

16.6 Project Cost Estimate

The project costs required for implementing the project works are estimated for each implementation term as explained below.

(1) Allocation of Project Costs

The project costs consist of construction costs for the contractors, costs for engineering services for detailed design and construction supervision, administration costs for the government administration and contingencies for price escalation and physical contingencies. The expenses for land acquisitions and compensations are not considered because the land for rural water supply facilities are constructed in the public lands and even if private lands are used such usage is agreed among the community members. The value added tax (VAT) is considered in the equipment and material cost estimate.

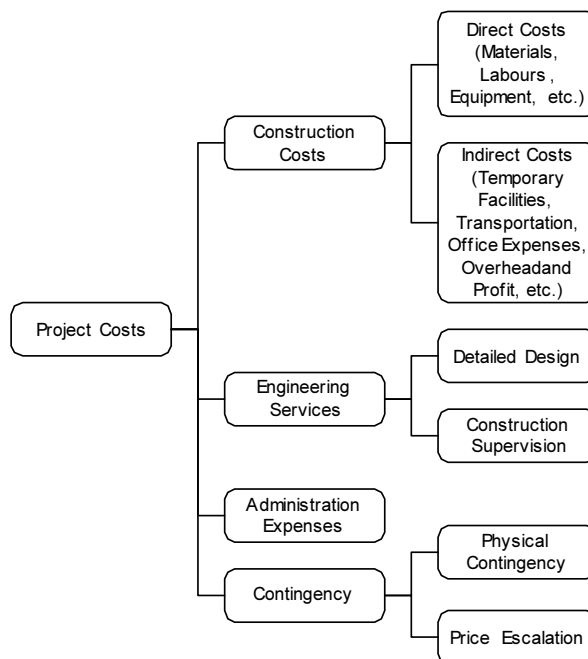


Figure 16-44 Concept of Cost Allocation for Rural Water Supply Master Plan

1) Construction Costs

The construction costs is composed of direct costs for construction materials, labors, construction equipment, indirect costs for temporary works and facilities, transportations, office expenses, etc., and the contractor's overhead and profit. The direct costs are estimated based on the prices prevailing in the Ugandan market and the results of previous tenders. Indirect costs are estimated as 15 % of total direct costs including the contractor's profit and overhead.

2) Engineering Service Fees

The engineering services of the consultant are composed of the fees for detailed design and supervision services of the contractors' construction works in the project implementation. The service fees are estimated at 15 % of the total construction costs.

3) Administration Expenses

Three (3) % of the sum of the construction costs and the engineering service fees is reserved for the activities of the government staff as the administration expenses.

4) Contingency

10 % of the sum of the construction costs, the engineering service fees and the administration expenses is reserved for the physical and price contingencies.

(2) Procedures of Cost Estimate

1) Deep Boreholes with Hand Pump

The construction costs for the deep boreholes with hand pump are estimated based on the expected depths of boreholes and the success rate of drilling, which are worked out through the hydrogeological surveys and investigations. Generally, the success rate of the boreholes with hand pump is higher than that for the boreholes for piped water supply system for RGCs, because the yield required for the piped water supply system serving population from 500 to 5,000 population is larger than that for the boreholes with hand pump serving 300 peoples. The project costs required for the construction of deep boreholes with hand pump are tabulated below for each sub-county.

Table 16-58 Project Cost of Borehole with Hand Pump

(Unit: UGX)

Descriptions	Borehole Depth (m)					
	50 m	60 m	70 m	80 m	90 m	100 m
Case 1: Success Rate = 100 %						
1. Temporary and Preparatory Works	5,688,690	5,989,440	6,290,190	6,590,940	6,891,691	7,192,441
2. Borehole Construction Works including drilling, development, etc.	14,216,300	16,221,300	18,226,300	20,231,300	22,236,300	24,241,300
3. Pumping Test consisting of step drawdown, continuous and recovery tests, and Water Sampling for analyses	1,338,500	1,338,500	1,338,500	1,338,500	1,338,500	1,338,500
4. Installation of Hand Pump (U2) and Construction of Platform, etc.	8,672,852	8,672,852	8,672,852	8,672,852	8,672,852	8,672,852
Sub-total (1)	29,915,342	32,222,092	34,527,842	36,833,592	39,139,342	41,445,092
5. Engineering Services of Design and Construction Supervision (15 % of Sub-total (1))	4,487,451	4,833,314	5,179,176	5,525,039	5,870,901	6,216,764
Sub-total (2)						
6. Administration Expenses (3 % of Sub-total (2))	1,032,114	1,111,662	1,191,211	1,270,759	1,350,307	1,429,856
Sub-total (3)						
7. Contingencies (Physical and Price Escalation) (10 % of Sub-total (3))	3,543,591	3,816,707	4,089,823	4,362,939	4,636,055	4,909,171
Total	38,979,498	41,983,775	44,988,052	47,992,329	50,996,605	54,000,883
Cost of Above 1 + 2 varying in terms of Success Rate						
Case 2: Success Rate = 100 %	19,905,000	22,211,000	24,516,000	26,822,000	29,128,000	31,434,000
Case 2: Success Rate = 90 %	21,217,000	23,717,000	26,215,000	28,714,000	31,214,000	33,713,000
Case 2: Success Rate = 80 %	22,887,000	25,633,000	28,378,000	31,123,000	33,868,000	36,613,000
Case 2: Success Rate = 70 %	25,034,000	28,097,000	31,158,000	34,220,000	37,281,000	40,344,000
Case 2: Success Rate = 60 %	27,897,000	31,383,000	34,865,000	38,350,000	41,833,000	45,317,000
Case 2: Success Rate = 50 %	31,835,000	35,900,000	39,963,000	44,027,000	48,092,000	52,156,000
Case 2: Success Rate = 40 %	37,800,000	42,744,000	47,687,000	52,629,000	57,573,000	62,516,000
Case 2: Success Rate = 30 %	47,702,000	54,106,000	60,507,000	66,910,000	73,314,000	79,716,000
Case 2: Success Rate = 20 %	67,626,000	76,966,000	86,304,000	95,643,000	104,983,000	114,322,000
Case 2: Success Rate = 10 %	127,278,000	145,410,000	163,540,000	181,671,000	199,802,000	217,933,000
Case 2: Success Rate = 5 %	246,581,000	282,297,000	318,011,000	353,726,000	389,441,000	425,155,000

2) Water Supply Facilities for RGCs

a) Point Water Source for RGCs (Category 1)

The solar powered point water sources are applied for the RGCs of Category I. The water supply facility consists of a few numbers of solar modules on top of the elevated tank provided on the steel support. A deep borehole is drilled beside the support and a submersible water pump with a electric motor is installed in the borehole. The water is sold at the water kiosk constructed beside the borehole structure. The construction costs for the deep borehole are different from place to place because the hydrogeological conditions are different, and then the costs are calculated based on the depth and success rate of drilling at the required yield. The construction costs for the other facilities such as solar modules, elevated tank, water kiosk, etc. are of the structures and dimensions same among the facilities. The required project costs for the point water source for RGCs of Category I are presented in Table 16-59.

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Table 16-59 Project Cost for RGC of Category I

Cost Outline of Water Supply Facilities for RGC (Category I - Solar generation power)

RGC:	Gogono
District:	Pallisa

Year	Popuration	Category	Consumption per capita	Water demand	Deep Borehole	Elevated tank 10m3 h=6m	Water Kiosk	House Connection	School Connection	Helth Center Connection
			lit/day/capita	m3/day		capacity (m3)	3taps(450p)	6p/place	2 tap/pl	2 tap/pl
Short Term Plan (by 2015)	377	I	20	7.5	-	-	-	-	-	-
Middle Term Plan (by 2020)	447	I	25	11.2	1	10	1	-	-	-
Longe Term Plan (by 2035)	748	I	30	22.4	1	10	1	-	-	-

A Construction Cost

No	Item	Description	Unit	Rate	Works by 2015		Works by 2020		Works by 2035		Remarks
					Quantity	Amount	Quantity	Amount	Quantity	Amount	
1	Direct Cost			(UGX)		(UGX)		(UGX)		(UGX)	rate on Aug ,2010
1-1	Intake Facilities										Inter bank rate
	Deep Borehole Facilities	Dia 125mm	pls	62,529,000	0.0	0	1.0	62,529,000	1.0	62,529,000	UGX 2,282.12/US\$
	Installation of well pump with electrical works		unit	15,194,221	0.0	0	1.0	15,194,221	1.0	15,194,221	
	Piping works for well to outlet		unit	19,391,309	0.0	0	1.0	19,391,309	1.0	19,391,309	
	Power source										
	Solar generation power system supply (Operation 6hrs/day)										
		Solar module (120w per set)	set	2,309,328	0.0	0	18.0	41,567,904	18.0	41,567,904	
	Sub total (a)					0		138,682,434		138,682,434	
1-2	Transmission Facilities										
	Elevated Tank	10m3, h=6m	No	131,427,319	0.0	0	1.0	131,427,319	1.0	131,427,319	
	Sub total (b)					0		131,427,319		131,427,319	
1-3	Distribution Facilities										
	Water Kiosk	incl. DN50mm, uPVC/HDPE	Nos	18,018,308	0.0	0	1.0	18,018,308	1.0	18,018,308	
	Sub total (c)					0		18,018,308		18,018,308	
	Sub Total 1 (a+b+c)	Soular Power System				0		288,128,061		288,128,061	
2	Preliminaries	15% of Sub-Total (c)	L/S		1.0	0	1.0	43,219,209	1.0	43,219,209	
	Sub-Total 2	Sub-Total 2	L/S		1.0	0	1.0	331,347,270	1.0	331,347,270	
3	Design Costs & Construction Supervision		%	Total (1+2)	15.0	0	15.0	49,702,091	15.0	49,702,091	
	Desin Costs	5.5% of Construction Cost									
	Construction Supervision	9.5% of Construction Cost									
4	Adomistration Expenses		%	Total (1+2+3)	3.0	0	3.0	11,431,481	3.0	11,431,481	
5	Contingencies		%	Total (1+2+3+4)	10.0	0	10.0	39,248,084	10.0	39,248,084	
		10% of Sub-Total									
	Total Project Cost					0		431,731,000		431,731,000	

Cost Outline of Water Supply Facilities for RGC (Category I - Solar generation power)

RGC:	Kasilo
District:	Soroti

Year	Popuration	Category	Consumption per capita	Water demand	Deep Borehole	Elevated tank 10m3 h=6m	Water Kiosk	House Connection	School Connection	Helth Center Connection
			lit/day/capita	m3/day		capacity (m3)	3taps(450p)	6p/place	2 tap/pl	2 tap/pl
Short Term Plan (by 2015)	190	I	20	3.8	-	-	-	-	-	-
Middle Term Plan (by 2020)	231	I	25	5.8	-	-	-	-	-	-
Longe Term Plan (by 2035)	416	I	30	12.5	1	10	1	-	-	-

A Construction Cost

No	Item	Description	Unit	Rate	Works by 2015		Works by 2020		Works by 2035		Remarks
					Quantity	Amount	Quantity	Amount	Quantity	Amount	
1	Direct Cost			(UGX)		(UGX)		(UGX)		(UGX)	rate on Aug ,2010
1-1	Intake Facilities										Inter bank rate
	Deep borehole construction	Dia 125mm	pls	30,729,000	0.0	0	0.0	0	1.0	30,729,000	UGX 2,282.12/US\$
	Installation of well pump with electrical works		unit	15,194,221	0.0	0	0.0	0	1.0	15,194,221	
	Piping works for well to outlet		unit	19,391,309	0.0	0	0.0	0	1.0	19,391,309	
	Spare for pump unit		unit	9,638,861	0.0	0	0.0	0	1.0	9,638,861	
	Power source										
	Solar generation power system supply (Operation 6hrs/day)										
		Solar module (120w per set)	set	2,309,328	0.0	0	0.0	0	18.0	41,567,904	
	Sub total (a)					0		0		116,521,295	
1-2	Transmission Facilities										
	Elevated Tank	10m3, h=6m	No	131,427,319	0.0	0	0.0	0	1.0	131,427,319	
	Sub total (b)					0		0		131,427,319	
1-3	Distribution Facilities										
	Water Kiosk	incl. DN50mm, uPVC/HDPE	Nos	18,018,308	0.0	0	0.0	0	1.0	18,018,308	
	Sub total (c)					0		0		18,018,308	
	Sub Total 1 (a+b+c)					0		0		265,966,922	
2	Preliminaries	15% of Sub-Total (c)	L/S		1.0	0	1.0	0	1.0	39,895,038	
	Sub-Total	Sub-Total	L/S		1.0	0	1.0	0	1.0	305,861,960	
3	Design Costs & Construction Supervision		%	Total (1+2)	15.0	0	15.0	0	15.0	45,879,294	
	Desin Costs	5.5% of Construction Cost									
	Construction Supervision	9.5% of Construction Cost									
4	Adomistration Expenses		%	Total (1+2+3)	3.0	0	3.0	0	3.0	10,552,238	
5	Contingencies		%	Total (1+2+3+4)	10.0	0	10.0	0	10.0	36,229,349	
		10% of Sub-Total									
	Total Project Cost					0		0		398,525,000	

b) Piped Water Supply Facilities for RGCs (Category II - IV)

The piped water supply facilities are composed of deep boreholes, raw water transmissions, elevated tanks (reservoirs), distribution pipelines, and water kiosks and yard taps. The size and type of the boreholes and raw water transmissions are determined by the natural conditions such as topography and hydrogeology of the source areas, while those of the other facilities such as elevated tanks, distribution pipelines, and water kiosks and yard taps are determined by the population scales of RGCs. Therefore, the scales of the later facilities are determined in proportion to the population of RGCs as shown in Figure 16-45.

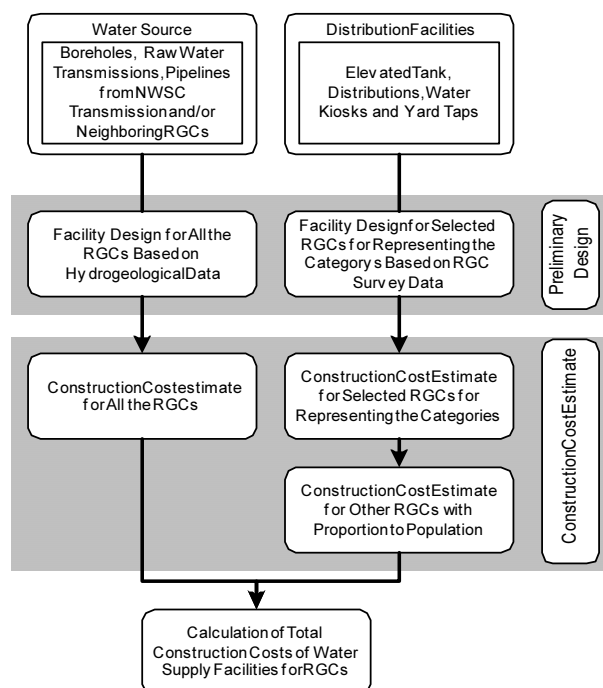


Figure 16-45 Flow of Cost Estimate for RGCs

The construction costs for the piped water supply facilities for RGCs of Category II - IV are calculated as stated below.

- The construction costs of piped water supply facilities are calculated for each RGC selected as that representing each category, based on the data and records of the previous tenders, etc.
- The construction costs for the RGCs other than those selected for the categories are basically estimated in proportion to the RGCs' population. However, the costs for the intake facilities such as deep boreholes, raw water transmissions, pipelines to transmit raw water from NWSC transmissions and/or neighboring RGCs are estimated the hydrogeological data such as expected yields and their success rate, expected drilling depths, distances to the neighboring RGC and/or the NWSC transmissions.

The estimated costs for the selected RGCs are summarized for each Category of RGC as shown below. The details of the above costs for each RGC are broken down as presented in Table from 16-61 to 16-69.

Table 16-60 Project Cost for Selected RGCs Representing Categories

(Unit: UGX)

Category/RGC	Description	Short Term Plan (2015)	Middle Term Plan (2020)	Long Term Plan (2035)
1. Category II-1 (Population from 1,000 to 2,000)				
Ikumbya	Population	1,508	1,783	2,948
	Cost for Water Distribution Facilities Proportional to Pop.	662,820,000	26,999,000	550,889,000
	Cost for Water Distribution Facilities per Capita	439,536	15,142	186,869
	Cost for Intake Facility	392,691,000	5,635,000	383,663,000
	Total Cost	1,055,511,000	32,634,000	934,552,000
Naigobya	Population	1,942	2,296	3,797
	Cost for Water Distribution Facilities Proportional to Pop.	717,875,000	26,999,000	567,587,000
	Cost for Water Distribution Facilities per Capita	369,658	11,759	149,483
	Cost for Intake Facility	326,796,000	0	330,589,000
	Total Cost	1,044,671,000	26,999,000	898,176,000
Kitetok	Population	1,265	1,539	2,772
	Cost for Water Distribution Facilities Proportional to Pop.	547,697,000	26,999,000	534,720,000
	Cost for Water Distribution Facilities per Capita	432,962	17,543	192,900
	Cost for Intake Facility	268,672,000	0	254,229,000
	Total Cost	816,369,000	26,999,000	788,949,000
Average of Category II-1		414,052	14,815	176,417
2. Category II-2 (Population from 2,000 to 3,000)				
Kameke	Population	3,194	3,663	6,127
	Cost for Water Distribution Facilities Proportional to Pop.	931,192,000	26,999,000	836,959,000
	Cost for Water Distribution Facilities per Capita	291,544	7,371	136,602
	Cost for Intake Facility	689,793,000	0	346,811,000
	Total Cost	1,620,985,000	26,999,000	1,183,770,000
Buseta	Population	2,839	3,370	5,637
	Cost for Water Distribution Facilities Proportional to Pop.	981,478,000	26,999,000	998,973,000
	Cost for Water Distribution Facilities per Capita	345,713	8,012	177,217
	Cost for Intake Facility	723,115,000	0	365,019,000
	Total Cost	1,704,593,000	26,999,000	1,363,992,000
Average of Category II-2		318,629	7,692	156,910
3. Category III (Population from 3,000 to 5,000)				
Nambale	Population	5,715	6,760	11,178
	Cost for Water Distribution Facilities Proportional to Pop.	1,272,064,000	73,518,000	994,709,000
	Cost for Water Distribution Facilities per Capita	222,583	10,875	88,988
	Cost for Intake Facility	495,626,000	0	619,548,000
	Total Cost	1,731,690,000	73,518,000	1,614,257,000
Kagwara Port	Population	3,796	4,618	8,317
	Cost for Water Distribution Facilities Proportional to Pop.	910,779,000	53,997,000	974,283,000
	Cost for Water Distribution Facilities per Capita	239,931	11,693	117,144
	Cost for Intake Facility	731,232,000	716,790,000	6,831,000
	Total Cost	1,642,011,000	770,787,000	981,114,000
Average of Category III		231,257	11,284	103,066
4. Category IV (Population more than 5,000)				
Namung'al-we	Population	14,474	17,115	28,299
	Cost for Water Distribution Facilities Proportional to Pop.	2,600,433,000	212,516,000	2,115,378,000
	Cost for Water Distribution Facilities per Capita	179,662	12,417	74,751
	Cost for Intake Facility	831,071,000	0	1,242,073,000
	Total Cost	3,431,504,000	212,516,000	3,357,451,000
Kadama	Population	12,888	15,298	25,587
	Cost for Water Distribution Facilities Proportional to Pop.	2,300,620,000	180,925,000	1,923,539,000
	Cost for Water Distribution Facilities per Capita	178,509	11,827	75,176
	Cost for Intake Facility	1,174,076,000	723,359,000	2,658,920,000
	Total Cost	3,474,696,000	904,284,000	4,582,459,000
Average of Category IV		179,086	12,122	74,964

Note: The cost proportional to population include the project cost of a elevated tank, distribution pipelines, water kiosks and yard taps.

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Table 16-61 Project Cost Breakdown for RGC (Category II-1)

RGC:	Ikumbya	Population	Category	Consumption per capita	Water Demand	Deep Borehole	Elevated tank h=12m	Water Kiosk	House Connection	School Connection	Helth Center Connection
District:	Iganga			lit/day/capita	m ³ /day		capacity (m ³)	3taps(450p)	6p/place	2 tap/pl	2 tap/pl
	Short Term Plan (by 2015)	1,508	II	20	30.2	1	20	3	0	3	1
	Middle Term Plan (by 2020)	1,783	II	25	44.6	1	30	4	0	3	1
	Longe Term Plan (by 2035)	2,948	II	30	88.4	2	50	7	0	3	1

No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
A	Construction Cost			(UGX)							rate on Aug ,2010
1	Direct Cost										Inter bank rate
1-1	Intake Facilities	Diesel Generator Supply			1.8 kVA	213,443,245	2.8 kVA	217,204,245	2.6 kVA	417,246,629	UGX 2.282.12/US\$
1-2	Transmission Facilities					48,630,000		48,630,000		104,636,000	
	Sub total of Intake and Transmission Facilities					262,073,245		265,834,245		521,882,629	
	Total Cost for Transmission Facilities (cumulative total)		Ratio	1.4984		392,691,000		398,326,000		781,989,000	
	Total Cost of each Term Plan for Transmission Facilities						Term II-I	5,635,000	Term III-II	383,663,000	
	Added Ratio of Engineering Services, Contingency ,etc.										
1-3	Distribution Facilities										
	Elevated Tank	60m ³ , h=12m (GL+H.W.L.)	No	339,144,209	1.0	339,144,209	1.0	339,144,209	1.0	339,144,209	
		70m ³ , h=12m (GL+H.W.L.)	No	359,709,195	0.0	0	0.0	0	1.0	359,709,195	
		DN25-DN50mm	m	38,507	870.0	33,501,090	870.0	33,501,090	1,566.9	60,335,333	incl. valves,others
		OD63mm	m	48,630	477.0	23,196,510	477.0	23,196,510	859.1	41,776,824	incl. valves,others
		OD90mm	m	56,006	679.0	38,028,074	679.0	38,028,074	1,222.9	68,488,413	incl. valves,others
	Water Kiosk	3taps	Nos	18,018,308	9	162,164,772	11	198,201,388	17	306,311,236	
	House Connection	6 parson/unit with meter	pls	766,340	0	0	0	0	139	106,521,328	
	School Connection	Pubic Stand Taps (2taps)	pls	3,933,243	2	7,866,486	2	7,866,486	2	7,866,486	
	Helth Center Connection	Pubic Stand Taps (2taps)	pls	3,933,243	1	3,933,243	1	3,933,243	1	3,933,243	
	Sub total of Distribution Facilities					442,351,923		460,370,231		828,021,500	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		662,820,000		689,819,000		1,240,707,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	26,999,000	Term III-II	550,889,000	
	Added Ratio of Engineering Services, Contingency ,etc.										
	Cost for Water Distribution Facilities per Capita	capita	population	1,508		439,536	1,783	15,142	2,948	186,869	
	Total Cost					1,055,511,000		32,634,000		934,552,000	

Table 16-62 Project Cost Breakdown for RGC (Category II-1)

RGC:	Naigobya	Population	Category	Consumption per capita	Water Demand	Deep Borehole	Elevated tank h=12m	Water Kiosk	House Connection	School Connection	Helth Center Connection
District:	Iganga			lit/day/capita	m ³ /day		capacity (m ³)	3taps(450p)	6p/place	2 tap/pl	2 tap/pl
	Short Term Plan (by 2015)	1,942	II	20	38.8	1	20	5	0	7	1
	Middle Term Plan (by 2020)	2,296	II	25	57.4	1	30	6	0	7	1
	Longe Term Plan (by 2035)	3,797	III	30	113.9	2	60	9	0	7	1

No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
A	Construction Cost			(UGX)							rate on Aug ,2010
1	Direct Cost										Inter bank rate
1-1	Intake Facilities					137,857,245		137,857,245		266,075,629	UGX 2.282.12/US\$
1-2	Transmission Facilities					80,239,500		80,239,500		172,649,400	
	Sub total of Intake and Transmission Facilities					218,096,745		218,096,745		438,725,029	
	Total Cost for Transmission Facilities (cumulative total)		Ratio	1.4984		326,796,000		326,796,000		657,386,000	
	Total Cost of each Term Plan for Transmission Facilities						Term II-I	0	Term III-II	330,589,000	
	Added Ratio of Engineering Services, Contingency ,etc.										
1-3	Distribution Facilities										
	Elevated Tank	30m ³ , h=12m (GL+H.W.L.)	No	262,819,406	1.0	262,819,406	1.0	262,819,406	1.0	262,819,406	
		30m ³ , h=12m (GL+H.W.L.)	No	262,819,406	0.0	0	0.0	0	1.0	262,819,406	
		DN25-DN50mm	m	38,507	100.0	3,850,700	100.0	3,850,700	165.4	6,368,078	incl. valves,others
		OD63mm	m	48,630	1,500.0	72,945,000	1,500.0	72,945,000	2,480.6	120,632,476	incl. valves,others
		OD90mm	m	56,006	320.0	17,921,920	320.0	17,921,920	529.2	29,638,297	incl. valves,others
	Water Kiosk	3taps	Nos	18,018,308	5	90,091,540	6	108,109,848	9	162,164,772	incl. valves,others
	School Connection	Pubic Stand Taps (2taps)	pls	3,933,243	7	27,532,701	7	27,532,701	7	27,532,701	
	Helth Center Connection	Pubic Stand Taps (2taps)	pls	3,933,243	1	3,933,243	1	3,933,243	1	3,933,243	
	Sub total of Distribution Facilities					479,094,510		497,112,818		875,908,379	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		717,875,000		744,874,000		1,312,461,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	26,999,000	Term III-II	567,587,000	
	Added Ratio of Engineering Services, Contingency ,etc.										
	Cost for Water Distribution Facilities per Capita	capita	population	1,942		369,658	2,296	11,759	3,797	149,483	
	Total Cost					1,044,671,000		26,999,000		898,176,000	

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Table 16-63 Project Cost Breakdown for RGC (Category II-1)

RGC:	Kidetok	Population	Category	Consumption per capita	Water Demand	Deep Borehole	Elevated tank h=12m	Water Kiosk	House Connection	School Connection	Helth Center Connection
District:	Soroti			lit/day/capita	m ³ /day		capacity (m ³)	3taps(450p)	6p/place	2 tap/pl	2 tap/pl
	Short Term Plan (by 2015)	1,265	II	20	25.3	1	20	3	0	4	1
	Middle Term Plan (by 2020)	1,539	II	25	38.5	1	20	4	0	4	1
	Longe Term Plan (by 2035)	2,772	II	30	83.2	2	50	7	0	4	1

No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount	Quantity	Amount	Quantity	Amount	
A	Construction Cost			(UGX)							rate on Aug. 2010
1	Direct Cost										Inter bank rate
1-1	Intake Facilities					128,244,245		128,244,245		246,849,629	UGX 2.282.12/US\$
1-2	Transmission Facilities					51,061,500		51,061,500		102,123,000	
	Sub total of Intake and Transmission Facilities					179,305,745		179,305,745		348,972,629	
	Total Cost for Transmission Facilities (cumulative total)		Ratio	1.4984		268,672,000		268,672,000		522,901,000	
	Total Cost of each Term Plan for Transmission Facilities						Term II-I	0	Term III-II	254,229,000	
	Added Ratio of Engineering Services, Contingency .etc.										
1-3	Distribution Facilities										
	Elevated Tank	20m3, h=12m (GL+H.W.L.)	No	241,889,960	1.0	241,889,960	1.0	241,889,960	1.0	241,889,960	
		30m3, h=12m (GL+H.W.L.)	No	262,819,406	0.0	0	0.0	0	1.0	262,819,406	
	DN25-DN50mm	uPVC/HDPE Common soil	m	38,507	450.0	17,328,150	450.0	17,328,150	810.5	31,210,937	incl. valves,others
	OD63mm	uPVC/HDPE Common soil	m	48,630	670.0	32,582,100	670.0	32,582,100	1,206.8	58,685,888	incl. valves,others
	Water Kiosk	3taps	Nos	18,018,308	3	54,054,924	4	72,073,232	7	126,128,156	
	School Connection	Public Stand Taps (2taps)	pls	3,933,243	4	15,732,972	4	15,732,972	4	15,732,972	
	Helth Center Connection	Public Stand Taps (2taps)	pls	3,933,243	1	3,933,243	1	3,933,243	1	3,933,243	
	Sub total of Distribution Facilities					365,521,349		383,539,657		740,400,562	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		547,697,000		574,696,000		1,109,416,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	26,999,000	Term III-II	534,720,000	
	Added Ratio of Engineering Services, Contingency .etc.										
	Cost for Water Distribution Facilities per Capita		capita	population	1,265	432,962	1,539	17,543	2,772	192,900	
	Total Cost					816,369,000		26,999,000		788,949,000	

Table 16-64 Project Cost Breakdown for RGC (Category II-2)

RGC:	Kameke	Population	Category	Consumption per capita	Water Demand	Deep Borehole	Elevated tank h=12m	Water Kiosk	House Connection	School Connection	Helth Center Connection
District:	Pallisa			lit/day/capita	m ³ /day		capacity (m ³)	3taps(450p)	6p/place	2 tap/pl	2 tap/pl
	Short Term Plan (by 2015)	3,194	III	20	63.9	2	40	8	0	6	1
	Middle Term Plan (by 2020)	3,663	III	25	91.6	2	50	9	0	6	1
	Longe Term Plan (by 2035)	6,127	IV	30	183.8	3	100	13	103	6	1

No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount	Quantity	Amount	Quantity	Amount	
A	Construction Cost			(UGX)							rate on Aug. 2010
1	Direct Cost										Inter bank rate
1-1	Intake Facilities					316,408,490		316,408,490		464,973,874	UGX 2.282.12/US\$
1-2	Transmission Facilities					143,944,800		143,944,800		226,833,680	
	Sub total of Intake and Transmission Facilities					460,353,290		460,353,290		691,807,554	
	Total Cost for Transmission Facilities (cumulative total)		Ratio	1.4984		689,793,000		689,793,000		1,036,604,000	
	Total Cost of each Term Plan for Transmission Facilities						Term II-I	0	Term III-II	346,811,000	
	Added Ratio of Engineering Services, Contingency .etc.										
1-3	Distribution Facilities										
	Elevated Tank	50m3, h=12m (GL+H.W.L.)	No	320,807,314	1.0	320,807,314	1.0	320,807,314	1.0	320,807,314	
		50m3, h=12m (GL+H.W.L.)	No	320,807,314	0.0	0	0.0	0	1.0	320,807,314	
	DN25-DN50mm	uPVC/HDPE Common soil	m	38,507	577.0	22,218,539	577.0	22,218,539	965.1	37,164,343	incl. valves,others
	OD63mm	uPVC/HDPE Common soil	m	48,630	1,032.0	50,186,160	1,032.0	50,186,160	1,726.2	83,945,018	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	1,010.0	56,566,060	1,010.0	56,566,060	1,689.4	94,616,503	incl. valves,others
	Water Kiosk	3taps	Nos	18,018,308	8	144,146,464	9	162,164,772	13	234,238,004	
	House Connection	6 parson/unit with meter	pls	766,340	0	0	0	0	103	78,933,070	
	School Connection	Public Stand Taps (2taps)	pls	3,933,243	6	23,599,458	6	23,599,458	6	23,599,458	
	Helth Center Connection	Public Stand Taps (2taps)	pls	3,933,243	1	3,933,243	1	3,933,243	1	3,933,243	
	Sub total of Distribution Facilities					621,457,238		639,475,546		1,198,044,267	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		931,192,000		958,190,000		1,795,150,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	26,999,000	Term III-II	836,959,000	
	Added Ratio of Engineering Services, Contingency .etc.										
	Cost for Water Distribution Facilities per Capita		capita	population	3,194	291,544	3,663	7,371	6,127	136,602	
	Total Cost					1,620,985,000		26,999,000		1,183,770,000	

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Table 16-65 Project Cost Breakdown for RGC (Category II-2)

RGC:	Buseta	Population	Category	Consumption per capita	Water Demand	Deep Borehole	Elevated tank h=12m	Water Kiosk	House Connection	School Connection	Health Center Connection
District:	Pallisa			lit/day/capita	m ³ /day		capacity (m ³)	3taps(450p)	6p/place	2 tap/pl	2 tap/pl
	Short Term Plan (by 2015)	2839	II	20	56.8	2	30	7	0	6	1
	Middle Term Plan (by 2020)	3370	III	25	84.3	2	50	8	0	6	1
	Longe Term Plan (by 2035)	5637	IV	30	169.1	3	90	12	94	6	1

No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
A	Construction Cost			(UGX)							rate on Aug. 2010
1	Direct Cost										Inter bank rate
1-1	Intake Facilities					325,030,490		325,030,490		477,906,874	UGX 2,282,120US\$
1-2	Transmission Facilities					157,561,200		157,561,200		248,290,920	
	Sub total of Intake and Transmission Facilities					482,591,690		482,591,690		726,197,794	
	Total Cost for Transmission Facilities (cumulative total)		Ratio	1.4984		723,115,000		723,115,000		1,088,135,000	
	Total Cost of each Term Plan for Transmission Facilities						Term II-I	0	Term III-II	365,019,000	
	Added Ratio of Engineering Services, Contingency .etc.										
1-3	Distribution Facilities										
	Elevated Tank	50m3, h=12m (GL+H.W.L.)	No	320,807,314	1.0	320,807,314	1.0	320,807,314	1.0	320,807,314	
		40m3, h=12m (GL+H.W.L.)	No	272,441,052	0.0	0	0.0	0	1.0	272,441,052	
	DN25-DN50mm	uPVC/HDPE Common soil	m	38,507	300.0	11,552,100	300.0	11,552,100	601.8	23,172,718	incl. valves,others
	OD63mm	uPVC/HDPE Common soil	m	48,630	2,335.0	113,551,050	2,335.0	113,551,050	4,683.8	227,775,924	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	990.0	55,445,940	990.0	55,445,940	1,983.9	111,220,741	incl. valves,others
	OD110mm	uPVC/HDPE Common soil	m	71,378	0.0	0	0.0	0	960.0	68,522,880	incl. valves,others
	Water Kiosk	3taps	Nos	18,018,308	7	126,128,156	8	144,146,464	12	216,219,696	
	House Connection	6 parson/unit with meter	pls	766,340	0	0	0	0	94	72,036,006	
	School Connection	Public Stand Taps (2taps)	pls	3,933,243	6	23,599,458	6	23,599,458	6	23,599,458	
	Health Center Connection	Public Stand Taps (2taps)	pls	3,933,243	1	3,933,243	1	3,933,243	1	3,933,243	
	Sub total of Distribution Facilities					655,017,261		673,035,569		1,339,728,702	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		981,478,000		1,008,477,000		2,007,449,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	26,999,000	Term III-II	998,973,000	
	Added Ratio of Engineering Services, Contingency .etc.										
	Cost for Water Distribution Facilities per Capita		capita	population	2,839	345,713	3,370	8,012	5,637	177,217	
	Total Cost					1,704,593,000		26,999,000		1,363,992,000	

Table 16-66 Project Cost Breakdown for RGC (Category III)

RGC:	Nambale	Population	Category	Consumption per capita	Water Demand	Deep Borehole	Elevated tank h=12m	Water Kiosk	House Connection	School Connection	Health Center Connection
District:	Iganga			lit/day/capita	m ³ /day		capacity (m ³)	3taps(450p)	6p/place	2 tap/pl	2 tap/pl
	Short Term Plan (by 2015)	5,715	IV	20	114.3	2	60	12	96	9	1
	Middle Term Plan (by 2020)	6,760	IV	25	169.0	2	90	14	113	9	1
	Longe Term Plan (by 2035)	11,178	IV	30	335.3	4	170	23	187	9	1

No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
A	Construction Cost			(UGX)							rate on Aug. 2010
1	Direct Cost										Inter bank rate
1-1	Intake Facilities					228,936,490		228,936,490		438,595,259	UGX 2,282,120US\$
1-2	Transmission Facilities					77,808,000		77,808,000		281,622,400	
	Sub total of Intake and Transmission Facilities					306,744,490		306,744,490		720,217,659	
	Total Cost for Transmission Facilities (cumulative total)		Ratio	1.4984		459,626,000		459,626,000		1,079,174,000	
	Total Cost of each Term Plan for Transmission Facilities						Term II-I	0	Term III-II	619,548,000	
	Added Ratio of Engineering Services, Contingency .etc.										
1-3	Distribution Facilities										
	Elevated Tank	90m3, h=12m (GL+H.W.L.)	No	394,953,641	1.0	394,953,641	1.0	394,953,641	1.0	394,953,641	
		80m3, h=12m (GL+H.W.L.)	No	363,362,112	0.0	0	0.0	0	1.0	363,362,112	
	DN25-DN50mm	uPVC/HDPE Common soil	m	38,507	210.0	8,086,470	210.0	8,086,470	347.2	13,371,385	incl. valves,others
	OD63mm	uPVC/HDPE Common soil	m	48,630	2,200.0	106,986,000	2,200.0	106,986,000	3,637.8	176,906,732	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	175.0	9,801,050	175.0	9,801,050	289.4	16,206,529	incl. valves,others
	Water Kiosk	3taps	Nos	18,018,308	12	216,219,696	14	252,256,312	23	414,421,084	
	House Connection	6 parson/unit with meter	pls	766,340	96	73,568,687	113	86,596,475	187	143,305,672	
	School Connection	Public Stand Taps (2taps)	pls	3,933,243	9	35,399,187	9	35,399,187	9	35,399,187	
	Health Center Connection	Public Stand Taps (2taps)	pls	3,933,243	1	3,933,243	1	3,933,243	1	3,933,243	
	Sub total of Distribution Facilities					848,947,974		898,012,378		1,561,859,585	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		1,272,064,000		1,345,582,000		2,340,291,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	73,518,000	Term III-II	994,709,000	
	Added Ratio of Engineering Services, Contingency .etc.										
	Cost for Water Distribution Facilities per Capita		capita	population	5,715	222,583	6,760	10,875	11,178	88,988	
	Total Cost					1,731,690,000		73,518,000		1,614,257,000	

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Table 16-67 Project Cost Breakdown for RGC (Category III)

RGC:	Kagwarea Port	Population	Category	Consumption per capita	Water Demand	Deep Borehole	Elevated tank h=12m	Water Kiosk	House Connection	School Connection	Health Center Connection
District:	Soroti			lit/day/capita	m ³ /day		capacity (m ³)	3taps(450p)	6p/place	2 tap/pl	2 tap/pl
Short Term Plan (by 2015)		3,796	III	20	75.9	1	40	9	0	2	1
Middle Term Plan (by 2020)		4,618	III	25	115.5	2	60	11	0	2	1
Longe Term Plan (by 2035)		8,317	IV	30	249.5	2	130	17	139	2	1

No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks	
					Quantity	Amount	Quantity	Amount	Quantity	Amount		
A	Construction Cost			(UGX)		(UGX)		(UGX)		(UGX)	rate on Aug ,2010	
1	Direct Cost										Inter bank rate	
1-1	Intake Facilities	Diesel Generator Supply				4.8 kVA	131,118,245	3.7 kVA	252,598,629	5.3 kVA	257,157,629	UGX 2.282.12/US\$
1-2	Transmission Facilities						356,890,000		713,780,000		713,780,000	
	Sub total of Intake and Transmission Facilities						488,008,245		966,378,629		970,937,629	
	Total Cost for Transmission Facilities (cumulative total)		Ratio	1.4984			731,232,000		1,448,022,000		1,454,853,000	
	Total Cost of each Term Plan for Transmission Facilities							Term II-I	716,790,000	Term III-II	6,831,000	
	Added Ratio of Engineering Services, Contingency ,etc.											
1-3	Distribution Facilities											
	Elevated Tank	60m ³ , h=12m (GL+H.W.L.)	No	339,144,209	1.0	339,144,209	1.0	339,144,209	1.0	339,144,209		
		70m ³ , h=12m (GL+H.W.L.)	No	359,709,195	0.0	0	0.0	0	1.0	359,709,195		
	DN25-DN50mm	uPVC/HDPE Common soil	m	38,507	870.0	33,501,090	870.0	33,501,090	1,566.9	60,335,333	incl. valves,others	
	OD63mm	uPVC/HDPE Common soil	m	48,630	477.0	23,196,510	477.0	23,196,510	859.1	41,776,824	incl. valves,others	
		uPVC/HDPE Rock 30%	m	57,331	0.0	0	0.0	0	0.0	0		
	OD90mm	uPVC/HDPE Common soil	m	56,006	679.0	38,028,074	679.0	38,028,074	1,222.9	68,488,413	incl. valves,others	
	Water Kiosk	3taps	Nos	18,018,308	9	162,164,772	11	198,201,388	17	306,311,236		
	House Connection	6 parson/unit with meter	pls	766,340	0	0	0	0	139	106,521,328		
	School Connection	Public Stand Taps (2taps)	pls	3,933,243	2	7,866,486	2	7,866,486	2	7,866,486		
	Health Center Connection	Public Stand Taps (2taps)	pls	3,933,243	1	3,933,243	1	3,933,243	1	3,933,243		
	Sub total of Distribution Facilities					607,834,384		643,871,000		1,294,086,267		
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984			910,779,000		964,776,000		1,939,059,000	
	Total Cost of each Term Plan for Distribution Facilities							Term II-I	53,997,000	Term III-II	974,283,000	
	Added Ratio of Engineering Services, Contingency ,etc.											
	Cost for Water Distribution Facilities per Capita	capita	population	3,796		239,931		4,618	11,693	8,317	117,144	
	Total Cost					1,642,011,000			770,787,000		981,114,000	

Table 16-68 Project Cost Breakdown for RGC (Category IV)

RGC:	Namungalwe	Population	Category	Consumption per capita	Water Demand	Deep Borehole	Elevated tank h=12m	Water Kiosk	House Connection	School Connection	Health Center Connection
District:	Iganga			lit/day/capita	m ³ /day		capacity (m ³)	3taps(450p)	6p/place	2 tap/pl	2 tap/pl
Short Term Plan (by 2015)		14,474	IV	20	289.5	3	150	29	242	11	1
Middle Term Plan (by 2020)		17,115	IV	25	427.9	3	220	35	286	11	1
Longe Term Plan (by 2035)		28,299	IV	30	849.0	6	430	57	472	11	1

No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks	
					Quantity	Amount	Quantity	Amount	Quantity	Amount		
A	Construction Cost			(UGX)		(UGX)		(UGX)		(UGX)	rate on Aug ,2010	
1	Direct Cost										Inter bank rate	
1-1	Intake Facilities	Diesel Generator Supply				445,221,735		445,221,735		861,526,887	UGX 2.282.12/US\$	
1-2	Transmission Facilities					109,417,500		109,417,500		522,045,000		
	Sub total of Intake and Transmission Facilities					554,639,235		554,639,235		1,383,571,887		
	Total Cost for Transmission Facilities (cumulative total)		Ratio	1.4984			831,071,000		831,071,000		2,073,144,000	
	Total Cost of each Term Plan for Transmission Facilities							Term II-I	0	Term III-II	1,242,073,000	
	Added Ratio of Engineering Services, Contingency ,etc.											
1-3	Distribution Facilities											
	Elevated Tank	220m ³ , h=12m (GL+H.W.L.)	No	787,380,361	1.0	787,380,361	1.0	787,380,361	1.0	787,380,361		
		210m ³ , h=12m (GL+H.W.L.)	No	746,757,067	0.0	0	0.0	0	1.0	746,757,067		
	DN25-DN50mm	uPVC/HDPE Common soil	m	38,507	1,055.0	40,624,885	1,055.0	40,624,885	1,744.4	67,171,699	incl. valves,others	
	OD63mm	uPVC/HDPE Common soil	m	48,630	2,165.0	105,283,950	2,165.0	105,283,950	3,579.7	174,082,997	incl. valves,others	
	OD90mm	uPVC/HDPE Common soil	m	56,006	100.0	5,600,600	100.0	5,600,600	165.3	9,260,379	incl. valves,others	
	OD110mm	uPVC/HDPE Common soil	m	71,378	580.0	41,399,240	580.0	41,399,240	959.0	68,452,065	incl. valves,others	
	Water Kiosk	3taps	Nos	18,018,308	29	522,530,932	35	630,640,780	57	1,027,043,556		
	House Connection	6 parson/unit with meter	pls	766,340	242	185,454,399	286	219,173,380	472	361,712,711		
	School Connection	Public Stand Taps (2taps)	pls	3,933,243	11	43,265,673	11	43,265,673	11	43,265,673		
	Health Center Connection	Public Stand Taps (2taps)	pls	3,933,243	1	3,933,243	1	3,933,243	1	3,933,243		
	Sub total of Distribution Facilities					1,735,473,283		1,877,302,112		3,289,059,751		
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984			2,600,433,000		2,812,949,000		4,928,327,000	
	Total Cost of each Term Plan for Distribution Facilities							Term II-I	212,516,000	Term III-II	2,115,378,000	
	Added Ratio of Engineering Services, Contingency ,etc.											
	Cost for Water Distribution Facilities per Capita	capita	population	14,474		179,662		17,115	12,417	28,299	74,751	
	Total Cost					3,431,504,000			212,516,000		3,357,451,000	

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Table 16-69 Project Cost Breakdown for RGC (Category IV)

RGC:	Kadama	Population	Category	Consumption per capita	Water Demand	Deep Borehole	Elevated tank h=12m	Water Kiosk	House Connection	School Connection	Health Center Connection
District:	Pallisa			lit/day/capita	m ³ /day		capacity (m ³)	3taps(450p)	6p/place	2 tap/pl	2 tap/pl
Short Term Plan (by 2015)		12,888	IV	20	257.8	4	130	26	215	8	1
Middle Term Plan (by 2020)		15,298	IV	25	382.5	6	200	31	255	8	1
Longe Term Plan (by 2035)		25,587	IV	30	767.6	8	390	52	427	8	1

No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
A	Construction Cost			(UGX)							rate on Aug ,2010
1	Direct Cost										Inter bank rate
1-1	Intake Facilities	Diesel Generator Supply				647,388,980		951,805,747		1,256,222,516	UGX 2,282.12/US\$
1-2	Transmission Facilities					136,164,000		314,501,600		1,784,591,000	
	Sub total of Intake and Transmission Facilities					783,552,980		1,266,307,347		3,040,813,516	
	Total Cost for Transmission Facilities (cumulative total)		Ratio	1.4984		1,174,076,000		1,897,435,000		4,556,355,000	
	Total Cost of each Term Plan for Transmission Facilities						Term II-I	723,359,000	Term III-II	2,658,920,000	
	Added Ratio of Engineering Services, Contingency .etc.										
1-3	Distribution Facilities										
	Elevated Tank	200m3, h=12m (GL+H.W.L.)	No	706,133,773	1.0	706,133,773	1.0	706,133,773	1.0	706,133,773	
		190m3, h=12m (GL+H.W.L.)	No	665,510,479	0.0	0	0.0	0	1.0	665,510,479	
	DN25-DN50mm	uPVC/HDPE Common soil	m	38,507	600.0	23,104,200	600.0	23,104,200	1,003.5	38,643,428	incl. valves,others
	OD63mm	uPVC/HDPE Common soil	m	48,630	1,390.0	67,595,700	1,390.0	67,595,700	2,324.9	113,058,647	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	100.0	5,600,600	100.0	5,600,600	167.3	9,367,404	incl. valves,others
	OD110mm	uPVC/HDPE Common soil	m	71,378	901.0	64,311,578	901.0	64,311,578	1,507.0	107,565,717	incl. valves,others
	Water Kiosk	3taps	Nos	18,018,308	26	468,476,008	31	558,567,548	52	936,952,016	
	House Connection	6 parson/unit with meter	pls	766,340	215	164,763,205	255	195,416,825	427	327,227,389	
	School Connection	Public Stand Taps (2taps)	pls	3,933,243	8	31,465,944	8	31,465,944	8	31,465,944	
	Health Center Connection	Public Stand Taps (2taps)	pls	3,933,243	1	3,933,243	1	3,933,243	1	3,933,243	
	Sub total of Distribution Facilities					1,535,384,251		1,656,129,411		2,939,858,040	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		2,300,620,000		2,481,544,000		4,405,083,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	180,924,000	Term III-II	1,923,539,000	
	Added Ratio of Engineering Services, Contingency .etc.										
	Cost for Water Distribution Facilities per Capita		capita	population	12,888	178,509	15,298	11,827	25,587	75,176	
	Total Cost					3,474,696,000		904,283,000		4,582,459,000	

Note: Summary of Cost for Water Distribution Facilities per Capita as following Tables.

