, Circumference : Approx. 16m, Net height: Approx. 3m, Weight: Approx. 4.5 kg	1	Japan	Japan	----	---
28	Drug net	Side net : Polyester with frog cross knit, Mesh size: Approx.50.5mm, Net height: Approx. 3.3, Length: Approx. 25m both side, Bag net: Polyester with frog cross knit, Mesh size: Approx. 25.2mm, Net height: Approx. 3.3m, Length: Approx. 7m, Drug rope: 16mm diameter and 50m for both side	1	Japan	Japan	----	---
29	Gill net	Materials: Nylon fiber, Mesh size: 50mm, Net height: 1.5m, Length: 25m	3	Japan	Japan	----	---
30	Gill net	Materials: Nylon fiber, Mesh size: 50mm, Net height: 1.5m, Length: 30m	2	Japan	Japan	----	---
31	Scoop net	Material of net: Tetrone, Mesh size: Approx. 9mm, Out side dimension: Approx. 390w x 280H, Total length: Approx. 1.5m, Material of frame: Approx. 6mm diameter of Stainless wire	2	Japan	Japan	----	---
32	Scoop net	Material of net: Tetrone, Mesh size: Approx. 15mm, Out side dimension: Approx. 450w x 300H, Total length: Approx. 1.5m, Material of frame: Approx. 10mm diameter of Stainless wire	2	Japan	Japan	----	---
33	Scoop net	Material of net: Tetrone, Mesh size: Approx. 12mm, Out side dimension: Approx. 1500W x 100W x 1000L x 500H, Total length: Approx. 1.5m, Material of frame: Approx. diameter 25mm polyvinyl chloride pipe	1	Japan	Japan	----	---
34	Water container	Material : Plastic with lidded, Size: Approx. 800x600x500mm (200L)	1	Japan	Japan	----	---



No.	Equipment	Specification	Final Quantity	Procurement Source	Country of origin	Necessity of local agent	
						Spare parts for consumable	Maintenance
35	Plastic tank	Capacity: Approx. 1000L with hose and two way type branch pipe, Attachment: Oxygen feeder size 2, Dual oxygen pressure regulator	1set	Japan	Japan	----	---
36	Draft chamber	Working face: Anti chemical, Exhaust fan: Sirocco fan to be equipped at top, Dimension: Approx. 1200-1500W x 800mm D	1	Japan	Japan	----	---
37	Desiccators cabinet	Purpose: Drying for equipment or glass ware with digital control, Range of temperature: higher than 60 °C, System of circulation: Natural circulation. Capacity: More than 300L	1	Japan	Japan	----	---
38	Refrigerator	Purpose: Keeping reagent, System: Front glass door, Capacity: More than 150L, Shelves board: more than 2 pcs, Temperature range: 2~14°C with meter	1	Japan	Japan	----	---
39	Microbalance	Capacity : Approx. 210g with windshield, Minimum weight count: 0.1mg	2	Japan	Korea	----	---
40	pH meter	Type: Table top with digital indication and electrode, Range of measurement: 0-14pH	2	Japan	Japan	----	---
41	Digital pipette	0.5-10uL/2-20uL/10-100uL/20-200uL/100-1000uL, Each one with 1000 chips	5	Japan	Japan	----	---
42	Distilling apparatus	Type: Table top, Material water: Tap water, Capacity: More than 1.8L/hour, Filter: Ion exchange with pre-treatment	1	Japan	Japan	○	○
43	Thermo bath	Type: With observation window, Maximum temperature: More than 80°C, System of temperature control: PID, Capacity: Approx. 30L	1	Japan	Japan	----	○
44	Ultrasonic cleaner	Type: With thermometer and more than 30 minutes of timer, Tank capacity: More than 2L	1	Japan	Japan	----	○
45	Magnetic stirrer	Type: With adjusting dial, Stirred capacity: more than 1L, Rounding coverage: more than 1000rpm	5	Japan	Japan	----	---
46	Shaker	Type: Reciprocate shaking, Shaking speed: 200rpm (variable), Variable flask holder: rack with spring, Speed indicator: Digital	1	Japan	Japan	----	---
47	Drying cabinet	Type: Rack with hot air blower, High temperature: more than 50°C, Timer: more than, 60 minutes, Number of shelves: more than 3, Size: approx.700x500x1500mm	1	Japan	Japan	----	---
48	Freezer	Vertical type with basket, Inner volume: more than 450L, Minimum temperature: : below -30°C	1	Japan	Japan	----	---
49	Desiccators	Type: Plastic, Size: approx. 300x300x500mm, Number of shelf: more than 2	1	Japan	Japan	----	---
50	Biological microscope	Type: Binocular for bright field, Ocular lens: 10x , Field lens: 4/10/40/100x , Lighting: with adjustable dial, Stage: Mechanical	2	Japan	Germany/ Philippines	----	---
51	Stereomicroscope	Type: Stereomicroscopic binocular with zoom lens, Ocular lens: 10x , Overall scale factor: more than 40x	2	Japan	Germany/ Philippines	----	---
52	E-coli counter	Indicator: more than 3 digits, Petri dish size: more than 90mm, Lighting: fluorescent with more than 12W, Amplifier: 100mm in diameter	2	Japan	Japan	----	---
53	Autoclave	Type: Vertical type with stainless bag, Inner volume: approx. 20L, Maximum temperature: more than 120°C, Control: Digital	1	Japan	Japan	----	---
54	Incubator	Type: Natural circulation type, Temperature coverage: Room temperature ~60°C, Temperature control: PID, Inner volume : approx. 30L, Timer : 99 hours	1	Japan	Japan	----	---
55	Digital scale	Weighing capacity : 300-400g, Reading limitation: 0.001g	4	Japan	Korea	----	---
56	Dissect kit	Set of knife, nipper, stalked needle, tweezers in wooden box	16	Japan	Japan	----	---