Short Term Plan by 2015

(Unit: UGX)

No	RGC	Population	Category	Cost for Intake Facility	Cost for Distributin Facility		Total Cost
					Direct Cost per Capita	Total Cost per Capita	
1. Category II-1 (1,000-2,000)	Ikumbya	1,508	II-1	392,691,000	442,351,923	293,337	1,055,511,000
	Naigobya	1,942	II-1	326,796,000	479,094,510	246,702	1,044,671,000
	Kidetok	1,265	II-1	268,672,000	365,521,349	288,950	816,369,000
					276,329	414,052	
2. Category II-2 (1,000-2,000)	Kameke	3,194	II-2	689,793,000	621,457,238	194,570	1,620,985,000
	Buseta	2,839	II-2	723,115,000	655,017,261	230,721	1,704,593,000
					212,646	318,629	
3. Category III (3,000-5,000)	Nambale	5,715	III	459,626,000	848,947,974	148,547	1,731,690,000
	Kagwara Port	3,796	III	731,232,000	607,834,384	160,125	1,642,011,000
					154,336	231,257	
4. Category IV (More than 5,000)	Namungalwe	14,474	IV	831,071,000	1,735,473,283	119,903	3,431,504,000
	Kadama	12,888	IV	1,174,076,000	1,535,384,251	119,133	3,474,696,000
					119,518	179,086	

Middle Term Plan by 2020

(Unit: UGX)

No	RGC	Population	Category	Cost for Intake Facility	Cost for Distributin Facility		Total Cost
					Direct Cost per Capita	Total Cost per Capita	
1. Category II-1 (1,000-2,000)	Ikumbya	1,783	II-1	5,635,000	460,370,231	258,200	32,634,000
	Naigobya	2,296	II-1	0	497,112,818	216,513	26,999,000
	Kidetok	1,539	II-1	0	383,539,657	249,214	26,999,000
					241,309	14,815	
2. Category II-2 (1,000-2,000)	Kameke	3,663	II-2	0	639,475,546	174,577	26,999,000
	Buseta	3,370	II-2	0	673,035,569	199,714	26,999,000
					187,146	7,692	
3. Category III (3,000-5,000)	Nambale	6,760	III	0	898,012,378	132,842	73,518,000
	Kagwara Port	4,618	III	716,790,000	643,871,000	139,426	53,997,000
					136,134	11,284	
4. Category IV (More than 5,000)	Namungalwe	17,115	IV	0	1,877,302,112	109,688	212,516,000
	Kadama	15,298	IV	723,359,000	1,656,129,411	108,258	180,925,000
					108,973	12,122	

Long Term Plan by 2035

(Unit: UGX)

No	RGC	Population	Category	Cost for Intake Facility	Cost for Distributin Facility		Total Cost
					Direct Cost per Capita	Total Cost per Capita	
1. Category II-1 (1,000-2,000)	Ikumbya	2,948	II-1	383,663,000	828,021,500	280,876	934,552,000
	Naigobya	3,797	II-1	330,589,000	875,908,379	230,684	898,176,000
	Kidetok	2,772	II-1	254,229,000	740,400,562	267,100	788,949,000
					259,553	176,417	
2. Category II-2 (1,000-2,000)	Kameke	6,127	II-2	346,811,000	1,198,044,267	195,535	1,183,770,000
	Buseta	5,637	II-2	365,019,000	1,339,728,702	237,667	1,363,992,000
					216,601	156,910	
3. Category III (3,000-5,000)	Nambale	11,178	III	619,548,000	1,561,859,585	139,726	1,614,257,000
	Kagwara Port	8,317	III	6,831,000	1,294,086,267	155,595	981,114,000
					147,661	103,066	
4. Category IV (More than 5,000)	Namungalwe	28,299	IV	1,242,073,000	3,289,059,751	116,225	3,357,451,000
	Kadama	25,587	IV	2,658,920,000	2,939,858,040	114,897	4,582,459,000
					115,561	74,964	

*Note: The cost proportional to population include the project cost of a elevated tank, distribution pipelines, water kiosks and yard taps.

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The project costs for the intake and transmission facilities are calculated for all the RGCs of Category II - IV based on the natural conditions of water source areas as tabulated below.

Table 16-70 Project Cost for Intake and Transmission Facilities

1. Iganga District

RGC: Ikumbya	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Iganga			lit/day/capita	m ³ /day	
Short Term Plan (by 2015)	1,508	II	20	30.2	1
Middle Term Plan (by 2020)	1,783	II	25	44.6	1
Longe Term Plan (by 2035)	2,948	II	30	88.4	2

A Construction Cost					Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
No	Item	Description	Unit	Rate	Quantity	Amount	Quantity	Amount	Quantity	Amount	
					(UGX)		(UGX)		(UGX)		
1	Direct Cost										
1-1	Intake Facilities										
	Deep borehole construction	Dia 125mm	pls	120,029,000	1.0	120,029,000	1.0	120,029,000	2.0	240,058,000	
	Spare pump unit		set	9,638,861	1.0	9,638,861	1.0	9,638,861	1.0	9,638,861	
	Installation of well pump with electrical works		pls	18,992,777	1.0	18,992,777	1.0	18,992,777	2.0	37,985,553	
	Piping works for well to outlet		pls	24,239,137	1.0	24,239,137	1.0	24,239,137	2.0	48,478,273	incl. valves,others
	Generator room		pls	25,535,063	1.0	25,535,063	1.0	25,535,063	2.0	51,070,127	
	Fence and gate for well		pls	6,232,407	1.0	6,232,407	1.0	6,232,407	2.0	12,464,815	
		Diesel Generator Supply	set	-	1.0	8,776,000	1.0	12,537,000	2.0	17,551,000	
	Sub total (a)					1.8 kVA	213,443,245	2.8 kVA	217,204,245	2.6 kVA	417,246,629
1-2	Transmission Facilities										
	OD63mm	uPVC/HDPE Common soil	m	48,630	1,000.0	48,630,000	1,000.0	48,630,000	1,000.0	48,630,000	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	0.0	0	1,000.0	56,006,000	incl. valves,others
	Sub total (b)					48,630,000		48,630,000		104,636,000	
	Sub total of Intake and Transmission Facilities (a)+(b)					262,073,245		265,834,245		521,882,629	
								3,761,000		256,048,384	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		392,691,000		398,326,000		781,989,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	5,635,000	Term III-II	383,663,000	
	Added Ratio of Engineering Services, Contingency .etc.										

RGC: Bukooma	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Iganga			lit/day/capita	m ³ /day	
Short Term Plan (by 2015)	2,553	II	20	51.1	2
Middle Term Plan (by 2020)	2,995	II	25	74.9	2
Longe Term Plan (by 2035)	4,952	III	30	148.6	3

A Construction Cost					Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
No	Item	Description	Unit	Rate	Quantity	Amount	Quantity	Amount	Quantity	Amount	
					(UGX)		(UGX)		(UGX)		
1	Direct Cost										
1-1	Intake Facilities										
	Deep borehole construction	Dia 125mm	pls	77,877,000	2.0	155,754,000	2.0	155,754,000	3.0	233,631,000	
	Spare pump unit		set	9,638,861	2.0	19,277,722	2.0	19,277,722	2.0	19,277,722	
	Installation of well pump with electrical works		pls	18,992,777	2.0	37,985,553	2.0	37,985,553	3.0	56,978,330	
	Piping works for well to outlet		pls	24,239,137	2.0	48,478,273	2.0	48,478,273	3.0	72,717,410	incl. valves,others
	Electrical room		pls	25,535,063	2.0	51,070,127	2.0	51,070,127	3.0	76,605,190	
	Fence and gate for well		pls	6,232,407	2.0	12,464,815	2.0	12,464,815	3.0	18,697,222	
	Power source	National Electric Grid Supply	L/S	incl. above e-works	1.0	0	1.0	0	1.0	0	
	Sub total (a)					325,030,490		325,030,490		477,906,874	
1-2	Transmission Facilities										
	OD63mm	uPVC/HDPE Common soil	m	48,630	3,400.0	165,342,000	3,400.0	165,342,000	3,400.0	165,342,000	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	0.0	0	1,700.0	95,210,200	incl. valves,others
	Sub total (b)					165,342,000		165,342,000		260,552,200	
	Sub total of Intake and Transmission Facilities (a)+(b)					490,372,490		490,372,490		738,459,074	
								0		248,086,584	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		734,774,000		734,774,000		1,106,507,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	0	Term III-II	371,733,000	
	Added Ratio of Engineering Services, Contingency .etc.										

RGC: Naigobya	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Iganga			lit/day/capita	m ³ /day	
Short Term Plan (by 2015)	1,942	II	20	38.8	1
Middle Term Plan (by 2020)	2,296	II	25	57.4	1
Longe Term Plan (by 2035)	3,797	III	30	113.9	2

A Construction Cost					Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
No	Item	Description	Unit	Rate	Quantity	Amount	Quantity	Amount	Quantity	Amount	
					(UGX)		(UGX)		(UGX)		
1	Direct Cost										
1-1	Intake Facilities										
	Deep borehole construction	Dia 125mm	pls	53,219,000	1.0	53,219,000	1.0	53,219,000	2.0	106,438,000	
	Spare pump unit		set	9,638,861	1.0	9,638,861	1.0	9,638,861	1.0	9,638,861	
	Installation of well pump with electrical works		pls	18,992,777	1.0	18,992,777	1.0	18,992,777	2.0	37,985,553	
	Piping works for well to outlet		pls	24,239,137	1.0	24,239,137	1.0	24,239,137	2.0	48,478,273	incl. valves,others
	Electrical room		pls	25,535,063	1.0	25,535,063	1.0	25,535,063	2.0	51,070,127	
	Fence and gate for well		pls	6,232,407	1.0	6,232,407	1.0	6,232,407	2.0	12,464,815	
	Power source	National Electric Grid Supply	L/S	incl. above e-works	1.0	0	1.0	0	1.0	0	
	Sub total (a)					137,857,245		137,857,245		266,075,629	
1-2	Transmission Facilities										
	OD63mm	uPVC/HDPE Common soil	m	48,630	1,650.0	80,239,500	1,650.0	80,239,500	1,650.0	80,239,500	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	0.0	0	1,650.0	92,409,900	incl. valves,others
	Sub total (b)					80,239,500		80,239,500		172,649,400	
	Sub total of Intake and Transmission Facilities (a)+(b)					218,096,745		218,096,745		438,725,029	
								0		220,628,284	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		326,796,000		326,796,000		657,386,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	0	Term III-II	330,590,000	
	Added Ratio of Engineering Services, Contingency .etc.										

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RGC: Nakabugu	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Iganga			lit/day/capita	m3/day	
Short Term Plan (by 2015)	5,814	IV	20	116.3	2
Middle Term Plan (by 2020)	6,874	IV	25	171.9	3
Longe Term Plan (by 2035)	11,367	IV	30	341.0	5

A Construction Cost											
No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost			(UGX)							
1-1	Intake Facilities										
	Deep borehole construction Dia 125mm		pls	49,620,000	2.0	99,240,000	3.0	148,860,000	5.0	248,100,000	
	Spare pump unit		set	9,638,861	2.0	19,277,722	2.0	19,277,722	2.0	19,277,722	
	Installation of well pump with electrical works		pls	18,992,777	2.0	37,985,553	3.0	56,978,330	5.0	94,963,884	
	Piping works for well to outlet		pls	24,239,137	2.0	48,478,273	3.0	72,717,410	5.0	121,195,684	incl. valves,others
	Electrical room		pls	25,535,063	2.0	51,070,127	3.0	76,605,190	5.0	127,675,317	
	Fence and gate for well		pls	6,232,407	2.0	12,464,815	3.0	18,697,222	5.0	31,162,037	
	Power source	National Electric Grid Supply	L/S	incl. above e-works	1.0	0	1.0	0	1.0	0	
	Sub total (a)					268,516,490		393,135,874		642,374,644	
1-2	Transmission Facilities										
	OD63mm	uPVC/HDPE Common soil	m	48,630	3,200.0	155,616,000	3,200.0	155,616,000	3,200.0	155,616,000	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	1,600.0	89,609,600	4,800.0	268,828,800	incl. valves,others
	Sub total (b)					155,616,000		245,225,600		424,444,800	
	Sub total of Intake and Transmission Facilities					424,132,490		638,361,474		1,066,819,444	
								214,228,984		428,457,970	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		635,520,000		956,521,000		1,598,522,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	321,001,000	Term III-II	642,001,000	
	Added Ratio of Engineering Services, Contingency .etc.										

RGC: Kyanvuma	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Iganga			lit/day/capita	m3/day	
Short Term Plan (by 2015)	2,050	II	20	41.0	1
Middle Term Plan (by 2020)	2,425	II	25	60.6	1
Longe Term Plan (by 2035)	4,009	III	30	120.3	2

A Construction Cost											
No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost			(UGX)							
1-1	Intake Facilities										
	Deep borehole construction Dia 125mm		pls	43,584,000	1.0	43,584,000	1.0	43,584,000	2.0	87,168,000	
	Spare pump unit		set	9,638,861	1.0	9,638,861	1.0	9,638,861	1.0	9,638,861	
	Installation of well pump with electrical works		pls	18,992,777	1.0	18,992,777	1.0	18,992,777	2.0	37,985,553	
	Piping works for well to outlet		pls	24,239,137	1.0	24,239,137	1.0	24,239,137	2.0	48,478,273	incl. valves,others
	Electrical room		pls	25,535,063	1.0	25,535,063	1.0	25,535,063	2.0	51,070,127	
	Fence and gate for well		pls	6,232,407	1.0	6,232,407	1.0	6,232,407	2.0	12,464,815	
	Power source	National Electric Grid Supply	L/S	incl. above e-works	1.0	0	1.0	0	1.0	0	
	Sub total (a)					128,222,245		128,222,245		246,805,629	
1-2	Transmission Facilities										
	OD63mm	uPVC/HDPE Common soil	m	48,630	500.0	24,315,000	500.0	24,315,000	500.0	24,315,000	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	0.0	0	2,000.0	112,012,000	incl. valves,others
	Sub total (b)					24,315,000		24,315,000		136,327,000	
	Sub total of Intake and Transmission Facilities					152,537,245		152,537,245		383,132,629	
								0		230,595,384	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		228,562,000		228,562,000		574,086,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	0	Term III-II	345,524,000	
	Added Ratio of Engineering Services, Contingency .etc.										

RGC: Lambala	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Iganga			lit/day/capita	m3/day	
Short Term Plan (by 2015)	2,515	II	20	50.3	1
Middle Term Plan (by 2020)	2,974	II	25	74.4	1
Longe Term Plan (by 2035)	4,918	III	30	147.5	2

A Construction Cost											
No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost			(UGX)							
1-1	Intake Facilities										
	Deep borehole construction Dia 125mm		pls	89,100,000	1.0	89,100,000	1.0	89,100,000	2.0	178,200,000	
	Spare pump unit		set	9,638,861	1.0	9,638,861	1.0	9,638,861	1.0	9,638,861	
	Installation of well pump with electrical works		pls	18,992,777	1.0	18,992,777	1.0	18,992,777	2.0	37,985,553	
	Piping works for well to outlet		pls	24,239,137	1.0	24,239,137	1.0	24,239,137	2.0	48,478,273	incl. valves,others
	Electrical room		pls	25,535,063	1.0	25,535,063	1.0	25,535,063	2.0	51,070,127	
	Fence and gate for well		pls	6,232,407	1.0	6,232,407	1.0	6,232,407	2.0	12,464,815	
	Power source	National Electric Grid Supply	L/S	incl. above e-works	1.0	0	1.0	0	1.0	0	
	Sub total (a)					173,738,245		173,738,245		337,837,629	
1-2	Transmission Facilities										
	OD63mm	uPVC/HDPE Common soil	m	48,630	2,000.0	97,260,000	2,000.0	97,260,000	2,000.0	97,260,000	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	0.0	0	2,000.0	112,012,000	incl. valves,others
	Sub total (b)					97,260,000		97,260,000		209,272,000	
	Sub total of Intake and Transmission Facilities					270,998,245		270,998,245		547,109,629	
								0		276,111,384	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		406,064,000		406,064,000		819,789,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	0	Term III-II	413,725,000	
	Added Ratio of Engineering Services, Contingency .etc.										

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RGC: Ikoina District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole
Short Term Plan (by 2015)	2,141	II	20	42.8	0
Middle Term Plan (by 2020)	2,532	II	25	63.3	2
Longe Term Plan (by 2035)	4,186	III	30	125.6	3

A Construction Cost						Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
No	Item	Description	Unit	Rate (UGX)		Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost											
1-1	Intake Facilities											
	Deep borehole construction Dia 125mm		pls	163,848,000		0.0	0	2.0	327,696,000	3.0	491,544,000	
	Spare pump unit		set	9,638,861		0.0	0	2.0	19,277,722	2.0	19,277,722	
	Installtion of well pump with electrical works		pls	18,992,777		0.0	0	2.0	37,985,553	3.0	56,978,330	
	Piping works for well to outlet		pls	24,239,137		0.0	0	2.0	48,478,273	3.0	72,717,410	incl. valves,others
	Generator room		pls	25,535,063		0.0	0	2.0	51,070,127	3.0	76,605,190	
	Fence and gate for well		pls	6,232,407		0.0	0	2.0	12,464,815	3.0	18,697,222	
	Power source	Diesel Generator Supply	set	-		0.0	0	2.0	17,551,000	3.0	31,969,000	
	Sub total (a)							2 kVA	514,523,490	2.5 kVA	767,788,874	
1-2	Transmission Facilities											
	OD63mm	uPVC/HDPE Common soil	m	48,630		0.0	0	0.0	0	0.0	0	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006		0.0	0	3,200.0	179,219,200	4,800.0	268,828,800	incl. valves,others
	Sub total (b)								179,219,200		268,828,800	
	Sub total of Intake and Transmission Facilities								693,742,690		1,036,617,674	
									693,742,690		342,874,984	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984			0		1,039,504,000		1,553,268,000	
	Total Cost of each Term Plan for Distribution Facilities							Term II-I	1,039,504,000	Term III-II	513,764,000	
	Added Ratio of Engineering Services, Contingency ,etc.											

RGC: Nawampiti District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole
Short Term Plan (by 2015)	2,485	II	20	49.7	1
Middle Term Plan (by 2020)	2,938	II	25	73.5	2
Longe Term Plan (by 2035)	4,858	III	30	145.7	3

A Construction Cost						Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks	
No	Item	Description	Unit	Rate (UGX)		Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)		
1	Direct Cost												
1-1	Intake Facilities												
	Deep borehole construction Dia 125mm		pls	71,250,000		1.0	71,250,000	2.0	142,500,000	3.0	213,750,000		
	Spare pump unit		set	9,638,861		1.0	9,638,861	1.0	9,638,861	1.0	9,638,861		
	Installtion of well pump with electrical works		pls	18,992,777		1.0	18,992,777	2.0	37,985,553	3.0	56,978,330		
	Piping works for well to outlet		pls	24,239,137		1.0	24,239,137	2.0	48,478,273	3.0	72,717,410	incl. valves,others	
	Generator room		pls	25,535,063		1.0	25,535,063	2.0	51,070,127	3.0	76,605,190		
	Fence and gate for well		pls	6,232,407		1.0	6,232,407	2.0	12,464,815	3.0	18,697,222		
	Power source	Diesel Generator Supply	set	-		1.0	12,537,000	2.0	21,312,000	3.0	37,610,000		
	Sub total (a)							3.1 kVA	168,425,245	2.3 kVA	323,449,629	2.8 kVA	485,997,013
1-2	Transmission Facilities												
	OD63mm	uPVC/HDPE Common soil	m	48,630		700.0	34,041,000	700.0	34,041,000	700.0	34,041,000	incl. valves,others	
	OD90mm	uPVC/HDPE Common soil	m	56,006		0.0	0	700.0	39,204,200	1,400.0	78,408,400	incl. valves,others	
	Sub total (b)						34,041,000		73,245,200		112,449,400		
	Sub total of Intake and Transmission Facilities						202,466,245		396,694,829		598,446,413		
									194,228,584		201,751,584		
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984			303,375,000		594,408,000		896,712,000		
	Total Cost of each Term Plan for Distribution Facilities							Term II-I	291,032,000	Term III-II	302,305,000		
	Added Ratio of Engineering Services, Contingency ,etc.												

RGC: Buwologoma District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole
Short Term Plan (by 2015)	2,262	II	20	45.2	2
Middle Term Plan (by 2020)	2,674	II	25	66.9	2
Longe Term Plan (by 2035)	4,422	III	30	132.7	3

A Construction Cost						Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
No	Item	Description	Unit	Rate (UGX)		Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost											
1-1	Intake Facilities											
	Deep borehole construction Dia 125mm		pls	99,495,000		2.0	198,990,000	2.0	198,990,000	3.0	298,485,000	
	Spare pump unit		set	9,638,861		2.0	19,277,722	2.0	19,277,722	2.0	19,277,722	
	Installtion of well pump with electrical works		pls	18,992,777		2.0	37,985,553	2.0	37,985,553	3.0	56,978,330	
	Piping works for well to outlet		pls	24,239,137		2.0	48,478,273	2.0	48,478,273	3.0	72,717,410	incl. valves,others
	Generator room		pls	25,535,063		2.0	51,070,127	2.0	51,070,127	3.0	76,605,190	
	Fence and gate for well		pls	6,232,407		2.0	12,464,815	2.0	12,464,815	3.0	18,697,222	
	Power source	Diesel Generator Supply	set	-		2.0	14,041,000	2.0	17,551,000	3.0	31,969,000	
	Sub total (a)						1.4 kVA	382,307,490	2.1 kVA	385,817,490	2.6 kVA	574,729,874
1-2	Transmission Facilities											
	OD63mm	uPVC/HDPE Common soil	m	48,630		4,200.0	204,246,000	4,200.0	204,246,000	4,200.0	204,246,000	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006		0.0	0	0.0	0	2,100.0	117,612,600	incl. valves,others
	Sub total (b)						204,246,000		204,246,000		321,858,600	
	Sub total of Intake and Transmission Facilities						586,553,490		590,063,490		896,588,474	
									3,510,000		306,524,984	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984			878,892,000		884,151,000		1,343,448,000	
	Total Cost of each Term Plan for Distribution Facilities							Term II-I	5,259,000	Term III-II	459,297,000	
	Added Ratio of Engineering Services, Contingency ,etc.											

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RGC: Bumanya District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole
Short Term Plan (by 2015)	2,280	II	20	45.6	2
Middle Term Plan (by 2020)	2,696	II	25	67.4	2
Longe Term Plan (by 2035)	4,457	III	30	133.7	3

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost										
1-1	Intake Facilities										
	Deep borehole construction Dia 125mm		pls	105,786,000	2.0	211,572,000	2.0	211,572,000	3.0	317,358,000	
	Spare pump unit		set	9,638,861	2.0	19,277,722	2.0	19,277,722	2.0	19,277,722	
	Installtion of well pump with electrical works		pls	18,992,777	2.0	37,985,553	2.0	37,985,553	3.0	56,978,330	
	Piping works for well to outlet		pls	24,239,137	2.0	48,478,273	2.0	48,478,273	3.0	72,717,410	incl. valves,others
	Generator room		pls	25,535,063	2.0	51,070,127	2.0	51,070,127	3.0	76,605,190	
	Fence and gate for well		pls	6,232,407	2.0	12,464,815	2.0	12,464,815	3.0	18,697,222	
	Power source	Diesel Generator Supply	set	-	2.0	14,041,000	2.0	17,551,000	3.0	26,327,000	
	Sub total (a)					1.3 kVA	394,889,490	2.1 kVA	398,399,490	2.6 kVA	587,960,874
1-2	Transmission Facilities										
	OD63mm	uPVC/HDPE Common soil	m	48,630	3,000.0	145,890,000	3,000.0	145,890,000	3,000.0	145,890,000	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	0.0	0	1,500.0	84,009,000	incl. valves,others
	Sub total (b)					145,890,000		145,890,000		229,899,000	
	Sub total of Intake and Transmission Facilities					540,779,490		544,289,490		817,859,874	
								3,510,000		273,570,384	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		810,304,000		815,563,000		1,225,481,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	5,259,000	Term III-II	409,918,000	
	Added Ratio of Engineering Services, Contingency ,etc.										

RGC: Busiuro District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole
Short Term Plan (by 2015)	2,231	II	20	44.6	2
Middle Term Plan (by 2020)	2,639	II	25	66.0	3
Longe Term Plan (by 2035)	4,363	III	30	130.9	4

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost										
1-1	Intake Facilities										
	Deep borehole construction Dia 125mm		pls	68,090,000	2.0	136,180,000	3.0	204,270,000	4.0	272,360,000	
	Spare pump unit		set	9,638,861	2.0	19,277,722	2.0	19,277,722	2.0	19,277,722	
	Installtion of well pump with electrical works		pls	18,992,777	2.0	37,985,553	3.0	56,978,330	4.0	75,971,107	
	Piping works for well to outlet		pls	24,239,137	2.0	48,478,273	3.0	72,717,410	4.0	96,956,547	incl. valves,others
	Erecrical room		pls	25,535,063	2.0	51,070,127	3.0	76,605,190	4.0	102,140,253	
	Fence and gate for well		pls	6,232,407	2.0	12,464,815	3.0	18,697,222	4.0	24,929,630	
	Power source	National Electric Grid Supply	L/S	incl. above e-works	0.0	0	0.0	0	0.0	0	
	Sub total (a)					305,456,490		448,545,874		591,635,259	
1-2	Transmission Facilities										
	OD63mm	uPVC/HDPE Common soil	m	48,630	3,200.0	155,616,000	3,200.0	155,616,000	3,200.0	155,616,000	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	1,600.0	89,609,600	9,300.0	520,855,800	incl. valves,others
	Sub total (b)					155,616,000		245,225,600		676,471,800	
	Sub total of Intake and Transmission Facilities					461,072,490		693,771,474		1,268,107,059	
								232,698,984		574,335,585	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		690,871,000		1,039,547,000		1,900,132,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	348,676,000	Term III-II	860,584,000	
	Added Ratio of Engineering Services, Contingency ,etc.										

RGC: Busalamu District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole
Short Term Plan (by 2015)	1,972	II	20	39.4	1
Middle Term Plan (by 2020)	2,332	II	25	58.3	2
Longe Term Plan (by 2035)	3,856	III	30	115.7	3

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost										
1-1	Intake Facilities										
	Deep borehole construction Dia 125mm		pls	85,043,000	1.0	85,043,000	2.0	170,086,000	3.0	255,129,000	
	Spare pump unit		set	9,638,861	1.0	9,638,861	1.0	9,638,861	1.0	9,638,861	
	Installtion of well pump with electrical works		pls	18,992,777	1.0	18,992,777	2.0	37,985,553	3.0	56,978,330	
	Piping works for well to outlet		pls	24,239,137	1.0	24,239,137	2.0	48,478,273	3.0	72,717,410	incl. valves,others
	Generator room		pls	25,535,063	1.0	25,535,063	2.0	51,070,127	3.0	76,605,190	
	Fence and gate for well		pls	6,232,407	1.0	6,232,407	2.0	12,464,815	3.0	18,697,222	
	Power source	Diesel Generator Supply	set	-	1.0	7,021,000	2.0	17,551,000	3.0	31,969,000	
	Sub total (a)					1.2 kVA	176,702,245	1.8 kVA	347,274,629	2.3 kVA	521,735,013
1-2	Transmission Facilities										
	OD63mm	uPVC/HDPE Common soil	m	48,630	1,700.0	82,671,000	1,700.0	82,671,000	1,700.0	82,671,000	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	1,700.0	95,210,200	3,400.0	190,420,400	incl. valves,others
	Sub total (b)					82,671,000		177,881,200		273,091,400	
	Sub total of Intake and Transmission Facilities					259,373,245		525,155,829		794,826,413	
								265,782,584		269,670,584	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		388,645,000		786,894,000		1,190,968,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	398,249,000	Term III-II	404,074,000	
	Added Ratio of Engineering Services, Contingency ,etc.										

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RGC: Waibuga District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole
Short Term Plan (by 2015)	560	I	20	11.2	0
Middle Term Plan (by 2020)	663	I	25	16.6	0
Longe Term Plan (by 2035)	1,096	II	30	32.9	2

A Construction Cost						Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
No	Item	Description	Unit	Rate (UGX)		Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost											
1-1	Intake Facilities											
	Deep borehole construction Dia 125mm		pls	76,211,000		1.0	0	1.0	0	2.0	152,422,000	
	Spare pump unit		set	9,638,861		1.0	0	1.0	0	2.0	19,277,722	
	Installtion of well pump with electrical works		pls	18,992,777		1.0	0	1.0	0	2.0	37,985,553	
	Piping works for well to outlet		pls	24,239,137		1.0	0	1.0	0	2.0	48,478,273	incl. valves,others
	Generator room		pls	25,535,063		1.0	0	1.0	0	2.0	51,070,127	
	Fence and gate for well		pls	6,232,407		1.0	0	1.0	0	2.0	12,464,815	
	Power source	Diesel Generator Supply	set	10,531,000		0.0	0	0.0	0	2.0	21,062,000	
	Sub total (a)									1. kVA	342,760,490	
1-2	Transmission Facilities											
	OD63mm	uPVC/HDPE Common soil	m	48,630		0.0	0	0.0	0	2,400.0	116,712,000	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006		0.0	0	0.0	0	0.0	0	incl. valves,others
	Sub total (b)										116,712,000	
	Sub total of Intake and Transmission Facilities(a+b)										459,472,490	
											459,472,490	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984			0		0		688,474,000	
	Total Cost of each Term Plan for Distribution Facilities							Term II-I	0	Term III-II	688,474,000	
	Added Ratio of Engineering Services, Contingency ,etc.											

RGC: Namusisi District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole
Short Term Plan (by 2015)	1,960	II	20	39.2	2
Middle Term Plan (by 2020)	2,318	II	25	58.0	2
Longe Term Plan (by 2035)	3,832	III	30	115.0	3

A Construction Cost						Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
No	Item	Description	Unit	Rate (UGX)		Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost											
1-1	Intake Facilities											
	Deep borehole construction Dia 125mm		pls	87,665,000		2.0	175,330,000	2.0	175,330,000	3.0	262,995,000	
	Spare pump unit		set	9,638,861		2.0	19,277,722	2.0	19,277,722	2.0	19,277,722	
	Installtion of well pump with electrical works		pls	18,992,777		2.0	37,985,553	2.0	37,985,553	3.0	56,978,330	
	Piping works for well to outlet		pls	24,239,137		2.0	48,478,273	2.0	48,478,273	3.0	72,717,410	incl. valves,others
	Erectrical room		pls	25,535,063		2.0	51,070,127	2.0	51,070,127	3.0	76,605,190	
	Fence and gate for well		pls	6,232,407		2.0	12,464,815	2.0	12,464,815	3.0	18,697,222	
	Power source	National Electric Grid Supply	L/S	incl. above e-works		1.0	0	1.0	0	1.0	0	
	Sub total (a)						344,606,490		344,606,490		507,270,874	
1-2	Transmission Facilities											
	OD63mm	uPVC/HDPE Common soil	m	48,630		3,400.0	165,342,000	3,400.0	165,342,000	3,400.0	165,342,000	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006		0.0	0	0.0	0	1,700.0	95,210,200	incl. valves,others
	Sub total (b)						165,342,000		165,342,000		260,552,200	
	Sub total of Intake and Transmission Facilities						509,948,490		509,948,490		767,823,074	
									0		257,874,584	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984			764,107,000		764,107,000		1,150,506,000	
	Total Cost of each Term Plan for Distribution Facilities							Term II-I	0	Term III-II	386,399,000	
	Added Ratio of Engineering Services, Contingency ,etc.											

RGC: Nawandala District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole
Short Term Plan (by 2015)	1,532	II	20	30.6	0
Middle Term Plan (by 2020)	1,811	II	25	45.3	2
Longe Term Plan (by 2035)	2,995	II	30	89.9	4

A Construction Cost						Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
No	Item	Description	Unit	Rate (UGX)		Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost											
1-1	Intake Facilities											
	Deep borehole construction Dia 125mm		pls	54,534,000		0.0	0	2.0	109,068,000	4.0	218,136,000	
	Spare pump unit		set	9,638,861		0.0	0	2.0	19,277,722	2.0	19,277,722	
	Installtion of well pump with electrical works		pls	18,992,777		0.0	0	2.0	37,985,553	4.0	75,971,107	
	Piping works for well to outlet		pls	24,239,137		0.0	0	2.0	48,478,273	4.0	96,956,547	incl. valves,others
	Erectrical room		pls	25,535,063		0.0	0	2.0	51,070,127	4.0	102,140,253	
	Fence and gate for well		pls	6,232,407		0.0	0	2.0	12,464,815	4.0	24,929,630	
	Power source	National Electric Grid Supply	L/S	incl. above e-works		1.0	0	1.0	0	1.0	0	
	Sub total (a)						0		278,344,490		537,411,259	
1-2	Transmission Facilities											
	OD63mm	uPVC/HDPE Common soil	m	48,630		0.0	0	0.0	0	0.0	0	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006		0.0	0	3,000.0	168,018,000	6,000.0	336,036,000	incl. valves,others
	Sub total (b)						0		168,018,000		336,036,000	
	Sub total of Intake and Transmission Facilities						0		446,362,490		873,447,259	
									446,362,490		427,084,769	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984			0		668,830,000		1,308,773,000	
	Total Cost of each Term Plan for Distribution Facilities							Term II-I	668,830,000	Term III-II	639,944,000	
	Added Ratio of Engineering Services, Contingency ,etc.											

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RGC: Nambale	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Iganga			lit/day/capita	m3/day	
Short Term Plan (by 2015)	5,715	IV	20	114.3	2
Middle Term Plan (by 2020)	6,760	IV	25	169.0	2
Longe Term Plan (by 2035)	11,178	IV	30	335.3	4

A Construction Cost											
No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount	Quantity	Amount	Quantity	Amount	
				(UGX)		(UGX)		(UGX)		(UGX)	
1	Direct Cost										
1-1	Intake Facilities										
	Deep borehole construction Dia 125mm		pls	29,830,000	2.0	59,660,000	2.0	59,660,000	4.0	119,320,000	
	Spare pump unit		set	9,638,861	2.0	19,277,722	2.0	19,277,722	2.0	19,277,722	
	Installation of well pump with electrical works		pls	18,992,777	2.0	37,985,553	2.0	37,985,553	4.0	75,971,107	
	Piping works for well to outlet		pls	24,239,137	2.0	48,478,273	2.0	48,478,273	4.0	96,956,547	incl. valves,others
	Erectrical room		pls	25,535,063	2.0	51,070,127	2.0	51,070,127	4.0	102,140,253	
	Fence and gate for well		pls	6,232,407	2.0	12,464,815	2.0	12,464,815	4.0	24,929,630	
	Power source	National Electric Grid Supply	L/S	incl. above e-works	1.0	0	1.0	0	1.0	0	
	Sub total (a)					228,936,490		228,936,490		438,595,259	
1-2	Transmission Facilities										
	OD63mm	uPVC/HDPE Common soil	m	48,630	1,600.0	77,808,000	1,600.0	77,808,000	1,600.0	77,808,000	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	0.0	0	1,600.0	89,609,600	incl. valves,others
	Sub total (b)					77,808,000		77,808,000		281,622,400	
	Sub total of Intake and Transmission Facilities					306,744,490		306,744,490		720,217,659	
								0		413,473,169	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		459,626,000		459,626,000		1,079,174,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	0	Term III-II	619,548,000	
	Added Ratio of Engineering Services, Contingency .etc.										

RGC: Nabitende Banada	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Iganga			lit/day/capita	m3/day	
Short Term Plan (by 2015)	17,459	IV	20	349.2	3
Middle Term Plan (by 2020)	20,645	IV	25	516.1	4
Longe Term Plan (by 2035)	34,135	IV	30	1,024.1	8

A Construction Cost											
No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount	Quantity	Amount	Quantity	Amount	
				(UGX)		(UGX)		(UGX)		(UGX)	
1	Direct Cost										
1-1	Intake Facilities										
	Deep borehole construction Dia 125mm		pls	41,371,000	3.0	124,113,000	4.0	165,484,000	8.0	330,968,000	
	Spare pump unit		set	9,638,861	3.0	28,916,583	3.0	28,916,583	3.0	28,916,583	
	Installation of well pump with electrical works		pls	18,992,777	3.0	56,978,330	4.0	75,971,107	8.0	151,942,214	
	Piping works for well to outlet		pls	24,239,137	3.0	72,717,410	4.0	96,956,547	8.0	193,913,094	incl. valves,others
	Erectrical room		pls	25,535,063	3.0	76,605,190	4.0	102,140,253	8.0	204,280,506	
	Fence and gate for well		pls	6,232,407	3.0	18,697,222	4.0	24,929,630	8.0	49,859,259	
	Power source	National Electric Grid Supply	L/S	incl. above e-works	1.0	0	1.0	0	1.0	0	
	Sub total (a)					378,027,735		494,398,120		959,879,656	
1-2	Transmission Facilities										
	OD63mm	uPVC/HDPE Common soil	m	48,630	3,300.0	160,479,000	3,300.0	160,479,000	3,300.0	160,479,000	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	1,100.0	61,606,600	5,500.0	308,033,000	incl. valves,others
	OD110mm	uPVC/HDPE Common soil	m	71,378	0.0	0	1,100.0	78,515,800	5,500.0	392,579,000	GSP, others
	Sub total (b)					160,479,000		300,601,400		861,091,000	
	Sub total of Intake and Transmission Facilities					538,506,735		794,999,520		1,820,970,656	
								256,492,785		1,025,971,136	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		806,898,000		1,191,227,000		2,728,542,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	384,329,000	Term III-II	1,537,315,000	
	Added Ratio of Engineering Services, Contingency .etc.										

RGC: Bugono	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Iganga			lit/day/capita	m3/day	
Short Term Plan (by 2015)	1,369	II	20	27.4	0
Middle Term Plan (by 2020)	1,619	II	25	40.5	0
Longe Term Plan (by 2035)	2,677	II	30	80.3	2

A Construction Cost											
No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount	Quantity	Amount	Quantity	Amount	
				(UGX)		(UGX)		(UGX)		(UGX)	
1	Direct Cost										
1-1	Intake Facilities										
	Deep borehole construction Dia 125mm		pls	33,274,000	0.0	0	0.0	0	2.0	66,548,000	
	Spare pump unit		set	9,638,861	0.0	0	0.0	0	0.0	0	
	Installation of well pump with electrical works		pls	18,992,777	0.0	0	0.0	0	2.0	37,985,553	
	Piping works for well to outlet		pls	24,239,137	0.0	0	0.0	0	2.0	48,478,273	incl. valves,others
	Erectrical room		pls	25,535,063	0.0	0	0.0	0	2.0	51,070,127	
	Fence and gate for well		pls	6,232,407	0.0	0	0.0	0	2.0	12,464,815	
	Power source	National Electric Grid Supply	L/S	incl. above e-works	1.0	0	1.0	0	1.0	0	
	Sub total (a)					0		0		216,546,768	
1-2	Transmission Facilities										
	OD63mm	uPVC/HDPE Common soil	m	48,630	0.0	0	0.0	0	0.0	0	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	0.0	0	4,400.0	246,426,400	incl. valves,others
	Sub total (b)					0		0		246,426,400	
	Sub total of Intake and Transmission Facilities					0		0		462,973,168	
								0		462,973,168	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		0		0		693,719,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	0	Term III-II	693,719,000	
	Added Ratio of Engineering Services, Contingency .etc.										