No.	Equipment	Specification	Final Quantity	Procurement Source	Country of origin	Necessity of local agent	
						Spare parts for consumable	Maintenance
57	Water circulation aquarium	Square type of tank : Outside dimension approx. 3000W x 1000D x 1000H(approx. 3 tons of water), Stand of tank: Outside dimension approx. 3050W x 1050D x 1000H, Material of tank: Acryl resin approx. 30mm thickness, Cooler, Circulation pump, Temperature regulator & Aeration pump: Three phase AC380V, Single-phase: AC220V, 50Hz	1 set	Japan	Japan	----	---
58	Water circulation aquarium	Round type of tank : Outside dimension approx. 1500φ x 1000H (approx. 1.8 tons of water), Stand of tank: Outside dimension approx. 150φ x 1000H, Material of tank: Acryl resin approx. 30mm thickness, Cooler, Circulation pump, Temperature regulator & Aeration pump: Three phase AC 380V, Single-phase: AC 220V, 50Hz	1 set	Japan	Japan	----	---
59	Water circulation aquarium	Square type of tank : Outside dimension approx. 1500Wx500-600Dx800-1000H (approx. 1.8 tons of water) Stand of tank: Outside dimension approx. 1550W x 550D x 1000H, Material of tank: Acryl resin approx. 20 mm thickness, Cooler, Circulation pump, Temperature regulator & Aeration pump: Single-phase: AC 220V, 50Hz	3 sets	Japan	Japan	----	---
60	Water circulation aquarium	Square type of tank : Outside dimension approx. 1250W x 500-600D x 800-1000H (approx. 600 L of water), Stand of tank: Outside dimension approx. 1255W x 550D x 1000H, Material of tank: Acryl resin approx. 20 mm thickness, Cooler, Circulation pump, Temperature regulator & Aeration pump: Single-phase: AC 220V, 50Hz	1 set	Japan	Japan	----	---
61	Water circulation aquarium	Square type of tank : Outside dimension approx. 600Wx600D x 600H (approx. 200L of water) Stand of tank: Outside dimension approx. 650W x 650D x 1000H, Material of tank: Acryl resin approx. 20 mm thickness, Cooler, Circulation pump, Temperature regulator & Aeration pump: Single-phase: AC 220V, 50Hz	1 set	Japan	Japan	----	---
62	Stand by water tank	Underwater Pump: Stainless made, Three phase AC 380V, 400W, Polypropylene tank: Approx. 100L	2	Japan	Japan	----	---
63	Hand cart	Loading capacity: More than 500kg, Cart dimension: approx. 1200x700mm with stopper	1	Japan	Japan	----	---
64	Portable petrol operating pump	Operating system: Petrol operating, Engine displacement: Approx. 140cc, Output : Approx. 2kw, Diameter of pump intake 50mm, Diameter of pump discharge 50mm, Head approx. 30m faculty of discharge : More than 200L.	1	Japan	Japan	----	---
65	Laptop computer	Intel core: 4 GB, DDR2, SDRAM, 800 MHz, DL DVD-RW/CD-RW, Drive: Label flash, Support: 14" screen 320GB hard drive, Windows Vista Home Premium 64 bit with SPI, AC 200V single phase, 50Hz	3	Mon-golia	ASEAN/ China	----	○
66	Desktop computer	Intel core: 2 GB or more. Hard drive: Windows Vista 320GB or more. Key board and USB: Standard. Monitor: 20 inches LCD or more, Software: Microsoft professional 2007 or more.	11	Mon-golia	ASEAN/ China	----	○
67	Desktop computer	Intel core: 2 GB or more. Hard drive: Windows Vista 320GB or more. Key board and USB: Standard. Monitor: 20 inches LCD or more, Software: GIS Arc View latest model, Microsoft professional 2007 or more, GIS Arc view needs only for one unit, AC 200V single phase, 50Hz	7	Mon-golia	ASEAN/ China	----	○
68	DVD edit system	Non linear editing facility, Software for editing, DVD duplicator, DVD face printer, AC 200V single phase, 50Hz	1	Japan	ASEAN/ China/ EU/USA	----	---
69	Large-size projector	Usage: for big conference, Brightness: approx. 3000 lumens, Attachment: Remote control, Mount track for installation to ceiling, Electric source : AC 200V single phase 50Hz	1	Japan	ASEAN/ China	----	---

No.	Equipment	Specification	Final Quantity	Procurement Source	Country of origin	Necessity of local agent	
						Spare parts for consumable	Maintenance
70	DVD player	HD capacity: more than 250MB, Recording time; more than 40 hours, Signal system: PAL, Electric source : AC 200V single phase, 50Hz	2	Japan	ASEAN/China	----	---
71	DVD rack	Loading capacity of top board : approx. 30kg, Registrant strength of shelf board : approx. 10kg, Outside dimension: approx. 800Wx400Dx400H, Syntactic fiber board made, with caster	2	Japan	Japan	----	---
72	Amp	Amp for PA, Rated output: 240W, Microphone input: 6CH, AC220V single phase , 50Hz	1	Japan	Japan	----	---
73	Speaker	Compact type, Rating output: 240w, Microphone input: 6 CH, AC220V single phase, 50Hz	4	Japan	Japan	----	---
74	Electrical screen	150 inches, AC220V single phase 50Hz	1	Japan	Japan	----	---
75	Microphone sets	Wireless tie clip type microphone for general speech, Wireless microphone for wireless speech with stand	1 set	Japan	Japan	----	---
	Tie clip type microphone		1				
	Wireless microphone		2				
	Antenna for tuning		1				
	Dynamic microphone		1				
	Microphone stand		1				
76	Simultaneous interpreter system	Microphone input: 8-pin DIN 45326, -55dB/4.7kΩ Frequency response: 70-18,000Hz Signal-to-noise ratio;>72dB Cross-talk attention;>68dB Bass control; -15-+15 dB / 125 Hz Treble control; -15- +12dB/ 8kHz Headphone outputs; on both sides of the unit Electric source : AC 200V single phase, 50Hz	1	Japan	USA/EU	----	---
	Dynamic Headset		2				
	IR transmitter		2				
	IR Radiator		4				
	IR Receiver		108				
	Ear phone		108				
	Rechargeable Battery		8				
	Battery Charger		5				
77	Video conference set	Video conference with point to point link, Video system coping with future expansion, AC 200V single phase, 50Hz	1 set	Japan	USA/EU	----	---
78	Liquid crystal panel projector	Mobile type, Brightness: more than 2000 lumen, Input: video/USB, AC 200V single phase, 50Hz	4	Mon-golia	ASEAN/China	----	---
79	Visual presenter	Purpose: Screening general data, Shooting element: more than 850,000 pixel, Zoom: Electrically operated, Focus: Automatic, External control is possible. AC 200V single phase, 50Hz	1	Japan	Japan	----	---
80	Color printer	Printing method: Ink jet, Color: more than 8 colors, Maximum printing: up to A1 size. Memory more than 80GB. AC 200V single phase, 50Hz	1	Mon-golia	ASEAN/China	○	○
81	Liquid crystal screen	Size: 50 inches, Pixel: 1920 x 1080, Input: RGB/BNC/Video	1	Mon-golia	ASEAN/China	----	---
82	Copier machine	Printing speed: more than 18 papers/minute, Memory: More than 32 MB, Paper rack capacity: more than 250 papers, Quality: 600 dpi, Leaser copy with flat scanner function, AC 200V single phase, 50Hz	2	Mon-golia	ASEAN/China	○	○