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RGC: Nabitende Kalungami	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Iganga			lit/day/capita	m3/day	
Short Term Plan (by 2015)	2,822	II	20	56.4	2
Middle Term Plan (by 2020)	3,337	III	25	83.4	2
Longe Term Plan (by 2035)	5,518	IV	30	165.5	3

A Construction Cost											
No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost			(UGX)							
1-1	Intake Facilities										
	Deep borehole construction Dia 125mm		pls	43,606,000	2.0	87,212,000	2.0	87,212,000	3.0	130,818,000	
	Spare pump unit		set	9,638,861	2.0	19,277,722	2.0	19,277,722	2.0	19,277,722	
	Installation of well pump with electrical works		pls	18,992,777	2.0	37,985,553	2.0	37,985,553	3.0	56,978,330	
	Piping works for well to outlet		pls	24,239,137	2.0	48,478,273	2.0	48,478,273	3.0	72,717,410	incl. valves,others
	Electrical room		pls	25,535,063	2.0	51,070,127	2.0	51,070,127	3.0	76,605,190	
	Fence and gate for well		pls	6,232,407	2.0	12,464,815	2.0	12,464,815	3.0	18,697,222	
	Power source	National Electric Grid Supply	L/S	incl. above e-works	1.0	0	1.0	0	1.0	0	
	Sub total (a)					256,488,490		256,488,490		375,093,874	
1-2	Transmission Facilities										
	OD63mm	uPVC/HDPE Common soil	m	48,630	2,000.0	97,260,000	2,000.0	97,260,000	2,000.0	97,260,000	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	0.0	0	1,000.0	56,006,000	incl. valves,others
	Sub total (b)					97,260,000		97,260,000		153,266,000	
	Sub total of Intake and Transmission Facilities					353,748,490		353,748,490		528,359,874	
								0		174,611,384	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		530,057,000		530,057,000		791,694,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	0	Term III-II	261,638,000	
	Added Ratio of Engineering Services, Contingency .etc.										

RGC: Namung'alwe	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Iganga			lit/day/capita	m3/day	
Short Term Plan (by 2015)	14,474	IV	20	289.5	3
Middle Term Plan (by 2020)	17,115	IV	25	427.9	3
Longe Term Plan (by 2035)	28,299	IV	30	849.0	6

A Construction Cost											
No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost			(UGX)							
1-1	Intake Facilities										
	Deep borehole construction Dia 125mm		pls	63,769,000	3.0	191,307,000	3.0	191,307,000	6.0	382,614,000	
	Spare pump unit		set	9,638,861	3.0	28,916,583	3.0	28,916,583	3.0	28,916,583	
	Installation of well pump with electrical works		pls	18,992,777	3.0	56,978,330	3.0	56,978,330	6.0	113,956,660	
	Piping works for well to outlet		pls	24,239,137	3.0	72,717,410	3.0	72,717,410	6.0	145,434,820	incl. valves,others
	Electrical room		pls	25,535,063	3.0	76,605,190	3.0	76,605,190	6.0	153,210,380	
	Fence and gate for well		pls	6,232,407	3.0	18,697,222	3.0	18,697,222	6.0	37,394,444	
	Power source	National Electric Grid Supply	L/S	incl. above e-works	1.0	0	1.0	0	1.0	0	
	Sub total (a)					445,221,735		445,221,735		861,526,887	
1-2	Transmission Facilities										
	OD63mm	uPVC/HDPE Common soil	m	48,630	2,250.0	109,417,500	2,250.0	109,417,500	2,250.0	109,417,500	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	0.0	0	4,500.0	252,027,000	incl. valves,others
	OD110mm	uPVC/HDPE Common soil	m	71,378	0.0	0	0.0	0	2,250.0	160,600,500	GSP, others
	Sub total (b)					109,417,500		109,417,500		522,045,000	
	Sub total of Intake and Transmission Facilities					554,639,235		554,639,235		1,383,571,887	
								0		828,932,652	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		831,071,000		831,071,000		2,073,144,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	0	Term III-II	1,242,073,000	
	Added Ratio of Engineering Services, Contingency .etc.										

RGC: Kiwanyi	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Iganga			lit/day/capita	m3/day	
Short Term Plan (by 2015)	3,033	III	20	60.7	3
Middle Term Plan (by 2020)	3,587	III	25	89.7	4
Longe Term Plan (by 2035)	5,931	IV	30	177.9	4

A Construction Cost											
No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost			(UGX)							
1-1	Intake Facilities										
	Deep borehole construction Dia 125mm		pls	46,972,000	3.0	140,916,000	4.0	187,888,000	4.0	187,888,000	
	Spare pump unit		set	9,638,861	3.0	28,916,583	3.0	28,916,583	3.0	28,916,583	
	Installation of well pump with electrical works		pls	18,992,777	3.0	56,978,330	4.0	75,971,107	4.0	75,971,107	
	Piping works for well to outlet		pls	24,239,137	3.0	72,717,410	4.0	96,956,547	4.0	96,956,547	incl. valves,others
	Electrical room		pls	25,535,063	3.0	76,605,190	4.0	102,140,253	4.0	102,140,253	
	Fence and gate for well		pls	6,232,407	3.0	18,697,222	4.0	24,929,630	4.0	24,929,630	
	Power source	National Electric Grid Supply	L/S	incl. above e-works	1.0	0	1.0	0	1.0	0	
	Sub total (a)					394,830,735		516,802,120		516,802,120	
1-2	Transmission Facilities										
	OD63mm	uPVC/HDPE Common soil	m	48,630	4,500.0	218,835,000	4,500.0	218,835,000	4,500.0	218,835,000	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	1,500.0	84,009,000	1,500.0	84,009,000	incl. valves,others
	OD110mm	uPVC/HDPE Common soil	m	71,378	0.0	0	0.0	0	3,000.0	214,134,000	GSP, others
	Sub total (b)					218,835,000		302,844,000		516,978,000	
	Sub total of Intake and Transmission Facilities					613,665,735		819,646,120		1,033,780,120	
								205,980,385		214,134,000	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		919,517,000		1,228,158,000		1,549,016,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	308,641,000	Term III-II	320,858,000	
	Added Ratio of Engineering Services, Contingency .etc.										

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RGC: Nakalama	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Iganga			lit/day/capita	m3/day	
Short Term Plan (by 2015)	6,905	IV	20	138.1	2
Middle Term Plan (by 2020)	8,165	IV	25	204.1	3
Longe Term Plan (by 2035)	13,501	IV	30	405.0	6

A Construction Cost				Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
No	Item	Description	Unit	Rate	Quantity	Amount	Quantity	Amount	Quantity	
				(UGX)	(UGX)		(UGX)		(UGX)	
1	Direct Cost									
1-1	Intake Facilities									
	Deep borehole construction Dia 125mm		pls	48,252,000	2.0	96,504,000	3.0	144,756,000	6.0	289,512,000
	Spare pump unit		set	9,638,861	2.0	19,277,722	2.0	19,277,722	2.0	19,277,722
	Installation of well pump with electrical works		pls	18,992,777	2.0	37,985,553	3.0	56,978,330	6.0	113,956,660
	Piping works for well to outlet		pls	24,239,137	2.0	48,478,273	3.0	72,717,410	6.0	145,434,820
	Electrical room		pls	25,535,063	2.0	51,070,127	3.0	76,605,190	6.0	153,210,380
	Fence and gate for well		pls	6,232,407	2.0	12,464,815	3.0	18,697,222	6.0	37,394,444
	Power source	National Electric Grid Supply	L/S	incl. above e-works	1.0	0	1.0	0	1.0	0
	Sub total (a)					265,780,490		389,031,874		758,786,026
1-2	Transmission Facilities									
	OD63mm	uPVC/HDPE Common soil	m	48,630	3,240.0	157,561,200	3,240.0	157,561,200	3,240.0	157,561,200
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	1,620.0	90,729,720	6,480.0	362,918,880
	OD110mm	uPVC/HDPE Common soil	m	71,378	0.0	0	1,620.0	115,632,360	6,480.0	462,529,440
	Sub total (b)					157,561,200		363,923,280		983,009,520
	Sub total of Intake and Transmission Facilities					423,341,690		752,955,154		1,741,795,546
								329,613,464		988,840,392
	Total Cost for Distribution Facilities (cumulative total)			Ratio	1.4984	634,335,000		1,128,228,000		2,609,906,000
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	493,893,000	Term III-II	1,481,678,000
	Added Ratio of Engineering Services, Contingency .etc.									

RGC: Nakigo	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Iganga			lit/day/capita	m3/day	
Short Term Plan (by 2015)	2,412	II	20	48.2	0
Middle Term Plan (by 2020)	2,852	II	25	71.3	2
Longe Term Plan (by 2035)	4,716	III	30	141.5	3

A Construction Cost				Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
No	Item	Description	Unit	Rate	Quantity	Amount	Quantity	Amount	Quantity	
				(UGX)	(UGX)		(UGX)		(UGX)	
1	Direct Cost									
1-1	Intake Facilities									
	Deep borehole construction Dia 125mm		pls	68,878,000	0.0	0	2.0	137,756,000	3.0	206,634,000
	Spare pump unit		set	9,638,861	0.0	0	0.0	0	0.0	0
	Installation of well pump with electrical works		pls	18,992,777	0.0	0	2.0	37,985,553	3.0	56,978,330
	Piping works for well to outlet		pls	24,239,137	0.0	0	2.0	48,478,273	3.0	72,717,410
	Electrical room		pls	25,535,063	0.0	0	2.0	51,070,127	3.0	76,605,190
	Fence and gate for well		pls	6,232,407	0.0	0	2.0	12,464,815	3.0	18,697,222
	Power source	National Electric Grid Supply	L/S	incl. above e-works	1.0	0	1.0	0	1.0	0
	Sub total (a)					0		287,754,768		431,632,152
1-2	Transmission Facilities									
	OD63mm	uPVC/HDPE Common soil	m	48,630	0.0	0	0.0	0	0.0	0
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	2,000.0	112,012,000	3,000.0	168,018,000
	Sub total (b)					0		112,012,000		168,018,000
	Sub total of Intake and Transmission Facilities					0		399,766,768		599,650,152
								399,766,768		199,883,384
	Total Cost for Distribution Facilities (cumulative total)			Ratio	1.4984	0		599,011,000		898,516,000
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	599,011,000	Term III-II	299,505,000
	Added Ratio of Engineering Services, Contingency .etc.									

RGC: Kabira	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Iganga			lit/day/capita	m3/day	
Short Term Plan (by 2015)	1,652	II	20	33.0	0
Middle Term Plan (by 2020)	1,954	II	25	48.9	2
Longe Term Plan (by 2035)	3,231	III	30	96.9	3

A Construction Cost				Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
No	Item	Description	Unit	Rate	Quantity	Amount	Quantity	Amount	Quantity	
				(UGX)	(UGX)		(UGX)		(UGX)	
1	Direct Cost									
1-1	Intake Facilities									
	Deep borehole construction Dia 125mm		pls	41,371,000	0.0	0	2.0	82,742,000	3.0	124,113,000
	Spare pump unit		set	9,638,861	0.0	0	2.0	19,277,722	2.0	19,277,722
	Installation of well pump with electrical works		pls	18,992,777	0.0	0	2.0	37,985,553	3.0	56,978,330
	Piping works for well to outlet		pls	24,239,137	0.0	0	2.0	48,478,273	3.0	72,717,410
	Electrical room		pls	25,535,063	0.0	0	2.0	51,070,127	3.0	76,605,190
	Fence and gate for well		pls	6,232,407	0.0	0	2.0	12,464,815	3.0	18,697,222
	Power source	National Electric Grid Supply	L/S	incl. above e-works	1.0	0	1.0	0	1.0	0
	Sub total (a)					0		252,018,490		368,388,874
1-2	Transmission Facilities									
	OD63mm	uPVC/HDPE Common soil	m	48,630	0.0	0	0.0	0	0.0	0
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	2,000.0	112,012,000	3,000.0	168,018,000
	Sub total (b)					0		112,012,000		168,018,000
	Sub total of Intake and Transmission Facilities					0		364,030,490		536,406,874
								364,030,490		172,376,384
	Total Cost for Distribution Facilities (cumulative total)			Ratio	1.4984	0		545,463,000		803,752,000
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	545,463,000	Term III-II	711,120,000
	Added Ratio of Engineering Services, Contingency .etc.									

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RGC: Wailama	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Iganga			lit/day/capita	m3/day	
Short Term Plan (by 2015)	524	I	20	10.5	0
Middle Term Plan (by 2020)	619	I	25	15.5	0
Longe Term Plan (by 2035)	1,024	II-1	30	30.7	1

A Construction Cost											
No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost			(UGX)							
1-1	Intake Facilities										
	Deep borehole construction Dia 125mm		pls	98,120,000	0.0	0	0.0	0	1.0	98,120,000	
	Spare pump unit		set	9,638,861	0.0	0	0.0	0	1.0	9,638,861	
	Installation of well pump with electrical works		pls	18,992,777	0.0	0	0.0	0	1.0	18,992,777	
	Piping works for well to outlet		pls	24,239,137	0.0	0	0.0	0	1.0	24,239,137	incl. valves,others
	Erectrical room		pls	25,535,063	0.0	0	0.0	0	1.0	25,535,063	
	Fence and gate for well		pls	6,232,407	0.0	0	0.0	0	1.0	6,232,407	
	Power source	National Electric Grid Supply	L/S	incl. above e-work	1.0	0	0.0	0	1.0	0	
	Sub total (a)					0		0		387,406,445	
1-2	Transmission Facilities										
	OD63mm	uPVC/HDPE Common soil	m	48,630	0.0	0	0.0	0	1,500.0	72,945,000	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	0.0	0	0.0	0	incl. valves,others
	Sub total (b)					0		0		72,945,000	
	Total of Intake and Transmission Facilities					0		0		460,351,445	
								0		460,351,445	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		0		0		689,791,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	0	Term III-II	689,791,000	
	Added Ratio of Engineering Services, Contingency .etc.										

RGC: Busesa	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Iganga			lit/day/capita	m3/day	
Short Term Plan (by 2015)	4,825	IV	20	96.5	2
Middle Term Plan (by 2020)	5,705	IV	25	142.6	2
Longe Term Plan (by 2035)	9,433	IV	30	283.0	4

A Construction Cost											
No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost			(UGX)							
1-1	Intake Facilities										
	Deep borehole construction Dia 125mm		pls	48,252,000	2.0	96,504,000	2.0	96,504,000	4.0	193,008,000	
	Spare pump unit		set	9,638,861	2.0	19,277,722	2.0	19,277,722	2.0	19,277,722	
	Installation of well pump with electrical works		pls	18,992,777	2.0	37,985,553	2.0	37,985,553	4.0	75,971,107	
	Piping works for well to outlet		pls	24,239,137	2.0	48,478,273	2.0	48,478,273	4.0	96,956,547	incl. valves,others
	Erectrical room		pls	25,535,063	2.0	51,070,127	2.0	51,070,127	4.0	102,140,253	
	Fence and gate for well		pls	6,232,407	2.0	12,464,815	2.0	12,464,815	4.0	24,929,630	
	Power source	National Electric Grid Supply	L/S	incl. above e-works	1.0	0	1.0	0	1.0	0	
	Sub total (a)					265,780,490		265,780,490		512,283,259	
1-2	Transmission Facilities										
	OD63mm	uPVC/HDPE Common soil	m	48,630	2,800.0	136,164,000	2,800.0	136,164,000	2,800.0	136,164,000	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	0.0	0	2,800.0	156,816,800	incl. valves,others
	Sub total (b)					136,164,000		136,164,000		292,980,800	
	Sub total of Intake and Transmission Facilities					401,944,490		401,944,490		805,264,059	
								0		403,319,569	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		602,274,000		602,274,000		1,206,608,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	0	Term III-II	604,334,000	
	Added Ratio of Engineering Services, Contingency .etc.										

RGC: Ibulanku T/C	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Iganga			lit/day/capita	m3/day	
Short Term Plan (by 2015)	3,094	III	20	61.9	0
Middle Term Plan (by 2020)	3,658	III	25	91.5	2
Longe Term Plan (by 2035)	6,049	IV	30	181.5	2

A Construction Cost											
No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost			(UGX)							
1-1	Intake Facilities										
	Deep borehole construction Dia 125mm		pls	45,778,000	0.0	0	2.0	91,556,000	2.0	91,556,000	
	Spare pump unit		set	9,638,861	0.0	0	2.0	19,277,722	2.0	19,277,722	
	Installation of well pump with electrical works		pls	18,992,777	0.0	0	2.0	37,985,553	2.0	37,985,553	
	Piping works for well to outlet		pls	24,239,137	0.0	0	2.0	48,478,273	2.0	48,478,273	incl. valves,others
	Erectrical room		pls	25,535,063	0.0	0	2.0	51,070,127	2.0	51,070,127	
	Fence and gate for well		pls	6,232,407	0.0	0	2.0	12,464,815	2.0	12,464,815	
	Power source	National Electric Grid Supply	L/S	incl. above e-works	1.0	0	1.0	0	1.0	0	
	Sub total (a)					0		260,832,490		260,832,490	
1-2	Transmission Facilities										
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	1,000.0	56,006,000	1,000.0	56,006,000	incl. valves,others
	OD110mm	uPVC/HDPE Common soil	m	71,378	0.0	0	0.0	0	500.0	35,689,000	GSP, others
	Sub total (b)					0		56,006,000		91,695,000	
	Sub total of Intake and Transmission Facilities					0		316,838,490		352,527,490	
								316,838,490		35,689,000	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		0		474,751,000		528,227,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	474,751,000	Term III-II	53,476,000	
	Added Ratio of Engineering Services, Contingency .etc.										

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RGC: Nakivumi District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole
Short Term Plan (by 2015)	2,750	II	20	55.0	2
Middle Term Plan (by 2020)	3,252	III	25	81.3	2
Longe Term Plan (by 2035)	5,377	IV	30	161.3	3

A Construction Cost						Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
No	Item	Description	Unit	Rate (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)		
1	Direct Cost											
1-1	Intake Facilities											
	Deep borehole construction Dia 125mm		pls	47,665,000	2.0	95,330,000	2.0	95,330,000	3.0	142,995,000		
	Spare pump unit		set	9,638,861	2.0	19,277,722	2.0	19,277,722	2.0	19,277,722		
	Installation of well pump with electrical works		pls	18,992,777	2.0	37,985,553	2.0	37,985,553	3.0	56,978,330		
	Piping works for well to outlet		pls	24,239,137	2.0	48,478,273	2.0	48,478,273	3.0	72,717,410		incl. valves,others
	Erectrical room		pls	25,535,063	2.0	51,070,127	2.0	51,070,127	3.0	76,605,190		
	Fence and gate for well		pls	6,232,407	2.0	12,464,815	2.0	12,464,815	3.0	18,697,222		
	Power source	National Electric Grid Supply	L/S	incl. above e-works	1.0	0	1.0	0	1.0	0		
	Sub total (a)					264,606,490		264,606,490		387,270,874		
1-2	Transmission Facilities											
	OD63mm	uPVC/HDPE Common soil	m	48,630	3,900.0	189,657,000	3,900.0	189,657,000	3,900.0	189,657,000		incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	0.0	0	1,950.0	109,211,700		incl. valves,others
	Sub total (b)					189,657,000		189,657,000		298,868,700		
	Sub total of Intake and Transmission Facilities					454,263,490		454,263,490		686,139,574		
								0		231,876,084		
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		680,668,000		680,668,000		1,028,112,000		
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	0	Term III-II	347,443,000		
	Added Ratio of Engineering Services, Contingency .etc.											

RGC: Nondwe District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole
Short Term Plan (by 2015)	4,264	III	20	85.3	3
Middle Term Plan (by 2020)	5,042	IV	25	126.1	3
Longe Term Plan (by 2035)	8,336	IV	30	250.1	5

A Construction Cost						Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
No	Item	Description	Unit	Rate (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)		
1	Direct Cost											
1-1	Intake Facilities											
	Deep borehole construction Dia 125mm		pls	0	3.0	0	3.0	0	5.0	0		
	Spare pump unit		set	9,638,861	3.0	28,916,583	3.0	28,916,583	3.0	28,916,583		
	Installation of well pump with electrical works		pls	18,992,777	3.0	56,978,330	3.0	56,978,330	5.0	94,963,884		
	Piping works for well to outlet		pls	24,239,137	3.0	72,717,410	3.0	72,717,410	5.0	121,195,684		incl. valves,others
	Erectrical room		pls	25,535,063	3.0	76,605,190	3.0	76,605,190	5.0	127,675,317		
	Fence and gate for well		pls	6,232,407	3.0	18,697,222	3.0	18,697,222	5.0	31,162,037		
	Power source	National Electric Grid Supply	L/S	incl. above e-works	1.0	0	1.0	0	1.0	0		
	Sub total (a)					253,914,735		253,914,735		403,913,505		
1-2	Transmission Facilities											
	OD63mm	uPVC/HDPE Common soil	m	48,630	3,300.0	160,479,000	3,300.0	160,479,000	3,300.0	160,479,000		incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	3,300.0	184,819,800	5,500.0	308,033,000		incl. valves,others
	OD110mm	uPVC/HDPE Common soil	m	71,378	0.0	0	0.0	0	2,200.0	157,031,600		GSP, others
	Sub total (b)					160,479,000		345,298,800		625,543,600		
	Sub total of Intake and Transmission Facilities					414,393,735		599,213,535		1,029,457,105		
								184,819,800		430,243,570		
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		620,928,000		897,862,000		1,542,539,000		
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	276,934,000	Term III-II	644,677,000		
	Added Ratio of Engineering Services, Contingency .etc.											

2. Pallisa District

RGC: Kapala District: Pallisa	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole
Short Term Plan (by 2015)	2,574	II	20	51.5	2
Middle Term Plan (by 2020)	3,055	III	25	76.4	2
Longe Term Plan (by 2035)	5,110	IV	30	153.3	3

A Construction Cost						Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
No	Item	Description	Unit	Rate (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)		
1	Direct Cost											
1-1	Intake Facilities											
	Deep borehole construction Dia 125mm		pls	66,935,000	2.0	133,870,000	2.0	133,870,000	3.0	200,805,000		
	Spare pump unit		set	9,638,861	2.0	19,277,722	2.0	19,277,722	2.0	19,277,722		
	Installation of well pump with electrical works		pls	18,992,777	2.0	37,985,553	2.0	37,985,553	3.0	56,978,330		
	Piping works for well to outlet		pls	24,239,137	2.0	48,478,273	2.0	48,478,273	3.0	72,717,410		incl. valves,others
	Erectrical room		pls	25,535,063	2.0	51,070,127	2.0	51,070,127	3.0	76,605,190		
	Fence and gate for well		pls	6,232,407	2.0	12,464,815	2.0	12,464,815	3.0	18,697,222		
	Power source	National Electric Grid Supply	L/S	incl. above e-works	1.0	0	1.0	0	1.0	0		
	Sub total (a)					303,146,490		303,146,490		445,080,874		
1-2	Transmission Facilities											
	OD63mm	uPVC/HDPE Common soil	m	48,630	1,480.0	71,972,400	1,480.0	71,972,400	1,480.0	71,972,400		incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	0.0	0	740.0	41,444,440		incl. valves,others
	Sub total (b)					71,972,400		71,972,400		113,416,840		
	Sub total of Intake and Transmission Facilities					375,118,890		375,118,890		558,497,714		
								0		183,378,824		
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		562,078,000		562,078,000		836,853,000		
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	0	Term III-II	274,775,000		
	Added Ratio of Engineering Services, Contingency .etc.											

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RGC: Agule	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Pallisa			lit/day/capita	m3/day	
Short Term Plan (by 2015)	2,141	II	20	42.8	0
Middle Term Plan (by 2020)	2,532	II	25	63.3	2
Longe Term Plan (by 2035)	4,186	III	30	125.6	3

A Construction Cost											
No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost			(UGX)							
1-1	Intake Facilities										
	Deep borehole construction Dia 125mm		pls	64,487,000	2.0	128,974,000	3.0	193,461,000	3.0	193,461,000	
	Spare pump unit		set	9,638,861	2.0	19,277,722	2.0	19,277,722	2.0	19,277,722	
	Installation of well pump with electrical works		pls	18,992,777	2.0	37,985,553	3.0	56,978,330	3.0	56,978,330	
	Piping works for well to outlet		pls	24,239,137	2.0	48,478,273	3.0	72,717,410	3.0	72,717,410	incl. valves,others
	Electrical room		pls	25,535,063	2.0	51,070,127	3.0	76,605,190	3.0	76,605,190	
	Fence and gate for well		pls	6,232,407	2.0	12,464,815	3.0	18,697,222	3.0	18,697,222	
	Power source	National Electric Grid Supply	L/S	incl. above e-works	1.0	0	1.0	0	1.0	0	
	Sub total (a)					298,250,490		437,736,874		437,736,874	
1-2	Transmission Facilities										
	OD63mm	uPVC/HDPE Common soil	m	48,630	3,000.0	145,890,000	3,000.0	145,890,000	3,000.0	145,890,000	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	1,500.0	84,009,000	1,500.0	84,009,000	incl. valves,others
	Sub total (b)					145,890,000		229,899,000		229,899,000	
	Sub total of Intake and Transmission Facilities					444,140,490		667,635,874		667,635,874	
								223,495,384		0	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		665,500,000		1,000,386,000		1,000,386,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	334,885,000	Term III-II	0	
	Added Ratio of Engineering Services, Contingency .etc.										

RGC: Kameke	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Pallisa			lit/day/capita	m3/day	
Short Term Plan (by 2015)	3,194	III	20	63.9	2
Middle Term Plan (by 2020)	3,663	III	25	91.6	2
Longe Term Plan (by 2035)	6,127	IV	30	183.8	3

A Construction Cost											
No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost			(UGX)							
1-1	Intake Facilities										
	Deep borehole construction Dia 125mm		pls	73,566,000	2.0	147,132,000	2.0	147,132,000	3.0	220,698,000	
	Spare pump unit		set	9,638,861	2.0	19,277,722	2.0	19,277,722	2.0	19,277,722	
	Installation of well pump with electrical works		pls	18,992,777	2.0	37,985,553	2.0	37,985,553	3.0	56,978,330	
	Piping works for well to outlet		pls	24,239,137	2.0	48,478,273	2.0	48,478,273	3.0	72,717,410	incl. valves,others
	Electrical room		pls	25,535,063	2.0	51,070,127	2.0	51,070,127	3.0	76,605,190	
	Fence and gate for well		pls	6,232,407	2.0	12,464,815	2.0	12,464,815	3.0	18,697,222	
	Power source	National Electric Grid Supply	L/S	incl. above e-works	1.0	0	1.0	0	1.0	0	
	Sub total (a)					316,408,490		316,408,490		464,973,874	
1-2	Transmission Facilities										
	OD63mm	uPVC/HDPE Common soil	m	48,630	2,960.0	143,944,800	2,960.0	143,944,800	2,960.0	143,944,800	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	0.0	0	1,480.0	82,888,880	incl. valves,others
	Sub total (b)					143,944,800		143,944,800		226,833,680	
	Sub total of Intake and Transmission Facilities					460,353,290		460,353,290		691,807,554	
								0		231,454,264	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		689,793,000		689,793,000		1,036,604,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	0	Term III-II	346,811,000	
	Added Ratio of Engineering Services, Contingency .etc.										

RGC: Kibale Pallisa	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Pallisa			lit/day/capita	m3/day	
Short Term Plan (by 2015)	2,833	II	20	56.7	2
Middle Term Plan (by 2020)	3,363	III	25	84.1	3
Longe Term Plan (by 2035)	5,625	IV	30	168.8	4

A Construction Cost											
No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost			(UGX)							
1-1	Intake Facilities										
	Deep borehole construction Dia 125mm		pls	61,617,000	2.0	123,234,000	3.0	184,851,000	4.0	246,468,000	
	Spare pump unit		set	9,638,861	2.0	19,277,722	2.0	19,277,722	2.0	19,277,722	
	Installation of well pump with electrical works		pls	18,992,777	2.0	37,985,553	3.0	56,978,330	4.0	75,971,107	
	Piping works for well to outlet		pls	24,239,137	2.0	48,478,273	3.0	72,717,410	4.0	96,956,547	incl. valves,others
	Electrical room		pls	25,535,063	2.0	51,070,127	3.0	76,605,190	4.0	102,140,253	
	Fence and gate for well		pls	6,232,407	2.0	12,464,815	3.0	18,697,222	4.0	24,929,630	
	Power source	National Electric Grid Supply	L/S	incl. above e-works	1.0	0	1.0	0	1.0	0	
	Sub total (a)					292,510,490		429,126,874		565,743,259	
1-2	Transmission Facilities										
	OD63mm	uPVC/HDPE Common soil	m	48,630	1,086.7	52,844,600	1,086.7	52,844,600	1,086.7	52,844,600	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	2,173.3	121,719,707	2,173.3	121,719,707	2,173.3	121,719,707	incl. valves,others
	OD110mm	uPVC/HDPE Common soil	m	71,378	0.0	0	0.0	0	7,000.0	499,646,000	from Kameke
	Sub total (b)					174,564,307		174,564,307		674,210,307	
	Sub total of Intake and Transmission Facilities					467,074,797		603,691,181		1,239,953,566	
								136,616,384		636,262,385	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		699,865,000		904,571,000		1,857,946,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	204,706,000	Term III-II	953,376,000	
	Added Ratio of Engineering Services, Contingency .etc.										

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RGC: Butebo District: Pallisa	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole
Short Term Plan (by 2015)	1,358	II	20	27.2	1
Middle Term Plan (by 2020)	1,612	II	25	40.3	2
Longe Term Plan (by 2035)	2,696	II	30	80.9	3

A Construction Cost						Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
No	Item	Description	Unit	Rate (UGX)		Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost											
1-1	Intake Facilities											
	Deep borehole construction Dia 125mm		pls	126,814,000		1.0	126,814,000	2.0	253,628,000	3.0	380,442,000	
	Spare pump unit		set	9,638,861		1.0	9,638,861	1.0	9,638,861	1.0	9,638,861	
	Installation of well pump with electrical works		pls	18,992,777		1.0	18,992,777	2.0	37,985,553	3.0	56,978,330	
	Piping works for well to outlet		pls	24,239,137		1.0	24,239,137	2.0	48,478,273	3.0	72,717,410	incl. valves,others
	Erectrical room		pls	25,535,063		1.0	25,535,063	2.0	51,070,127	3.0	76,605,190	
	Fence and gate for well		pls	6,232,407		1.0	6,232,407	2.0	12,464,815	3.0	18,697,222	
	Power source	National Electric Grid Supply	L/S	incl. above e-works		1.0	0	1.0	0	1.0	0	
	Sub total (a)						211,452,245		413,265,629		615,079,013	
1-2	Transmission Facilities											
	OD63mm	uPVC/HDPE Common soil	m	48,630		1,200.0	58,356,000	1,200.0	58,356,000	1,200.0	58,356,000	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006		0.0	0	1,200.0	67,207,200	2,400.0	134,414,400	incl. valves,others
	Sub total (b)						58,356,000		125,563,200		192,770,400	
	Sub total of Intake and Transmission Facilities						269,808,245		538,828,829		807,849,413	
									269,020,584		269,020,584	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984			404,281,000		807,381,000		1,210,482,000	
	Total Cost of each Term Plan for Distribution Facilities							Term II-I	403,100,000	Term III-II	403,100,000	
	Added Ratio of Engineering Services, Contingency .etc.											

RGC: Kabole District: Pallisa	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole
Short Term Plan (by 2015)	1,481	II	20	29.6	0
Middle Term Plan (by 2020)	1,758	II	25	44.0	2
Longe Term Plan (by 2035)	2,941	II	30	88.2	3

A Construction Cost						Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
No	Item	Description	Unit	Rate (UGX)		Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost											
1-1	Intake Facilities											
	Deep borehole construction Dia 125mm		pls	76,977,000		0.0	0	2.0	153,954,000	3.0	230,931,000	
	Spare pump unit		set	9,638,861		0.0	0	0.0	0	0.0	0	
	Installation of well pump with electrical works		pls	18,992,777		0.0	0	2.0	37,985,553	3.0	56,978,330	
	Piping works for well to outlet		pls	24,239,137		0.0	0	2.0	48,478,273	3.0	72,717,410	incl. valves,others
	Erectrical room		pls	25,535,063		0.0	0	2.0	51,070,127	3.0	76,605,190	
	Fence and gate for well		pls	6,232,407		0.0	0	2.0	12,464,815	3.0	18,697,222	
	Power source	National Electric Grid Supply	L/S	incl. above e-works		1.0	0	1.0	0	1.0	0	
	Sub total (a)						0		303,952,768		455,929,152	
1-2	Transmission Facilities											
	OD63mm	uPVC/HDPE Common soil	m	48,630		0.0	0	0.0	0	0.0	0	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006		0.0	0	3,860.0	216,183,160	5,790.0	324,274,740	incl. valves,others
	Sub total (b)						0		216,183,160		324,274,740	
	Sub total of Intake and Transmission Facilities						0		520,135,928		780,203,892	
									520,135,928		260,067,964	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984			0		779,372,000		1,169,058,000	
	Total Cost of each Term Plan for Distribution Facilities							Term II-I	779,372,000	Term III-II	389,686,000	
	Added Ratio of Engineering Services, Contingency .etc.											

RGC: Boliso ITC District: Pallisa	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole
Short Term Plan (by 2015)	1,253	II	20	25.1	1
Middle Term Plan (by 2020)	1,487	II	25	37.2	2
Longe Term Plan (by 2035)	2,488	II	30	74.6	3

A Construction Cost						Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
No	Item	Description	Unit	Rate (UGX)		Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost											
1-1	Intake Facilities											
	Deep borehole construction Dia 125mm		pls	60,707,000		1.0	60,707,000	2.0	121,414,000	3.0	182,121,000	
	Spare pump unit		set	9,638,861		1.0	9,638,861	1.0	9,638,861	1.0	9,638,861	
	Installation of well pump with electrical works		pls	18,992,777		1.0	18,992,777	2.0	37,985,553	3.0	56,978,330	
	Piping works for well to outlet		pls	24,239,137		1.0	24,239,137	2.0	48,478,273	3.0	72,717,410	incl. valves,others
	Erectrical room		pls	25,535,063		1.0	25,535,063	2.0	51,070,127	3.0	76,605,190	
	Fence and gate for well		pls	6,232,407		1.0	6,232,407	2.0	12,464,815	3.0	18,697,222	
	Power source	National Electric Grid Supply	L/S	incl. above e-works		1.0	0	1.0	0	1.0	0	
	Sub total (a)						145,345,245		281,051,629		416,758,013	
1-2	Transmission Facilities											
	OD63mm	uPVC/HDPE Common soil	m	48,630		1,200.0	58,356,000	1,200.0	58,356,000	1,200.0	58,356,000	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006		0.0	0	1,200.0	67,207,200	2,400.0	134,414,400	incl. valves,others
	Sub total (b)						58,356,000		125,563,200		192,770,400	
	Sub total of Intake and Transmission Facilities						203,701,245		406,614,829		609,528,413	
									202,913,584		202,913,584	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984			305,226,000		609,272,000		913,317,000	
	Total Cost of each Term Plan for Distribution Facilities							Term II-I	304,046,000	Term III-II	304,046,000	
	Added Ratio of Engineering Services, Contingency .etc.											

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RGC: Kamuge District: Pallisa	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole
Short Term Plan (by 2015)	2,623	II	20	52.5	0
Middle Term Plan (by 2020)	3,114	III	25	77.9	3
Longe Term Plan (by 2035)	5,208	IV	30	156.2	4

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost										
1-1	Intake Facilities										
	Deep borehole construction Dia 125mm		pls	64,487,000	0.0	0	3.0	193,461,000	3.0	193,461,000	
	Spare pump unit		set	9,638,861	0.0	0	3.0	28,916,583	3.0	28,916,583	
	Installation of well pump with electrical works		pls	18,992,777	0.0	0	3.0	56,978,330	3.0	56,978,330	
	Piping works for well to outlet		pls	24,239,137	0.0	0	3.0	72,717,410	3.0	72,717,410	incl. valves,others
	Electrical room		pls	25,535,063	0.0	0	3.0	76,605,190	3.0	76,605,190	
	Fence and gate for well		pls	6,232,407	0.0	0	3.0	18,697,222	3.0	18,697,222	
	Power source	National Electric Grid Supply	L/S	incl. above e-works	1.0	0	1.0	0	1.0	0	
	Sub total (a)				0	0		447,375,735		447,375,735	
1-2	Transmission Facilities										
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	3,120.0	174,738,720	3,120.0	174,738,720	incl. valves,others
	OD110mm	uPVC/HDPE Common soil	m	71,378	0.0	0	0.0	0	33,890.0	2,419,000,420	GSP, others
	Sub total (b)				0	0		174,738,720		2,593,739,140	
	Sub total of Intake and Transmission Facilities				0	0		622,114,455		3,041,114,875	
								622,114,455		2,419,000,420	
	Total Cost for Distribution Facilities (cumulative total)			Ratio	1.4984	0		932,176,000		4,556,807,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	932,176,000	Term III-II	3,624,630,000	
	Added Ratio of Engineering Services, Contingency ,etc.										

RGC: Petete District: Pallisa	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole
Short Term Plan (by 2015)	4,444	III	20	88.9	0
Middle Term Plan (by 2020)	5,275	IV	25	131.9	3
Longe Term Plan (by 2035)	8,823	IV	30	264.7	6

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost										
1-1	Intake Facilities										
	Deep borehole construction Dia 125mm		pls	68,090,000	0.0	0	3.0	204,270,000	3.0	204,270,000	
	Spare pump unit		set	9,638,861	0.0	0	3.0	28,916,583	3.0	28,916,583	
	Installation of well pump with electrical works		pls	18,992,777	0.0	0	3.0	56,978,330	3.0	56,978,330	
	Piping works for well to outlet		pls	24,239,137	0.0	0	3.0	72,717,410	3.0	72,717,410	incl. valves,others
	Electrical room		pls	25,535,063	0.0	0	3.0	76,605,190	3.0	76,605,190	
	Fence and gate for well		pls	6,232,407	0.0	0	3.0	18,697,222	3.0	18,697,222	
	Power source	National Electric Grid Supply	L/S	incl. above e-works	1.0	0	1.0	0	1.0	0	
	Sub total (a)				0	0		458,184,735		458,184,735	
1-2	Transmission Facilities										
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	4,350.0	243,626,100	4,350.0	243,626,100	incl. valves,others
	OD110mm	uPVC/HDPE Common soil	m	71,378	0.0	0	0.0	0	18,500.0	1,320,493,000	GSP, others
	Sub total (b)				0	0		243,626,100		1,564,119,100	
	Sub total of Intake and Transmission Facilities				0	0		701,810,835		2,022,303,835	
								701,810,835		1,320,493,000	
	Total Cost for Distribution Facilities (cumulative total)			Ratio	1.4984	0		1,051,593,000		3,030,220,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	1,051,593,000	Term III-II	1,978,627,000	
	Added Ratio of Engineering Services, Contingency ,etc.										

RGC: Kasassira District: Pallisa	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole
Short Term Plan (by 2015)	6,666	IV	20	133.3	3
Middle Term Plan (by 2020)	7,913	IV	25	197.8	3
Longe Term Plan (by 2035)	13,235	IV	30	397.1	5

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost										
1-1	Intake Facilities										
	Deep borehole construction Dia 125mm		pls	77,877,000	3.0	233,631,000	3.0	233,631,000	5.0	389,385,000	
	Spare pump unit		set	9,638,861	3.0	28,916,583	3.0	28,916,583	3.0	28,916,583	
	Installation of well pump with electrical works		pls	18,992,777	3.0	56,978,330	3.0	56,978,330	5.0	94,963,884	
	Piping works for well to outlet		pls	24,239,137	3.0	72,717,410	3.0	72,717,410	5.0	121,195,684	incl. valves,others
	Electrical room		pls	25,535,063	3.0	76,605,190	3.0	76,605,190	5.0	127,675,317	
	Fence and gate for well		pls	6,232,407	3.0	18,697,222	3.0	18,697,222	5.0	31,162,037	
	Power source	National Electric Grid Supply	L/S	incl. above e-works	1.0	0	1.0	0	1.0	0	
	Sub total (a)				487,545,735			487,545,735		793,298,505	
1-2	Transmission Facilities										
	OD63mm	uPVC/HDPE Common soil	m	48,630	3,555.0	172,879,650	3,555.0	172,879,650	5,925.0	288,132,750	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	0.0	0	2,370.0	132,734,220	incl. valves,others
	Sub total (b)				172,879,650			172,879,650		420,866,970	
	Sub total of Intake and Transmission Facilities				660,425,385			660,425,385		1,214,165,475	
								0		553,740,090	
	Total Cost for Distribution Facilities (cumulative total)			Ratio	1.4984	989,581,000		989,581,000		1,819,306,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	0	Term III-II	829,724,000	
	Added Ratio of Engineering Services, Contingency ,etc.										

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RGC: Buseta	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Pallisa			lit/day/capita	m3/day	
Short Term Plan (by 2015)	2,839	II	20	56.8	2
Middle Term Plan (by 2020)	3,370	III	25	84.3	2
Longe Term Plan (by 2035)	5,637	IV	30	169.1	3

A Construction Cost						Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
No	Item	Description	Unit	Rate		Quantity	Amount	Quantity	Amount	Quantity	Amount	
				(UGX)			(UGX)		(UGX)		(UGX)	
I	Direct Cost											
1-1	Intake Facilities											
	Deep borehole construction Dia 125mm		pls	77,877,000		2.0	155,754,000	2.0	155,754,000	3.0	233,631,000	
	Spare pump unit		set	9,638,861		2.0	19,277,722	2.0	19,277,722	2.0	19,277,722	
	Installation of well pump with electrical works		pls	18,992,777		2.0	37,985,553	2.0	37,985,553	3.0	56,978,330	
	Piping works for well to outlet		pls	24,239,137		2.0	48,478,273	2.0	48,478,273	3.0	72,717,410	incl. valves,others
	Erectrical room		pls	25,535,063		2.0	51,070,127	2.0	51,070,127	3.0	76,605,190	
	Fence and gate for well		pls	6,232,407		2.0	12,464,815	2.0	12,464,815	3.0	18,697,222	
	Power source	National Electric Grid Supply	L/S	incl. above e-works		1.0	0	1.0	0	1.0	0	
	Sub total (a)						325,030,490		325,030,490		477,906,874	
1-2	Transmission Facilities											
	OD63mm	uPVC/HDPE Common soil	m	48,630		3,240.0	157,561,200	3,240.0	157,561,200	3,240.0	157,561,200	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006		0.0	0	0.0	0	1,620.0	90,729,720	incl. valves,others
	Sub total (b)						157,561,200		157,561,200		248,290,920	
	Sub total of Intake and Transmission Facilities						482,591,690		482,591,690		726,197,794	
									0		243,606,104	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984			723,115,000		723,115,000		1,088,135,000	
	Total Cost of each Term Plan for Distribution Facilities							Term II-I	0	Term III-II	365,019,000	
	Added Ratio of Engineering Services, Contingency .etc.											

RGC: Nabisuwa	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Pallisa			lit/day/capita	m3/day	
Short Term Plan (by 2015)	2,074	II	20	41.5	1
Middle Term Plan (by 2020)	2,462	II	25	61.6	2
Longe Term Plan (by 2035)	4,117	III	30	123.5	3

A Construction Cost						Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
No	Item	Description	Unit	Rate		Quantity	Amount	Quantity	Amount	Quantity	Amount	
				(UGX)			(UGX)		(UGX)		(UGX)	
I	Direct Cost											
1-1	Intake Facilities											
	Deep borehole construction Dia 125mm		pls	97,452,000		1.0	97,452,000	2.0	194,904,000	3.0	292,356,000	
	Spare pump unit		set	9,638,861		1.0	9,638,861	1.0	9,638,861	1.0	9,638,861	
	Installation of well pump with electrical works		pls	18,992,777		1.0	18,992,777	2.0	37,985,553	3.0	56,978,330	
	Piping works for well to outlet		pls	24,239,137		1.0	24,239,137	2.0	48,478,273	3.0	72,717,410	incl. valves,others
	Erectrical room		pls	25,535,063		1.0	25,535,063	2.0	51,070,127	3.0	76,605,190	
	Fence and gate for well		pls	6,232,407		1.0	6,232,407	2.0	12,464,815	3.0	18,697,222	
	Power source	National Electric Grid Supply	L/S	incl. above e-works		1.0	0	1.0	0	1.0	0	
	Sub total (a)						182,090,245		354,541,629		526,993,013	
1-2	Transmission Facilities											
	OD63mm	uPVC/HDPE Common soil	m	48,630		1,650.0	80,239,500	1,650.0	80,239,500	1,650.0	80,239,500	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006		0.0	0	1,650.0	92,409,900	3,300.0	184,819,800	incl. valves,others
	Sub total (b)						80,239,500		172,649,400		265,059,300	
	Sub total of Intake and Transmission Facilities						262,329,745		527,191,029		792,052,313	
									264,861,284		264,861,284	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984			393,075,000		789,943,000		1,186,811,000	
	Total Cost of each Term Plan for Distribution Facilities							Term II-I	396,868,000	Term III-II	396,868,000	
	Added Ratio of Engineering Services, Contingency .etc.											

RGC: Kabweri	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Pallisa			lit/day/capita	m3/day	
Short Term Plan (by 2015)	1,562	II	20	31.2	2
Middle Term Plan (by 2020)	1,854	II	25	46.4	2
Longe Term Plan (by 2035)	3,100	III	30	93.0	3

A Construction Cost						Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
No	Item	Description	Unit	Rate		Quantity	Amount	Quantity	Amount	Quantity	Amount	
				(UGX)			(UGX)		(UGX)		(UGX)	
I	Direct Cost											
1-1	Intake Facilities											
	Deep borehole construction Dia 125mm		pls	83,400,000		2.0	166,800,000	2.0	166,800,000	3.0	250,200,000	
	Spare pump unit		set	9,638,861		2.0	19,277,722	2.0	19,277,722	2.0	19,277,722	
	Installation of well pump with electrical works		pls	18,992,777		2.0	37,985,553	2.0	37,985,553	3.0	56,978,330	
	Piping works for well to outlet		pls	24,239,137		2.0	48,478,273	2.0	48,478,273	3.0	72,717,410	incl. valves,others
	Erectrical room		pls	25,535,063		2.0	51,070,127	2.0	51,070,127	3.0	76,605,190	
	Fence and gate for well		pls	6,232,407		2.0	12,464,815	2.0	12,464,815	3.0	18,697,222	
	Power source	National Electric Grid Supply	L/S	incl. above e-works		1.0	0	1.0	0	1.0	0	
	Sub total (a)						336,076,490		336,076,490		494,475,874	
1-2	Transmission Facilities											
	OD63mm	uPVC/HDPE Common soil	m	48,630		2,360.0	114,766,800	2,360.0	114,766,800	2,360.0	114,766,800	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006		0.0	0	0.0	0	1,180.0	66,087,080	incl. valves,others
	Sub total (b)						114,766,800		114,766,800		180,853,880	
	Sub total of Intake and Transmission Facilities						450,843,290		450,843,290		675,329,754	
									0		224,486,464	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984			675,544,000		675,544,000		1,011,914,000	
	Total Cost of each Term Plan for Distribution Facilities							Term II-I	0	Term III-II	336,371,000	
	Added Ratio of Engineering Services, Contingency .etc.											

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RGC: Kadama	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Pallisa			lit/day/capita	m ³ /day	
Short Term Plan (by 2015)	12,888	IV	20	257.8	4
Middle Term Plan (by 2020)	15,298	IV	25	382.5	6
Longe Term Plan (by 2035)	25,587	IV	30	767.6	8

A Construction Cost											
No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost										
1-1	Intake Facilities										
	Deep borehole construction Dia 125mm		pls	77,209,000	4.0	308,836,000	6.0	463,254,000	8.0	617,672,000	
	Spare pump unit		set	9,638,861	4.0	38,555,443	4.0	38,555,443	4.0	38,555,443	
	Installation of well pump with electrical works		pls	18,992,777	4.0	75,971,107	6.0	113,956,660	8.0	151,942,214	
	Piping works for well to outlet		pls	24,239,137	4.0	96,956,547	6.0	145,434,820	8.0	193,913,094	incl. valves,others
	Erectrical room		pls	25,535,063	4.0	102,140,253	6.0	153,210,380	8.0	204,280,506	
	Fence and gate for well		pls	6,232,407	4.0	24,929,630	6.0	37,394,444	8.0	49,859,259	
	Power source	National Electric Grid Supply	L/S	incl. above e-works	1.0	0	1.0	0	1.0	0	
	Sub total (a)					647,388,980		951,805,747		1,256,222,516	
1-2	Transmission Facilities										
	OD63mm	uPVC/HDPE Common soil	m	48,630	2,800.0	136,164,000	2,800.0	136,164,000	2,800.0	136,164,000	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	1,400.0	78,408,400	2,800.0	156,816,800	incl. valves,others
	OD110mm	uPVC/HDPE Common soil	m	71,378	0.0	0	1,400.0	99,929,200	1,400.0	99,929,200	
	Sub total (b)					136,164,000		314,501,600		1,784,591,000	
	Sub total of Intake and Transmission Facilities					783,552,980		1,266,307,347		3,040,813,516	
								482,754,367		1,774,506,169	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		1,174,076,000		1,897,435,000		4,556,355,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	723,359,000	Term III-II	2,658,920,000	
	Added Ratio of Engineering Services, Contingency .etc.										

RGC: Kigumu	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Pallisa			lit/day/capita	m ³ /day	
Short Term Plan (by 2015)	2,784	II	20	55.7	2
Middle Term Plan (by 2020)	3,304	III	25	82.6	3
Longe Term Plan (by 2035)	5,526	IV	30	165.8	3

A Construction Cost											
No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost										
1-1	Intake Facilities										
	Deep borehole construction Dia 125mm		pls	79,225,000	2.0	0	3.0	237,675,000	3.0	237,675,000	
	Spare pump unit		set	9,638,861	2.0	0	2.0	19,277,722	2.0	19,277,722	
	Installation of well pump with electrical works		pls	18,992,777	2.0	0	3.0	56,978,330	3.0	56,978,330	
	Piping works for well to outlet		pls	24,239,137	2.0	0	3.0	72,717,410	3.0	72,717,410	incl. valves,others
	Generator room		pls	25,535,063	2.0	0	3.0	76,605,190	3.0	76,605,190	
	Fence and gate for well		pls	6,232,407	2.0	0	3.0	18,697,222	3.0	18,697,222	
	Power source	Diesel Generator Supply	set	-	2.0	0	3.0	21,062,000	3.0	21,062,000	
	Sub total (a)				1.6 kVA	0	1.6 kVA	503,012,874	1.7 kVA	503,012,874	
1-2	Transmission Facilities										
	OD63mm	uPVC/HDPE Common soil	m	48,630	600.0	0	900.0	43,767,000	900.0	43,767,000	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	0.0	0	900.0	50,405,400	incl. valves,others
	Sub total (b)					0		43,767,000		94,172,400	
	Sub total of Intake and Transmission Facilities					0		546,779,874		597,185,274	
								546,779,874		50,405,400	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		0		819,295,000		894,822,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	819,295,000	Term III-II	75,527,000	
	Added Ratio of Engineering Services, Contingency .etc.										

RGC: Bulangira	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Pallisa			lit/day/capita	m ³ /day	
Short Term Plan (by 2015)	2,469	II	20	49.4	2
Middle Term Plan (by 2020)	2,931	II	25	73.3	2
Longe Term Plan (by 2035)	4,902	III	30	147.1	3

A Construction Cost											
No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost										
1-1	Intake Facilities										
	Deep borehole construction Dia 125mm		pls	56,287,000	2.0	0	2.0	112,574,000	3.0	168,861,000	
	Spare pump unit		set	9,638,861	2.0	0	2.0	19,277,722	2.0	19,277,722	
	Installation of well pump with electrical works		pls	18,992,777	2.0	0	2.0	37,985,553	3.0	56,978,330	
	Piping works for well to outlet		pls	24,239,137	2.0	0	2.0	48,478,273	3.0	72,717,410	incl. valves,others
	Erectrical room		pls	25,535,063	2.0	0	2.0	51,070,127	3.0	76,605,190	
	Fence and gate for well		pls	6,232,407	2.0	0	2.0	12,464,815	3.0	18,697,222	
	Power source	National Electric Grid Supply	L/S	incl. above e-works	1.0	0	1.0	0	1.0	0	
	Sub total (a)					0		281,850,490		413,136,874	
1-2	Transmission Facilities										
	OD63mm	uPVC/HDPE Common soil	m	48,630	3,560.0	0	3,560.0	173,122,800	3,560.0	173,122,800	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0.0	0.0	0	1,780.0	99,690,680	incl. valves,others
	Sub total (b)					0		173,122,800		272,813,480	
	Sub total of Intake and Transmission Facilities					0		454,973,290		685,950,354	
								454,973,290		230,977,064	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		0		681,732,000		1,027,828,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	681,732,000	Term III-II	346,096,000	
	Added Ratio of Engineering Services, Contingency .etc.										

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3. Soroti District

RGC: Acuna	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Soroti			lit/day/capita	m3/day	
Short Term Plan (by 2015)	2,069	II	20	41.4	
Middle Term Plan (by 2020)	2,517	II	25	62.9	
Longe Term Plan (by 2035)	4,533	III	30	136.0	

A Construction Cost												
No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks	
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)		
1	Direct Cost											
1-1	Intake Facilities											
1-2	Transmission Facilities											
		Tri-ri-Acuna										
		OD110mm	uPVC/HDPE Common soil	m	71,378	8,550.0	610,281,900	8,550.0	610,281,900	8,550.0	610,281,900	to Acuna
		OD160mm	uPVC/HDPE Common soil	m	95,978	1,945.0	186,677,210	1,945.0	186,677,210	1,945.0	186,677,210	1/2 of Tubur
		Booster pump unit	1/2, 3.7kw 2 nos & pump house	L/S	59,507,038	3.7kWx2Nosx1/2	59,507,038	3.7kWx2Nosx1/2	59,507,038	11kWx2Nosx1/2	120,648,969	3890m from Tiriri
		Sub total (b)				856,466,148		856,466,148			917,608,079	
		Sub total of Intake and Transmission Facilities				856,466,148		856,466,148			917,608,079	
		Total Cost for Distribution Facilities (cumulative total)	Ratio		1.4984		1,283,329,000		1,283,329,000		1,374,944,000	
		Total Cost of each Term Plan for Distribution Facilities						Term II-I	0	Term III-II	91,615,000	
		Added Ratio of Engineering Services, Contingency .etc.										

RGC: Tubur	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Soroti			lit/day/capita	m3/day	
Short Term Plan (by 2015)	2,433	II	20	48.7	
Middle Term Plan (by 2020)	2,960	II	25	74.0	
Longe Term Plan (by 2035)	5,332	IV	30	160.0	

A Construction Cost												
No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks	
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)		
1	Direct Cost											
1-1	Intake Facilities											
1-2	Transmission Facilities											
		OD160mm Branch	uPVC/HDPE Common soil	m	95,978	6,150.0	590,264,700	6,150.0	590,264,700	6,150.0	590,264,700	to Tubur
		OD160mm Main	uPVC/HDPE Common soil	m	95,978	1,945.0	186,677,210	1,945.0	186,677,210	1,945.0	186,677,210	1/2 of Acua
		Booster pump unit	1/2, 3.7kw 2 nos & pump house	L/S	59,507,038	3.7kWx2Nosx1/2	59,507,038	3.7kWx2Nosx1/2	59,507,038	11kWx2Nosx1/2	120,648,969	3890m from Tiriri
		Sub total (b)				836,448,948		836,448,948			897,590,879	
		Sub total of Intake and Transmission Facilities				836,448,948		836,448,948			897,590,879	
								0			61,141,931	
		Total Cost for Distribution Facilities (cumulative total)	Ratio		1.4984		1,253,335,000		1,253,335,000		1,344,950,000	
		Total Cost of each Term Plan for Distribution Facilities						Term II-I	0	Term III-II	91,615,000	
		Added Ratio of Engineering Services, Contingency .etc.										

RGC: Gweri	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Soroti			lit/day/capita	m3/day	
Short Term Plan (by 2015)	2,214	II	20	44.3	0
Middle Term Plan (by 2020)	2,694	II	25	67.4	2
Longe Term Plan (by 2035)	4,852	III	30	145.6	3

A Construction Cost												
No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks	
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)		
1	Direct Cost											
1-1	Intake Facilities											
		Deep borehole construction Dia 125mm	pls	87,665,000	0.0	0	2.0	175,330,000	3.0	262,995,000		
		Spare pump unit	set	9,638,861	0.0	0	0.0	0	0.0	0		
		Installation of well pump with electrical works	pls	18,992,777	0.0	0	2.0	37,985,553	3.0	56,978,330		
		Piping works for well to outlet	pls	24,239,137	0.0	0	2.0	48,478,273	3.0	72,717,410	incl. valves,others	
		Generator room	pls	25,535,063	0.0	0	2.0	51,070,127	3.0	76,605,190		
		Fence and gate for well	pls	6,232,407	0.0	0	2.0	12,464,815	3.0	18,697,222		
		Power source	Diesel Generator Supply	set	-	0.0	2.0	17,551,000	3.0	37,610,000		
		Sub total (a)				kVA	0	2.1 kVA	342,879,768	3.2 kVA	525,603,152	
1-2	Transmission Facilities											
		OD63mm	uPVC/HDPE Common soil	m	48,630	0.0	0	3,000.0	145,890,000	4,500.0	218,835,000	incl. valves,others
		OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	0.0	0	0.0	0	incl. valves,others
		Sub total (b)						145,890,000			218,835,000	
		Sub total of Intake and Transmission Facilities						488,769,768			744,438,152	
								488,769,768			255,668,384	
		Total Cost for Distribution Facilities (cumulative total)	Ratio		1.4984		0	732,373,000			1,115,466,000	
		Total Cost of each Term Plan for Distribution Facilities						Term II-I	732,373,000	Term III-II	383,094,000	
		Added Ratio of Engineering Services, Contingency .etc.										

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RGC: Ocapa(existing)	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Soroti			lit/day/capita	m3/day	
Short Term Plan (by 2015)	2,433	II	20	48.7	2
Middle Term Plan (by 2020)	2,960	II	25	74.0	3
Longe Term Plan (by 2035)	5,332	IV	30	160.0	5

A Construction Cost												
No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks	
					Quantity	Amount	Quantity	Amount	Quantity	Amount		
	1	Direct Cost		(UGX)		(UGX)		(UGX)		(UGX)		
	1-1	Intake Facilities										
		Deep borehole construction Dia 125mm	pls	63,769,000	2.0	127,538,000	3.0	191,307,000	5.0	318,845,000		
		Spare pump unit	set	9,638,861	2.0	19,277,722	2.0	19,277,722	2.0	19,277,722		
		Installation of well pump with electrical works	pls	18,992,777	2.0	37,985,553	3.0	56,978,330	5.0	94,963,884		
		Piping works for well to outlet	pls	24,239,137	2.0	48,478,273	3.0	72,717,410	5.0	121,195,684	incl. valves,others	
		Electrical room	pls	25,535,063	2.0	51,070,127	3.0	76,605,190	5.0	127,675,317		
		Fence and gate for well	pls	6,232,407	2.0	12,464,815	3.0	18,697,222	5.0	31,162,037		
		Power source	L/S	incl. above e-works	1.0	0	1.0	0	1.0	0		
		Sub total (a)				296,814,490		435,582,874		713,119,644		
	1-2	Transmission Facilities										
		OD63mm	uPVC/HDPE Common soil	m	48,630	500.0	0	500.0	24,315,000	500.0	24,315,000	incl. valves,others
		OD90mm	uPVC/HDPE Common soil	m	56,006	1,000.0	0	2,000.0	112,012,000	4,000.0	224,024,000	incl. valves,others
		Sub total (b)				56,006,000		56,006,000	136,327,000		248,339,000	
		Sub total of Intake and Transmission Facilities				352,820,490		571,909,874		961,458,644		
								219,089,384		389,548,770		
		Total Cost for Distribution Facilities (cumulative total)	Ratio	1.4984		528,666,000		856,950,000		1,440,650,000		
		Total Cost of each Term Plan for Distribution Facilities					Term II-I	328,284,000	Term III-II	583,700,000		
		Added Ratio of Engineering Services, Contingency ,etc.										

RGC: Kyere(existing)	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Soroti			lit/day/capita	m3/day	
Short Term Plan (by 2015)	4,867	III	20	97.3	2
Middle Term Plan (by 2020)	5,921	IV	25	148.0	2
Longe Term Plan (by 2035)	10,663	IV	30	319.9	5

A Construction Cost												
No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks	
					Quantity	Amount	Quantity	Amount	Quantity	Amount		
	1	Direct Cost		(UGX)		(UGX)		(UGX)		(UGX)		
	1-1	Intake Facilities										
		Deep borehole construction Dia 125mm	pls	54,479,000	2.0	108,958,000	2.0	108,958,000	5.0	272,395,000		
		Spare pump unit	set	9,638,861	2.0	19,277,722	2.0	19,277,722	2.0	19,277,722		
		Installation of well pump with electrical works	pls	18,992,777	2.0	37,985,553	2.0	37,985,553	5.0	94,963,884		
		Piping works for well to outlet	pls	24,239,137	2.0	48,478,273	2.0	48,478,273	5.0	121,195,684	incl. valves,others	
		Electrical room	pls	25,535,063	2.0	51,070,127	2.0	51,070,127	5.0	127,675,317		
		Fence and gate for well	pls	6,232,407	2.0	12,464,815	2.0	12,464,815	5.0	31,162,037		
		Power source	L/S	incl. above e-works	1.0	0	1.0	0	1.0	0		
		Sub total (a)				278,234,490		278,234,490	0.0	666,669,644		
	1-2	Transmission Facilities										
		OD63mm	uPVC/HDPE Common soil	m	48,630	1,000.0	48,630,000	1,000.0	48,630,000	3,000.0	145,890,000	incl. valves,others
		OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	0.0	0	0.0	0	incl. valves,others
		Sub total (b)				48,630,000		48,630,000		145,890,000		
		Sub total of Intake and Transmission Facilities				326,864,490		326,864,490		812,559,644		
								0		485,695,154		
		Total Cost for Distribution Facilities (cumulative total)	Ratio	1.4984		489,774,000		489,774,000		1,217,539,000		
		Total Cost of each Term Plan for Distribution Facilities					Term II-I	0	Term III-II	727,766,000		
		Added Ratio of Engineering Services, Contingency ,etc.										

RGC: Iningo	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Soroti			lit/day/capita	m3/day	
Short Term Plan (by 2015)	1,360	II	20	27.2	1
Middle Term Plan (by 2020)	1,655	II	25	41.4	1
Longe Term Plan (by 2035)	2,980	II	30	89.4	1

A Construction Cost												
No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks	
					Quantity	Amount	Quantity	Amount	Quantity	Amount		
	1	Direct Cost		(UGX)		(UGX)		(UGX)		(UGX)		
	1-1	Intake Facilities										
		Deep borehole construction Dia 125mm	pls	60,771,000	1.0	0	1.0	60,771,000	1.0	60,771,000		
		Spare pump unit	set	9,638,861	1.0	0	1.0	9,638,861	1.0	9,638,861		
		Installation of well pump with electrical works	pls	18,992,777	1.0	0	1.0	18,992,777	1.0	18,992,777		
		Piping works for well to outlet	pls	24,239,137	1.0	0	1.0	24,239,137	1.0	24,239,137	incl. valves,others	
		Generator room	pls	25,535,063	1.0	0	1.0	25,535,063	1.0	25,535,063		
		Fence and gate for well	pls	6,232,407	1.0	0	1.0	6,232,407	1.0	6,232,407		
		Power source	set	-	1.0	0	1.0	10,656,000	1.0	17,096,000		
		Sub total (a)				1.6 kVA	0	2.4 kVA	156,065,245	5.4 kVA	162,505,245	
	1-2	Transmission Facilities										
		OD63mm	uPVC/HDPE Common soil	m	48,630	300.0	0	300.0	14,589,000	300.0	14,589,000	incl. valves,others
		OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	0	0	0	0	incl. valves,others
		Sub total (b)				0		14,589,000		14,589,000		
		Sub total of Intake and Transmission Facilities				0		170,654,245		177,094,245		
								170,654,245		6,440,000		
		Total Cost for Distribution Facilities (cumulative total)	Ratio	1.4984		0		255,708,000		265,358,000		
		Total Cost of each Term Plan for Distribution Facilities					Term II-I	255,708,000	Term III-II	9,650,000		
		Added Ratio of Engineering Services, Contingency ,etc.										

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RGC: Kamod(existing)	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Soroti			lit/day/capita	m3/day	
Short Term Plan (by 2015)	3,650	III	20	73.0	3
Middle Term Plan (by 2020)	4,441	III	25	111.0	4
Longe Term Plan (by 2035)	7,998	IV	30	239.9	5

A Construction Cost											
No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost			(UGX)							
1-1	Intake Facilities										
	Deep borehole construction Dia 125mm		pls	54,479,000	3.0	163,437,000	4.0	217,916,000	5.0	272,395,000	
	Spare pump unit		set	9,638,861	3.0	28,916,583	3.0	28,916,583	3.0	28,916,583	
	Installation of well pump with electrical works		pls	18,992,777	3.0	56,978,330	4.0	75,971,107	5.0	94,963,884	
	Piping works for well to outlet		pls	24,239,137	3.0	72,717,410	4.0	96,956,547	5.0	121,195,684	incl. valves,others
	Electrical room		pls	25,535,063	3.0	76,605,190	4.0	102,140,253	5.0	127,675,317	
	Fence and gate for well		pls	6,232,407	3.0	18,697,222	4.0	24,929,630	5.0	31,162,037	
	Power source	National Electric Grid Supply	L/S	incl. above e-works	1.0	0	1.0	0	1.0	0	
	Sub total (a)					417,351,735		546,830,120	0.0	676,308,505	
1-2	Transmission Facilities										
	OD63mm	uPVC/HDPE Common soil	m	48,630	3,000.0	145,890,000	4,000.0	194,520,000	5,000.0	243,150,000	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	0.0	0	0.0	0	incl. valves,others
	Sub total (b)					145,890,000		194,520,000		243,150,000	
	Sub total of Intake and Transmission Facilities					563,241,735		741,350,120		919,458,505	
								178,108,385		178,108,385	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		843,961,000		1,110,839,000		1,377,717,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	266,878,000	Term III-II	266,878,000	
	Added Ratio of Engineering Services, Contingency .etc.										

RGC: Kadungulu(existing)	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Soroti			lit/day/capita	m3/day	
Short Term Plan (by 2015)	1,689	II	20	33.8	1
Middle Term Plan (by 2020)	2,055	II	25	51.4	1
Longe Term Plan (by 2035)	3,701	III	30	111.0	2

A Construction Cost											
No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost			(UGX)							
1-1	Intake Facilities										
	Deep borehole construction Dia 125mm		pls	32,383,000	0.0	0	1.0	32,383,000	1.0	32,383,000	
	Spare pump unit		set	9,638,861	0.0	0	1.0	9,638,861	1.0	9,638,861	0
	Sub total of Intake and Transmission Facilities		pls	18,992,777	0.0	0	1.0	18,992,777	1.0	18,992,777	
	Piping works for well to outlet		pls	24,239,137	0.0	0	1.0	24,239,137	1.0	24,239,137	incl. valves,others
	Generator room		pls	25,535,063	0.0	0	1.0	25,535,063	1.0	25,535,063	
	Fence and gate for well		pls	6,232,407	0.0	0	1.0	6,232,407	1.0	6,232,407	
	Power source	National Electric Grid Supply	L/S	incl. above e-works	0.0	126,554,742	0.0	126,554,742	0.0	126,554,742	
	Sub total (a)					126,554,742		243,575,987		243,575,987	
1-2	Transmission Facilities										
	OD63mm	uPVC/HDPE Common soil	m	48,630	0.0	0	900.0	43,767,000	900.0	43,767,000	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	900.0	50,405,400	900.0	50,405,400	incl. valves,others
	Sub total (b)					0		94,172,400		94,172,400	
	Sub total of Intake and Transmission Facilities					257,982,061		337,748,387		337,748,387	0
								211,193,645		0	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		386,560,000		506,082,000		506,082,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	316,453,000	Term III-II	0	
	Added Ratio of Engineering Services, Contingency .etc.										

RGC: Kagwarea Port	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Soroti			lit/day/capita	m3/day	
Short Term Plan (by 2015)	3,796	III	20	75.9	1
Middle Term Plan (by 2020)	4,618	III	25	115.5	2
Longe Term Plan (by 2035)	8,317	IV	30	249.5	2

A Construction Cost											
No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost			(UGX)							
1-1	Intake Facilities										
	Deep borehole construction Dia 125mm		pls	31,664,000	1.0	31,664,000	2.0	63,328,000	2.0	63,328,000	
	Spare pump unit		set	9,638,861	1.0	9,638,861	1.0	9,638,861	1.0	9,638,861	
	Installation of well pump with electrical works		pls	18,992,777	1.0	18,992,777	2.0	37,985,553	2.0	37,985,553	
	Piping works for well to outlet		pls	24,239,137	1.0	24,239,137	2.0	48,478,273	2.0	48,478,273	incl. valves,others
	Generator room		pls	25,535,063	1.0	25,535,063	2.0	51,070,127	2.0	51,070,127	
	Fence and gate for well		pls	6,232,407	1.0	6,232,407	2.0	12,464,815	2.0	12,464,815	
	Power source	Diesel Generator Supply	set	-	1.0	14,816,000	2.0	29,633,000	2.0	34,192,000	
	Sub total (a)					4.8 kVA	131,118,245	3.7 kVA	252,598,629	5.3 kVA	257,157,629
1-2	Transmission Facilities										
	OD90mm	uPVC/HDPE Common soil	m	56,006	0.0	0	0.0	0	0.0	0	incl. valves,others
	OD110mm	uPVC/HDPE Common soil	m	71,378	5,000.0	356,890,000	10,000.0	713,780,000	10,000.0	713,780,000	GSP, others
	Sub total (b)					356,890,000		713,780,000		713,780,000	
	Sub total of Intake and Transmission Facilities					488,008,245		966,378,629		970,937,629	
								478,370,384		4,559,000	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		731,232,000		1,448,022,000		1,454,853,000	
	Total Cost of each Term Plan for Distribution Facilities						Term II-I	716,790,000	Term III-II	6,831,000	
	Added Ratio of Engineering Services, Contingency .etc.										

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RGC: Kidetok District: Soroti	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole
Short Term Plan (by 2015)	1,265	II	20	25.3	1
Middle Term Plan (by 2020)	1,539	II	25	38.5	1
Longe Term Plan (by 2035)	2,772	II	30	83.2	2

A Construction Cost						Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
No	Item	Description	Unit	Rate (UGX)		Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost											rate on Aug .2010
1-1	Intake Facilities											Inter bank rate UGX 2,282.12/US\$
	Deep borehole construction Dia 125mm		pls	43,606,000		1.0	43,606,000	1.0	43,606,000	2.0	87,212,000	
	Spare pump unit		set	9,638,861		1.0	9,638,861	1.0	9,638,861	1.0	9,638,861	
	Installation of well pump with electrical works		pls	18,992,777		1.0	18,992,777	1.0	18,992,777	2.0	37,985,553	
	Piping works for well to outlet		pls	24,239,137		1.0	24,239,137	1.0	24,239,137	2.0	48,478,273	incl. valves,others
	Erectrical room		pls	25,535,063		1.0	25,535,063	1.0	25,535,063	2.0	51,070,127	
	Fence and gate for well		pls	6,232,407		1.0	6,232,407	1.0	6,232,407	2.0	12,464,815	
	Power source	National Electric Grid Supply	L/S	incl. above e-works		1.0	0	1.0	0	1.0	0	
	Sub total (a)						128,244,245		128,244,245		246,849,629	
1-2	Transmission Facilities											
	OD63mm	uPVC/HDPE Common soil	m	48,630		1,050.0	51,061,500	1,050.0	51,061,500	2,100.0	102,123,000	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006		0.0	0	0.0	0	0.0	0	incl. valves,others
	Sub total (b)						51,061,500		51,061,500		102,123,000	
	Sub total of Intake and Transmission Facilities						179,305,745		179,305,745		348,972,629	
									0		169,666,884	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984			268,672,000		268,672,000		522,901,000	
	Total Cost of each Term Plan for Distribution Facilities							Term II-I	0	Term III-II	254,229,000	
	Added Ratio of Engineering Services, Contingency ,etc.											

RGC: Pingire Etem District: Soroti	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole
Short Term Plan (by 2015)	1,582	II	20	31.6	1
Middle Term Plan (by 2020)	1,924	II	25	48.1	2
Longe Term Plan (by 2035)	3,466	III	30	104.0	3

A Construction Cost						Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
No	Item	Description	Unit	Rate (UGX)		Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost											rate on Aug .2010
1-1	Intake Facilities											Inter bank rate UGX 2,282.12/US\$
	Deep borehole construction Dia 125mm		pls	30,095,000		1.0	30,095,000	2.0	60,190,000	3.0	90,285,000	
	Spare pump unit		set	9,638,861		1.0	9,638,861	1.0	9,638,861	1.0	9,638,861	
	Installation of well pump with electrical works		pls	18,992,777		1.0	18,992,777	2.0	37,985,553	3.0	56,978,330	
	Piping works for well to outlet		pls	24,239,137		1.0	24,239,137	2.0	48,478,273	3.0	72,717,410	incl. valves,others
	Generator room		pls	25,535,063		1.0	25,535,063	2.0	51,070,127	3.0	76,605,190	
	Fence and gate for well		pls	6,232,407		1.0	6,232,407	2.0	12,464,815	3.0	18,697,222	
	Power source	Diesel Generator Supply	set	-		1.0	5,265,000	2.0	10,401,000	3.0	26,327,000	
	Sub total (a)					.9 kVA	119,998,245	1.4 kVA	233,868,629	2. kVA	351,249,013	
1-2	Transmission Facilities											
	OD63mm	uPVC/HDPE Common soil	m	48,630		1,040.0	50,575,200	2,080.0	101,150,400	3,120.0	151,725,600	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006		0.0	0	0.0	0	0.0	0	incl. valves,others
	Sub total (b)						50,575,200		101,150,400		151,725,600	50,575,200
	Sub total of Intake and Transmission Facilities						170,573,445		335,019,029		502,974,613	
									164,445,584		167,955,584	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984			255,587,000		501,993,000		753,657,000	
	Total Cost of each Term Plan for Distribution Facilities							Term II-I	246,405,000	Term III-II	251,665,000	
	Added Ratio of Engineering Services, Contingency ,etc.											

RGC: Pingire Corner District: Soroti	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole
Short Term Plan (by 2015)	1,019	II	20	20.4	0
Middle Term Plan (by 2020)	1,239	II	25	31.0	1
Longe Term Plan (by 2035)	2,232	II	30	67.0	2

A Construction Cost						Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
No	Item	Description	Unit	Rate (UGX)		Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost											rate on Aug .2010
1-1	Intake Facilities											Inter bank rate UGX 2,282.12/US\$
	Deep borehole construction Dia 125mm		pls	27,382,000		0.0	0	1.0	27,382,000	2.0	54,764,000	
	Spare pump unit		set	9,638,861		0.0	0	1.0	9,638,861	1.0	9,638,861	
	Installation of well pump with electrical works		pls	18,992,777		0.0	0	1.0	18,992,777	2.0	37,985,553	
	Piping works for well to outlet		pls	24,239,137		0.0	0	1.0	24,239,137	2.0	48,478,273	incl. valves,others
	Generator room		pls	25,535,063		0.0	0	1.0	25,535,063	2.0	51,070,127	
	Fence and gate for well		pls	6,232,407		0.0	0	1.0	6,232,407	2.0	12,464,815	
	Power source	Diesel Generator Supply	set	-		0.0	0	1.0	8,776,000	2.0	17,551,000	
	Sub total (a)					. kVA	0	1.9 kVA	120,796,245	2. kVA	231,952,629	
1-2	Transmission Facilities											
	OD63mm	uPVC/HDPE Common soil	m	48,630		0.0	0	1,800.0	87,534,000	3,600.0	175,068,000	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006		0.0	0	0.0	0	0.0	0	incl. valves,others
	Sub total (b)						0		87,534,000		175,068,000	87,534,000
	Sub total of Intake and Transmission Facilities						0		208,330,245		407,020,629	
									208,330,245		198,690,384	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984			0		312,162,000		609,880,000	
	Total Cost of each Term Plan for Distribution Facilities							Term II-I	312,162,000	Term III-II	297,718,000	
	Added Ratio of Engineering Services, Contingency ,etc.											

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RGC: Mulondo	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Soroti			lit/day/capita	m3/day	
Short Term Plan (by 2015)	2,214	II	20	44.3	1
Middle Term Plan (by 2020)	2,694	II	25	67.4	2
Longe Term Plan (by 2035)	4,852	III	30	145.6	3

A Construction Cost											
No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost			(UGX)		(UGX)		(UGX)		(UGX)	
1-1	Intake Facilities										
	Deep borehole construction Dia 125mm		pls	28,702,000	1.0	28,702,000	2.0	57,404,000	3.0	86,106,000	
	Spare pump unit		set	9,638,861	1.0	9,638,861	1.0	9,638,861	1.0	9,638,861	
	Installation of well pump with electrical works		pls	18,992,777	1.0	18,992,777	2.0	37,985,553	3.0	56,978,330	
	Piping works for well to outlet		pls	24,239,137	1.0	24,239,137	2.0	48,478,273	3.0	72,717,410	incl. valves,others
	Generator room		pls	25,535,063	1.0	25,535,063	2.0	51,070,127	3.0	76,605,190	
	Fence and gate for well		pls	6,232,407	1.0	6,232,407	2.0	12,464,815	3.0	18,697,222	
	Power source	Diesel Generator Supply	set	-	1.0	8,776,000	2.0	21,312,000	3.0	44,449,000	
	Sub total (a)					1.7 kVA	122,116,245	2.9 kVA	238,353,629	3.6 kVA	365,192,013
1-2	Transmission Facilities										
	OD63mm	uPVC/HDPE Common soil	m	48,630	0.0	0	0.0	0	0.0	0	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	8,000.0	448,048,000	16,000.0	896,096,000	24,000.0	1,344,144,000	incl. valves,others
	Sub total (b)						448,048,000	896,096,000	1,344,144,000	448,048,000	
	Sub total of Intake and Transmission Facilities						570,164,245	1,134,449,629	1,709,336,013		
								564,285,384		574,886,384	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		854,334,000		1,699,859,000		2,561,269,000	
	Total Cost of each Term Plan for Distribution Facilities							Term II-I	845,525,000	Term III-II	861,410,000
	Added Ratio of Engineering Services, Contingency ,etc.										

RGC: Mugarema	Population	Category	Consumption per capita	Water Demand	Deep Borehole
District: Soroti			lit/day/capita	m3/day	
Short Term Plan (by 2015)	5,125	IV	20	102.5	1
Middle Term Plan (by 2020)	6,235	IV	25	155.9	2
Longe Term Plan (by 2035)	11,229	IV	30	336.9	3

A Construction Cost											
No	Item	Description	Unit	Rate	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Direct Cost			(UGX)		(UGX)		(UGX)		(UGX)	
1-1	Intake Facilities										
	Deep borehole construction Dia 125mm		pls	30,239,000	1.0	30,239,000	2.0	60,478,000	3.0	90,717,000	
	Spare pump unit		set	9,638,861	1.0	9,638,861	1.0	9,638,861	1.0	9,638,861	
	Installation of well pump with electrical works		pls	18,992,777	1.0	18,992,777	2.0	37,985,553	3.0	56,978,330	
	Piping works for well to outlet		pls	24,239,137	1.0	24,239,137	2.0	48,478,273	3.0	72,717,410	incl. valves,others
	Generator room		pls	25,535,063	1.0	25,535,063	2.0	51,070,127	3.0	76,605,190	
	Fence and gate for well		pls	6,232,407	1.0	6,232,407	2.0	12,464,815	3.0	18,697,222	
	Power source	Diesel Generator Supply	set	-	1.0	10,656,000	2.0	29,633,000	3.0	51,288,000	
	Sub total (a)					2.3 kVA	125,533,245	3.9 kVA	249,748,629	5.2 kVA	376,642,013
1-2	Transmission Facilities										
	OD63mm	uPVC/HDPE Common soil	m	48,630	0.0	0	0.0	0	0.0	0	incl. valves,others
	OD90mm	uPVC/HDPE Common soil	m	56,006	2,200.0	123,213,200	4,400.0	246,426,400	6,600.0	369,639,600	incl. valves,others
	Sub total (b)						123,213,200	246,426,400	369,639,600		
	Sub total of Intake and Transmission Facilities						248,746,445	496,175,029	746,281,613		
								247,428,584		250,106,584	
	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		372,722,000		743,469,000		1,118,228,000	
	Total Cost of each Term Plan for Distribution Facilities							Term II-I	370,747,000	Term III-II	374,760,000
	Added Ratio of Engineering Services, Contingency ,etc.										

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The project costs of each RGC are calculated and summarized in Table 16-71.

Table 16-71 Project Costs of each RGC

1. Iganga District

RGC: Ikumbya District: Iganga		Population	Category	Consumption per capita lit/day/capita	Water Demand m ³ /day	Deep Borehole	Elevated tank h=12m capacity (m ³)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Health Center Connection 2 tap/pl
Short Term Plan (by 2015)		1,508	II	20	30.2	1	20	3	0	3	1
Middle Term Plan (by 2020)		1,783	II	25	44.6	1	30	4	0	3	1
Longe Term Plan (by 2035)		2,948	II	30	88.4	2	50	7	0	3	1
A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		392,691,000		398,326,000		781,989,000	
2	Distribution Facilities		L/S	1		442,351,923	Term II-I	5,635,000	Term II-I	383,663,000	Refer to
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		662,820,000	Term II-I	460,370,231	Term II-I	828,021,500	Table 16-59
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	18,018,308	Term II-I	367,651,269	
Added Ratio of Engineering Services, Contingency .etc.							Term II-I	689,819,000	Term III-II	1,240,707,000	
							Term II-I	26,999,000	Term III-II	550,889,000	
RGC: Bukooma District: Iganga											
RGC: Bukooma District: Iganga		Population	Category	Consumption per capita lit/day/capita	Water Demand m ³ /day	Deep Borehole	Elevated tank h=12m capacity (m ³)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Health Center Connection 2 tap/pl
Short Term Plan (by 2015)		2,553	II	20	51.1	2	30	6	0	3	1
Middle Term Plan (by 2020)		2,995	II	25	74.9	2	40	7	0	3	1
Longe Term Plan (by 2035)		4,952	III	30	148.6	3	80	12	0	3	1
A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		734774000		734,774,000.0		1,106,507,000	
2	Distribution Facilities	Population x Direct ratio II-2	L/S	1	212,645	542,883,962	Term II-I	0	Term III-II	371,733,000	
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		813,457,000	Term II-I	560,500,773	Term III-II	1,072,608,152	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	17,616,811	Term III-II	512,108,379	
Added Ratio of Engineering Services, Contingency .etc.							Term II-I	839,854,000	Term III-II	1,607,196,000	
							Term II-I	26,397,000	Term III-II	767,342,000	
RGC: Naigobya District: Iganga											
RGC: Naigobya District: Iganga		Population	Category	Consumption per capita lit/day/capita	Water Demand m ³ /day	Deep Borehole	Elevated tank h=12m capacity (m ³)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Health Center Connection 2 tap/pl
Short Term Plan (by 2015)		1,942	II	20	38.8	1	20	5	0	7	1
Middle Term Plan (by 2020)		2,296	II	25	57.4	1	30	6	0	7	1
Longe Term Plan (by 2035)		3,797	III	30	113.9	2	60	9	0	7	1
A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		218,096,745		218,096,745		438,725,029	
2	Distribution Facilities		L/S	1		479,094,510	Term II-I	0	Term III-II	220,628,284	Refer to
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		717,875,000	Term II-I	497,112,818	Term III-II	875,908,379	Table 16-60
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	18,018,308	Term III-II	378,796,561	
Added Ratio of Engineering Services, Contingency .etc.							Term II-I	744,874,000	Term III-II	1,312,461,000	
							Term II-I	1,122,422,000	Term III-II	567,587,000	incl. valves,others
RGC: Nakabugu District: Iganga											
RGC: Nakabugu District: Iganga		Population	Category	Consumption per capita lit/day/capita	Water Demand m ³ /day	Deep Borehole	Elevated tank h=12m capacity (m ³)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Health Center Connection 2 tap/pl
Short Term Plan (by 2015)		5,814	IV	20	116.3	2	60	12	97	6	0
Middle Term Plan (by 2020)		6,874	IV	25	171.9	3	90	14	115	6	0
Longe Term Plan (by 2035)		11,367	IV	30	341.0	5	180	23	190	6	1
A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		424,132,490		638,361,474		1,066,819,444	
2	Distribution Facilities	Population x Direct ratio IV	L/S	1	119,518.0	694,877,652	Term II-I	214,228,984	Term III-II	428,457,970	
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		1,041,205,000	Term II-I	749,080,402	Term III-II	1,313,581,887	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	54,202,750	Term III-II	564,501,485	
Added Ratio of Engineering Services, Contingency .etc.							Term II-I	1,122,422,000	Term III-II	1,968,271,000	
							Term II-I	81,217,000	Term III-II	845,849,000	
RGC: Kyanvuma District: Iganga											
RGC: Kyanvuma District: Iganga		Population	Category	Consumption per capita lit/day/capita	Water Demand m ³ /day	Deep Borehole	Elevated tank h=12m capacity (m ³)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Health Center Connection 2 tap/pl
Short Term Plan (by 2015)		2,050	II	20	41.0	1	30	5	0	2	1
Middle Term Plan (by 2020)		2,425	II	25	60.6	1	40	6	0	2	1
Longe Term Plan (by 2035)		4,009	III	30	120.3	2	70	9	0	2	1
A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		228,562,000		228,562,000		574,086,000	
2	Distribution Facilities	Population x Direct ratio II-2	L/S	1	212,646	435,923,275	Term II-I	0	Term III-II	345,524,000	
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		653,187,000	Term II-I	453,827,838	Term III-II	868,353,409	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	17,904,563	Term III-II	414,525,571	
Added Ratio of Engineering Services, Contingency .etc.							Term II-I	680,016,000	Term III-II	1,301,141,000	
							Term II-I	26,828,000	Term III-II	621,125,000	

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RGC: Lambala District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Health Center Connection 2 tap/pl
Short Term Plan (by 2015)	2,515	II	20	50.3	1	30	6	0	3	0
Middle Term Plan (by 2020)	2,974	II	25	74.4	1	40	7	0	3	0
Longe Term Plan (by 2035)	4,918	III	30	147.5	2	80	11	0	3	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		406064000		406,064,000.0		819,789,000	
2	Distribution Facilities	Population x Direct ratio II-2	L/S	1	212,645.5	534,803,433	Term II-I 187,145.5	556,570,717	Term III-II 216,601.0	1,065,243,718	
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		801,349,000	Term II-I 21,767,284	833,966,000	Term III-II 508,673,001	1,596,161,000	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	32,616,000	Term III-II	762,196,000	
Added Ratio of Engineering Services, Contingency .etc.											

RGC: Ikoina District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Health Center Connection 2 tap/pl
Short Term Plan (by 2015)	2,141	II	20	42.8	0	30	5	0	4	1
Middle Term Plan (by 2020)	2,532	II	25	63.3	2	40	6	0	4	1
Longe Term Plan (by 2035)	4,186	III	30	125.6	3	70	10	0	4	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		0		1,039,504,000		1,553,268,000	
2	Distribution Facilities	Population x Direct ratio II-2	L/S	1	212,645.5	0	Term II-I 187,145.5	473,852,406	Term III-II 216,601.0	906,691,786	
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		0	Term II-I 473,852,406	Term III-II 710,020,000	Term III-II 1,358,587,000		
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	710,020,000	Term III-II	648,567,000	
Added Ratio of Engineering Services, Contingency .etc.											