No.	Equipment	Specification	Final Quantity	Procurement Source	Country of origin	Necessity of local agent	
						Spare parts for consumable	Maintenance
83	Monitor	42 inches LCD monitor, Resolution capacity: more than 1300 x 600, AC 200V single phase, 50Hz	1	Mon-golia	ASEAN/China	----	---
84	Digital printer	Printing method: Two colors simultaneous automatic digital printing with high speed, Image dissection Reading dissection : 600 dpi×600 dpi, Writing dissection : 300 dpi×600 dpi, (Master hole density: 600 dpi×600 dpi) (Book manuscript: below 10 kg ) , Manuscript size: maximum A3 size, Paper size: A3 size	1	Japan	ASEAN/China	○	○
85	Video Camera	Recording media: HDD, Recording capacity: 100GB or more, Effective moving pixels: Approx. 1.3 million or more. Zoom: Optics 10 x more, Digital zoom 40 x more, LCD size; more 2.5 inches, With battery charger for 220ACV & tripod	3	Mon-golia	ASEAN/China	----	---
86	Single lens reflex digital camera	Type: Single -lens reflex, Effective pixels: Approx. 10 million. Image record method: JPEG Recording media More 2GB, purchasable in Mongolia, Lens: Zoom lens Optics 10 x more, Digital zoom 4 x more, Electronic flash included, LCD size; more 2 inches, With battery charger for 220ACV & tripod	1	Mon-golia	ASEAN/China	----	---
87	Lighting apparatus	Type: Common functions with following components, 1 of metal halide light with 110W , 2 of umbrella for shooting, 2 of strobe head, 2 of stand, 1 of lighting equipment for shooting, 2 of reflection curtain, 2 of reflection board, Storage equipment	1	Mon-golia	ASEAN/China	----	---
88	Microphone	Microphone for narration recording compatible with an equipment #68	1	Mon-golia	ASEAN/China	----	---
89	Digital recorder	Type: Portable and studio use, Stereophonic recording, Recording media: CF card, Record format: 16/24 bit	1	Japan	ASEAN/China	----	---
90	Speaker	Desk top and compatible with multi-media, Rating output: approx. 15W	1	Japan	ASEAN/China	----	---
91	Headphone	Compatible with a equipment #68	1	Japan	ASEAN/China	----	---
92	Chair with small table	With caster and be able to pile up , Dimension: approx. 500Wx600Dx830H	108	China	China	----	---
93	Stand for lecturer	Wooden made, Dimension: approx. 650Wx500Dx1100H, Wooden	1	China	China	----	---
94	Table with blind board	Be able to folding , Dimension: approx. 1800W x 500D x 700H,	2	China	China	----	---
95	Chair with caster	With caster and with out armrest , Dimension: approx. 600Wx550Dx 900-1000H	19	China	China	----	---
96	White board	Size : approx. 1800Wx900D, Double side	6	China	China	----	---
97	Desk for instructor and trainee	Size: approx.1500Wx600Dx700H	32	China	China	----	---
98	Stand for printer	Size: approx. 800Wx700Dx700H, Melamine board	4	China	China	----	---
99	Chair of trainee	Size: approx. 550Wx550Dx750H	107	China	China	----	---
100	Screen	Approx. 80 inches	2	China	China	----	---
101	Computer desk	Size : approx. 1200Wx1000Dx700H, Wooden or melamine board	11	China	China	----	---
102	Shelves type rocker	Size: approx. 900Wx450Dx1800H, Steel made	18	China	China	----	---