RGC: Nawampiti District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Health Center Connection 2 tap/pl
Short Term Plan (by 2015)	2,485	II	20	49.7	1	30	6	0	7	0
Middle Term Plan (by 2020)	2,938	II	25	73.5	2	40	7	0	7	0
Longe Term Plan (by 2035)	4,858	III	30	145.7	3	80	11	0	7	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		303,375,000		594,408,000		896,712,000	
2	Distribution Facilities	Population x Direct ratio II-2	L/S	1	212,645.5	528,424,068	Term II-I 187,145.5	549,833,479	Term III-II 216,601.0	1,052,247,658	
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		791,791,000	Term II-I 21,409,411	823,870,000	Term III-II 1,576,688,000		
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	32,080,000	Term III-II	752,817,000	
Added Ratio of Engineering Services, Contingency .etc.											

RGC: Buwologoma District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Health Center Connection 2 tap/pl
Short Term Plan (by 2015)	2,262	II	20	45.2	2	30	6	0	2	1
Middle Term Plan (by 2020)	2,674	II	25	66.9	2	40	6	0	2	1
Longe Term Plan (by 2035)	4,422	III	30	132.7	3	70	10	0	2	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		878,892,000		884,151,000		1,343,448,000	
2	Distribution Facilities	Population x Direct ratio II-2	L/S	1	212,645.5	481,004,121	Term II-I 187,145.5	500,427,067	Term III-II 216,601.0	957,809,622	
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		720,737,000	Term II-I 19,422,946	749,840,000	Term III-II 1,435,182,000		
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	29,103,000	Term III-II	685,342,000	
Added Ratio of Engineering Services, Contingency .etc.											

RGC: Bumanya District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Health Center Connection 2 tap/pl
Short Term Plan (by 2015)	2,280	II	20	45.6	2	30	6	0	3	1
Middle Term Plan (by 2020)	2,696	II	25	67.4	2	40	6	0	3	1
Longe Term Plan (by 2035)	4,457	III	30	133.7	3	70	10	0	3	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		810,304,000		815,563,000		1,225,481,000	
2	Distribution Facilities	Population x Direct ratio II-2	L/S	1	212,645.5	484,831,740	Term II-I 187,145.5	504,544,268	Term III-II 216,601.0	965,390,657	
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		726,472,000	Term II-I 19,712,528	756,009,000	Term III-II 1,446,541,000		
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	29,537,000	Term III-II	690,532,000	
Added Ratio of Engineering Services, Contingency .etc.											

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RGC: Busiro District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Health Center Connection 2 tap/pl
Short Term Plan (by 2015)	2,231	II	20	44.6	2	30	5	0	8	1
Middle Term Plan (by 2020)	2,639	II	25	66.0	3	40	6	0	8	1
Longe Term Plan (by 2035)	4,363	III	30	130.9	4	70	10	0	8	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		690,871,000		1,039,547,000		1,900,132,000	
2	Distribution Facilities	Population x Direct ratio II-2	L/S	1	212,645.5	474,412,111	Term II-I 187,145.5	348,676,000	Term III-II 216,601.0	860,584,000	
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		710,859,000	Term II-I 19,464,864	740,025,000	Term III-II 451,153,188	1,416,033,000	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	29,166,000	Term III-II	676,008,000	
Added Ratio of Engineering Services, Contingency .etc.											

RGC: Busalumu District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Health Center Connection 2 tap/pl
Short Term Plan (by 2015)	1,972	II	20	39.4	1	20	5	0	4	1
Middle Term Plan (by 2020)	2,332	II	25	58.3	2	30	6	0	4	1
Longe Term Plan (by 2035)	3,856	III	30	115.7	3	60	9	0	4	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		388,645,000		786,894,000		1,190,968,000	
2	Distribution Facilities	Population x Direct ratio II-1	L/S	1	276,329.4	544,921,513	Term II-I 241,309.0	398,249,000	Term III-II 259,553.3	1,000,837,653	
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		816,510,000	Term II-I 17,811,075	843,199,000	Term III-II 438,105,065	1,499,655,000	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	26,688,000	Term III-II	656,457,000	
Added Ratio of Engineering Services, Contingency .etc.											

RGC: Waibuga District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Health Center Connection 2 tap/pl
Short Term Plan (by 2015)	560	I	20	11.2	0	10	2	0	3	1
Middle Term Plan (by 2020)	663	I	25	16.6	0	10	2	0	3	1
Longe Term Plan (by 2035)	1,096	II	30	32.9	2	20	3	0	3	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		0		0		689,791,000	
2	Distribution Facilities	Population x Direct ratio II-1	L/S	1	0	0	Term II-I 0	0	Term III-II 276,329.0	689,791,000	
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		0	Term II-I 0	0	Term III-II 423,989,000	423,989,000	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	0	Term III-II	423,989,000	
Added Ratio of Engineering Services, Contingency .etc.											

RGC: Namusisi District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Health Center Connection 2 tap/pl
Short Term Plan (by 2015)	1,960	II	20	39.2	2	20	5	0	2	0
Middle Term Plan (by 2020)	2,318	II	25	58.0	2	30	6	0	2	0
Longe Term Plan (by 2035)	3,832	III	30	115.0	3	60	9	0	2	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		764,107,000		764,107,000		1,150,506,000	
2	Distribution Facilities	Population x Direct ratio II-1	L/S	1	276,329.4	541,605,561	Term II-I 241,309.0	559,354,262	Term III-II 259,553.3	994,608,373	
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		811,542,000	Term II-I 17,748,701	838,136,000	Term III-II 435,254,111	1,490,321,000	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	26,595,000	Term III-II	652,185,000	
Added Ratio of Engineering Services, Contingency .etc.											

RGC: Nawandala District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Health Center Connection 2 tap/pl
Short Term Plan (by 2015)	1,532	II	20	30.6	0	20	4	0	8	2
Middle Term Plan (by 2020)	1,811	II	25	45.3	2	30	5	0	8	2
Longe Term Plan (by 2035)	2,995	II	30	89.9	4	50	7	0	8	2

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		0		668,830,000		1,308,773,000	
2	Distribution Facilities	Population x Direct ratio II-1	L/S	1	276,329.4	0	Term II-I 241,309.0	437,010,599	Term III-II 259,553.3	777,362,233	
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		0	Term II-I 437,010,599	654,817,000	Term III-II 340,351,634	1,164,800,000	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	654,817,000	Term III-II	509,983,000	
Added Ratio of Engineering Services, Contingency .etc.											

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RGC: Nambale District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Health Center Connection 2 tap/pl
Short Term Plan (by 2015)	5,715	IV	20	114.3	2	60	12	96	9	1
Middle Term Plan (by 2020)	6,760	IV	25	169.0	2	90	14	113	9	1
Longe Term Plan (by 2035)	11,178	IV	30	335.3	4	170	23	187	9	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		459,626,000		459,626,000		1,079,174,000	
2	Distribution Facilities		L/S	1		848,947,974	Term II-I	898,012,378	Term III-II	619,548,000	Refer to Table 16-64
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		1,272,064,000		1,345,582,000		2,340,290,000	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	73,518,000	Term III-II	994,709,000	
Added Ratio of Engineering Services, Contingency .etc.											

RGC: Nabitende Banada District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Health Center Connection 2 tap/pl
Short Term Plan (by 2015)	17,459	IV	20	349.2	3	180	35	291	14	1
Middle Term Plan (by 2020)	20,645	IV	25	516.1	4	260	42	345	14	1
Longe Term Plan (by 2035)	34,135	IV	30	1,024.1	8	520	69	569	14	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		806,898,000		1,191,227,000		2,728,542,000	
2	Distribution Facilities	Population x Direct ratio IV	L/S	1	119,518.0	2,086,664,762	Term II-I	108,973.0	Term III-II	115,561.0	3,944,674,735
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		3,126,658,000		3,371,022,000		5,910,701,000	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	244,363,000	Term III-II	2,539,679,000	
Added Ratio of Engineering Services, Contingency .etc.											

RGC: Bugono District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Health Center Connection 2 tap/pl
Short Term Plan (by 2015)	1,369	II	20	27.4	0	20	4	0	4	1
Middle Term Plan (by 2020)	1,619	II	25	40.5	0	30	4	0	4	1
Longe Term Plan (by 2035)	2,677	II	30	80.3	2	50	6	0	4	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		0		0		693,719,000	
2	Distribution Facilities	Population x Direct ratio II-1	L/S	1	276,329.4	0	Term II-I	241,309.0	Term III-II	216,601.0	693,719,000
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		0		0		868,834,000	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	0	Term III-II	868,834,000	
Added Ratio of Engineering Services, Contingency .etc.											

RGC: Nabitende Kalungami District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Health Center Connection 2 tap/pl
Short Term Plan (by 2015)	2,822	II	20	56.4	2	30	7	0	1	0
Middle Term Plan (by 2020)	3,337	III	25	83.4	2	50	8	0	1	0
Longe Term Plan (by 2035)	5,518	IV	30	165.5	3	90	13	0	1	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		530,057,000		530,057,000		791,694,000	
2	Distribution Facilities	Population x Direct ratio II-2	L/S	1	212,645.5	600,085,601	Term II-I	187,145.5	Term III-II	216,601.0	261,638,000
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		899,168,000		935,758,000		1,790,894,000	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	36,590,000	Term III-II	855,137,000	
Added Ratio of Engineering Services, Contingency .etc.											

RGC: Namungalwe District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Health Center Connection 2 tap/pl
Short Term Plan (by 2015)	14,474	IV	20	289.5	3	40	7	0	4	4
Middle Term Plan (by 2020)	17,115	IV	25	427.9	3	50	8	0	4	4
Longe Term Plan (by 2035)	28,299	IV	30	849.0	6	90	12	99	4	4

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		831,071,000		831,071,000		2,073,144,000	
2	Distribution Facilities		L/S	1		1,735,473,283	Term II-I	1,877,302,112	Term III-II	1,242,073,000	Refer to Table 16-66
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		2,600,433,000		2,812,949,000		4,928,327,000	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	212,516,000	Term III-II	2,115,378,000	
Added Ratio of Engineering Services, Contingency .etc.											

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RGC: Kiyanyi District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Helth Center Connection 2 tap/pl
Short Term Plan (by 2015)	3,033	III	20	60.7	3	40	7	0	4	4
Middle Term Plan (by 2020)	3,587	III	25	89.7	4	50	8	0	4	4
Longe Term Plan (by 2035)	5,931	IV	30	177.9	4	90	12	99	4	4

A Construction Cost					Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
No	Item	Description	Unit	Rate (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		919,517,000		1,228,158,000		1,549,016,000	
2	Distribution Facilities	Population x Direct ratio III	L/S	1	154,336.0	468,101,088	Term II-I 136,134.0	488,312,658	Term III-II 147,660.5	875,774,426	
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		701,403,000	Term II-I 20,211,570	731,688,000	Term III-II 387,461,768	1,312,260,000	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	30,285,000	Term III-II	580,573,000	
Added Ratio of Engineering Services, Contingency .etc.											

RGC: Nakalama District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Helth Center Connection 2 tap/pl
Short Term Plan (by 2015)	6,905	IV	20	138.1	2	70	14	116	4	1
Middle Term Plan (by 2020)	8,165	IV	25	204.1	3	110	17	137	4	1
Longe Term Plan (by 2035)	13,501	IV	30	405.0	6	210	28	226	4	1

A Construction Cost					Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
No	Item	Description	Unit	Rate (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		634,335,000		1,128,228,000		2,609,906,000	
2	Distribution Facilities	Population x Direct ratio IV	L/S	1	119,518	825,271,790	Term II-I 108,973	889,764,545	Term III-II 115,561	1,560,189,061	
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		1,236,587,000	Term II-I 64,492,755	1,333,223,000	Term III-II 670,424,516	2,337,787,000	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	96,636,000	Term III-II	1,004,564,000	
Added Ratio of Engineering Services, Contingency .etc.											

RGC: Nakigo District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Helth Center Connection 2 tap/pl
Short Term Plan (by 2015)	2,412	II	20	48.2	0	30	6	0	3	0
Middle Term Plan (by 2020)	2,852	II	25	71.3	2	40	7	0	3	0
Longe Term Plan (by 2035)	4,716	III	30	141.5	3	80	11	0	3	1

A Construction Cost					Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
No	Item	Description	Unit	Rate (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		0		599,011,000		898,516,000	
2	Distribution Facilities	Population x Direct ratio II-2	L/S	1	212,646	0	187,146	533,738,966	Term III-II 216,601	1,021,490,316	
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		0	Term II-I 533,738,966	799,754,000	Term III-II 487,751,350	1,530,601,000	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	799,754,000	Term III-II	730,847,000	
Added Ratio of Engineering Services, Contingency .etc.											

RGC: Kabira District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Helth Center Connection 2 tap/pl
Short Term Plan (by 2015)	1,652	II	20	33.0	0	20	4	0	3	0
Middle Term Plan (by 2020)	1,954	II	25	48.9	2	30	5	0	3	0
Longe Term Plan (by 2035)	3,231	III	30	96.9	3	50	8	0	3	1

A Construction Cost					Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
No	Item	Description	Unit	Rate (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		0		545,463,000		803,752,000	
2	Distribution Facilities	Population x Direct ratio II-1	L/S	1	276,329	0	241,309	471,517,786	Term III-II 259,553	838,616,820	
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		0	Term II-I 471,517,786	706,522,000	Term III-II 367,099,034	1,256,583,000	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	706,522,000	Term III-II	550,061,000	
Added Ratio of Engineering Services, Contingency .etc.											

RGC: Wailama District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Helth Center Connection 2 tap/pl
Short Term Plan (by 2015)	524	I	20	10.5	0	10	2	0	1	0
Middle Term Plan (by 2020)	619	I	25	15.5	0	10	2	0	1	0
Longe Term Plan (by 2035)	1,024	II	30	30.7	1	20	3	0	1	0

A Construction Cost					Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
No	Item	Description	Unit	Rate (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		0		0		689,791,000	
2	Distribution Facilities	Population x Direct ratio II-1	L/S	1	0.0	0	0.0	0	Term III-II 276,329.4	282,961,273	
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		0	Term II-I	0	Term III-II 423,989,000	423,989,000	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	0	Term III-II	423,989,000	
Added Ratio of Engineering Services, Contingency .etc.											

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RGC: Busesa District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m ³ /day	Deep Borehole	Elevated tank h=12m capacity (m ³)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Helth Center Connection 2 tap/pl
Short Term Plan (by 2015)	4,825	III	20	96.5	2	50	10	81	3	1
Middle Term Plan (by 2020)	5,705	IV	25	142.6	2	80	12	96	3	1
Longe Term Plan (by 2035)	9,433	IV	30	283.0	4	150	19	158	3	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		602,274,000		602,274,000		1,206,608,000	
2	Distribution Facilities	Population x Direct ratio III	L/S	1	154,336.0	744,671,200	136,134.0	776,644,470	147,660.5	1,392,881,497	
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		1,115,815,000		31,973,270	Term III-II	616,237,027	
	Total Cost of each Term Plan for Intake and Transmission Facilities						Term II-I	1,163,724,000	Term III-II	2,087,094,000	
	Added Ratio of Engineering Services, Contingency .etc.						Term II-I	47,909,000	Term III-II	923,370,000	

RGC: Ibulanku T/C District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m ³ /day	Deep Borehole	Elevated tank h=12m capacity (m ³)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Helth Center Connection 2 tap/pl
Short Term Plan (by 2015)	3,094	III	20	61.9	0	40	7	0	3	1
Middle Term Plan (by 2020)	3,658	III	25	91.5	2	50	9	0	3	1
Longe Term Plan (by 2035)	6,049	IV	30	181.5	2	100	13	101	3	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		0		474,751,000		528,227,000	
2	Distribution Facilities	Population x Direct ratio III	L/S	1	154,336.0	0	136,134.0	497,978,172	147,660.5	893,198,365	
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		0		497,978,172	Term III-II	395,220,193	
	Total Cost of each Term Plan for Intake and Transmission Facilities						Term II-I	746,170,000	Term III-II	1,338,368,000	
	Added Ratio of Engineering Services, Contingency .etc.						Term II-I	746,170,000	Term III-II	592,198,000	

RGC: Nakivumi District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m ³ /day	Deep Borehole	Elevated tank h=12m capacity (m ³)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Helth Center Connection 2 tap/pl
Short Term Plan (by 2015)	2,750	II	20	55.0	2	30	7	0	4	0
Middle Term Plan (by 2020)	3,252	III	25	81.3	2	50	8	0	4	0
Longe Term Plan (by 2035)	5,377	IV	30	161.3	3	90	11	90	4	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		680,668,000		680,668,000		1,028,112,000	
2	Distribution Facilities	Population x Direct ratio II-2	L/S	1	212,645.5	584,775,125	187,145.5	608,597,166	216,601.0	1,164,663,577	
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		876,227,000		23,822,041	Term III-II	556,066,411	
	Total Cost of each Term Plan for Intake and Transmission Facilities						Term II-I	911,922,000	Term III-II	1,745,132,000	
	Added Ratio of Engineering Services, Contingency .etc.						Term II-I	35,695,000	Term III-II	833,210,000	

RGC: Nondwe District: Iganga	Population	Category	Consumption per capita lit/day/capita	Water Demand m ³ /day	Deep Borehole	Elevated tank h=12m capacity (m ³)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Helth Center Connection 2 tap/pl
Short Term Plan (by 2015)	4,264	III	20	85.3	3	50	10	0	3	0
Middle Term Plan (by 2020)	5,042	IV	25	126.1	3	70	12	85	3	0
Longe Term Plan (by 2035)	8,336	IV	30	250.1	5	130	17	139	3	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		620,928,000		897,862,000		1,542,539,000	
2	Distribution Facilities	Population x Direct ratio III	L/S	1	154,336.0	658,088,704	136,134.0	686,387,628	147,660.5	1,230,897,928	
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		986,080,000		28,298,924	Term III-II	544,510,300	
	Total Cost of each Term Plan for Intake and Transmission Facilities						Term II-I	1,028,483,000	Term III-II	1,844,377,000	
	Added Ratio of Engineering Services, Contingency .etc.						Term II-I	42,403,000	Term III-II	815,894,000	

2. Pallisa District

RGC: Kapala District: Pallisa	Population	Category	Consumption per capita lit/day/capita	Water Demand m ³ /day	Deep Borehole	Elevated tank h=12m capacity (m ³)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Helth Center Connection 2 tap/pl
Short Term Plan (by 2015)	2,574	II	20	51.5	2	30	6	0	5	1
Middle Term Plan (by 2020)	3055	III	25	76.4	2	40	7	0	5	1
Longe Term Plan (by 2035)	5110	IV	30	153.3	3	80	11	86	5	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		562,078,000		562,078,000		836,853,000	
2	Distribution Facilities	Population x Direct ratio II-2	L/S	1	212,645.5	547,349,517	187,145.5	571,729,503	216,601.0	1,106,831,110	
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		820,149,000		24,379,986	Term III-II	535,101,607	
	Total Cost of each Term Plan for Intake and Transmission Facilities						Term II-I	856,679,000	Term III-II	1,658,476,000	
	Added Ratio of Engineering Services, Contingency .etc.						Term II-I	36,531,000	Term III-II	801,796,000	

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RGC: Agule District: Pallisa	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Helth Center Connection 2 tap/pl
Short Term Plan (by 2015)	2,141	II	20	42.8	0	30	7	0	5	2
Middle Term Plan (by 2020)	2,532	II	25	63.3	2	50	8	0	5	2
Longe Term Plan (by 2035)	4,186	III	30	125.6	3	90	12	99	5	2

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		665,500,000		1,000,386,000		1,000,386,000	
2	Distribution Facilities	Population x Direct ratio II-2	L/S	1	212,645.5	635,384,754	Term II-I 187,145.5	334,885,000	Term III-II 216,601.0	0	1,284,877,132
3	Total Cost for Distribution Facilities (cumulative total)	Ratio		1.4984		952,061,000	Term II-I 28,233,189	994,365,000	Term III-II 621,259,189		1,925,260,000
	Total Cost of each Term Plan for Intake and Transmission Facilities						Term II-I 42,304,000		Term III-II 930,895,000		
	Added Ratio of Engineering Services, Contingency .etc.										

RGC: Kameke District: Pallisa	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Helth Center Connection 2 tap/pl
Short Term Plan (by 2015)	3,194	III	20	63.9	2	40	8	0	6	1
Middle Term Plan (by 2020)	3663	III	25	91.6	2	50	9	0	6	1
Longe Term Plan (by 2035)	6127	IV	30	183.8	3	100	13	103	6	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		689,793,000		689,793,000		1,036,604,000	
2	Distribution Facilities		L/S	1	621,457,238		Term II-I 639,475,546	0	Term III-II 1,198,044,267		Refer to Table 16-62
3	Total Cost for Distribution Facilities (cumulative total)	Ratio		1.4984		931,192,000		958,190,000		1,795,150,000	
	Total Cost of each Term Plan for Intake and Transmission Facilities						Term II-I 26,999,000		Term III-II 836,959,000		
	Added Ratio of Engineering Services, Contingency .etc.										

RGC: Kibale Pallisa District: Pallisa	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Helth Center Connection 2 tap/pl
Short Term Plan (by 2015)	2,833	II	20	56.7	2	30	7	0	3	1
Middle Term Plan (by 2020)	3363	III	25	84.1	3	50	8	0	3	1
Longe Term Plan (by 2035)	5625	IV	30	168.8	4	90	12	94	3	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		699,865,000		904,571,000		1,857,946,000	
2	Distribution Facilities	Population x Direct ratio II-2	L/S	1	212,645.5	602,424,702	Term II-I 187,145.5	204,706,000	Term III-II 216,601.0	953,376,000	
3	Total Cost for Distribution Facilities (cumulative total)	Ratio		1.4984		902,673,000	Term II-I 26,945,615	943,048,000	Term III-II 1,218,380,625	1,825,622,000	
	Total Cost of each Term Plan for Intake and Transmission Facilities						Term II-I 40,375,000		Term III-II 882,573,000		
	Added Ratio of Engineering Services, Contingency .etc.										

RGC: Butebo District: Pallisa	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Helth Center Connection 2 tap/pl
Short Term Plan (by 2015)	1,358	II	20	27.2	1	20	4	0	1	1
Middle Term Plan (by 2020)	1,612	II	25	40.3	2	30	4	0	1	1
Longe Term Plan (by 2035)	2,696	II	30	80.9	3	50	6	0	1	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		404,281,000		807,381,000		1,210,482,000	
2	Distribution Facilities	Population x Direct ratio II-1	L/S	1	276,329.4	375,255,281	Term II-I 241,309.0	403,100,000	Term III-II 259,553.3	403,100,000	
3	Total Cost for Distribution Facilities (cumulative total)	Ratio		1.4984		562,283,000	Term II-I 13,734,827	582,863,000	Term III-II 1,048,514,000	699,755,787	
	Total Cost of each Term Plan for Intake and Transmission Facilities						Term II-I 20,580,000		Term III-II 465,651,000	310,765,679	
	Added Ratio of Engineering Services, Contingency .etc.										

RGC: Kabole District: Pallisa	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Helth Center Connection 2 tap/pl
Short Term Plan (by 2015)	1,481	II	20	29.6	0	20	4	0	1	0
Middle Term Plan (by 2020)	1,758	II	25	44.0	2	30	4	0	1	0
Longe Term Plan (by 2035)	2,941	II	30	88.2	3	50	7	0	1	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		0		779,372,000		1,169,058,000	
2	Distribution Facilities	Population x Direct ratio II-1	L/S	1	276,329.4	0	Term II-I 241,309.0	779,372,000	Term III-II 259,553.3	389,686,000	
3	Total Cost for Distribution Facilities (cumulative total)	Ratio		1.4984		0	Term II-I 424,221,222	635,653,000	Term III-II 1,143,798,000	763,346,353	
	Total Cost of each Term Plan for Intake and Transmission Facilities						Term II-I 635,653,000		Term III-II 508,145,000	339,125,131	
	Added Ratio of Engineering Services, Contingency .etc.										

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RGC: Boliso ITC District: Pallisa	Population	Category	Consumption per capita lit/day/capita	Water Demand m ³ /day	Deep Borehole	Elevated tank h=12m capacity (m ³)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Helth Center Connection 2 tap/pl
Short Term Plan (by 2015)	1,253	II	20	25.1	1	20	3	0	1	0
Middle Term Plan (by 2020)	1,487	II	25	37.2	2	20	4	0	1	0
Longe Term Plan (by 2035)	2,488	III	30	74.6	3	40	6	0	1	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		305,226,000		609,272,000		913,317,000	
2	Distribution Facilities	Population x Direct ratio II-1	L/S	1	276,329.4	346,240,698	Term II-I 241,309.0	304,046,000	Term III-II 259,553.3	304,046,000	645,768,693
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		518,807,000	Term II-I 12,585,785	537,666,000	Term III-II 286,942,210	967,620,000	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	18,859,000	Term III-II	429,954,000	
Added Ratio of Engineering Services, Contingency .etc.											

RGC: Kamuge District: Pallisa	Population	Category	Consumption per capita lit/day/capita	Water Demand m ³ /day	Deep Borehole	Elevated tank h=12m capacity (m ³)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Helth Center Connection 2 tap/pl
Short Term Plan (by 2015)	2,623	II	20	52.5	0	30	6	0	3	1
Middle Term Plan (by 2020)	3,114	III	25	77.9	3	40	7	0	3	1
Longe Term Plan (by 2035)	5,208	IV	30	156.2	4	80	11	87	3	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		0		932,176,000		4,556,807,000	
2	Distribution Facilities	Population x Direct ratio II-2	L/S	1	212,645.5	0	Term II-I 136,134.0	423,921,276	Term III-II 147,660.5	769,015,884	3,624,630,000
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		0	Term II-I 423,921,276	1,152,094,608	Term III-II 345,094,608	1,152,094,608	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	635,204,000	Term III-II	517,090,000	
Added Ratio of Engineering Services, Contingency .etc.											

RGC: Petete District: Pallisa	Population	Category	Consumption per capita lit/day/capita	Water Demand m ³ /day	Deep Borehole	Elevated tank h=12m capacity (m ³)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Helth Center Connection 2 tap/pl
Short Term Plan (by 2015)	4,444	III	20	88.9	0	50	10	0	8	1
Middle Term Plan (by 2020)	5,275	IV	25	131.9	3	70	11	88	8	1
Longe Term Plan (by 2035)	8,823	IV	30	264.7	6	140	18	148	8	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		0		1,051,593,000		3,030,220,000	
2	Distribution Facilities	Population x Direct ratio III	L/S	1	154,336.0	0	Term II-I 136,134.0	718,106,850	Term III-II 147,660.5	1,302,808,592	1,978,627,000
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		0	Term II-I 718,106,850	1,076,011,000	Term III-II 1,952,128,000	876,117,000	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	1,076,011,000	Term III-II	876,117,000	
Added Ratio of Engineering Services, Contingency .etc.											

RGC: Kasassira District: Pallisa	Population	Category	Consumption per capita lit/day/capita	Water Demand m ³ /day	Deep Borehole	Elevated tank h=12m capacity (m ³)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Helth Center Connection 2 tap/pl
Short Term Plan (by 2015)	6,666	IV	20	133.3	3	70	14	112	7	0
Middle Term Plan (by 2020)	7,913	IV	25	197.8	3	100	16	132	7	0
Longe Term Plan (by 2035)	13,235	IV	30	397.1	5	200	27	221	7	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		989,581,000		989,581,000		1,819,306,000	
2	Distribution Facilities	Population x Direct ratio IV	L/S	1	119,518.0	796,706,988	Term II-I 108,973.0	862,303,349	Term III-II 115,561.0	1,529,449,835	829,724,000
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		1,193,786,000	Term II-I 65,596,361	1,292,075,000	Term III-II 667,146,486	2,291,728,000	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	982,290,000	Term III-II	999,652,000	
Added Ratio of Engineering Services, Contingency .etc.											

RGC: Buseta District: Pallisa	Population	Category	Consumption per capita lit/day/capita	Water Demand m ³ /day	Deep Borehole	Elevated tank h=12m capacity (m ³)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Helth Center Connection 2 tap/pl
Short Term Plan (by 2015)	2,839	II	20	56.8	2	30	7	0	6	1
Middle Term Plan (by 2020)	3,370	III	25	84.3	2	50	8	0	6	1
Longe Term Plan (by 2035)	5,637	IV	30	169.1	3	90	12	94	6	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		723,115,000		723,115,000		1,088,135,000	
2	Distribution Facilities		L/S	1		655,017,261	Term II-I 0	673,035,569	Term III-II 365,019,000	1,339,728,702	Refer to Table 16-63
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		981,478,000	Term II-I 1,008,476,000	2,007,449,000	Term III-II 998,973,000		
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	26,999,000	Term III-II	998,973,000	
Added Ratio of Engineering Services, Contingency .etc.											

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RGC: Nabisuwa District: Pallisa	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Health Center Connection 2 tap/pl
Short Term Plan (by 2015)	2,074	II	20	41.5	1	30	5	0	5	0
Middle Term Plan (by 2020)	2,462	II	25	61.6	2	40	6	0	5	0
Longe Term Plan (by 2035)	4,117	III	30	123.5	3	70	10	0	5	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		393,075,000		789,943,000		1,186,811,000	
2	Distribution Facilities	Population x Direct ratio II-2	L/S	1	212,645.5	441,026,767	Term II-I 187,145.5	396,868,000	Term III-II 216,601.0	396,868,000	891,746,317
3	Total Cost for Distribution Facilities (cumulative total)			Ratio	1.4984	660,835,000	Term II-I 19,725,454	690,391,000	Term III-II 430,994,096	1,336,193,000	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	29,557,000	Term III-II	645,802,000	
Added Ratio of Engineering Services, Contingency .etc.											

RGC: Kabwari District: Pallisa	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Health Center Connection 2 tap/pl
Short Term Plan (by 2015)	1,562	II	20	31.2	2	20	4	0	1	1
Middle Term Plan (by 2020)	1,854	II	25	46.4	2	30	5	0	1	1
Longe Term Plan (by 2035)	3,100	III	30	93.0	3	50	7	0	1	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		675,544,000		675,544,000		1,011,914,000	
2	Distribution Facilities	Population x Direct ratio II-1	L/S	1	276,329.4	431,626,473	Term II-I 241,309.0	447,386,886	Term III-II 259,553.3	336,371,000	804,615,333
3	Total Cost for Distribution Facilities (cumulative total)			Ratio	1.4984	646,749,000	Term II-I 15,760,413	670,365,000	Term III-II 1,205,636,000	1,205,636,000	357,228,447
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	23,615,000	Term III-II	535,271,000	
Added Ratio of Engineering Services, Contingency .etc.											

RGC: Kadama District: Pallisa	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Health Center Connection 2 tap/pl
Short Term Plan (by 2015)	12,888	IV	20	257.8	4	130	26	215	8	1
Middle Term Plan (by 2020)	15,298	IV	25	382.5	6	200	31	255	8	1
Longe Term Plan (by 2035)	25,587	IV	30	767.6	8	390	52	427	8	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		1,174,076,000		1,897,435,000		4,556,355,000	
2	Distribution Facilities		L/S	1		1,535,384,251	Term II-I 723,359,000	1,656,129,411	Term III-II 216,601.0	2,658,920,000	Refer to Table 16-67
3	Total Cost for Distribution Facilities (cumulative total)			Ratio	1.4984	2,300,620,000	Term II-I 618,328,732	2,481,544,000	Term III-II 1,793,491,000	4,405,083,000	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	180,924,000	Term III-II	1,923,539,000	
Added Ratio of Engineering Services, Contingency .etc.											

RGC: Kigumu District: Pallisa	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Health Center Connection 2 tap/pl
Short Term Plan (by 2015)	2,784	II	20	55.7	2	30	7	0	1	1
Middle Term Plan (by 2020)	3,304	III	25	82.6	3	50	8	0	1	1
Longe Term Plan (by 2035)	5,526	IV	30	165.8	3	90	13	0	1	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		0		819,295,000		894,822,000	
2	Distribution Facilities	Population x Direct ratio II-2	L/S	1	212,645.5	0	Term II-I 187,145.5	618,328,732	Term III-II 216,601.0	75,527,000	1,196,937,126
3	Total Cost for Distribution Facilities (cumulative total)			Ratio	1.4984	0	Term II-I 618,328,732	926,504,000	Term III-II 1,793,491,000	1,793,491,000	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	926,504,000	Term III-II	866,987,000	
Added Ratio of Engineering Services, Contingency .etc.											

RGC: Bulangira District: Pallisa	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Health Center Connection 2 tap/pl
Short Term Plan (by 2015)	2,469	II	20	49.4	2	30	6	0	8	1
Middle Term Plan (by 2020)	2,931	II	25	73.3	2	40	7	0	8	1
Longe Term Plan (by 2035)	4,902	III	30	147.1	3	80	11	0	8	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		0		681,732,000		1,027,828,000	
2	Distribution Facilities	Population x Direct ratio II-2	L/S	1	212,645.5	0	Term II-I 187,145.5	548,523,461	Term III-II 216,601.0	346,096,000	1,061,778,102
3	Total Cost for Distribution Facilities (cumulative total)			Ratio	1.4984	0	Term II-I 548,523,461	821,908,000	Term III-II 1,590,968,000	1,590,968,000	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	821,908,000	Term III-II	769,061,000	
Added Ratio of Engineering Services, Contingency .etc.											

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3. Soroti District

RGC: Acuna District: Soroti	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Helth Center Connection 2 tap/pl
Short Term Plan (by 2015)	2,069	II	20	41.4	-	-	5	0	1	0
Middle Term Plan (by 2020)	2,517	II	25	62.9	-	-	6	0	0	0
Longe Term Plan (by 2035)	4,533	III	30	136.0	-	-	11	0	0	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		1,283,329,000		1,283,329,000		1,374,944,000	
2	Distribution Facilities	Population x Direct ratio II-2	L/S	1	212,645.5	439,963,540	187,145.5	471,045,224	216,601.0	981,852,333	
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		659,241,000		705,814,000		1,471,208,000	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	46,573,000	Term III-II	765,393,000	
Added Ratio of Engineering Services, Contingency .etc.											

RGC: Tubur District: Soroti	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Helth Center Connection 2 tap/pl
Short Term Plan (by 2015)	2,433	II	20	48.7	-	-	6	0	1	1
Middle Term Plan (by 2020)	2,960	II	25	74.0	-	-	7	0	1	1
Longe Term Plan (by 2035)	5,332	IV	30	160.0	-	-	11	89	1	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		1,253,335,000		1,253,335,000		1,344,950,000	
2	Distribution Facilities	Population x Direct ratio II-2	L/S	1	212,645.5	517,366,502	187,145.5	553,950,680	216,601.0	1,154,916,532	
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		775,222,000		830,040,000		1,730,527,000	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	54,818,000	Term III-II	900,487,000	
Added Ratio of Engineering Services, Contingency .etc.											

RGC: Gweri District: Soroti	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Helth Center Connection 2 tap/pl
Short Term Plan (by 2015)	2,214	II	20	44.3	0	30	5	0	5	1
Middle Term Plan (by 2020)	2,694	II	25	67.4	2	40	6	0	5	1
Longe Term Plan (by 2035)	4,852	III	30	145.6	3	80	11	0	5	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		0	732,373,000		1,115,466,000		
2	Distribution Facilities	Population x Direct ratio II-2	L/S	1	0.0	0	187,145.5	504,169,977	216,601.0	1,050,948,052	
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		0		755,448,000		1,574,741,000	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	755,448,000	Term III-II	819,292,000	
Added Ratio of Engineering Services, Contingency .etc.											

RGC: Ocapa(existing) District: Soroti	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Helth Center Connection 2 tap/pl
Short Term Plan (by 2015)	2,433	II	20	48.7	2	30	6	0	2	1
Middle Term Plan (by 2020)	2,960	II	25	74.0	3	40	7	0	2	1
Longe Term Plan (by 2035)	5,332	IV	30	160.0	5	80	11	89	2	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		528,666,000		856,950,000		1,440,650,000	
2	Distribution Facilities	Population x Direct ratio II-2	L/S	1	212,645.5	517,366,502	187,145.5	553,950,680	216,601.0	1,154,916,532	
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		775,222,000		830,040,000		1,730,527,000	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	54,818,000	Term III-II	900,487,000	
Added Ratio of Engineering Services, Contingency .etc.											

RGC: Kyere(existing) District: Soroti	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Helth Center Connection 2 tap/pl
Short Term Plan (by 2015)	4,867	III	20	97.3	2	50	11	0	2	1
Middle Term Plan (by 2020)	5,921	IV	25	148.0	2	80	12	99	2	1
Longe Term Plan (by 2035)	10,663	IV	30	319.9	5	160	22	178	2	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		489,774,000		489,774,000		1,217,539,000	
2	Distribution Facilities	Population x Direct ratio III	L/S	1	154,336.0	751,153,312	136,134.0	806,049,414	147,660.5	1,574,503,912	
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		1,125,528,000		1,207,784,000		2,359,237,000	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	82,256,000	Term III-II	1,151,452,000	
Added Ratio of Engineering Services, Contingency .etc.											

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RGC: Iningo District: Soroti	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Health Center Connection 2 tap/pl
Short Term Plan (by 2015)	1,360	II	20	27.2	1	20	4	0	3	1
Middle Term Plan (by 2020)	1,655	II	25	41.4	1	30	4	0	3	1
Longe Term Plan (by 2035)	2,980	II	30	89.4	1	50	7	0	3	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		0		255,708,000		265,358,000	
2	Distribution Facilities	Population x Direct ratio II-1	L/S	1	276,329.4	0	241,309.0	399,366,395	259,553.3	773,468,933	
3	Total Cost for Distribution Facilities (cumulative total)			Ratio	1.4984	0		598,411,000		1,158,966,000	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	598,411,000	Term III-II	560,555,000	
Added Ratio of Engineering Services, Contingency .etc.											

RGC: Kamod(existing) District: Soroti	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Health Center Connection 2 tap/pl
Short Term Plan (by 2015)	3,650	III	20	73.0	3	40	9	0	1	1
Middle Term Plan (by 2020)	4,441	III	25	111.0	4	60	10	0	1	1
Longe Term Plan (by 2035)	7,998	IV	30	239.9	5	120	16	134	1	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S			843,961,000		1,110,839,000		1,377,717,000	
2	Distribution Facilities	Population x Direct ratio III	L/S	1	154,336.0	563,326,400	136,134.0	604,571,094	147,660.5	1,180,988,679	
3	Total Cost for Distribution Facilities (cumulative total)			Ratio	1.4984			905,889,000		1,769,593,000	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	61,801,000	Term III-II	863,704,000	
Added Ratio of Engineering Services, Contingency .etc.											

RGC: Kadungulu(existing) District: Soroti	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Health Center Connection 2 tap/pl
Short Term Plan (by 2015)	1,689	II	20	33.8	1	20	4	0	4	1
Middle Term Plan (by 2020)	2,055	II	25	51.4	1	30	5	0	4	1
Longe Term Plan (by 2035)	3,701	III	30	111.0	2	60	9	0	4	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		386,560,000		506,082,000		506,082,000	
2	Distribution Facilities	Population x Direct ratio II-1	L/S	1	276,329.4	0	241,309.0	495,889,995	259,553.3	960,606,887	
3	Total Cost for Distribution Facilities (cumulative total)			Ratio	1.4984	0		743,042,000		1,439,373,000	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	743,042,000	Term III-II	696,332,000	
Added Ratio of Engineering Services, Contingency .etc.											

RGC: Kagwarea Port District: Soroti	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Health Center Connection 2 tap/pl
Short Term Plan (by 2015)	3,796	III	20	75.9	1	40	9	0	2	1
Middle Term Plan (by 2020)	4,618	III	25	115.5	2	60	11	0	2	1
Longe Term Plan (by 2035)	8,317	IV	30	249.5	2	130	17	139	2	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		731,232,000		1,448,022,000		1,454,853,000	
2	Distribution Facilities		L/S	1		607,834,384		716,790,000	Term III-II	6,831,000	
3	Total Cost for Distribution Facilities (cumulative total)			Ratio	1.4984			643,871,000	Term III-II	1,294,086,267	Refer to Table 16-65
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	36,036,616	Term III-II	650,215,267	
Added Ratio of Engineering Services, Contingency .etc.							Term II-I	910,779,000	Term III-II	1,939,059,000	
Total Cost of each Term Plan for Intake and Transmission Facilities											
Added Ratio of Engineering Services, Contingency .etc.											

RGC: Kidetok District: Soroti	Population	Category	Consumption per capita lit/day/capita	Water Demand m3/day	Deep Borehole	Elevated tank h=12m capacity (m3)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Health Center Connection 2 tap/pl
Short Term Plan (by 2015)	1,265	II	20	25.3	1	20	3	0	4	1
Middle Term Plan (by 2020)	1,539	II	25	38.5	1	20	4	0	4	1
Longe Term Plan (by 2035)	2,772	II	30	83.2	2	50	7	0	4	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		268,672,000		268,672,000		522,901,000	
2	Distribution Facilities		L/S	1		365,521,349		383,539,675	Term III-II	740,400,562	Refer to Table 16-61
3	Total Cost for Distribution Facilities (cumulative total)			Ratio	1.4984			18,018,326	Term III-II	356,860,887	
Total Cost of each Term Plan for Intake and Transmission Facilities							Term II-I	574,696,000	Term III-II	1,109,416,000	
Added Ratio of Engineering Services, Contingency .etc.							Term II-I	26,999,000	Term III-II	534,720,000	

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RGC: Pingire Etem District: Soroti	Population	Category	Consumption per capita lit/day/capita	Water Demand m ³ /day	Deep Borehole	Elevated tank h=12m capacity (m ³)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Health Center Connection 2 tap/pl
Short Term Plan (by 2015)	1,582	II	20	31.6	1	20	4	0	4	1
Middle Term Plan (by 2020)	1,924	II	25	48.1	2	30	5	0	4	1
Longe Term Plan (by 2035)	3,466	III	30	104.0	3	60	8	0	4	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		255,587,000		501,993,000		753,657,000	
2	Distribution Facilities	Population x Direct ratio II-1	L/S	1	276,329.4	437,153,060	Term II-I 241,309.0	246,405,000	Term III-II 259,553.3	251,665,000	
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		655,030,000	Term II-I 27,125,456	695,675,000	Term III-II 435,333,337	1,347,978,000	
	Total Cost of each Term Plan for Intake and Transmission Facilities						Term II-I 40,645,000	40,645,000	Term III-II 652,303,000	652,303,000	
	Added Ratio of Engineering Services, Contingency, etc.										

RGC: Pingire Corner District: Soroti	Population	Category	Consumption per capita lit/day/capita	Water Demand m ³ /day	Deep Borehole	Elevated tank h=12m capacity (m ³)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Health Center Connection 2 tap/pl
Short Term Plan (by 2015)	1,019	II	20	20.4	0	20	3	0	2	1
Middle Term Plan (by 2020)	1,239	II	25	31.0	1	20	3	0	2	1
Longe Term Plan (by 2035)	2,232	II	30	67.0	2	40	5	0	2	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		0		312,162,000		609,880,000	
2	Distribution Facilities	Population x Direct ratio II-1	L/S	1	0.0	0	Term II-I 241,309.0	312,162,000	Term III-II 259,553.3	297,718,000	
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		0	Term II-I 298,981,851	298,981,851	Term III-II 280,341,189	868,058,000	
	Total Cost of each Term Plan for Intake and Transmission Facilities						Term II-I 447,994,000	447,994,000	Term III-II 420,063,000	420,063,000	
	Added Ratio of Engineering Services, Contingency, etc.										

RGC: Mulondo District: Soroti	Population	Category	Consumption per capita lit/day/capita	Water Demand m ³ /day	Deep Borehole	Elevated tank h=12m capacity (m ³)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Health Center Connection 2 tap/pl
Short Term Plan (by 2015)	2,214	II	20	44.3	1	30	5	0	1	0
Middle Term Plan (by 2020)	2,694	II	25	67.4	2	40	6	0	1	0
Longe Term Plan (by 2035)	4,852	III	30	145.6	3	80	11	0	1	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		854,334,000		1,699,859,000		2,561,269,000	
2	Distribution Facilities	Population x Direct ratio II-2	L/S	1	212,645.5	470,797,137	Term II-I 187,145.5	845,525,000	Term III-II 216,601.0	861,410,000	
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		705,442,000	Term II-I 33,372,840	755,448,000	Term III-II 546,778,075	1,574,741,000	
	Total Cost of each Term Plan for Intake and Transmission Facilities						Term II-I 50,006,000	50,006,000	Term III-II 819,292,000	819,292,000	
	Added Ratio of Engineering Services, Contingency, etc.										