No.	Equipment	Specification		Final Quantity	Procurement Source	Country of origin	Necessity of local agent	
							Spare parts for consumable	Maintenance
103	Holding stand for chair	Holding capacity: 10 chairs/stand		11	China	China	----	---
104	Data compilation and retention shelves	Size: approx. 900W x 400Dx2100H, Steel made, Four shelves or more		30	China	China	----	---
105	Sample custody shelves	Size: approx. 1200W x600Dx2100H, Steel made, Four shelves or more		4	China	China	----	---
106	Magazine rack A	Size: approx.1200w x 450Dx1800-2000H, Steel made		2	China	China	----	---
107	Magazine rack B	Size: approx.1200W x450Dx1800-2000H, Steel made, Different type of #106		2	China	China	----	---
108	Partition desk	External size: approx. 1000W x600 D x1120H, Wooden		4	China	China	----	---
109	Table	Size : approx. 900Wx900 D x700H, Wooden		2	China	China	----	---
110	Table for laboratory	Size: approx. 1800W x 1200Dx 800H with outlet and drawer, Wooden		4	Japan	Japan	----	---
111	Chair for laboratory	Size: approx. 560" diameter x820H, Vinyl-coated		18	China	China	----	---
112	Cabinet for data	Size: approx. 900W x450Dx 1700-2100H Steel made, Four shelves or more		6	China	China	----	---
113	Open shelves	Size: approx. 900W x 450Dx1800-2100Dx1800-2100H, Steel made		18	China	China	----	---
114	Office desk	Size: approx.1200W x700 D x700H, Steel made		4	China	China	----	---
115	Office chair	Size: approx.600Wx560Dx1010H, With caster		4	China	China	----	---
116	Easy book binding machine	Glue type: Maximum binding thickness 40mm, maximum binding length 390mm		2	Japan	Japan	----	---
117	Easy book binding machine	Ring biding type: Maximum binding thickness 28mm, maximum binding size A4 with manual punch		2	Japan	Japan	----	---
118	Working table for research work	Size: approx.1500W x 1800D x 700H. Wooden top board, Leg part are steel made		3	China	China	----	---
119	Drawer with caster	Size: approx.420Wx600 D x 600H, Steel made, 3shelves		4	China	China	----	---
120	A set of equipment for computer network	Server	CPU: Intel Quad-Core , ECC Memory; 4GB , DDR-2 667MHz HD; 400GB or more, OS; MS Windows server Power source : AC220V single phase 50Hz	3	Mon-golia	ASEAN/China	----	○
		UPS	For network capacity; more than 1kVA, Backup time 5 minutes more, Provide for each PC (22 units)	3				
		Rack	Steel made, 3-4 shelves	3				

## **8. IEE Notice**





МОНГОЛ УЛСЫН  
БАЙГАЛЬ ОРЧИН,  
АЯЛАЛ ЖУУЛЧЛАЛЫН ЯАМ

14201 Улаанбаатар хот, Чингэлгэй дүүрэг,  
Нэгдсэн Үндэстний гудамж 5/2 Засгийн газрын II байр  
Утас: 26-61-71 Факс: (976-11) 26-62-86,  
И-мэйл: monenv@mail.mn, http://www.mne.mn

2009.05.30 № 6/802

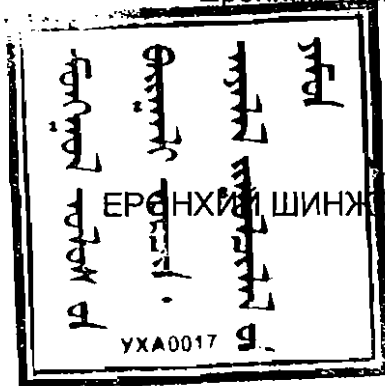
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**“ЦЭНГЭГ УСНЫ НӨӨЦ, БИОЛОГИЙН ТӨРӨЛ  
ЗҮЙЛИЙН ТӨВ” ТӨСЛИЙГ ЗОХИОН БАЙГУУЛАХ  
АЖЛЫН ХЭСЭГТ**

Улаанбаатар хотын Хан-Уул дүүргийн 11 дүгээр хорооны нутаг дэвсгэр Богд Хан уулын Дархан цаазат газрын Зайсангийн аманд “Цэнгэг усны нөөц, биологийн төрөл зүйлийн төв” байгуулах төсөлд “Байгаль орчинд нөлөөлөх байдлын үнэлгээний тухай хууль”-ийн дагуу Ерөнхий үнэлгээ хийв.

Ерөнхий үнэлгээний дүгнэлтийг үндэслэн уг төслийг нөхцөл болзолтойгоор хэрэгжүүлэх боломжтой гэж үзлээ.

Ерөнхий үнэлгээний дүгнэлтийг хавсаргав.