RGC: Mugarema District: Soroti	Population	Category	Consumption per capita lit/day/capita	Water Demand m ³ /day	Deep Borehole	Elevated tank h=12m capacity (m ³)	Water Kiosk 3taps(450p)	House Connection 6p/place	School Connection 2 tap/pl	Health Center Connection 2 tap/pl
Short Term Plan (by 2015)	5,125	IV	20	102.5	1	60	11	86	1	1
Middle Term Plan (by 2020)	6,235	IV	25	155.9	2	80	13	104	1	1
Longe Term Plan (by 2035)	11,229	IV	30	336.9	3	170	23	188	1	1

A Construction Cost											
No	Item	Description	Unit	Rate (UGX)	Works by 2015 (I)		Works by 2020 (II)		Works by 2035 (III)		Remarks
					Quantity	Amount (UGX)	Quantity	Amount (UGX)	Quantity	Amount (UGX)	
1	Intake and Transmission Facilities		L/S	1		372,722,000		743,469,000		1,118,228,000	
2	Distribution Facilities	Population x Direct ratio IV	L/S	1	119,518.0	612,529,750	Term II-I 108,973.0	370,747,000	Term III-II 115,561.0	374,760,000	
3	Total Cost for Distribution Facilities (cumulative total)		Ratio	1.4984		917,815,000	Term II-I 66,916,905	1,018,083,000	Term III-II 618,187,814	1,944,375,000	
	Total Cost of each Term Plan for Intake and Transmission Facilities						Term II-I 100,268,000	100,268,000	Term III-II 926,293,000	926,293,000	
	Added Ratio of Engineering Services, Contingency, etc.										

3) Repair of Non-functional Facilities and Replacement of Existing Boreholes

The costs for repair of non-functional facilities are estimated based on the repairing cost per site estimated assuming a certain extent of repairing works; breach of cylinders and aprons for well facilities, and breach of water collection pipes and side walls for protected springs. The project costs for repair of non-functional facilities are calculated for each site as tabulated below.

Table 16-72 Repair Cost of Non-functional Facilities and Replacement of Existing Boreholes

1 Repair Cost of Non-functional Deep Borehole (70m)						
	Description	Unit	Q'ty	Unit Price	Amount	Note
				(UGX)	(UGX)	
1	Temporarily and Preparatory Works	L/S	1.0		227,548	
2	Borehole Construction Works	L/S	1.0		-	
3	Pumping Test consisting of step drawdown, continuous and recovery tests, and Water Sampling for analyses	L/S	1.0		133,850	
4	Repairing of Hand Pump (U2) and Rehabilitation of Platform, etc.					
4.1	Repairing of Hand Pump (U2)	L/S	1.0		444,469	
4.2	Rehabilitation of Platform, etc.	L/S	1.0		90,358	
	Sub-total (1)				896,225	
5	Engineering Services of Design and Construction Supervision (15 % of Sub-total (1))	%	15.0		134,434	
	Sub-total (2)				1,030,659	
6	Administration Expenses (3 % of Sub-total (2))	%	3.0		30,920	
	Sub-total (3)				1,061,579	
7	Contingencies (Physical and Price Escalation (10 % of Sub-total (3)))	%	10.0		106,158	
	Totals				1,167,736	

2 Repair Cost of Non-functional Shallow Well (30m)						
	Description	Unit	Q'ty	Unit Price	Amount	Note
				(UGX)	(UGX)	
1	Temporarily and Preparatory Works	L/S	1.0		203,396	
2	Borehole Construction Works	L/S	1.0		-	
3	Pumping Test consisting of step drawdown, continuous and recovery tests, and Water Sampling for analyses	L/S	1.0		133,850	
4	Repairing of Hand Pump (U2) and Rehabilitation of Platform, etc.					
4.1	Repairing of Hand Pump (U2)	L/S	1.0		438,661	
4.2	Rehabilitation of Platform, etc.	L/S	1.0		75,193	
	Sub-total (1)				851,100	
5	Engineering Services of Design and Construction Supervision (15 % of Sub-total (1))	%	15.0		127,665	
	Sub-total (2)				978,765	
6	Administration Expenses (3 % of Sub-total (2))	%	3.0		29,363	
	Sub-total (3)				1,008,128	
7	Contingencies (Physical and Price Escalation (10 % of Sub-total (3)))	%	10.0		100,813	
	Total				1,108,941	

3 Repair Cost of Non-functional Protected Spring						
	Description	Unit	Q'ty	Unit Price	Amount	Note
				(UGX)	(UGX)	
1	Excavation to formation level	pl	1.0		74,513	
	Sub total Clearing site and access					
2	Earth Works	pl	1.0		237,800	
3	Excavation to formation level, Excavation and Repair of Structure Works	pl	1.0		194,771	
	Provide materials and cast plain in-situ concrete in cement, sand and aggregate mix for basement slab, foundation works, stairs					
	Repair of Over flow pipe GI 2"L=500mm and 110mm diameter strainer PVC pipe, GI pipe 3/4" with tap, etc.					
4	Repair of Fence h=1.8m	pl	1.0		144,216	
	Sub-total (1)				651,300	
5	Engineering Services of Design and Construction Supervision (15 % of Sub-total (1))	%	15.0		97,695	
	Sub-total (2)				748,996	
6	Administration Expenses (3 % of Sub-total (2))	%	3.0		22,470	
	Sub-total (3)				771,465	
7	Contingencies (Physical and Price Escalation (10 % of Sub-total (3)))	%	10.0		77,147	
	Total				848,612	

The replacement of the existing boreholes with hand pump are possible only in case that there is no problem on existing ones, and their costs are estimated for the same specification as those of the boreholes with hand pump to be constructed, but it is assumed that the success rate of drilling borehole is 100 % since the replacement boreholes are usually drilled near the old ones.

(3) Estimated Project Costs

The total project costs are estimated for each term plan and priority district as shown in the following table.

Table 16-73 Summary of Estimated Project Costs

(Unit: UGX)

Proposed Project Works		Short Term Plan (2010 - 2015)	Middle Term Plan (2015 - 2020)	Long Term Plan (2020 - 2035)
I. Iganga District	1. Construction of Boreholes with Hand Pump for the Areas Other than RGC	16,705,789,000	22,265,188,000	111,437,454,000
	2. Repair of Non-functional Water Supply Facilities for the Areas Other than RGC	77,649,000	77,961,000	-
	3. Replacement of Existing Boreholes with Hand Pump for the Areas Other than RGC	7,020,763,000	9,839,267,000	58,289,266,000
	4. Construction of New Piped Water Supply Facilities for RGC Areas	34,728,214,000	6,944,842,000	3,818,608,000
	5. Extension of Existing Piped Water Supply Facilities for RGC Areas	0	4,053,047,000	36,509,684,000
	Total for Iganga District	58,532,415,000	43,180,305,000	210,055,012,000
II. Pallisa District	1. Construction of Boreholes with Hand Pump for the Areas Other than RGC	21,654,908,000	20,017,847,000	90,624,471,000
	2. Repair of Non-functional Water Supply Facilities for the Areas Other than RGC	50,321,000	50,735,000	-
	3. Replacement of Existing Boreholes with Hand Pump for the Areas Other than RGC	6,254,891,000	9,108,279,000	50,687,144,000
	4. Construction of New Piped Water Supply Facilities for RGC Areas	17,752,767,000	8,791,179,000	0
	5. Extension of Existing Piped Water Supply Facilities for RGC Areas	0	2,911,999,000	26,272,041,000
	Total for Pallisa District	45,712,887,000	40,880,039,000	167,583,656,000
III. Soroti District	1. Construction of Boreholes with Hand Pump for the Areas Other than RGC	15,664,205,000	22,683,938,000	115,229,620,000
	2. Repair of Non-functional Water Supply Facilities for the Areas Other than RGC	92,364,000	93,189,000	-
	3. Replacement of Existing Boreholes with Hand Pump for the Areas Other than RGC	6,779,343,000	9,780,214,000	61,411,252,000
	4. Construction of New Piped Water Supply Facilities for RGC Areas	10,190,437,000	3,102,096,000	398,525,000
	5. Extension of Existing Piped Water Supply Facilities for RGC Areas	4,993,799,000	4,406,305,000	15,185,587,000
	Total for Soroti District	37,720,148,000	40,065,742,000	192,224,984,000

The above-tabulated costs are further broken down into those for each sub-county as shown in Table 16-74, Table 16-75 and Table 16-76 for the Iganga, the Pallisa and the Soroti districts, respectively.

Table 16-74 Break-down of Estimated Project Costs for Iganga District

1. Iganga District

A. Construction Cost of Boreholes with HandPump for the Areas Other than RGC

No	Sub-country	Population		Drilling Depth (m)	Static Water Level (m)	Max. Yield (m ³ /h)	Success Rate (%)	Direct Unit Cost		Served Area	Short Term Plan (2010-2015) Estimated Construction Cost (UGX)		Total Project Cost
		2015	2035					Deepwell Cost	Handpump Platform		Direct Cost	Project Cost	
1	Ikumbya	29,949	65,867	65.0	18.0	2.33	68.9	31,329,000	8,673,000	Ikumbya	469,935,000	612,302,000	1,082,237,000
2	Bukoma	24,614	33,837	77.0	24.0	1.74	61.3	38,041,000	8,673,000	Bukoma/Nagebwa	608,656,000	793,048,000	1,401,704,000
3	Bulungo	24,478	56,910	69.0	14.0	1.83	58.9	36,302,000	8,673,000	Nakabugu	471,926,000	614,896,000	1,086,822,000
4	Irongo	22,303	30,275	70.0	12.0	18.23	50.0	41,402,000	8,673,000	Kyanvuma	578,228,000	753,402,000	1,331,630,000
5	Nawampiti	17,736	22,367	71.0	15.0	2.23	68.3	33,405,000	8,673,000	Ikonja	367,455,000	478,775,000	846,230,000
6	Bukanga	26,247	36,089	83.543	14.0	1.63	59.3	34,014,000	8,673,000	Bawologoma	578,238,000	753,415,000	1,331,653,000
7	Waibuga	29,562	34,957	71.213	14.0	1.04	51.0	38,699,000	8,673,000	Waibuga	580,485,000	756,343,000	1,336,828,000
8	Nawandala	20,648	28,157	61.856	12.0	1.26	57.5	34,398,000	8,673,000	Namusi	825,552,000	1,075,653,000	1,901,205,000
9	Nambale	19,912	25,021	48.787	63.0	4.79	80.3	27,811,000	8,673,000	Nambale	333,732,000	434,836,000	768,568,000
10	Nahitende	21,037	28,655	62.489	19.0	3.27	83.7	30,095,000	8,673,000	Bugono	722,280,000	941,095,000	1,663,375,000
11	Namalenba	22,495	26,601	44.507	10.0	4.58	75.9	28,531,000	8,673,000	hil	342,372,000	446,094,000	788,466,000
12	Namungahwe	23,671	55,889	60.0	12.0	2.81	67.3	30,231,000	8,673,000	Namungahwe	362,772,000	472,674,000	835,446,000
13	Buyanga	25,822	35,185	76.900	70.0	11.0	57.5	37,289,000	8,673,000	Kwayi	1,118,670,000	1,457,571,000	2,576,241,000
14	Nakalama	26,842	33,314	63.783	12.0	2.14	66.5	28,542,000	8,673,000	Nakalama	456,672,000	595,021,000	1,051,693,000
15	Bulamagi	43,558	51,507	104.254	15.0	2.01	66.1	30,271,000	8,673,000	hil	666,028,000	867,801,000	1,533,829,000
16	Nakigo	19,998	23,648	44.017	19.998	2.20	69.2	29,046,700	8,673,000	Kabira	290,463,000	378,458,000	668,921,000
17	Ibulanku	35,515	44,831	93.738	13.0	3.38	72.5	30,896,000	8,673,000	Buseza	679,712,000	885,631,000	1,565,343,000
18	Makutu	18,365	24,990	54.139	14.0	1.46	59.3	34,014,000	8,673,000	Noundwe	714,294,000	930,689,000	1,644,983,000
Total		444,461	1,176,773	65.1	14.3	3.2	65.2	33,012,206	8,673,000		10,167,470,000	13,247,704,000	23,415,174,000

No	Sub-country	No of Borehole	Middle Term Plan (2015-2020) Estimated Construction Cost (UGX)		Total Project Cost	Long Term Plan (2020-2035) Estimated Construction Cost (UGX)		Total Project Cost
			Deepwell Cost	Handpump Platform		Direct Cost	Project Cost	
1	Ikumbya	27	845,883,000	234,171,000	1,079,256,000	3,759,480,000	4,898,414,000	5,977,666,000
2	Bukoma	31	1,179,271,000	268,863,000	1,448,134,000	5,630,068,000	7,335,697,000	8,783,735,000
3	Bulungo	15	544,530,000	130,095,000	674,625,000	3,376,086,000	4,398,871,000	5,073,497,000
4	Irongo	27	1,115,154,000	1,452,990,000	2,568,144,000	4,708,428,000	6,134,846,000	8,703,274,000
5	Nawampiti	15	501,075,000	652,876,000	1,153,951,000	5,374,212,000	7,002,330,000	8,156,281,000
6	Bukanga	33	1,122,462,000	1,462,512,000	2,584,974,000	2,638,995,000	3,438,479,000	6,077,454,000
7	Waibuga	18	696,582,000	907,612,000	1,604,194,000	4,682,576,000	6,101,166,000	7,703,760,000
8	Nawandala	25	859,950,000	1,120,472,000	1,980,422,000	3,852,570,000	5,019,714,000	6,999,936,000
9	Nambale	17	472,787,000	147,441,000	620,228,000	2,197,069,000	2,862,671,000	3,482,740,000
10	Nahitende	25	752,375,000	980,307,000	1,732,682,000	3,400,735,000	4,430,988,000	5,163,673,000
11	Namalenba	14	399,434,000	520,443,000	919,877,000	1,711,860,000	2,230,468,000	3,150,345,000
12	Namungahwe	14	423,234,000	551,453,000	974,687,000	2,811,483,000	3,663,222,000	4,634,909,000
13	Buyanga	31	1,155,959,000	1,506,157,000	2,662,116,000	5,183,171,000	6,753,413,000	8,416,584,000
14	Nakalama	23	656,466,000	855,342,000	1,511,808,000	2,911,284,000	3,793,257,000	4,305,061,000
15	Bulamagi	26	787,124,000	1,025,583,000	1,812,707,000	5,328,225,000	6,942,409,000	8,754,834,000
16	Nakigo	12	348,560,400	454,134,000	802,694,400	1,975,175,600	2,573,494,000	3,376,189,000
17	Ibulanku	31	957,776,000	1,247,934,000	2,205,710,000	5,036,048,000	6,561,191,000	8,767,239,000
18	Makutu	22	748,308,000	975,008,000	1,723,316,000	3,299,358,000	4,298,899,000	6,022,255,000
Total		406	13,566,930,400	17,677,010,000	31,243,940,400	67,876,831,600	88,440,057,000	111,437,454,000

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B. Construction Cost for the Repair of Non-Functional Water Supply Facilities for the Areas Other than RGC

No	Sub-Country	Nos of Repair of Non-Functional WSF				Direct Unit Cost(UGX)				Short Term Plan (2010-2015) Estimated Construction Cost (UGX)				Sub-Total			
		2010-2015		2015-2020		2020-2025		Protected Spring		Deep Borehole		Shallow Well			Protected Spring		
		No of BH	Direct Cost	No of BH	Direct Cost	No of BH	Direct Cost	No of BH	Direct Cost	No of BH	Direct Cost	No of SW	Direct Cost		No of PS	Direct Cost	Project Cost
1	Kumbya	2	1,792,500	2	1,792,500	2	1,792,500	651,300	2	1,792,500	2,336,000	0	0	0	0	0	2,336,000
2	Bukkoma	7	8,186,000	8	6,283,100	8	8,186,000	651,300	6	5,377,400	7,006,000	1	851,100	1,109,000	0	0	8,115,000
3	Bulungo	2	1,168,000	1	896,200	1	1,168,000	651,300	1	896,200	1,168,000	1	851,100	1,109,000	0	0	2,277,000
4	Irongo	4	3,445,000	3	2,688,700	3	3,445,000	651,300	2	1,792,500	2,336,000	1	851,100	1,109,000	1	651,300	4,294,000
5	Nawampiti	5	4,436,000	6	5,106,600	6	4,436,000	651,300	1	896,200	1,168,000	4	3,404,400	4,436,000	0	0	5,604,000
6	Bukanga	2	2,336,000	1	896,200	1	2,336,000	651,300	1	896,200	1,168,000	1	851,100	1,109,000	0	0	2,277,000
7	Waibuga	4	3,503,000	5	4,436,000	5	3,503,000	651,300	2	1,792,500	2,336,000	2	1,702,200	2,218,000	0	0	4,554,000
8	Nawandala	2	2,336,000	4	3,503,000	4	2,336,000	651,300	2	1,792,500	2,336,000	0	0	0	0	0	2,336,000
9	Nambale	4	5,106,600	4	3,503,000	4	5,106,600	651,300	2	1,792,500	2,336,000	1	851,100	1,109,000	1	651,300	4,294,000
10	Nabitende	2	2,336,000	1	896,200	1	2,336,000	651,300	1	896,200	1,168,000	1	851,100	1,109,000	0	0	2,277,000
11	Namalenba	3	4,436,000	3	2,688,700	3	4,436,000	651,300	1	896,200	1,168,000	1	851,100	1,109,000	1	651,300	3,126,000
12	Namungalwe	3	4,436,000	1	896,200	1	4,436,000	651,300	1	896,200	1,168,000	1	851,100	1,109,000	1	651,300	3,126,000
13	Boyanga	2	2,336,000	2	1,792,500	2	2,336,000	651,300	2	1,792,500	2,336,000	0	0	0	0	0	2,336,000
14	Nakalama	3	4,436,000	2	1,792,500	2	4,436,000	651,300	2	1,792,500	2,336,000	1	851,100	1,109,000	0	0	3,445,000
15	Bulanagi	10	11,090,000	11	11,090,000	11	11,090,000	651,300	3	2,688,700	3,503,000	6	5,106,600	6,654,000	1	651,300	11,006,000
16	Nakigo	5	4,436,000	5	4,436,000	5	4,436,000	651,300	3	2,688,700	3,503,000	2	1,702,200	2,218,000	0	0	5,721,000
17	Ibulanku	6	8,186,000	8	6,283,100	8	8,186,000	651,300	2	1,792,500	2,336,000	3	2,553,300	3,327,000	1	651,300	6,492,000
18	Makutu	4	5,106,600	2	1,792,500	2	5,106,600	651,300	2	1,792,500	2,336,000	0	0	0	0	0	4,033,000
		70	35,858,800	69	22,127,100	69	35,858,800	28,832,000	36	32,264,500	42,039,000	26	22,128,600	28,834,000	8	5,210,400	77,649,000

No	Sub-Country	Middle Term Plan 2015-2020 Estimated Project Cost (UGX)				Protected Spring				Sub-Total
		Deep Borehole		Shallow Well		Direct Cost		Project Cost		
		No of BH	Direct Cost	No of SW	Direct Cost	No of PS	Direct Cost	No of PS	Project Cost	
1	Kumbya	2	1,792,500	0	0	0	0	0	0	2,336,000
2	Bukkoma	7	8,186,000	1	851,100	1,109,000	0	0	0	9,295,000
3	Bulungo	1	896,200	0	0	0	0	0	0	1,168,000
4	Irongo	2	1,792,500	1	851,100	1,109,000	0	0	0	3,445,000
5	Nawampiti	2	1,792,500	4	3,404,400	4,436,000	0	0	0	6,772,000
6	Bukanga	0	0	1	851,100	1,109,000	0	0	0	1,109,000
7	Waibuga	3	2,688,700	2	1,702,200	2,218,000	0	0	0	5,721,000
8	Nawandala	3	2,688,700	0	0	0	0	0	0	4,352,000
9	Nambale	3	2,688,700	1	851,100	1,109,000	0	0	0	4,612,000
10	Nabitende	1	896,200	0	0	0	0	0	0	1,168,000
11	Namalenba	1	896,200	2	1,702,200	2,218,000	0	0	0	3,386,000
12	Namungalwe	0	0	1	851,100	1,109,000	0	0	0	1,109,000
13	Boyanga	2	1,792,500	0	0	0	0	0	0	2,336,000
14	Nakalama	1	896,200	1	851,100	1,109,000	0	0	0	2,277,000
15	Bulanagi	4	3,584,900	7	5,957,700	7,763,000	0	0	0	12,434,000
16	Nakigo	4	3,584,900	1	851,100	1,109,000	0	0	0	5,780,000
17	Ibulanku	2	1,792,500	4	3,402,900	4,434,000	2	1,290,600	1,682,000	8,325,000
18	Makutu	2	1,792,500	0	0	0	0	0	0	2,336,000
		40	35,858,800	26	22,127,100	28,832,000	3	1,941,900	2,531,000	77,961,000

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D. Construction of New/Extension of Existing Piped Water Supply Facilities for RGC Areas

No	Sub-Country	RGC	Population		Power Sources	Short Term Plan (2010-2015) Estimated Construction				Middle Term Plan 2015-2020 Estimated Project Cost (UGX)				Long Term Plan (2020-2035) Estimated Construction Cost (UGX)						
			2015	2020		Intake/Transmission Direct	Intake/Transmission Project	Distribution Direct	Distribution Project	Total Project	Intake/Transmission Direct Cost	Intake/Transmission Project Cost	Distribution Direct Cost	Distribution Project Cost	Total Project Cost	Intake/Transmission Direct Cost	Intake/Transmission Project Cost	Distribution Direct Cost	Distribution Project Cost	Total Project Cost
1	Ikumbya		1,508	1,783	DG	262,073,248	395,691,000	442,351,923	662,820,000	1,055,511,000	3,761,000	5,653,000	18,018,308	26,999,000	32,634,000	256,048,384	383,663,000	367,651,269	550,889,000	934,552,000
2	Bukoma		2,553	2,995	EP	490,372,490	734,774,000	542,883,962	813,457,000	1,548,231,000	0	0	17,616,811	26,397,000	26,397,000	248,086,584	371,733,000	512,107,379	767,342,000	1,139,075,000
			1,942	2,296	EP	218,096,745	326,796,000	479,094,510	717,875,000	1,044,671,000	0	0	18,018,308	26,999,000	26,999,000	220,628,284	330,589,000	378,795,561	567,587,000	898,176,000
3	Bulongo		5,814	6,874	EP	424,132,480	633,530,000	694,877,652	1,041,285,000	1,626,725,000	214,228,984	321,001,000	54,202,750	81,217,000	402,218,000	428,457,970	642,001,000	564,501,485	845,849,000	1,487,850,000
			2,050	2,425	EP	152,337,245	228,562,000	435,923,275	653,187,000	881,749,000	0	0	17,904,563	26,828,000	26,828,000	230,595,384	345,524,000	414,525,571	621,125,000	966,649,000
			2,515	2,974	EP	270,998,245	406,064,000	534,803,433	801,349,000	1,207,413,000	0	0	21,767,284	32,616,000	32,616,000	276,111,384	413,725,000	508,673,001	762,196,000	1,175,921,000
5	Nawampiti		0	2,532	DG	0	0	0	0	0	693,742,690	1,039,504,000	473,852,406	710,020,000	1,749,524,000	342,874,984	513,764,000	432,839,380	648,567,000	1,162,331,000
			2,485	2,938	DG	202,466,245	303,375,000	528,424,068	791,791,000	1,095,166,000	194,228,584	291,032,000	21,409,411	32,080,000	323,112,000	201,751,584	302,305,000	502,414,179	752,817,000	1,035,122,000
6	Bukanga		2,262	2,674	DG	586,553,480	878,892,000	481,004,121	720,737,000	1,399,620,000	3,510,000	5,259,000	19,422,946	29,103,000	34,362,000	306,524,984	459,297,000	457,382,555	685,342,000	1,144,639,000
			2,280	2,696	DG	540,779,480	810,304,000	484,831,740	726,472,000	1,336,776,000	3,510,000	5,259,000	19,712,528	29,537,000	34,796,000	273,570,384	409,918,000	460,846,389	690,532,000	1,100,450,000
			2,231	2,639	EP	461,072,480	690,871,000	474,412,111	710,859,000	1,401,730,000	232,698,984	348,676,000	19,464,864	29,166,000	377,842,000	574,335,585	860,584,000	451,153,188	676,008,000	1,536,592,000
			1,972	2,332	DG	259,373,245	388,645,000	544,921,513	816,310,000	1,205,155,000	265,782,584	398,249,000	17,811,075	26,688,000	424,937,000	269,670,584	404,074,000	438,105,065	656,457,000	1,060,531,000
7	Waibuga		0	0	DG	0	0	0	0	0	0	0	0	0	0	459,472,490	688,474,000	302,856,987	453,801,000	1,142,275,000
8	Nawandala		1,960	2,318	EP	509,948,480	764,107,000	541,605,561	811,542,000	1,575,649,000	0	0	17,748,701	26,595,000	26,595,000	257,874,584	386,399,000	435,254,111	652,185,000	1,038,584,000
			0	1,811	EP	0	0	0	0	0	446,362,490	668,830,000	437,010,599	654,817,000	1,323,647,000	427,084,769	639,944,000	340,351,634	509,983,000	1,149,927,000
9	Nambale		5,715	6,760	EP	306,744,480	459,626,000	848,947,974	1,272,064,000	1,731,690,000	0	0	49,064,404	73,518,000	73,518,000	413,473,169	619,548,000	663,847,207	994,709,000	1,614,257,000
			17,459	20,645	EP	538,536,735	806,898,000	2,086,664,762	3,126,688,000	3,933,556,000	256,492,785	384,329,000	163,082,823	244,363,000	628,692,000	1,025,971,136	1,537,315,000	1,694,927,150	2,539,679,000	4,076,994,000
10	Nabitende		0	0	EP	0	0	0	0	0	0	0	0	0	0	463,973,168	693,719,000	579,840,877	868,834,000	1,562,553,000
			2,822	3,337	EP	353,748,480	500,057,000	600,085,601	899,168,000	1,429,225,000	0	0	24,418,933	36,589,000	36,589,000	174,611,384	261,638,000	570,699,784	855,137,000	1,116,775,000
11	Namalumbi		0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	Namungu		14,474	17,115	EP	554,639,235	831,071,000	1,735,473,283	2,600,433,000	3,431,504,000	0	0	141,828,829	212,516,000	212,516,000	828,932,652	1,242,073,000	1,411,757,639	2,115,378,000	3,357,451,000
13	Buyanga		3,033	3,587	EP	613,665,735	919,517,000	468,101,088	701,403,000	1,620,920,000	205,980,385	308,641,000	20,211,570	30,285,000	338,926,000	214,134,000	320,858,000	387,461,768	580,573,000	901,431,000
14	Nakalama		6,905	8,165	EP	423,341,680	634,335,000	825,271,790	1,236,587,000	1,870,922,000	329,613,464	493,893,000	64,492,755	96,636,000	590,529,000	988,840,392	1,481,678,000	670,424,516	1,004,564,000	2,486,242,000
15	Bulamaigi		0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	Nakigo		0	2,852	EP	0	0	0	0	0	399,766,768	599,011,000	533,738,966	799,754,000	1,398,765,000	199,883,384	299,505,000	487,751,350	730,847,000	1,030,352,000
			0	1,954	EP	0	0	0	0	0	364,030,490	545,463,000	471,517,786	706,522,000	1,251,985,000	474,586,330	711,120,000	367,099,034	550,061,000	1,261,181,000
			0	0	EP	0	0	0	0	0	0	0	0	0	0	460,351,445	689,791,000	282,961,273	423,989,000	1,113,780,000
17	Ibulanku		4,825	5,705	EP	401,944,480	603,274,000	744,671,200	1,115,815,000	1,718,080,000	0	0	31,973,270	47,909,000	47,909,000	403,319,569	604,334,000	616,237,027	923,370,000	1,527,704,000
			0	3,658	EP	0	0	0	0	0	316,838,490	474,751,000	497,978,172	746,170,000	1,220,921,000	35,689,000	53,476,000	395,220,193	592,198,000	645,674,000
			2,750	3,252	EP	454,663,480	680,668,000	848,775,125	876,227,000	1,556,855,000	0	0	23,822,041	35,695,000	35,695,000	231,876,084	347,443,000	556,066,411	833,210,000	1,180,653,000
18	Miakutu		4,264	5,042	EP	414,339,735	620,928,000	658,088,704	986,080,000	1,607,008,000	184,819,800	276,934,000	28,298,924	42,403,000	319,337,000	430,243,570	644,677,000	544,510,300	815,894,000	1,460,571,000
			91,819	12,807	EP	0	0	21	34,728,214,000	0	0	0	0	0	0	0	0	0	0	0
			0	108,552	EP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
			91,819	121,359	EP	0	0	21	34,728,214,000	0	0	0	0	0	0	0	0	0	0	

Table 16-75 Break-down of Estimated Project Costs for Pallisa District

No	Sub-Country	Population		Drilling Depth (m)	Static Water Level (m)	Max Yield (m ³ /h)	Success Rate (%)	Direct Unit Cost		Handpump, Platform	Served Area	No of Borehole	2010-2015 Preliminary Construction Cost (UGX)		Total Project Cost	
		2015	2035					Deepwell Cost	Project Cost				Direct Cost	Platform Project Cost		
		2020	2035					Deepwell Cost	Project Cost				Direct Cost	Platform Project Cost		
1	Gogonyo	15,468	21,768	47,496	8.0	2.04	63.8	32,668,000	8,673,000	8,673,000	Kapala	22	718,696,000	190,806,000	248,611,000	1,185,036,000
2	Apile	18,468	26,163	59,108	10.0	1.23	57.2	35,977,000	8,673,000	8,673,000	Apile	26	935,402,000	225,498,000	293,813,000	1,512,595,000
3	Kameke	19,621	26,619	57,340	11.0	2.01	64.9	36,883,000	8,673,000	8,673,000	Kameke	28	1,032,724,000	1,345,588,000	242,844,000	1,662,002,000
4	Kibale	19,891	27,945	60,410	7.0	1.50	64.6	34,696,000	8,673,000	8,673,000	Kibale Pallisa	28	971,488,000	1,265,800,000	242,844,000	1,582,214,000
5	Butebo	21,645	27,341	55,104	9.0	1.23	56.7	36,569,000	8,673,000	8,673,000	Butebo	15	548,535,000	714,714,000	130,095,000	884,221,000
6	Kakoro	13,410	17,181	42,269	64.0	3.44	76.1	29,065,000	8,673,000	8,673,000		10	290,650,000	378,702,000	86,730,000	491,707,000
7	Kabwangsashi	22,693	26,937	45,549	74.0	1.65	61.0	37,140,000	8,673,000	8,673,000		12	445,680,000	580,699,000	104,076,000	716,305,000
8	Apopong	16,727	23,633	52,651	59.0	2.43	63.2	31,205,000	8,673,000	8,673,000		27	1,097,781,000	234,171,000	305,113,000	1,402,894,000
9	Kasodo	24,916	34,228	64,841	67.0	2.73	64.2	33,521,000	8,673,000	8,673,000		36	1,206,756,000	1,572,343,000	312,228,000	1,979,160,000
10	Pallisa	11,254	14,332	32,543	58.0	1.41	60.1	31,953,000	8,673,000	8,673,000		11	351,483,000	457,965,000	95,403,000	582,270,000
11	Puti-Puti	17,783	22,557	48,472	64.0	1.73	67.5	31,444,000	8,673,000	8,673,000	Boliso TTC	16	503,104,000	655,519,000	138,768,000	836,327,000
12	Kamuge	16,731	19,860	39,653	55.0	1.38	61.4	30,458,000	8,673,000	8,673,000	Kamuge	14	426,412,000	555,594,000	121,422,000	713,801,000
13	Petele	18,902	22,437	43,656	55.0	1.51	73.1	27,133,000	8,673,000	8,673,000	Petele	10	271,330,000	353,529,000	86,730,000	466,534,000
14	Buseta	22,054	30,223	56,365	60.0	1.77	64.7	31,042,000	8,673,000	8,673,000	Buseta	32	993,344,000	1,294,278,000	277,536,000	1,655,894,000
15	Kibuka	11,547	16,228	35,139	60.0	1.52	61.7	32,063,000	8,673,000	8,673,000		18	577,134,000	751,977,000	156,114,000	955,386,000
16	Trinyi	17,690	20,998	39,557	73.0	3.50	59.1	37,628,000	8,673,000	8,673,000		15	564,420,000	735,411,000	130,095,000	904,918,000
17	Kirika	15,232	19,288	40,387	66.0	1.56	59.1	35,154,000	8,673,000	8,673,000	Nabisuwa	14	492,156,000	641,255,000	121,422,000	799,462,000
18	Kadama	16,578	19,679	38,988	73.0	1.49	59.9	37,271,000	8,673,000	8,673,000	Kadama	14	521,794,000	679,871,000	121,422,000	838,078,000
19	Kigunnu	16,883	23,502	48,237	66.0	1.34	54.0	37,497,700	8,673,000	8,673,000	Kigunnu	26	974,940,200	1,270,298,000	225,498,000	1,564,282,000
20	Bulangira	17,422	22,074	46,598	60.0	1.14	53.3	35,545,000	8,673,000	8,673,000	Bulangira	16	568,720,000	741,014,000	138,768,000	921,822,000
Total		354,915	462,993	954,563	10.0	1.8	62.3	33,745,635	8,673,000	8,673,000		390	13,237,303,200	17,247,545,000	3,382,470,000	21,654,908,000

2. Pallisa District

A. Construction Cost of Bore holes with HandPump for the Areas Other than RGC

No	Sub-Country	No of Borehole	Deepwell Cost		Handpump, Platform	Direct Cost	Platform Project Cost	Total Project Cost	No of Borehole	Deepwell Cost		Handpump, Platform	Direct Cost	Platform Project Cost	Total Project Cost		
			Direct Cost	Project Cost						Direct Cost	Project Cost					Direct Cost	Platform Project Cost
			Direct Cost	Project Cost						Direct Cost	Project Cost					Direct Cost	Platform Project Cost
1	Gogonyo	21	686,028,000	893,860,000	182,133,000	237,310,000	1,131,170,000	86	2,809,448,000	3,660,570,000	745,878,000	971,842,000	4,632,412,000				
2	Apile	26	935,402,000	1,218,782,000	225,498,000	293,813,000	1,512,595,000	110	3,957,470,000	5,156,386,000	954,030,000	1,243,053,000	6,399,439,000				
3	Kameke	23	848,309,000	1,105,304,000	199,479,000	259,911,000	1,565,215,000	102	3,762,066,000	4,901,784,000	884,646,000	1,152,650,000	6,054,434,000				
4	Kibale	27	936,792,000	1,220,593,000	234,171,000	305,113,000	1,525,706,000	108	3,747,168,000	4,882,373,000	936,684,000	1,220,452,000	6,102,825,000				
5	Butebo	19	694,811,000	905,304,000	164,787,000	214,709,000	1,120,013,000	93	3,400,917,000	4,431,225,000	806,589,000	1,050,945,000	5,482,170,000				
6	Kakoro	13	377,845,000	492,313,000	112,749,000	146,906,000	639,219,000	84	2,441,460,000	3,181,100,000	728,532,000	949,241,000	4,130,341,000				
7	Kabwangsashi	14	519,960,000	677,482,000	121,422,000	158,207,000	835,689,000	62	3,302,680,000	3,943,880,000	537,726,000	700,630,000	3,700,907,000				
8	Apopong	23	717,715,000	935,147,000	199,479,000	259,911,000	1,195,058,000	97	3,302,680,000	3,943,880,000	841,281,000	1,096,147,000	5,040,027,000				
9	Kasodo	31	1,039,151,000	1,353,962,000	268,863,000	350,315,000	1,704,277,000	102	3,419,142,000	4,454,971,000	884,646,000	1,152,650,000	5,607,621,000				
10	Pallisa	10	319,530,000	416,332,000	86,730,000	113,005,000	539,337,000	61	1,949,133,000	2,539,053,000	529,053,000	689,330,000	3,228,953,000				
11	Puti-Puti	16	503,104,000	655,519,000	138,768,000	180,808,000	856,327,000	86	2,704,184,000	3,523,417,000	745,878,000	971,842,000	4,495,259,000				
12	Kamuge	10	304,580,000	396,853,000	86,730,000	113,005,000	509,858,000	66	2,010,228,000	2,619,227,000	572,418,000	745,878,000	3,365,059,000				
13	Petele	12	325,596,000	424,235,000	104,076,000	135,606,000	539,841,000	71	1,926,443,000	2,510,059,000	615,783,000	802,334,000	3,312,393,000				
14	Buseta	27	838,134,000	1,092,047,000	234,171,000	305,113,000	1,397,160,000	87	2,700,654,000	3,518,817,000	754,551,000	933,142,000	4,501,959,000				
15	Kibuka	16	513,008,000	668,424,000	138,768,000	180,808,000	849,232,000	63	2,019,969,000	2,631,919,000	546,399,000	711,931,000	3,343,850,000				
16	Trinyi	11	413,908,000	539,301,000	95,403,000	124,305,000	663,606,000	62	2,332,936,000	3,039,699,000	537,726,000	700,630,000	3,740,329,000				
17	Kirika	14	492,156,000	641,255,000	121,422,000	158,207,000	799,462,000	70	2,460,780,000	3,206,273,000	607,110,000	791,034,000	3,997,307,000				
18	Kadama	10	372,710,000	485,622,000	86,730,000	113,005,000	598,623,000	64	2,385,344,000	3,107,984,000	555,072,000	723,231,000	3,831,215,000				
19	Kigunnu	22	824,949,000	1,074,863,000	190,808,000	248,770,000	1,323,633,000	82	3,074,811,400	4,006,265,000	711,886,000	927,371,000	4,933,636,000				
20	Bulangira	16	568,720,000	741,014,000	138,768,000	180,808,000	921,822,000	82	2,914,690,000	3,797,693,000	711,886,000	926,640,000	4,724,335,000				
Total		361	12,232,408,400	15,938,212,000	3,130,933,000	4,079,635,000	20,017,847,000	1,638	55,346,408,400	72,113,544,000	14,206,374,000	18,510,927,000	90,624,471,000				

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B. Construction Cost for the Repair of Non-Functional Water Supply Facilities for the Areas Other than RGC

No	Sub-Country	Nos of Repair of Non-Functional WSF				Direct Unit Cost				Short Term Plan 2010-2015 Estimated Project Cost (UGX)				Sub-Total		
		2010-2015		2015-2020		2020-2035		Deep Borehole		Shallow Well		Protected Spring			Project Cost	Sub-Total
		No of BH	Project Cost	No of BH	Project Cost	No of BH	Project Cost	No of BH	Project Cost	No of SW	Direct Cost	No of PS	Direct Cost			
1	Gogonyo	3	2	896,225	851,100	651,300	1,168,000	1	896,200	2	1,702,200	2,218,000	0	0	3,386,000	
2	Agale	5	4	896,225	851,100	651,300	3,503,000	3	2,688,700	1	851,100	1,109,000	1	651,000	5,460,000	
3	Kameke	3	4	896,225	851,100	651,300	896,200	1	896,200	1	851,100	1,109,000	1	651,000	3,125,000	
4	Kibale	7	7	896,225	851,100	651,300	896,225	2	1,792,500	2	3,336,000	2,336,000	4	2,605,000	6,839,000	
5	Butebo	4	4	896,225	851,100	651,300	896,225	3	2,688,700	3	3,503,000	1,109,000	0	0	4,612,000	
6	Kakoro	1	1	896,225	851,100	651,300	896,225	1	896,200	0	0	0	1	651,000	848,000	
7	Kabwagashi	1	1	896,225	851,100	651,300	896,225	1	896,200	1	1,168,000	1,168,000	0	0	1,168,000	
8	Apopong	0	0	896,225	851,100	651,300	896,225	0	0	0	0	0	0	0	0	
9	Kasodo	0	1	896,225	851,100	651,300	896,225	0	0	0	0	0	0	0	0	
10	Pallisa	1	3	896,225	851,100	651,300	896,225	0	0	0	0	0	1	651,000	848,000	
11	Puti-Puti	1	0	896,225	851,100	651,300	896,225	0	0	0	0	0	1	651,000	848,000	
12	Kamuge	5	5	896,225	851,100	651,300	896,225	3	2,688,700	3	3,503,000	1,688,000	2	1,303,000	5,191,000	
13	Petete	3	3	896,225	851,100	651,300	896,225	2	1,792,500	2	2,336,000	1,109,000	0	0	3,445,000	
14	Buseba	1	2	896,225	851,100	651,300	896,225	1	896,200	1	1,168,000	1,168,000	0	0	1,168,000	
15	Kibuku	0	0	896,225	851,100	651,300	896,225	0	0	0	0	0	0	0	0	
16	Trinyi	3	3	896,225	851,100	651,300	896,225	2	1,792,500	2	2,336,000	1,109,000	0	0	3,445,000	
17	Kirika	0	0	896,225	851,100	651,300	896,225	0	0	0	0	0	0	0	0	
18	Kadama	3	3	896,225	851,100	651,300	896,225	2	1,792,500	2	2,336,000	1,109,000	1	651,000	3,184,000	
19	Kigumu	3	0	896,225	851,100	651,300	896,225	1	896,200	1	1,179,000	1,109,000	1	651,000	3,309,000	
20	Bulangira	3	4	896,225	851,100	651,300	896,225	2	1,792,500	2	2,336,000	1,109,000	0	0	3,445,000	
		47	47					24	21,509,600	28,040,000	10	8,511,000	11,090,000	13	8,465,000	50,321,000

No	Sub-Country	Middle Term Plan 2015-2020 Estimated Project Cost (UGX)				Protected Spring				Sub-Total	
		Deep Borehole		Shallow Well		Protected Spring		Project Cost	Sub-Total		
		No of BH	Project Cost	No of SW	Direct Cost	No of PS	Direct Cost				
1	Gogonyo	0	0	2	1,702,200	2,218,000	0	0	0	2,218,000	
2	Agale	3	2,688,700	0	0	0	1	651,300	849,000	4,352,000	
3	Kameke	2	1,792,500	2	1,702,200	2,218,000	0	0	0	4,554,000	
4	Kibale	2	1,792,500	0	0	0	5	3,256,500	4,243,000	6,579,000	
5	Butebo	4	3,584,900	0	0	0	0	0	0	4,671,000	
6	Kakoro	0	0	0	0	0	1	651,300	849,000	849,000	
7	Kabwagashi	1	896,200	1,168,000	0	0	0	0	0	1,168,000	
8	Apopong	0	0	0	0	0	0	0	0	0	
9	Kasodo	1	896,200	1,168,000	0	0	0	0	0	1,168,000	
10	Pallisa	1	896,200	1,168,000	1	851,100	1,109,000	1	651,300	3,126,000	
11	Puti-Puti	0	0	0	0	0	0	0	0	0	
12	Kamuge	2	1,792,500	2,336,000	0	0	0	3	1,953,900	4,882,000	
13	Petete	2	1,792,500	2,336,000	1	851,100	1,109,000	0	0	3,445,000	
14	Buseba	1	896,200	1,168,000	1	851,100	1,109,000	0	0	2,277,000	
15	Kibuku	0	0	0	0	0	0	0	0	0	
16	Trinyi	3	2,688,700	3,503,000	0	0	0	0	0	3,503,000	
17	Kirika	0	0	0	0	0	0	0	0	0	
18	Kadama	2	1,792,500	2,346,000	0	0	0	1	651,300	3,331,000	
19	Kigumu	0	0	0	0	0	0	0	0	0	
20	Bulangira	3	2,688,700	3,503,000	1	851,100	1,109,000	0	0	4,612,000	
		27	24,198,300	31,542,000	8	6,808,800	8,872,000	12	7,815,600	10,178,000	50,735,000

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D. Construction of New Extension of Existing Piped Water Supply Facilities for RGC Areas