Ч.ГАНБАТ

090813

Байгаль орчин, аялал жуулчлалын яам

**БАЙГАЛЬ ОРЧИНД НӨЛӨӨЛӨХ БАЙДЛЫН  
ЕРӨНХИЙ ҮНЭЛГЭЭНИЙ ДҮГНЭЛТ**

2009 оны 3 дугаар  
сарын 26-ны өдөр

Улаанбаатар хот

**Төслийн дугаар**

**2009/J 021**

**ТӨСЛИЙН ТОВЧ ТОДОРХОЙЛОЛТ**

<b>Төслийн нэр</b>	“Цэнгэг усны нөөц, биологийн төрөл зүйлийн төв” байгуулах төсөл
<b>Төслийн байршил</b>	Улаанбаатар хотын Хан-Уул дүүргийн нутаг дэвсгэрт Богд Хан уулын Дархан цаазат газрын Зайсангийн аманд хэрэгжүүлнэ.
<b>Төсөл хэрэгжүүлэгч</b>	Япон улсын буцалтгүй тусламжийн хүрээнд “Цэнгэг усны нөөц, биологийн төрөл зүйлийн төв”-ийг барьж байгуулах ажилд Монголын талаас БОАЖ-ын сайдын 2008 оны 10 дугаар сарын 07-ны 15 дугаар тушаалаар томилогдсон ажлын хэсэг.
<b>Төсөл хэрэгжүүлэгчийн хаяг</b>	Улаанбаатар хот, Чингэлтэй дүүрэг, БОАЖЯ. Утас: 51-261516, Ажлын хэсгийн ахлагч Ц.Дамдин.
<b>Төслийн хүчин чадал, товч тодорхойлолт</b>	“Цэнгэг усны нөөц, биологийн төрөл зүйлийн төв” байгуулах төслийн хүрээнд үндсэн 3 давхар барилга байгууламж барихаар төлөвлөсөн байна. Урьдчилсан төлөвлөлтөөр 1 дүгээр давхарыг жуулчин, энгийн иргэд үйлчлүүлэх, 2 дугаар давхарт сургалтын танхим, байгаль орчны мэдээлийн төв, 3 дугаар давхарт судалгаа шинжилгээний лаборатори, оффис байрлуулах ба зоорийн давхарт гаднаас оруулах дэд бүтэц, авто машины граж, үзэлийн өрөө зэргийг байрлуулахаар тооцоолсон байна. Төслийн үйл ажиллагааг хэвийн явуулахад шаардагдах эрчим хүч, дулаан хангамж, цэвэр, бохир усны асуудлыг төвлөрсөн шугам сүлжээнд холбох, бусад техник хэрэгсэл, тоног төхөөрөмж, түүхийн эд, материалыг төслийн ТЭЗҮ, зураг төсөл, төлөвлөлтөд заасныг дагуу ашиглахаар төлөвлөжээ. Төсөл хэрэгжүүлэгчид уг төвд 35 хүнийг ажлын байраар хангаж үйл ажиллагаа явуулна.

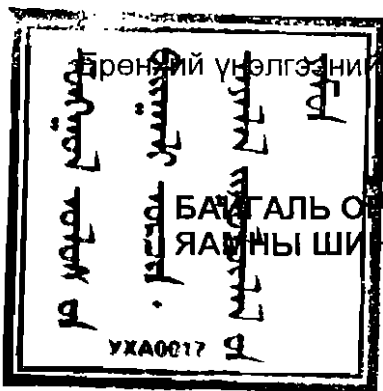
## ЕРӨНХИЙ ҮНЭЛГЭЭНИЙ ДҮГНЭЛТ

Улаанбаатар хотын Хан-Уул дүүргийн нутаг дэвсгэрт Богд Хан уулын ДЦГ-ын Зайсангийн аманд “Цэнгэг усны нөөц, биологийн төрөл зүйлийн төв” байгуулах төсөлд “Байгаль орчинд нөлөөлөх байдлын үнэлгээний тухай” хуулийн дагуу Ерөнхий үнэлгээ хийж, уг төслийг нөхцөл болзолтойгоор хэрэгжүүлэх боломжтой гэж үзлээ.