No	Sub-Country	RGC	Population		Power Source	Short Term Plan (2010-2015) Estimated Construction Cost (UGX)			Middle Term Plan 2015-2020 Estimated Project Cost (UGX)			Long Term Plan (2020-2035) Estimated Construction Cost (UGX)			Total Project Cost	Total Project Cost			
			2015	2020		2035	Direct Cost	Intake/Transmission Project Cost	Distribution Project Cost	Total Project Cost	Direct Cost	Intake/Transmission Project Cost	Distribution Project Cost	Total Project Cost			Direct Cost	Intake/Transmission Project Cost	Distribution Project Cost
1	Gogonyo		0	447		0	0	0	288,128,061	431,731,000	0	431,731,000	0	183,378,824	0	0	0	0	
		Kapala	2,574	3,055	5,110	562,078,000	820,149,000	1,382,227,000	547,349,317	0	0	24,379,986	36,653,000	0	274,775,000	555,101,607	801,796,000	0	0
2	Aaule		2,988	3,546	5,932	665,500,000	952,061,000	1,617,561,000	635,384,754	223,405,384	28,233,189	42,305,000	377,190,000	0	346,811,000	621,259,189	930,895,000	0	930,895,000
3	Kamake		3,194	3,663	6,127	689,793,000	931,192,000	1,620,985,000	621,457,738	0	18,018,308	26,999,000	26,999,000	231,454,764	555,568,721	836,959,000	0	0	1,185,770,000
4	Kibale	Palisa	2,833	3,363	5,625	699,865,000	902,673,000	1,603,538,000	602,424,702	136,616,384	26,948,015	40,375,000	245,081,000	656,262,385	953,376,000	310,765,679	882,573,000	0	1,835,949,000
5	Butebo		1,338	1,612	2,696	404,281,000	562,283,000	966,564,000	375,255,281	26,020,384	13,794,827	20,580,000	425,680,000	2,609,203,841	403,100,000	465,651,000	0	868,751,000	
6	Apyopong		0	1,758	2,941	0	0	0	520,135,528	779,372,000	424,221,222	63,653,000	1,415,035,000	389,686,000	339,125,131	508,145,000	0	897,851,000	
7	Poti-Poti	Boliso TTC	1,253	1,487	2,488	305,236,000	518,807,000	824,033,000	346,240,698	202,913,284	18,859,000	322,905,000	2,419,000,420	3,624,630,000	304,046,000	286,942,210	429,954,000	734,000,000	0
8	Kamuge		0	3,114	5,208	0	0	0	622,114,455	932,176,000	423,912,276	635,204,000	1,567,380,000	1,978,627,000	384,701,742	517,990,000	0	4,141,720,000	
9	Perete		6,666	7,913	13,235	989,581,000	1,193,786,000	2,183,367,000	796,706,988	70,181,083	718,106,850	1,076,011,000	1,217,694,000	1,320,493,000	1,978,627,000	876,117,000	999,652,000	2,854,744,000	0
10	Buseeta		2,839	3,370	5,637	723,115,000	981,478,000	1,704,593,000	482,591,690	0	18,018,308	26,999,000	26,999,000	3,651,019,000	666,693,133	998,973,000	0	1,829,376,000	
		Buseeta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,363,992,000
11	Kirikia	Nabisawa	2,074	2,462	4,117	392,075,000	640,835,000	1,053,910,000	441,026,767	264,861,284	19,735,454	29,557,000	426,435,000	396,868,000	364,861,284	430,994,096	645,802,000	0	1,042,670,000
12	Kidana	Kiwere	1,562	1,854	3,100	675,544,000	646,799,800	1,322,293,800	451,656,773	0	15,760,413	23,615,000	23,615,000	3,363,718,000	357,228,447	535,271,000	0	871,642,000	
		Kidana	0	0	0	0	0	0	0	0	0	0	0	1,774,506,169	2,658,920,000	1,283,728,629	0	4,582,499,000	
13	Kigumu		0	2,784	4,902	0	0	0	546,779,874	819,295,000	618,328,732	926,504,000	1,745,799,000	50,405,400	75,527,000	578,608,394	866,987,000	942,514,000	0
14	Bulangira		0	2,951	4,902	0	0	0	454,973,290	681,732,000	548,523,461	821,908,000	1,503,640,000	2,309,977,064	346,096,000	513,254,641	769,061,000	1,115,157,000	0
		New Sub Total	40,229	10,594	0	0	0	17,752,767,000	0	0	6	8,791,179,000	0	0	0	0	0	0	26,272,041,000
		Extension Sub Total	0	53,338	105,060	0	0	17,752,767,000	0	0	11	2,911,999,000	0	0	0	0	0	0	26,272,041,000
		Grand Total	40,229	63,932	105,060	0	0	17,752,767,000	0	0	17	11,703,178,000	0	0	0	0	0	0	26,272,041,000

B. Construction Cost for the Repair of Non-Functional Water Supply Facilities for the Areas Other than RGC

No	Sub-Country	Nos of Repair of Non-Functional WSP				Direct Unit Cost				Short Term Plan 2010-2015 Estimated Project Cost (UGX)				Sub-Total					
		2010-2015		2015-2020		2020-2035		Deep Borehole		Shallow Well		Protected Spring			Project Cost				
		No of BH	Cost	No of SW	Cost	No of PS	Cost	No of BH	Direct Cost	No of SW	Direct Cost	No of PS	Direct Cost		No of SW	Direct Cost	No of PS	Direct Cost	
1	Tubar	11		11				896,225	851,100	651,300	651,300	7	6,273,600	8,174,000	0	0	2,605,000	3,394,000	11,568,000
2	Katine	3		3				896,225	851,100	651,300	651,300	2	1,792,500	2,336,000	0	0	0	0	3,445,000
3	Arapai	9		9				896,225	851,100	651,300	651,300	4	3,584,900	4,671,000	3	2,553,300	3,327,000	1,698,000	9,732,000
4	Kamuda	8		8				896,225	851,100	651,300	651,300	2	1,792,500	2,336,000	5	4,255,500	5,545,000	848,000	8,729,000
5	Soroti	7		7				896,225	851,100	651,300	651,300	2	1,792,500	2,336,000	4	3,404,400	4,436,000	848,000	7,620,000
6	Gweri	5		5				896,225	851,100	651,300	651,300	3	2,688,700	3,503,000	1	851,100	1,109,000	848,000	5,460,000
7	Asuret	4		4				896,225	851,100	651,300	651,300	3	2,688,700	3,503,000	0	0	0	0	4,612,000
8	Atira	1		1				896,225	851,100	651,300	651,300	0	0	0	0	0	0	0	1,090,000
9	Olobo	2		2				896,225	851,100	651,300	651,300	1	896,200	1,168,000	1	851,100	1,109,000	0	2,277,000
10	Kyere	4		4				896,225	851,100	651,300	651,300	1	896,200	1,168,000	2	1,702,200	2,218,000	848,000	4,234,000
11	Kateta	10		9				896,225	851,100	651,300	651,300	5	4,481,100	5,839,000	4	3,404,400	4,436,000	848,000	11,123,000
12	Bugondo	3		2				896,225	851,100	651,300	651,300	0	0	0	0	0	0	0	3,327,000
13	Kadungulu	6		7				896,225	851,100	651,300	651,300	2	1,792,500	2,347,000	4	3,404,400	4,432,000	0	6,779,000
14	Pingire	11		11				896,225	851,100	651,300	651,300	7	6,273,600	8,174,000	3	2,553,300	3,327,000	848,000	12,349,000
		84		84								39	34,953,000	45,555,000	33	28,086,300	36,593,000	10,180,000	92,364,000

Middle Term Plan 2015-2020 Estimated Project Cost (UGX)

No	Sub-Country	Deep Borehole				Shallow Well				Protected Spring				Sub-Total		
		No of BH		Project Cost		No of SW		Project Cost		No of PS		Project Cost			Project Cost	
		No of BH	Direct Cost	No of SW	Project Cost	No of PS	Direct Cost	No of SW	Project Cost	No of PS	Direct Cost	No of SW	Project Cost		No of PS	Project Cost
1	Tubar	7	6,273,600	0	8,174,000	0	0	0	0	4	2,605,200	3,399,000	11,541,000			
2	Katine	2	1,792,500	0	2,336,000	0	0	0	0	0	0	0	3,445,000			
3	Arapai	4	3,584,900	4,671,000	4,671,000	4,671,000	1	1,090,000	4,436,000	1	651,300	849,000	9,956,000			
4	Kamuda	3	2,688,700	3,503,000	3,503,000	3,503,000	4	3,404,400	4,436,000	1	651,300	849,000	8,788,000			
5	Soroti	3	2,688,700	3,503,000	3,503,000	3,503,000	4	3,404,400	4,436,000	1	651,300	849,000	8,788,000			
6	Gweri	3	2,688,700	3,503,000	3,503,000	3,503,000	2	1,702,200	2,218,000	1	651,300	849,000	6,570,000			
7	Asuret	3	2,688,700	3,503,000	3,503,000	3,503,000	2	1,702,200	2,218,000	0	0	0	5,721,000			
8	Atira	0	0	0	0	0	0	0	0	0	0	0	0			
9	Olobo	2	1,792,500	2,336,000	2,336,000	2,336,000	0	0	0	0	0	0	2,336,000			
10	Kyere	0	0	0	0	0	0	0	0	1	651,300	849,000	3,067,000			
11	Kateta	5	4,488,900	5,849,000	5,849,000	5,849,000	4	3,391,400	4,419,000	0	0	0	10,268,000			
12	Bugondo	0	0	0	0	0	0	0	0	0	0	0	2,218,000			
13	Kadungulu	2	1,792,500	2,336,000	2,336,000	2,336,000	5	4,255,500	5,545,000	0	0	0	7,881,000			
14	Pingire	7	6,273,600	8,174,000	8,174,000	8,174,000	4	3,404,400	4,436,000	0	0	0	12,610,000			
		41	36,753,300	47,888,000	47,888,000	47,888,000	34	28,924,400	37,689,000	9	5,861,700	7,644,000	93,189,000			

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D. Construction of New/ Extension of Existing Pipel Water Supply Facilities for RGC Areas

No	Sub-Country	RGC	Population			Power Source	Short Term Plan (2010-2015) Estimated Construction Cost (UGX)			Middle Term Plan 2015-2020 Estimated Project Cost (UGX)			Long Term Plan (2020-2035) Estimated Construction Cost (UGX)			Total Project Cost				
			2015	2020	2035		Direct Cost	Intake/Transmission	Project Cost	Direct Cost	Intake/Transmission	Project Cost	Direct Cost	Intake/Transmission	Project Cost					
1	Tubur	Asuna	2,069	2,517	4,533	EP	856,446,148	1,283,329,000	439,963,540	659,241,000	1,943,570,000	0	0	31,081,684	46,573,000	61,141,931	91,615,000	510,807,109	765,293,000	857,908,000
		Tubur	2,433	2,960	5,332	EP	836,448,948	1,253,335,000	517,366,502	775,222,000	2,028,557,000	0	0	365,841,78	54,818,000	61,141,931	91,615,000	600,965,852	900,387,000	992,102,000
2	Gweri	Gweri	0	2,694	4,852	DG	0	0	0	0	0	488,769,768	73,273,000	504,169,977	75,548,000	255,668,384	383,094,000	546,778,075	819,292,000	1,202,386,000
3	Olo	Ocupa Existing	2,433	2,960	5,332	EP	352,820,490	528,666,000	517,366,502	775,222,000	1,303,888,000	0	0	365,841,78	54,818,000	389,548,770	583,700,000	600,965,852	900,387,000	1,484,187,000
4	Kyere	Kyere Existing	4,867	5,921	10,663	EP	326,864,490	489,774,000	751,153,312	1,125,528,000	1,615,302,000	0	0	54,896,102	82,256,000	485,095,154	737,766,000	768,454,498	1,151,452,000	1,879,218,000
5	Kateta	Inigo	0	1,655	2,980	DG	0	0	0	0	0	170,654,245	25,708,000	399,366,595	59,841,000	644,000	9,650,000	374,102,538	560,555,000	570,205,000
		Ocupa Existing	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0
6	Bugondo	Kasib	0	0	416	SP	0	0	0	0	0	0	0	0	265,966,922	398,525,000	398,525,000	0	398,525,000	
		Kamed Existing	3,650	4,441	7,998	EP	563,241,735	843,961,000	563,326,400	844,088,000	1,688,049,000	0	0	41,244,694	61,801,000	178,108,385	266,878,000	576,417,585	863,704,000	1,130,582,000
7	Kalungulu	Kalungulu Existing	1,689	2,055	3,701	SP/EP	257,985,061	386,560,000	0	0	386,560,000	211,193,645	31,645,500	495,889,995	743,042,000	0	0	0	464,716,892	696,332,000
		Kigwara Port	3,796	4,618	8,317	DG	488,008,245	731,232,000	607,834,384	910,779,000	1,642,011,000	478,370,384	71,679,000	360,366,616	53,997,000	4,539,000	6,831,000	650,215,267	974,383,000	981,114,000
8	Pingire	Kiderok	1,265	1,539	2,772	EP	179,305,745	268,672,000	365,521,349	547,697,000	816,369,000	0	0	18,018,308	26,999,000	169,666,884	254,229,000	356,860,905	534,720,000	788,949,000
		Pingire Elem	1,582	1,924	3,466	DG	170,573,445	255,587,000	437,153,060	655,030,000	910,617,000	164,445,584	271,254,56	167,950,000	287,050,000	167,950,584	251,665,000	435,333,337	652,303,000	903,968,000
		Pingire Coner	0	1,239	2,232	DG	0	0	0	0	0	208,330,245	31,216,000	298,981,851	447,994,000	198,690,384	297,718,000	280,341,189	420,063,000	717,781,000
		Mubonfo	2,214	2,694	4,852	DG	570,164,245	854,334,000	470,797,137	705,442,000	1,559,776,000	564,285,384	84,535,000	33,372,840	50,006,000	574,886,384	861,410,000	546,778,075	819,292,000	1,680,702,000
		Mugirra	5,125	6,235	11,229	DG	248,746,445	372,722,000	612,529,750	917,815,000	1,290,557,000	247,428,584	370,747,000	669,169,005	100,268,000	250,106,584	374,760,000	618,187,814	926,293,000	1,301,053,000
		New Sub Total	18,484	3,933	416				7	10,190,437,000			3	3,102,096,000				1	398,525,000	
		Extension Sub Total	12,639	39,519	78,259				4	4,993,799,000			12	4,406,305,000				14	15,185,387,000	
		Grand Total	31,123	43,452	78,675				11	15,184,236,000			15	7,508,401,000				15	15,584,112,000	

(4) Operation and Maintenance Cost for Boreholes with Hand Pump and Piped Water Supply Facilities

The operation and maintenance cost of the planned piped water supply facilities for RGCs are composed of salary of operation staff, fuel cost for diesel generation and electricity charge, and spare parts, etc. The operation and maintenance cost for the piped water supply facilities for RGCs in each priority district are summarized in Table 16-77, and the costs are further broken down into those for each sub-county as shown in Table 16-78.

Table 16-77 Operation and Maintenance Cost for Pipped Water Supply Facility

(Unit: UGX/year)

District	Items	Short Term Plan (2015)	Middle Term Plan (2020)	Long Term Plan (2035)
Iganga District	Man Power	1,008,119,000	1,337,622,000	2,104,343,000
	Energy	91,727,000	162,323,000	299,490,000
	Spar Parts, etc.	351,505,000	467,037,000	883,323,000
	Total	1,451,351,000	1,966,982,000	3,287,156,000
Pallisa District	Man Power	467,986,000	743,426,000	1,113,783,000
	Energy	23,849,000	59,623,000	123,787,000
	Spar Parts, etc.	177,527,000	297,358,000	560,077,000
	Total	669,362,000	1,100,407,000	1,797,647,000
Soroti District	Man Power	376,120,000	528,002,000	844,282,000
	Energy	47,808,000	137,919,000	291,471,000
	Spar Parts, etc.	153,817,000	236,449,000	405,534,000
	Total	577,745,000	902,370,000	1,541,287,000

Table 16-78 Operation and maintenance Cost for Piped Water Supply Facilities for each RGC

1. Iganga District										
Sub-county	RGC	Items	Power Source	Term Plan of RGC per Year Cost						Remarks
				Short Term Plan by 2015		Middle Term Plan by 2020		Long Term Plan by 2035		
				Population	Cost (UGX)	Population	Cost (UGX)	Population	Cost (UGX)	
1 Ikumbya	Ikumbya	Manpower	DG	1,508	19,632,200	1,783	23,876,600	2,948	37,142,200	
		Energy			6,137,250		9,442,300		12,276,950	
		Spare Parts, etc.			10,993,854		11,508,243		21,981,962	
		Total			36,763,304		44,827,143		71,401,112	
2 Bukkoma	Bukooma	Manpower	EP	2,553	32,897,800	2995	37,142,200	4,952	58,896,600	
		Energy			1,441,020		2,305,632		4,323,060	
		Spare Parts, etc.			15,482,237		15,746,206		27,136,895	
		Total			49,821,057		55,194,038		90,356,555	
	Naigobya	Manpower	EP	1,942	28,121,000	2,296	32,365,400	3,797	45,631,000	
		Energy			1,152,816		2,017,428		3,458,448	
		Spare Parts, etc.			10,446,661		10,716,646		19,698,368	
		Total			39,720,477		45,099,474		68,787,816	
3 Bulongo	Nakabugu	Manpower	EP	5,814	58,364,200	6,874	67,385,400	11,367	106,649,800	
		Energy			3,458,448		5,403,825		9,943,038	
		Spare Parts, etc.			16,767,164		20,789,325		35,667,755	
		Total			78,589,812		93,578,550		152,260,593	
4 Irongo	Kyanvuma	Manpower	EP	2,050	28,121,000	2,425	32,365,400	4,009	45,631,000	
		Energy			1,152,816		1,873,326		3,458,448	
		Spare Parts, etc.			8,817,448		9,085,729		18,752,173	
		Total			38,091,264		43,324,455		67,841,621	
	Lambala	Manpower	EP	2,515	32,365,400	2,974	36,609,800	4,918	54,119,800	
		Energy			1,729,224		3,026,142		4,755,366	
		Spare Parts, etc.			12,074,072		12,400,231		24,159,382	
		Total			46,168,696		52,036,173		83,034,548	
5 Nawampiti	Ikonia	Manpower	DG	0		2,532	32,897,800	4,186	50,407,800	
		Energy					12,276,950		23,373,000	
		Spare Parts, etc.					19,250,257		33,913,753	
		Total					64,425,007		107,694,553	
	Nawampiti	Manpower	DG	2,485	32,365,400	2,938	37,142,200	4,858	54,652,200	
		Energy			9,442,300		15,582,000		28,329,350	
		Spare Parts, etc.			11,578,456		16,313,909		30,375,376	
		Total			53,386,156		69,038,109		113,356,926	
6 Bukanga	Buwologoma	Manpower	DG	2,262	32,897,800	2,674	32,897,800	4,422	50,407,800	
		Energy			9,679,950		12,276,950		23,373,000	
		Spare Parts, etc.			17,400,303		18,094,929		32,581,512	
		Total			59,978,053		63,269,679		106,362,312	
	Bumanya	Manpower	DG	2,280	32,897,800	2,696	32,897,800	4,457	50,407,800	
		Energy			9,679,950		12,276,950		23,373,000	
		Spare Parts, etc.			16,771,782		17,470,746		30,669,142	
		Total			59,349,532		62,645,496		99,491,142	
	Busiro	Manpower	EP	2,231	28,653,400	2,639	33,430,200	4,363	50,940,200	
		Energy			1,152,816		1,873,326		4,683,315	
		Spare Parts, etc.			14,017,231		17,795,635		33,161,482	
		Total			43,823,447		53,099,161		88,784,997	
Busalamu	Manpower	DG	1,972	28,121,000	2,332	32,897,800	3,856	46,163,400		
	Energy			4,838,750		12,276,950		23,373,000		
	Spare Parts, etc.			12,402,542		18,055,938		31,701,446		
	Total			45,362,292		63,230,688		101,237,846		
7 Waibuga	Waibuga	Manpower	DG	0	0	0	0	1,096	20,164,600	
		Energy			0		0		7,082,950	
		Spare Parts, etc.			0		0		13,002,338	
		Total			0		0		40,249,888	
8 Nawandala	Namusisi	Manpower	EP	1,960	28,653,400	2,318	32,897,800	3,832	46,163,400	
		Energy			1,729,224		1,729,224		3,314,346	
		Spare Parts, etc.			15,756,407		16,022,352		26,408,141	
		Total			46,139,031		50,649,376		75,885,887	
	Nawandala	Manpower	EP	0	0	1,811	28,653,400	2,995	38,207,000	
		Energy			0		1,296,918		2,449,734	
		Spare Parts, etc.			0		13,236,396		24,735,606	
		Total			0		43,186,714		65,392,340	
9 Nambale	Nambale	Manpower	EP	5,715	58,364,200	6,760	66,853,000	11,178	106,117,400	
		Energy			3,242,295		5,187,672		9,510,732	
		Spare Parts, etc.			17,316,809		18,051,987		34,194,474	
		Total			78,923,304		90,092,659		149,822,606	
	Nabitende Banada	Manpower	EP	17,459	156,517,800	20,645	186,761,000	34,135	303,489,400	
		Energy			12,536,874		19,669,923		32,206,797	
		Spare Parts, etc.			39,335,373		45,622,262		86,391,998	
		Total			208,390,047		252,053,185		422,088,195	
10 Nabitende	Bugono	Manpower	EP	0	0	0	0	2,677	32,897,800	
		Energy			0		0		2,305,632	
		Spare Parts, etc.			0		0		15,625,447	
		Total			0		0		50,828,879	
	Nabitende kalungam	Manpower	EP	2,822	37,142,200	3,337	41,386,600	5,518	63,141,000	
		Energy			1,585,122		2,449,734		4,755,366	
		Spare Parts, etc.			14,292,178		14,658,070		25,825,757	
		Total			53,019,500		58,494,404		93,722,123	
11 Namalembe	nil	-	-	-	-	-	-	-	-	
12 Namung'alwe	Namung'alwe	Manpower	EP	14,474	131,051,400	17,115	156,517,800	28,299	251,491,800	
		Energy			9,078,426		15,346,863		28,532,196	
		Spare Parts, etc.			34,314,874		36,440,027		70,014,362	
		Total			174,444,700		208,304,690		350,038,358	
13 Buyanga	Kiwayi	Manpower	EP	3,033	37,674,600	3,587	42,451,400	5,931	59,429,000	
		Energy			1,729,224		2,593,836		4,971,519	
		Spare Parts, etc.			16,209,113		19,598,356		28,612,622	
		Total			55,612,937		64,643,592		93,013,141	
14 Nakalama	Nakalama	Manpower	EP	6,905	66,853,000	8,165	80,118,600	13,501	128,404,200	
		Energy			4,323,060		6,484,590		11,888,415	
		Spare Parts, etc.			18,709,131		24,614,389		49,476,690	
		Total			89,885,191		111,217,579		189,769,305	
15 Bulamagi	nil	-	-	-	-	-	-	-	-	

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I. Iganga District

Sub-county	RGC	Items	Power Source	Term Plan of RGC per Year Cost						Remarks
				Short Term Plan by 2015		Middle Term Plan by 2020		Long Term Plan by 2035		
				Population	Cost (UGX)	Population	Cost (UGX)	Population	Cost (UGX)	
16 Nakigo	Nakigo	Manpower	EP	0	0	2,852	37,142,200	4,716	54,652,200	
		Energy			2,017,428		2,017,428			
		Spare Parts, etc.			0		13,987,580		24,291,047	
		Total			0		53,147,208		82,978,103	
	Kabira	Manpower	EP	0	0	1,954	28,653,400	3,231	41,919,000	
		Energy			1,441,020		1,441,020			
		Spare Parts, etc.			0		12,519,793		20,603,252	
		Total			0		42,614,213		65,260,190	
	Wailama	Manpower	EP	0	0	0	0	1,024	19,632,200	
		Energy			0		0		864,612	
		Spare Parts, etc.			0		0		11,137,742	
		Total			0		0		31,634,554	
17 Ibulanku	Busesa	Manpower	EP	4,825	49,875,400	5,705	58,364,200	9,433	89,139,800	
		Energy			4,323,060		4,539,213		8,213,814	
		Spare Parts, etc.			17,180,804		17,659,889		32,936,848	
		Total			71,379,264		80,563,302		130,290,462	
	Ibulanku T/C	Manpower	EP	0	0	3,658	45,631,000	6,049	62,608,600	
		Energy			2,593,836		2,593,836		5,187,672	
		Spare Parts, etc.			0		12,209,152		18,665,863	
		Total			0		60,433,988		86,462,135	
	Nakivumbi	Manpower	EP	2,750	37,142,200	3,252	41,386,600	5,377	54,652,200	
		Energy			1,585,122		2,593,836		4,539,213	
		Spare Parts, etc.			15,568,877		15,925,824		27,732,296	
		Total			54,296,199		59,906,260		86,923,709	
18 Makuutu	Nondwe	Manpower	EP	4,264	50,407,800	5,042	58,896,600	8,336	81,183,400	
		Energy			1,729,224		3,746,652		7,133,049	
		Spare Parts, etc.			16,069,996		19,263,351		33,868,990	
		Total			68,207,020		81,906,603		122,185,439	
Grand Total				91,819	1,008,119,000	121,359	1,337,622,000	205,461	2,104,342,600	
					91,726,971		162,322,524		299,490,016	
					351,505,312		467,037,222		883,322,719	
					1,451,351,283		1,966,981,746		3,287,155,335	

2 Pallisa District

Sub-county	RGC	Items	Power Source	Term Plan of RGC per Year Cost						Remarks
				Short Term Plan by 2015		Middle Term Plan by 2020		Long Term Plan by 2035		
				Population	Cost (UGX)	Population	Cost (UGX)	Population	Cost (UGX)	
1 Gogonyo	Gogonyo	Manpower	SP		0	447	12,250,600	748	12,250,600	
		Energy			0		0		0	
		Spare Parts, etc.			0		3,958,043		3,958,043	
		Total			0		16,208,643		16,208,643	
	Kapala	Manpower	EP	2,574	32,897,800	3,055	37,142,200	5,110	54,652,200	
		Energy			1,441,020		2,161,530		4,323,060	
		Spare Parts, etc.			13,822,197		14,187,505		24,953,162	
		Total			48,161,017		53,491,235		83,928,422	
2 Agule	Agule	Manpower	EP	2,988	37,142,200	3,546	41,919,000	5,932	58,896,600	
		Energy			1,729,224		2,593,836		5,187,672	
		Spare Parts, etc.			16,175,525		19,947,407		29,256,308	
		Total			55,046,949		64,460,243		93,340,580	
3 Kameke	Kameke	Manpower	EP	3,194	41,386,600	3,663	45,631,000	6,127	63,141,000	
		Energy			1,873,326		2,882,040		5,187,672	
		Spare Parts, etc.			16,209,768		16,479,753		28,317,398	
		Total			59,469,694		64,992,793		96,646,070	
4 Kibale	Kibale Pallisa	Manpower	EP	2,833	37,142,200	3,363	41,919,000	5,625	59,429,000	
		Energy			1,585,122		2,449,734		4,755,366	
		Spare Parts, etc.			16,025,300		18,476,101		36,835,495	
		Total			54,752,622		62,844,835		101,019,861	
5 Butebo	Butebo	Manpower	EP	1,358	23,876,600	1,612	24,409,000	2,696	33,430,200	
		Energy			720,510		1,152,816		2,377,683	
		Spare Parts, etc.			9,665,583		13,902,369		22,589,843	
		Total			34,262,693		39,464,185		58,397,726	
6 Apopong	Kabole	Manpower	EP	0	0	1,758	24,409,000	2,941	37,674,600	
		Energy			0		1,296,918		2,377,683	
		Spare Parts, etc.			0		14,150,177		23,128,441	
		Total			0		39,856,095		63,180,724	
7 Puti-Puti	Boliso ITC	Manpower	EP	1,253	19,632,200	1,487	24,409,000	2,488	33,430,200	
		Energy			720,510		1,008,714		2,161,530	
		Spare Parts, etc.			8,240,289		11,469,315		18,809,278	
		Total			28,592,999		36,887,029		54,401,008	
8 Kamuge	Kamuge	Manpower	EP	0	0	3,114	37,674,600	5,208	55,184,600	
		Energy			0		2,161,530		4,323,060	
		Spare Parts, etc.			0		15,673,721		57,090,714	
		Total			0		55,509,851		116,598,374	
9 Petete	Petete	Manpower	EP	0	0	5,275	54,652,200	8,823	85,960,200	
		Energy			0		4,178,958		7,565,355	
		Spare Parts, etc.			0		21,275,940		49,823,235	
		Total			0		80,107,098		143,348,790	
10 Buseta	Kasassira	Manpower	EP	6,666	67,385,400	7,913	75,874,200	13,235	123,627,400	
		Energy			3,890,754		6,052,284		11,360,041	
		Spare Parts, etc.			21,833,562		22,816,453		41,110,126	
		Total			93,109,716		104,742,937		176,097,567	
	Buseta	Manpower	EP	2,839	37,142,200	3,370	41,386,600	5,637	58,896,600	
		Energy			1,729,224		2,593,836		4,971,519	
		Spare Parts, etc.			17,045,847		17,315,832		30,955,688	
		Total			55,917,271		61,296,268		94,823,807	
11 Kirika	Nabisuwa	Manpower	EP	2,074	28,121,000	2,462	32,897,800	4,117	50,407,800	
		Energy			1,296,918		1,873,326		3,458,448	
		Spare Parts, etc.			10,539,041		14,803,268		25,229,912	
		Total			39,956,959		49,574,394		79,096,160	

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2 Pallisa District

Sub-county	RGC	Items	Power Source	Term Plan of RGC per Year Cost						Remarks
				Short Term Plan by 2015		Middle Term Plan by 2020		Long Term Plan by 2035		
				Population	Cost (UGX)	Population	Cost (UGX)	Population	Cost (UGX)	
12 Kadama	Kabweri	Manpower	EP	1,562	24,409,000	1,854	28,653,400	3,100	37,674,600	
		Energy			1,296,918		1,296,918		2,593,836	
		Spare Parts, etc.			13,222,861		13,459,014		22,175,386	
		Total	38,928,779	43,409,332	62,443,822					
	Kadama	EP	12,888	118,850,600	15,298	141,137,400	25,587	231,334,600		
				Energy		7,565,355		11,239,956	31,210,092	
Spare Parts, etc.				34,746,782		43,789,573		89,613,934		
	Total	161,162,737	196,166,929	352,158,626						
13 Kigumu	Kigumu	Manpower	DG	0	0	2,784	41,919,000	2,784	63,141,000	
		Energy			0		14,518,700		27,827,100	
		Spare Parts, etc.			0		20,617,200		30,042,295	
		Total			0		77,054,900		121,010,395	
14 Bulangira	Bulangira	Manpower	EP	0	0	2,931	37,142,200	4,902	54,652,200	
		Energy			0		2,161,530		4,106,907	
		Spare Parts, etc.			0		15,036,320		26,187,832	
		Total			0		54,340,050		84,946,939	
Grand Total		Manpower		40,229	467,985,800	63,932	743,426,200	105,060	1,113,783,400	
		Energy			23,848,881		59,622,626		123,787,024	
		Spare Parts, etc.			177,526,755		297,357,991		560,077,090	
		Total			669,361,436		1,100,406,817		1,797,647,514	

3 Soroti District

Sub-county	RGC	Items	Power Source	Term Plan of RGC per Year Cost						Remarks
				Short Term Plan by 2015		Middle Term Plan by 2020		Long Term Plan by 2035		
				Population	Cost (UGX)	Population	Cost (UGX)	Population	Cost (UGX)	
1 Tubur	Acuna	Manpower	EP	2,069	28,121,000	2,517	32,365,400	4,533	53,587,400	
		Energy			2,507,375		4,121,317		13,055,641	
		Spare Parts, etc.			19,425,605		19,891,331		28,461,372	
		Total	50,053,980	56,378,048	95,104,413					
	Tubur	EP	2,433	32,365,400	2,960	36,609,800	5,332	53,587,400		
				Energy		3,890,754		6,023,464	14,467,841	
Spare Parts, etc.				20,285,469		20,833,644		30,754,617		
	Total	56,541,623	63,466,908	98,809,858						
2 Gweri	Gweri	Manpower	DG	0	0	2,694	32,897,800	4,852	54,652,200	
		Energy			0		12,276,950		28,329,350	
		Spare Parts, etc.			0		16,633,235		32,543,432	
		Total			0		61,807,985		115,524,982	
3 Olio	Ocapa Existing	-	-	-	-	-	-	-		
4 Kyere	Ocapa Existing	Manpower	EP	2,433	32,897,800	2,960	37,674,600	5,332	55,717,000	
		Energy			1,441,020		2,017,428		4,539,213	
		Spare Parts, etc.			13,038,817		16,869,810		31,711,607	
		Total	47,377,637	56,561,838	91,967,820					
Kyere Existing	EP	4,867	54,119,800	5,921	58,364,200	10,663	102,405,400			
			Energy		2,882,040		4,611,264	9,078,426		
			Spare Parts, etc.		16,152,938		16,975,497	35,767,581		
	Total	73,154,778	79,955,997	147,251,307						
5 Kateta	Inigo	Manpower	DG	0	0	1,655	23,876,600	2,980	36,609,800	
		Energy			0		7,791,000		16,525,250	
		Spare Parts, etc.			0		9,073,947		15,097,967	
		Total	0	40,741,547	68,233,017					
Ocapa Existing	-	-	-	-	-	-	-			
6 Bugondo	Kasilo	Manpower	SP	0	0	0	0	416	12,250,600	
		Energy			0		0		0	
		Spare Parts, etc.			0		0		3,655,457	
		Total	0	0	15,906,057					
Kamod Existing	EP	3,650	46,163,400	4,441	50,940,200	7,998	76,939,000			
			Energy		2,017,428		3,170,244	6,916,896		
			Spare Parts, etc.		16,880,412		20,167,183	31,472,943		
	Total	65,061,240	74,277,627	115,328,839						
7 Kadungulu	Kadungulu Existing	Manpower	SP/EP	1,689	12,137,000	2,055	33,485,000	3,701	50,995,000	
		Energy			0		432,306		2,593,836	
		Spare Parts, etc.			3,865,584		13,277,343		19,670,902	
		Total	16,002,584	47,194,649	73,259,738					
Kagwara Port	DG	3,796	45,098,600	4,618	54,119,800	8,317	79,586,200			
			Energy		12,985,000		25,970,000	49,578,200		
			Spare Parts, etc.		17,160,824		27,091,160	37,358,148		
	Total	75,244,424	107,180,960	166,522,548						
8 Pingire	Kidetok	Manpower	EP	1,265	19,632,200	1,539	23,876,600	2,772	37,142,200	
		Energy			720,510		1,152,816		2,377,683	
		Spare Parts, etc.			8,163,648		8,433,633		16,323,086	
		Total	28,516,358	33,463,049	55,842,969					
	Pingire Etem	DG	1,582	23,876,600	1,924	28,653,400	3,466	41,919,000		
				Energy		3,540,250		9,679,950	18,414,200	
				Spare Parts, etc.		9,369,378		13,380,714	24,965,300	
		Total	36,786,228	51,714,064	85,298,500					
	Pingire Coner	DG	0	0	1,239	19,632,200	2,232	28,653,400		
				Energy		0		6,137,250	12,276,950	
Spare Parts, etc.				0		8,040,326		16,534,400		
	Total	0	33,809,776	57,464,750						
Mulondo	DG	2,214	28,121,000	2,694	32,897,800	4,852	54,652,200			
			Energy		6,137,250		15,582,000	38,952,550		
			Spare Parts, etc.		16,036,487		26,684,153	48,027,239		
	Total	50,294,737	75,163,953	141,631,989						
Mugarema	DG	5,125	53,587,400	6,235	62,608,600	11,229	105,585,000			
			Energy		11,686,500		38,952,550	74,364,850		
			Spare Parts, etc.		13,438,098		19,097,077	33,190,285		
	Total	78,711,998	120,658,227	213,140,135						
Grand Total		Manpower		31,123	376,120,200	43,452	528,002,000	78,675	844,281,800	
		Energy			47,808,127		137,918,539		291,470,886	
		Spare Parts, etc.			153,817,260		236,449,053		405,534,336	
		Total			577,745,587		902,369,592		1,541,287,022	

Figure 16-46 illustrates the relation between the population and the operation and maintenance costs per unit production water (m³) for the facilities for the 39 RGCs planned for the short term plan and the existing three (3) facilities in the Soroti district. The operation and maintenance cost for the facilities operated by diesel generation is higher than those by electricity supply for 10 - 20 %, and the operation and maintenance cost per one (1) m³ of production tends to become lower when the population of RGC becomes larger. Considering the water charge from 1,500 to 2,500 UGX/m³ charged in urban water supply in Uganda, the price levels of the facilities of RGCs are considered reasonable.

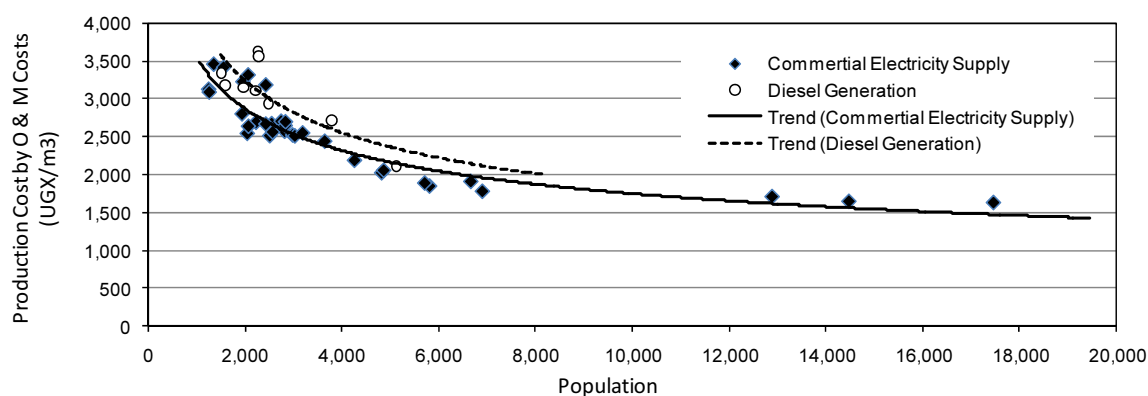


Figure 16-46 Operation and Maintenance Costs of Piped Water Supply Facilities and Population of RGC

In the water supply facilities serving the population from 500 to 5,000, the less population served becomes, the more operation and maintenance cost increase sharply. The operation and maintenance cost is considered as the production cost of water, and the water tariff is set based on this cost. Therefore, it is important to apply the operation system requiring as less expenses as possible in RGC management in case of the piped water supply facilities for small RGCs; direct management by water board instead of hiring private operator.

The operation and maintenance cost for the deep boreholes with hand pump is composed of spare parts cost, depreciation cost of hand pump unit and expenses for hand pump mechanics, and calculated to be 410,747 UGX/year. Supposing that the served population of 300 and the member of one (1) household of six (6), the amount of monthly collection per household is calculated to be 684 UGX/month. In the Ugandan community generally, 1,000 or 2,000 UGX/house hold of monthly collection is agreed among the members when their WUA is established before commencement of the construction, and the collection of the above-calculated amount is possible. However, such monthly collection of water charge has not been carried out and the broken hand pumps are left without any repairing. Therefore, it is important for the district and sub-county water offices to support the communities to assure such water collection from the members.

It is important to increase the frequency to visit to the communities to grasp the situations of community activities and to reinforce dissemination to the communities. The easiest way to increase such frequency of visit is to increase the number of the officers of the water offices, but it may not be easy for the district offices to increase such number of their officers due to the limitation of budget allocation. Therefore, it is proposed to conduct such mobilization activities with cooperation with and exchanging information with the other ministries such as Ministry of Health and Ministry of Gender, Labour and Social Development both on district and sub-county levels, and to prepare the implementation organizations to conduct such activities with integrated formation with other sectors.

16.7 Selection of Priority Project

(1) Basic Concept of Selection

The following works are proposed to be implemented in the short term plan (2015) of the master plan.

Table 16-79 Works Proposed for Short Term Plan

Priority Districts	Construction of Boreholes with Hand Pump (nos.)	Repair of Non-functional Water Supply Facilities (nos.)	Replacement of Existing Water Supply Facilities (nos.)	Construction of Piped Water Supply Facilities for RGCs (sites)
Iganga	306	70	180	21
Pallisa	390	47	160	11
Soroti	303	84	169	11
Total	999	201	509	43

To achieve effectively the target values of coverage of each district set at 77 % in 2015, it is necessary to put emphasis on the works to be implemented urgently. Since the present coverage values of RGCs are considered quite low comparing with the other rural areas; 27.1 % (areas other than RGC: 69.1 %), 36.5 % (areas other than RGC: 58.7 %) and 60.1 % (areas other than RGC: 71.2 %) for the Iganga, the Pallisa and the Soroti districts, respectively as discussed in Chapter 7, the most effective way to improve the coverage values of each district is considered to push up such low coverage values of RGCs to the levels above average values of the whole district. Further, the concentration of population to such rural centers as RGCs and townships will be accelerated in the near future, and it is urgent to reinforce the basic infrastructures such as water supply facilities to avoid worsening the water supply situations. In SIP the government of Uganda intends to put emphases on the construction of piped water supply schemes.

In addition, the construction of piped water supply schemes requires generally much expenditures comparing with the construction of point water sources like boreholes with hand pump. The construction of such facilities is divided into some fiscal years because of the budgetary limits requiring long construction period. Therefore, the assistance of the donors partners is indispensable in order to realize the implementation of the works proposed in the master plan as intended.

In the context discussed above, it is considered better and proposed to select the priority schemes among those for the piped water supply schemes for RGCs. The construction and replacement of the borehole facilities are considered possible by the own efforts of the Ugandan government, since their construction costs are low and it is possible for NGOs to assist the government.

(2) Parameters for Prioritization

It is necessary to prioritize the proposed water supply schemes for RGC before selecting the priority projects among them. In this prioritization, various kinds of parameters are considered; urgency of implementation, importance of target RGC, natural conditions such as exploitable groundwater potential and difficulty in such exploitation of groundwater, impact of implementation, efficiency of water supply facility to be implemented, easiness in implementation, and continuity of Japanese assistance if it is implemented by Japanese assistance as shown below.

1) Urgency of Implementation

The coverage values are taken for the prioritization representing the urgency of implementation. This parameter is considered the most important in prioritization, and the data collected in the RGC survey are applied for this purpose.

2) Importance of Target RGCs

The numbers of the existing public and administrative facilities as well as the business facilities in the RGCs are counted in the RGC survey, and these numbers are considered to represent the importance of respective RGCs. The larger number of such facilities exist in a RGC, the more important such RGC is considered to be.

3) Natural Conditions

The priority districts are the areas still difficult in exploiting the groundwater for piped water supply schemes, although they are considered as those having advantages of groundwater potential in selecting them. Especially, the exploitation of groundwater for RGCs requires much yield comparing with those for boreholes with hand pump in order for the effective implementation of schemes. Therefore, the expected yield at the RGC site and its success rate are taken for representing the natural conditions for prioritization. The yields estimated for the respective RGC and its success rates are actually applied for this purpose.

4) Impact of Implementation

The population of RGCs is taken as the parameter representing the impact of implementing the project. The population of RGCs in the priority districts are counted in the course of the RGC survey, and its results are applied for this prioritization.

5) Efficiency of Water Supply Facilities

The water supply facilities are planned and constructed as efficient as possible to realize the efficient implementation, and then the efficiency of the facilities to be constructed is also considered as one of the parameters for prioritization. In the master planning, the numbers of boreholes required to be drilled for providing the necessary volume of water from the water source are worked out on preliminary basis based on the potential yield of groundwater by the hydrogeological investigations for each RGC. The population served by one (1) borehole is calculated dividing the population of respective RGC by the required number of boreholes, and is applied for this prioritization.