### ТӨСӨЛ ХЭРЭГЖҮҮЛЭХЭД МӨРДӨЖ АЖИЛЛАХ ШААРДЛАГАТАЙ НӨХЦӨЛ БОЛЗОЛ

Хийх ажлын нэр	Хугацаа	Тайлбар
1. Усны нөөцийг зохистой ашиглах, ахуйн болон барилга байгууламжийг барих явцад ашиглах усны эх үүсвэрийг тогтоож, ус ашигласны төлбөрийг тогтоосон хугацаанд барагдуулах; - Ахуйн хаягдал бохир усыг холбогдох байгууллагаас техникийн нөхцөл авч, гэрээ байгуулан төвлөрсөн шугам сүлжээнд нийлүүлэх байдлаар шийдвэрлэх. - Бохир ус зайлуулах шугам хоолойн битүүмжлэл, байгалийн болон гадны нөлөөгөөр зэврэлт, цооролт үүсч хөрс, гүний усыг бохирдуулахаас урьдчилан сэргийлэх арга хэмжээ авч ажиллах.	Үйл ажиллагааны туршид	
2. Ахуйн болон барилгын хог хаягдлыг зориулалтын тусгай саванд ангилан ялгаж хадгалан, Хан-Уул дүүргийн ТҮК-тай гэрээ байгуулж, тогтмол хугацаанд зайлуулж байх.	Сар тутам	
3. Төвийн эдэлбэр газар, барилга байгууламжийн орчны талбайг засаж тохижуулах, зүлэгжүүлэх, ногоон байгууламж байгуулах асуудлыг мэргэжлийн байгууллагаас зөвлөмж авч ерөнхий төлөвлөгөөнд заасны дагуу иж бүрэн тохижуулах.	Үйл ажиллагаа эхлэх үеэс	
4. Ажлын байрны эрүүл ахуйн болон галын дүгнэлтийг эрх бүхий байгууллагаар гаргуулж мөрдөж ажиллах.	Үйл ажиллагаа эхлэх үеэс	
5. Галын аюулаас хамгаалах багаж хэрэгслийг бэлэн байлгах, тэдгээрийг ашиглах арга зааврыг ажиллагсдад эзэмшүүлэх, галын аюулаас сэргийлэх анхааруулга санамж хийж, нүдэнд харагдахуйц газарт байрлуулах.	Үйл ажиллагаа эхлэх үеэс	
6. Үйлчилүүлэгчдийн тээврийн хэрэгсэл, авто машины зогсоолыг оновчтойгоор шийдвэрлэх, хатуу хучиллтай хийж тоос шороо үүсэх, хөрсийг элэгдэл эвдрэлд орохоос урьдчилан сэргийлэх арга хэмжээг авах.	Үйл ажиллагаа эхлэх үеэс	
8. Байгаль орчныг хамгаалах талаар авч хэрэгжүүлсэн арга хэмжээний талаар жил бүр тайлан гаргаж, Богд Хан уулын ДЦГ-ын Хамгаалалтын захиргаанд хүргүүлж байх.	Жил бүр	

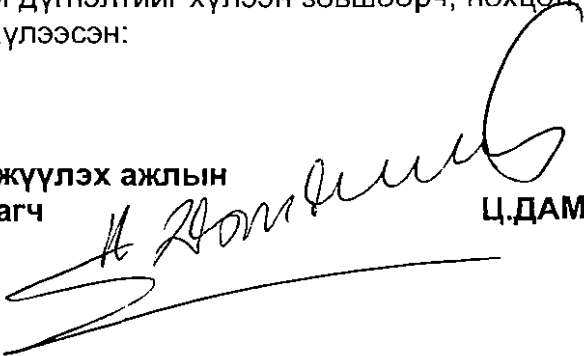
<p>9. Байгаль орчныг хамгаалах болон байгаль орчныг хамгаалахтай холбогдсон хууль тогтоомжийг биелүүлэх асуудлаар байгаль орчны болон эрүүл ахуй, халдвар судлал, хөдөлмөр, барилга, дэд бүтцийн хяналтын байгууллага, тэдгээрийн ажилтнуудтай байнга хамтран ажиллах.</p>	<p>Үйл ажиллагаа эхлэх үеэс</p>	
<p>10. Төслийн үйл ажиллагааны чиглэл болон хүчин чадал өөрчлөгдөх, өргөтгөл, шинэчлэл хийх, байршил өөрчлөгдөх тохиолдолд байгаль орчинд нөлөөлөх байдлын ерөнхий үнэлгээг дахин хийлгэж шийдвэр гаргуулж байх.</p>	<p>Тухай бүрт</p>	



  
 Д.ШИЖИР-ЭРДЭНЭ

Ерөнхий үнэлгээний дүгнэлтийг хүлээн зөвшөөрч, нөхцөл, болзлыг хэрэгжүүлэх үүрэг хүлээсэн:

Төсөл хэрэгжүүлэх ажлын хэсгийн ахлагч

  
 Ц.ДАМДИН