6) Easiness in Implementation

In the stage of operation and maintenance after the construction of water supply facilities, the fuel expenses for operation of motorized pumps are considered as a heavy burden in the operation and maintenance in the RGCs without commercial electricity supply. To achieve and assure the sustainable operation of the constructed facilities, it is considered better to provide the water supply facilities operated with the commercial electricity supply. It is, therefore, proposed to include the availability of electricity supply in the respective RGCs is also considered as one of the parameters for prioritization.

7) Continuity of Assistance

There are 20 boreholes drilled in the course of the surveys and investigations for this Study in the priority districts, and out of them the five (5) boreholes are judged to be successful in terms of their yields which are observed to be good enough for piped water supply system. It is necessary to take into account the utilization of these boreholes towards the implementation. Therefore, the yields test boreholes observed are considered to be one of the parameters for prioritization to assure the continuity of assistance.

Table 16-80 Parameters Applied for Prioritization

Descriptions	Applied Parameters	Remarks
i) Urgency of implementation	The coverage of safe water supply	The lower coverage is considered as the more urgent implementation.
ii) Importance of target RGC	The numbers of the existing public and administrative facilities and the business facilities in RGCs	The larger number of administrative and commercial facilities is considered as the more important RGC.
iii) Natural conditions such as exploitable groundwater potential and difficulty in such exploitation of groundwater	The expected yield at the RGC site and its success rate	The higher success rates and the larger yields are considered as the easier in construction.
iv) Impact of implementation	The population of RGCs	The larger population is considered as the wider impact of implementation.
v) Efficiency of water supply facility to be implemented	The population served by one (1) borehole	The larger population served by one (1) borehole is considered as the more effective project.
vi) Easiness in implementation	The availability of electricity supply in RGCs	The RGC having electricity supply service is considered as easier in construction of facilities.
vii) Continuity of assistance if it is implemented by any assistance	The yields observed at the test boreholes	It is considered as the continuous assistance to the respective RGC to provide the water supply facility to the RGC having the successful boreholes as a result of test drilling.

(3) Results of Prioritization

The values of each parameter are scored as shown in Figure 16-47.

The total scores are worked out for each RGC, and each RGC is ranked according to the total scores as shown in Table 16-82.

Ranking is made for each priority district because the priority projects have to be selected among the RGCs of each district. In the Iganga district, the highest score is given to the Nabitende Banada RGC, and the second and third highest to the Namungalwe and the Nambale RGCs, respectively.

In the Pallisa district, the highest score is given to the Kadama RGC, and the second and the third highest to the Kasassire and the Kameke RGCs, respectively. Further in the Soroti district, the first, the second and the third highest scores are given to the Tubur, the Acuna and the Kidetok RGCs, respectively.

(4) Selection of Priority Project

The results of the prioritization of the implementation of piped water supply schemes are presented in Table 16-81. There are 39 RGCs for the implementation of the short term plan, and then they are divided into three (3) groups; the first, the second and the third priority groups. The first priority group

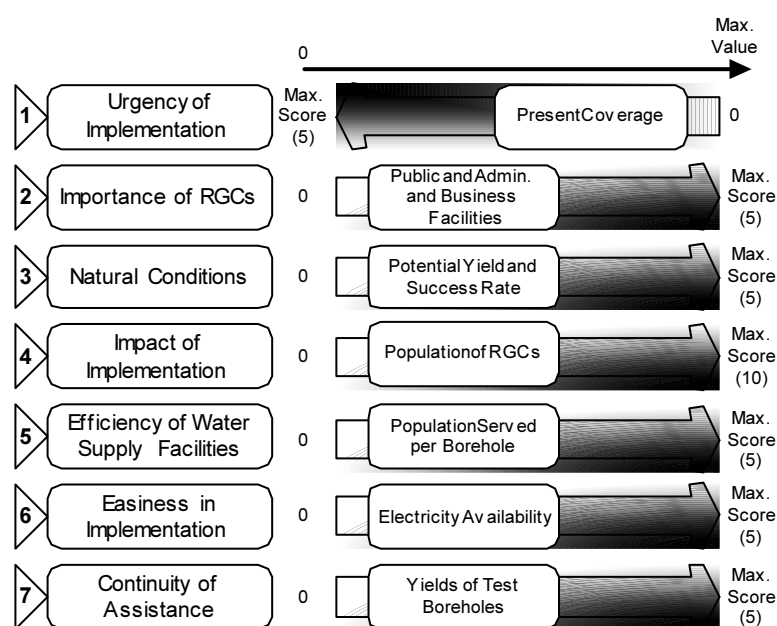


Figure 16-47 Scoring for Prioritization

to be implemented most urgently consists of 13 schemes; seven (7), three (3) and three (3) schemes in the Iganga, the Pallisa and the Soroti districts, respectively. The second and the third prioritized groups of the projects will be those consisting of 13 schemes as indicated in the table. The location of the RGCs for the first, the second and the third prioritized groups are shown in Figure 16-48.

Table 16-81 Results of Prioritization of Piped Water Supply Systems

Priority Group	Iganga District				Pallisa District				Soroti District			
	Rank	RGC	Score	Population	Rank	RGC	Score	Population	Rank	RGC	Score	Population
First Priority Group	1	Nabitende B.	36.0	17,459	3	Kadama	32.4	12,888	2	Kidetok	32.5	1,265
	4	Namung'alwe	32.0	14,474	10	Kasassira	22.2	6,666	5	Tubur	26.6	2,433
	6	Nambale	25.1	5,717	13	Kameke	20.8	3,194	7	Acuna	24.6	2,069
	8	Nakabugu	22.8	5,814	15	Kapala	18.9	2,574	19	Mugarema	18.1	5,125
	9	Nakalama	22.3	6,905	18	Buseta	18.1	2,839	25	Kagwara P.	17.3	3,796
	11	Lambala	21.6	2,515	21	Kibale P.	17.8	2,833	35	Mulondo	12.8	2,214
	12	Naigobya	21.3	1,942	23	Nabisuwa	17.4	2,074	36	Pingire Etem	12.6	1,582
Second Priority Group	14	Busesa	19.7	4,825	24	Kabweri	17.3	1,562				
	16	Kyanvuma	18.7	2,050	28	Butebo	15.6	1,358				
	17	Nakivumbi	18.2	2,750	30	Agule	15.0	2,988				
	20	Nondwe	17.9	4,264	33	Boliso ITC	13.0	1,253				
	22	Nabitende K.	17.6	2,822								
26	Bukooma	17.1	2,533									
Third Priority Group	27	Kiwanyi	16.3	3,033								
	29	Namusisi	15.4	1,960								
	31	Ikumbya	14.3	1,508								
	32	Busiuro	13.1	2,231								
	34	Busalamu	13.0	1,972								
	37	Buwologoma	10.8	2,262								
	38	Bumanya	10.3	2,280								
39	Nawampiti	9.1	2,485									

Table 16-82 Prioritization of RGCs of Short Term Plan for Urgent Implementation

RGC	Urgency		Importance				Natural Condition		Impact		Easiness in Implementation		Continuity of Assistance		Rank									
	Coverage (%)	Score	Public and Administration Facility		Business Facilities	Potential Yield	Success Rate	Population		Pop. Served per BH	Electricity Availability	Yield (m3/hr)	Test Borehole	Respective District	Priority Districts									
			Schools, Etc.	Adm. Facility				Total	Score							Score	Score	Score						
I. Iganga District																								
1	23.5	3.0	3	7	10	2.5	107	0.6	4.2	2.1	20	1.0	1,508	0.9	1,508	1.3	NA	0	2	3.90	3.0	14.3	16	31
2	14.0	3.8	5	6	11	2.8	61	0.3	3.3	1.7	20	1.0	2,533	1.5	1,266	1.1	A	5	-	-	0.0	17.1	13	26
3	18.3	3.4	7	4	11	3.8	70	0.4	4.8	2.4	35	1.8	1,942	1.1	2,907	1.7	A	5	2	3.65	2.8	21.3	7	12
4	12.2	3.9	11	4	15	3.8	171	1.0	3.8	1.9	29	1.5	5,814	3.3	2,907	2.5	A	5	-	-	0.0	22.8	4	8
5	17.3	3.5	4	5	9	2.3	139	0.8	5.1	2.6	34	1.7	2,050	1.2	2,050	1.8	A	5	-	-	0.0	18.7	9	16
6	0.0	5.0	4	4	8	2.0	84	0.5	6.2	3.1	31	1.6	2,515	1.4	2,515	2.2	A	5	2	1.20	0.9	21.6	6	11
7	38.1	1.7	0	0	0	0.0	82	0.5	4.2	2.1	25	1.3	2,485	1.4	2,485	2.1	NA	0	-	-	0.0	9.1	21	39
8	15.7	3.6	2	3	5	1.3	117	0.7	3.7	1.9	22	1.1	2,262	1.3	1,131	1.0	NA	0	-	-	0.0	10.8	19	37
9	36.3	1.9	3	8	11	2.8	98	0.6	2.9	1.5	29	1.5	2,280	1.3	1,140	1.0	NA	0	-	-	0.0	10.3	20	38
10	31.8	2.2	3	2	5	1.3	46	0.3	2.2	1.1	20	1.0	2,231	1.3	1,116	1.0	A	5	-	-	0.0	13.1	17	32
11	18.0	3.4	6	6	12	3.0	136	0.8	3.3	1.7	26	1.3	1,972	1.1	1,972	1.7	NA	0	-	-	0.0	13.0	18	34
12	18.1	3.4	4	4	8	2.0	76	0.4	3.2	1.6	24	1.0	1,960	1.1	980	0.8	A	5	-	-	0.0	15.4	15	29
13	6.2	4.5	9	9	18	4.5	44	0.3	4.7	2.4	56	2.0	5,717	3.3	2,859	2.5	A	5	-	0.00	0.0	25.1	3	6
14	16.3	3.6	7	11	18	4.5	383	2.2	7.2	3.6	42	2.1	17,459	10.0	5,820	5.0	A	5	2	0.00	0.0	36.0	1	1
15	12.6	3.9	1	2	3	0.8	91	0.5	3.5	1.8	56	2.8	2,822	1.6	1,411	1.2	A	5	-	-	0.0	17.6	12	22
16	22.9	3.0	11	8	19	4.8	274	1.6	8.0	4.0	25	1.3	14,474	8.3	4,825	4.1	A	5	-	-	0.0	32.0	2	4
17	35.1	2.0	9	6	15	3.8	68	0.4	2.0	1.0	31	1.6	3,033	1.7	1,011	0.9	A	5	-	-	0.0	16.3	14	27
18	17.1	3.5	6	5	11	2.8	123	0.7	3.9	2.0	30	1.5	6,905	4.0	3,453	3.0	A	5	-	-	0.0	22.3	5	9
19	36.8	1.8	6	6	12	3.0	160	0.9	5.2	2.6	30	1.5	4,825	2.8	2,412	2.1	A	5	-	-	0.0	19.7	8	14
20	34.4	2.0	6	5	11	2.8	267	1.5	4.2	2.1	40	2.0	2,750	1.6	1,375	1.2	A	5	-	-	0.0	18.2	10	17
21	8.3	4.3	4	5	9	2.3	39	0.2	2.8	1.4	21	1.1	4,264	2.4	1,421	1.2	A	5	-	-	0.0	17.9	11	20
II. Pallisa District																								
1	27.7	2.6	10	10	20	5.0	136	0.8	3.20	1.6	30	1.5	2,574	1.5	1,084	0.9	A	5	-	-	0.0	18.9	4	15
2	55.6	0.2	8	5	13	3.3	130	0.7	3.30	1.7	28	1.4	2,988	1.7	1,259	1.1	A	5	-	-	0.0	15.0	10	30
3	46.2	1.0	6	5	11	2.8	53	0.3	3.90	2.0	27	1.4	3,194	1.8	1,300	1.1	A	5	2	7.20	5.5	20.8	3	13
4	37.7	1.7	6	14	20	5.0	119	0.7	2.40	1.2	26	1.3	2,833	1.6	1,193	1.0	A	5	2	0.32	0.2	17.8	6	21
5	26.2	2.7	3	3	6	1.5	432	2.5	2.30	1.2	20	1.0	1,358	0.8	1,144	1.0	A	5	-	-	0.0	15.6	9	28
6	28.4	2.5	1	2	3	0.8	73	0.4	2.40	1.2	30	1.5	1,253	0.7	1,056	0.9	A	5	-	-	0.0	13.0	11	33
7	10.7	4.1	5	5	10	2.5	409	2.3	3.70	1.9	20	1.0	6,666	3.8	1,872	1.6	A	5	-	-	0.0	22.2	2	10
8	12.5	3.9	6	6	12	3.0	132	0.8	3.60	1.8	20	1.0	2,839	1.6	1,196	1.0	A	5	-	-	0.0	18.1	5	18
9	17.2	3.5	4	9	13	3.3	30	0.2	3.50	1.8	20	1.0	2,074	1.2	1,747	1.5	A	5	-	-	0.0	17.4	7	23
10	0.0	5.0	2	4	6	1.5	105	0.6	2.60	1.3	26	1.3	1,562	0.9	658	0.6	A	5	2	1.50	1.1	17.3	8	24
11	8.3	4.3	8	12	20	5.0	874	5.0	3.90	2.0	20	1.0	12,888	7.4	2,714	2.3	A	5	2	0.60	0.5	32.4	1	3
III. Soroti District																								
1	35.3	1.9	2	2	4	1.0	66	0.4	10.00	5.0	100	5.0	2,069	1.2	NWSC	5.0	A	5	1	0.30	0.1	24.6	3	7
2	15.0	3.7	3	2	5	1.3	50	0.3	10.00	5.0	100	5.0	2,433	1.4	NWSC	5.0	A	5	-	-	0.0	26.6	2	5
3	9.6	4.2	2	4	6	1.5	48	0.3	7.00	3.5	60	3.0	3,796	2.2	3,120	2.7	NA	0	-	-	0.0	17.3	5	25
4	57.7	0.0	4	12	16	4.0	100	0.6	7.00	3.5	56	2.8	1,265	0.7	1,040	0.9	A	5	3	13.20	15.0	32.5	1	2
5	23.1	3.0	4	2	6	1.5	55	0.3	2.90	1.5	86	4.3	1,582	0.9	1,300	1.1	NA	0	-	-	0.0	12.6	7	36
6	33.0	2.1	2	4	6	1.5	56	0.3	4.10	2.1	80	4.0	2,214	1.3	1,820	1.6	NA	0	-	-	0.0	12.8	6	35
7	0.0	5.0	0	4	4	1.0	40	0.2	6.60	3.3	40	2.0	5,125	2.9	4,212	3.6	NA	0	-	-	0.0	18.1	4	19



Figure 16-48 Location of Priority Projects

CHAPTER 17 ECONOMIC AND FINANCIAL EVALUATION OF THE MASTER PLAN

17.1 Economic Evaluation of Basic Plan

17.1.1 Evaluation Methods and Calculation Methods

Economic evaluation is executed by the cost benefit analysis from economical viewpoint on whole term of this project.

The cost benefit analysis is a technique for the measurement of the cost-effectiveness and/or cost-benefits ratio of the project and evaluating the validity of the project execution. Net present value (NPV) and internal rate of return (IRR) are indicated as main indexes of the cost benefit analysis by “New-Guideline for JICA project evaluation 1st edition, JICA Evaluation Department, 2010.6”. In this study, the project is evaluated by B/C that can intuitively understand cost-effectiveness in addition to NPV and IRR.

The water service projects are very difficult to monetization and quantify the effect of the project execution. The water service projects are not suitable for evaluating by economy and financial analysis. However, to calculate the impact to Ugandan economy, economy evaluation is done. The evaluation the impact for the country is one of the DAC 5 viewpoint items for project evaluation.

(1) Cost-benefit Analysis

Cost benefit analysis is helping to appraise, or assess, the case for a project, programme or policy proposal, and an approach to making economic decisions of any project.

Under the process involves, whether explicitly or implicitly, weighing the total expected costs against the total expected benefits (B/C) of 1.0 (one) or more actions in order to choose the best or most profitable option. The formal process is often referred to as either CBA (Cost-Benefit Analysis) or BCA (Benefit-Cost Analysis).

(2) Net Present Value

In finance, the net present value (NPV) or net present worth (NPW) of a time series of cash flows, both incoming and outgoing, is defined as the sum of the present values (PVs) of the individual cash flows. In the case when all future cash flows are incoming (such as coupons and principal of a bond) and the only outflow of cash is the purchase price, the NPV is simply the PV of future cash flows minus the purchase price (which is its own PV). NPV is a central tool in discounted cash flow (DCF) analysis, and is a standard method for using the time value of money to appraise long-term projects. Used for capital budgeting, and widely throughout economics, finance, and accounting, it

measures the excess or shortfall of cash flows, in present value terms, once financing charges are met.

The NPV of a sequence of cash flows takes as input the cash flows and a discount rate or discount curve and outputs a price; the converse process in DCF analysis - taking a sequence of cash flows and a price as input and inferring as output a discount rate (the discount rate which would yield the given price as NPV) - is called the yield, and is more widely used in bond trading.

Each cash inflow/outflow is discounted back to its present value (PV). Then they are summed. Therefore NPV is the sum of all terms,

$$\frac{R_t}{(1+i)^t}$$

where

t - the time of the cash flow

i - the discount rate (the rate of return that could be earned on an investment in the financial markets with similar risk.)

R_t - the net cash flow (the amount of cash, inflow minus outflow) at time t . For educational purposes, R_0 is commonly placed to the left of the sum to emphasize its role as (minus) the investment.

The result of this formula if multiplied with the Annual Net cash in-flows and reduced by Initial Cash outlay will be the present value but in case where the cash flows are not equal in amount then the previous formula will be used to determine the present value of each cash flow separately. Any cash flow within 12 months will not be discounted for NPV purpose.

(3) Internal Rate of Return

Showing the position of the IRR on the graph of NPV(r) (r is labelled 'i' in the graph)The internal rate of return on an investment or project is the "annualized effective compounded return rate" or discount rate that makes the net present value (NPV) of all cash flows (both positive and negative) from a particular investment equal to zero.

In more specific terms, the IRR of an investment is the interest rate at which the net present value of costs (negative cash flows) of the investment equals the net present value of the benefits (positive cash flows) of the investment.

Internal rates of return are commonly used to evaluate the desirability of investments or projects. The higher a project's internal rate of return, the more desirable it is to undertake the project.

Assuming all projects require the same amount of up-front investment, the project with the highest IRR would be considered the best and undertaken first.

Given a collection of pairs (time, cash flow) involved in a project, the internal rate of return follows from the net present value as a function of the rate of return. A rate of return for which this function is zero is an internal rate of return.

Given the (period, cash flow) pairs (n, C_n) where n is a positive integer, the total number of periods N , and the net present value NPV, the internal rate of return is given by r in:

$$NPV = \sum_{n=0}^N \frac{C_n}{(1+r)^n}$$

Note that the period is usually given in years, but the calculation may be made simpler if r is calculated using the period in which the majority of the problem is defined (e.g., using months if most of the cash flows occur at monthly intervals) and converted to a yearly period thereafter.

Note that any fixed time can be used in place of the present (e.g., the end of one interval of an annuity); the value obtained is zero if and only if the NPV is zero.

In the case that the cash flows are random variables, such as in the case of a life annuity, the expected values are put into the above formula.

Often, the value of r cannot be found analytically. In this case, numerical methods or graphical methods must be used.

17.1.2 Economic Evaluation of Basic Plan

(1) Evaluation Procedure

The basic plan was evaluated by NPV, B/C and IRR. FIRR (Financial Internal Rate of Return) could not be calculated because of the current economic conditions of Uganda, income conditions in the rural area of the districts and no other gaining from the projects except water charge. Therefore, the master plan was evaluated by EIRR (Economic Internal Rate of Return) based on a calculation of benefit to the Ugandan people economy from the plan.

(2) Cost and Benefit Items

Items of Cost and benefit are as follows.

Table 17-1 Cost and Benefit

Cost	Construction cost	Construction cost for water supply system
	Operation and maintenance cost	Operation and maintenance cost for water supply system
Benefit	Monthly water related expenditure and opportunity loss	<ul style="list-style-type: none"> • Monthly water related expenditure from social-economic investigation • Reduction time will contribute to income

1) Construction Cost

The construction cost for this project from Chapter 15.

2) Operating and Maintenance Cost

The operating & maintenance cost for this project from Chapter 15.

3) Monthly Water Related Expenditure and Opportunity Loss

Expenditure related to water was assumed to be 113,421UGX from the social economic investigation result. These values were captured by the household survey in Phase-I of the Study. Average monthly water related expenditure was 9,452UGX/house which is equivalent to 7% of total monthly expenditure.

Inflation rate of Uganda was changed greatly until 1992, and holding steady at 6.0% after 1993 as Table 17-2.

Therefore, the inflation rate was assumed to be 6%, and the water related spending was calculated as shown in Table 17-3.

Here, Table 17-3 shows an income per household. Therefore, the number of households is assumed from the population of Rural as Table 17-4. Refer to Chapter 15 for the population of Rural.

And the cost, increment of water charge was calculated from the expense each home and the number of households.

Table 17-2 Inflation Rate

Year	Inflation Rate (%)
1990	26.9
1991	32.3
1992	66.3
1993	-2.4
1994	7.7
1995	11.5
1996	5.4
1997	10.4
1998	-0.9
1999	5.3
2000	1.9
2001	5.9
2002	-2.5
2003	10.2
2004	0.9
2005	10.7
2006	7.2
2007	4.4
2008	12.5
2009	12.3
2010	8.2
Average 1993-2010	6.0

Table 17-3 Water Related Spending

Year	Water-related Expenditure (UGX)
2009/10	163,935
2010/11	173,771
2011/12	184,197
2012/13	195,249
2013/14	206,964
2014/15	219,382
2015/16	232,545
2016/17	246,497
2017/18	261,287
2018/19	276,965
2019/20	293,582
2020/21	311,197
2021/22	329,869
2022/23	349,661
2023/24	370,641
2024/25	392,879
2025/26	416,452
2026/27	441,439
2027/28	467,926
2028/29	496,001
2029/30	525,761
2030/31	557,307
2031/32	590,745
2032/33	626,190
2033/34	663,762
2034/35	703,587

Table 17-4 Estimate Number of Households

Year	Popuration	8.2person/house	
		Equal spacing	House
2008/9	7,843,339	7,843,339	956,505
2009/10		8,192,093	999,036
2010/11		8,540,846	1,041,567
2011/12		8,889,600	1,084,098
2012/13		9,238,354	1,126,628
2013/14		9,587,107	1,169,159
2014/15	9,935,861	9,935,861	1,211,690
2015/16		10,292,423	1,255,174
2016/17		10,648,985	1,298,657
2017/18		11,005,546	1,342,140
2018/19		11,362,108	1,385,623
2019/20	11,718,670	11,718,670	1,429,106
2020/21		12,187,509	1,486,282
2021/22		12,656,347	1,543,457
2022/23		13,125,186	1,600,632
2023/24		13,594,025	1,657,808
2024/25		14,062,864	1,714,983
2025/26		14,531,702	1,772,159
2026/27		15,000,541	1,829,334
2027/28		15,469,380	1,886,510
2028/29		15,938,219	1,943,685
2029/30		16,407,057	2,000,861
2030/31		16,875,896	2,058,036
2031/32		17,344,735	2,115,212
2032/33		17,813,574	2,172,387
2033/34		18,282,412	2,229,562
2034/35	18,751,251	18,751,251	2,286,738

4) Reduction of Water Collection Time

The water collection time of the average per family was assumed to be 94 minutes from the social economic investigation result of 1st year of this study. The average of annual income per family was assumed to be 1,661,400 Ugandan shillings from the social economic investigation result.

It was calculated the income of 94 minutes from yearly income as in Table 17-5.

Table 17-5 Average Income

	Income (Average)				94min
	Yearly	Monthly	Dairy	Hourly	
Rural	1,661,400	138,450	4,615	577	904

Virtual income per house was calculated by the following expression.

$$904(\text{UGX}/\text{house}) / 8(\text{person}/\text{house}) \times 365(\text{days}) = 41,235(\text{UGX}/\text{house})$$

When the inflation rate is assumed 6%, the benefit of every year is shown in Table 17-6.

And the benefit, income from reduction of water collection time was calculated from the expense each home and the number of households.

(3) Calculation Result and Evaluation

Calculation and evaluation result shows as Table 17-7 and Table 17-8.

Table 17-6 Benefit from Reduction of Water Collection Time

Rural	(UGX)
Year	Income from reduction time
2009	41,235
2010	43,709
2011	46,331
2012	49,111
2013	52,058
2014	55,181
2015	58,492
2016	62,002
2017	65,722
2018	69,665
2019	73,845
2020	78,275
2021	82,972
2022	87,950
2023	93,227
2024	98,821
2025	104,750
2026	111,035
2027	117,697
2028	124,759
2029	132,245
2030	140,179
2031	148,590
2032	157,506
2033	166,956
2034	176,973
2035	187,592

Inflation Rate 6%

Table 17-7 Calculation Result

Serial	Year	Cost			Revenue	Balance
		Construction	O&M	Total		
1	2009/10	63,719,528	3,007,202	66,726,730	81,888,397	15,161,667
2	2010/11	95,579,294	4,510,805	100,090,099	180,994,042	80,903,943
3	2011/12	127,439,059	6,014,406	133,453,465	199,687,765	66,234,300
4	2012/13	159,298,825	7,518,009	166,816,834	219,973,156	53,156,322
5	2013/14	191,158,587	9,021,608	200,180,195	241,973,918	41,793,723
6	2014/15	223,018,353	10,525,211	233,543,564	265,822,868	32,279,304
7	2015/16	262,509,153	12,497,339	275,006,492	291,884,018	16,877,526
8	2016/17	301,999,954	14,469,466	316,469,420	320,115,544	3,646,124
9	2017/18	341,490,751	16,441,594	357,932,345	350,684,070	-7,248,275
10	2018/19	380,981,552	18,413,721	399,395,273	383,768,403	-15,626,870
11	2019/20	420,472,352	20,385,849	440,858,201	419,560,393	-21,297,808
12	2020/21	489,114,943	23,887,464	513,002,407	462,526,867	-50,475,540
13	2021/22	557,757,534	27,389,083	585,146,617	509,138,899	-76,007,718
14	2022/23	626,400,124	30,890,698	657,290,822	559,679,279	-97,611,543
15	2023/24	695,042,716	34,392,316	729,435,032	614,451,604	-114,983,428
16	2024/25	763,685,309	37,893,932	801,579,241	673,781,763	-127,797,478
17	2025/26	832,327,898	41,395,548	873,723,446	738,019,515	-135,703,931
18	2026/27	900,970,489	44,897,165	945,867,654	807,540,184	-138,327,470
19	2027/28	969,613,080	48,398,782	1,018,011,862	882,746,462	-135,265,400
20	2028/29	1,038,255,671	51,900,399	1,090,156,070	964,070,349	-126,085,721
21	2029/30	1,106,898,260	55,402,015	1,162,300,275	1,051,975,215	-110,325,060
22	2030/31	1,175,540,853	58,903,631	1,234,444,484	1,146,958,011	-87,486,473
23	2031/32	1,244,183,445	62,405,249	1,306,588,694	1,249,551,633	-57,037,061
24	2032/33	1,312,826,035	65,906,864	1,378,732,899	1,360,327,440	-18,405,459
25	2033/34	1,381,468,626	69,408,483	1,450,877,109	1,479,897,958	29,020,849
26	2034/35	1,450,111,217	72,910,098	1,523,021,315	1,608,919,760	85,898,445

Table 17-8 Evaluation Result

Items	Result	Evaluation criteria	Evaluation
B/C	1.08	B/C>1.0	Good
NPV	+279,131millionUGX	NPV>0	Good
EIRR	12.7%	EIRR>10.0%	Good

The social discount rate was assumed to be 10% by the interview from a DWD staff in charge of economy.

After time, the master plan and feasibility plan study is needed for the final judgment of economic validity on each project.

17.2 Economic and Financial Evaluation of Mater Plan

17.2.1 Evaluation Methods and Calculation Methods

Economic and financial evaluation is executed by the cost benefit analysis from economical and financial viewpoints on construction and the operation & management stage of this project. The cost benefit analysis is a technique for the measurement of the cost-effectiveness and/or cost-benefits ratio of the project and evaluating the validity of the project execution.

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The water service projects are very difficult to monetization and quantify the effect of the project execution. And, the water service projects are extremely high the publicity, and cannot execute all project, include the construction and operation & management stage, by the water charge income. For these reasons, the water service projects are not suitable for evaluating by economy and financial analysis. However, to calculate the impact to Ugandan economy, economy evaluation is done. The evaluation the impact for the country is one of the DAC 5 viewpoint items for project evaluation.

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Cost benefit analysis is helping to appraise, or assess, the case for a project, programme or policy proposal, and an approach to making economic decisions of any project.

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most profitable option. The formal process is often referred to as either CBA (Cost-Benefit Analysis) or BCA (Benefit-Cost Analysis).

(2) Net Present Value

In finance, the net present value (NPV) or net present worth (NPW) of a time series of cash flows, both incoming and outgoing, is defined as the sum of the present values (PVs) of the individual cash flows. In the case when all future cash flows are incoming (such as coupons and principal of a bond) and the only outflow of cash is the purchase price, the NPV is simply the PV of future cash flows minus the purchase price (which is its own PV). NPV is a central tool in discounted cash flow (DCF) analysis, and is a standard method for using the time value of money to appraise long-term projects. Used for capital budgeting, and widely throughout economics, finance, and accounting, it measures the excess or shortfall of cash flows, in present value terms, once financing charges are met.

The NPV of a sequence of cash flows takes as input the cash flows and a discount rate or discount curve and outputs a price; the converse process in DCF analysis - taking a sequence of cash flows and a price as input and inferring as output a discount rate (the discount rate which would yield the given price as NPV) - is called the yield, and is more widely used in bond trading.

Each cash inflow/outflow is discounted back to its present value (PV). Then they are summed. Therefore NPV is the sum of all terms,

$$\frac{R_t}{(1+i)^t}$$

where

- t - the time of the cash flow
- i - the discount rate (the rate of return that could be earned on an investment in the financial markets with similar risk.)
- R_t - the net cash flow (the amount of cash, inflow minus outflow) at time t . For educational purposes, R_0 is commonly placed to the left of the sum to emphasize its role as (minus) the investment.

The result of this formula if multiplied with the Annual Net cash in-flows and reduced by Initial Cash outlay will be the present value but in case where the cash flows are not equal in amount then the previous formula will be used to determine the present value of each cash flow separately. Any cash flow within 12 months will not be discounted for NPV purpose.

(3) Internal Rate of Return

Showing the position of the IRR on the graph of NPV(r) (r is labelled 'i' in the graph) The internal rate of return on an investment or project is the "annualized effective compounded return rate" or discount rate that makes the net present value (NPV) of all cash flows (both positive and negative) from a particular investment equal to zero.

In more specific terms, the IRR of an investment is the interest rate at which the net present value of costs (negative cash flows) of the investment equals the net present value of the benefits (positive cash flows) of the investment.

Internal rates of return are commonly used to evaluate the desirability of investments or projects. The higher a project's internal rate of return, the more desirable it is to undertake the project. Assuming all projects require the same amount of up-front investment, the project with the highest IRR would be considered the best and undertaken first.

Given a collection of pairs (time, cash flow) involved in a project, the internal rate of return follows from the net present value as a function of the rate of return. A rate of return for which this function is zero is an internal rate of return.

Given the (period, cash flow) pairs (n, C_n) where n is a positive integer, the total number of periods N, and the net present value NPV, the internal rate of return is given by r in:

$$NPV = \sum_{n=0}^N \frac{C_n}{(1+r)^n}$$

Note that the period is usually given in years, but the calculation may be made simpler if r is calculated using the period in which the majority of the problem is defined (e.g., using months if most of the cash flows occur at monthly intervals) and converted to a yearly period thereafter.

Note that any fixed time can be used in place of the present (e.g., the end of one interval of an annuity); the value obtained is zero if and only if the NPV is zero.

In the case that the cash flows are random variables, such as in the case of a life annuity, the expected values are put into the above formula.

Often, the value of r cannot be found analytically. In this case, numerical methods or graphical methods must be used.

17.2.2 Economic Evaluation of Total Master Plan

(1) Evaluation Procedure

The master plan was evaluated by NPV, B/C and IRR. FIRR (Financial Internal Rate of Return) could not be calculated because of the current economic conditions of Uganda, income conditions in the rural area of the districts and no other gaining from the projects except water charge. Therefore, the master plan was evaluated by EIRR (Economic Internal Rate of Return) based on a calculation of benefit to the Ugandan people economy from the plan.

(2) Cost and Benefit Items

Items of Cost and benefit are as follows.

Table 17-9 Cost and Benefit

Cost	Construction cost	Construction cost for water supply system
	Operation and maintenance cost	Operation and maintenance cost for water supply system
	Increment of water charge	Expense increases by upgrading to new water supply system
Benefit	Reduction of water collection time	Reduction time will contribute to income
	Reduction of waterborn diseases	To save medical expense and avoid lost of working hours. They will contribute to income.

1) Construction Cost + Operating and Maintenance Cost

The total project cost includes a construction and operating & maintenance cost for the EIRR calculation is as Table 17-10.

Table 17-10 Construction Cost + Operating and Maintenance Cost

	Iganga	Pallisa	Soroti	Total
2011-2015	58,532,415,000	45,712,887,000	37,720,148,000	141,965,450,000
2016-2020	43,180,305,000	40,880,039,000	40,065,742,000	124,126,086,000
2021-2035	210,055,012,000	167,583,656,000	192,224,984,000	569,863,652,000

These amounts are total of each term. Therefore, the total amount had been divided by years of each term is assumed to be yearly cost. Refer to Chapter 16 for the calculation grounds.

2) Increment of Water Charge

Basically, increment of water charge is assumed by the difference between water related expense and expense increases by upgrading to new water system. However, in this analysis, water related expense from the social economic investigation result was used for input data as a minus cost.

Expense related to water was assumed to be 113,421UGX from the social economic investigation result.

Inflation rate of Uganda was changed greatly until 1992, and holding steady at 6.0% after 1993 as Table 17-11 and Figure 17-1.

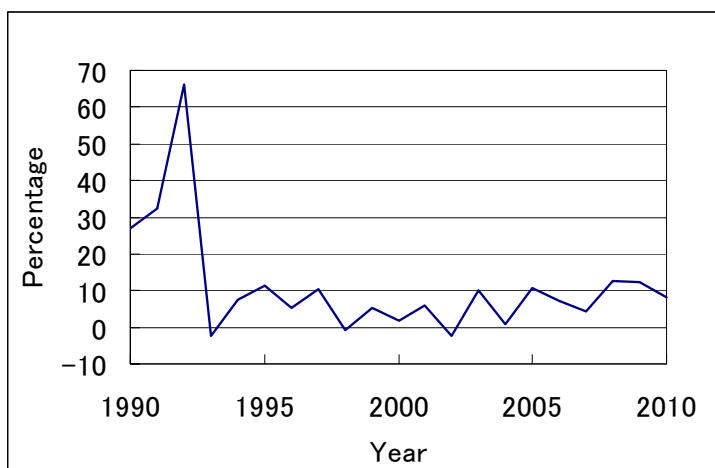


Figure 17-1 Inflation Rate of Uganda

Therefore, the inflation rate was assumed to be 6%, and the water related spending was calculated as shown in Table 17-12.

Here, Table 17-12 shows an income per household. Therefore, the number of households is assumed from the population of Rural as Table 17-13.

Refer to Chapter 16 for the population of rural area.

And the cost, increment of water charge was calculated from the expense each home and the number of households.

Table 17-11 Inflation Rate of Uganda

Year	Inflation Rate (%)
1990	26.9
1991	32.3
1992	66.3
1993	-2.4
1994	7.7
1995	11.5
1996	5.4
1997	10.4
1998	-0.9
1999	5.3
2000	1.9
2001	5.9
2002	-2.5
2003	10.2
2004	0.9
2005	10.7
2006	7.2
2007	4.4
2008	12.5
2009	12.3
2010	8.2
Average 1993-2010	6.0

Table 17-12 Water Related Spending

Rural	(UGX)
Year	Water-related spending
2009	113,421
2010	120,226
2011	127,440
2012	135,086
2013	143,191
2014	151,783
2015	160,890
2016	170,543
2017	180,776
2018	191,622
2019	203,120
2020	215,307
2021	228,225
2022	241,919
2023	256,434
2024	271,820
2025	288,129
2026	305,417
2027	323,742
2028	343,167
2029	363,757
2030	385,582
2031	408,717
2032	433,240
2033	459,234
2034	486,788
2035	515,996

Inflation Rate 6%

Table 17-13 Estimate Number of Households

3) Reduction of Water Collection Time

The water collection time of the average per family was assumed to be 94 minutes from the social economic investigation result of 1st year of this study. The average of annual income per family was assumed to be 1,661,400 Ugandan shillings from the social economic investigation result.

It was calculated the income of 94 minutes from yearly income as in Table 17-14.

Rural		8.2person/house	
Year	Popuration	Equal spacing	House
2008/9	7,843,339	7,843,339	956,505
2009/10		8,192,093	999,036
2010/11		8,540,846	1,041,567
2011/12		8,889,600	1,084,098
2012/13		9,238,354	1,126,628
2013/14		9,587,107	1,169,159
2014/15	9,935,861	9,935,861	1,211,690
2015/16		10,292,423	1,255,174
2016/17		10,648,985	1,298,657
2017/18		11,005,546	1,342,140
2018/19		11,362,108	1,385,623
2019/20	11,718,670	11,718,670	1,429,106
2020/21		12,187,509	1,486,282
2021/22		12,656,347	1,543,457
2022/23		13,125,186	1,600,632
2023/24		13,594,025	1,657,808
2024/25		14,062,864	1,714,983
2025/26		14,531,702	1,772,159
2026/27		15,000,541	1,829,334
2027/28		15,469,380	1,886,510
2028/29		15,938,219	1,943,685
2029/30		16,407,057	2,000,861
2030/31		16,875,896	2,058,036
2031/32		17,344,735	2,115,212
2032/33		17,813,574	2,172,387
2033/34		18,282,412	2,229,562
2034/35	18,751,251	18,751,251	2,286,738

Table 17-14 Average Income

	Income (Average)				94min
	Yearly	Monthly	Dairy	Hourly	
Rural	1,661,400	138,450	4,615	577	904

Virtual income per house was calculated by the following expression.

$$904(\text{UGX}/\text{house}) / 8(\text{person}/\text{house}) \times 365(\text{days}) = 41,235(\text{UGX}/\text{house})$$

When the inflation rate is assumed 6%, the benefit of every year is shown in Table 17-15.

And the benefit, income from reduction of water collection time was calculated from the expense each home and the number of households.

4) Reduction in Waterborne Diseases

The loss due to waterborne disease is calculated. And this amount is assumed to be a benefit by the upgrading water system.

Table 17-15 Benefit from Reduction of Water Collection Time

Rural		(UGX)
Year	Income from reduction time	
2009	41,235	
2010	43,709	
2011	46,331	
2012	49,111	
2013	52,058	
2014	55,181	
2015	58,492	
2016	62,002	
2017	65,722	
2018	69,665	
2019	73,845	
2020	78,275	
2021	82,972	
2022	87,950	
2023	93,227	
2024	98,821	
2025	104,750	
2026	111,035	
2027	117,697	
2028	124,759	
2029	132,245	
2030	140,179	
2031	148,590	
2032	157,506	
2033	166,956	
2034	176,973	
2035	187,592	

Inflation Rate 6%

The benefit from reduction in waterborne diseases is calculated on the following conditions from Department of Health and Ugandan Red cross.

- Six days is average of lost worktime when contracting a disease.
- 10,000 Ugandan shillings are used for medical expense, OCR and water.
- There is a disease once a year in each house.

The benefit is calculated from the above-mentioned condition and as shown in Table 17-16. The spread of water service extends gradually. Therefore, the diseases are assumed to be 0 in five years.

Table 17-16 Benefit from Reduction of Waterborne Diseases

(UGX)

Year	Number of Patient	Lost work salary	Medical expense		Benefit
	A	B	C	B+C	C*A
2010/11	1,423,638	27,690	10,000	37,690	53,656,930,491
2011/12	1,194,407	27,690	10,000	37,690	45,017,214,463
2012/13	937,427	27,690	10,000	37,690	35,331,613,869
2013/14	652,698	27,690	10,000	37,690	24,600,181,853
2014/15	340,222	27,690	10,000	37,690	12,822,964,078
After 2015/16	0	27,690	10,000	37,690	0

(3) Calculation Result and Evaluation

Calculation and evaluation result shows as Table 17-17 and Table 17-18.

The social discount rate was assumed to be 10% by the interview from a DWD staff in charge of economy. According to the economic evaluation, the rural water supply master plan was well-evaluated its adequacy, effectiveness, availability and efficiency and confirmed large positive impacts to Uganda. However, the impossibility of FIRR indicates that the profitability and sustainability of the projects is very weak because the revenue from only water charge cannot cover both construction cost and O/M cost. However, the impossibility of FIRR indicates that the profitability and sustainability of the projects.

Table 17-17 Calculation Result

(Unit: UGX)

Serial Year	Year	Cost			Revenue	Balance	
		Construction	O&M	Others			Total
1	2010/11	28,393,090,000		0	28,393,090,000	16,916,061,632	-11,477,028,368
2	2011/12	28,393,090,000		0	28,393,090,000	31,757,293,890	3,364,203,890
3	2012/13	28,393,090,000		0	28,393,090,000	44,077,929,734	15,684,839,734
4	2013/14	28,393,090,000		0	28,393,090,000	53,451,385,610	25,058,295,610
5	2014/15	28,393,090,000		0	28,393,090,000	59,472,034,166	31,078,944,166
6	2015/16	24,825,217,200		0	24,825,217,200	51,353,794,337	26,528,577,137
7	2016/17	24,825,217,200		0	24,825,217,200	56,455,079,661	31,629,862,461
8	2017/18	24,825,217,200		0	24,825,217,200	61,983,579,406	37,158,362,206
9	2018/19	24,825,217,200		0	24,825,217,200	67,972,197,354	43,146,980,154
10	2019/20	24,825,217,200		0	24,825,217,200	74,456,247,462	49,631,030,262
11	2020/21	37,990,910,133		0	37,990,910,133	82,576,745,237	44,585,835,104
12	2021/22	37,990,910,133		0	37,990,910,133	91,402,851,955	53,411,941,821
13	2022/23	37,990,910,133		0	37,990,910,133	100,990,051,983	62,999,141,850
14	2023/24	37,990,910,133		0	37,990,910,133	111,397,942,004	73,407,031,870
15	2024/25	37,990,910,133		0	37,990,910,133	122,690,525,578	84,699,615,445
16	2025/26	37,990,910,133		0	37,990,910,133	134,936,528,109	96,945,617,976
17	2026/27	37,990,910,133		0	37,990,910,133	148,209,733,610	110,218,823,477
18	2027/28	37,990,910,133		0	37,990,910,133	162,589,344,790	124,598,434,657
19	2028/29	37,990,910,133		0	37,990,910,133	178,160,368,066	140,169,457,933
20	2029/30	37,990,910,133		0	37,990,910,133	195,014,025,205	157,023,115,071
21	2030/31	37,990,910,133		0	37,990,910,133	213,248,193,412	175,257,283,279
22	2031/32	37,990,910,133		0	37,990,910,133	232,967,875,828	194,976,965,694
23	2032/33	37,990,910,133		0	37,990,910,133	254,285,704,471	216,294,794,338
24	2033/34	37,990,910,133		0	37,990,910,133	277,322,477,872	239,331,567,739
25	2034/35	37,990,910,133		0	37,990,910,133	302,207,735,719	264,216,825,585

NPV: 493,973,839,190

B/C: 2.62

EIRR : 106.6%

Table 17-18 Evaluation Result

Items	Result	Evaluation criteria	Evaluation
B/C	2.6	B/C>1.0	Good
NPV	+493,974millionUGX	NPV>0	Good
EIRR	107%	EIRR>10.0%	Good

Under this circumstance, it is necessary that the construction cost depends on any grant from donor countries including Japan and O/M cost is covered by water charge from the beneficiary and fiscal expenditure of Ugandan Government.

17.2.3 Financial Evaluation of the O&M stage

(1) Evaluation Procedure

FIRR is used for financial evaluation as revenue is expected from water charges with the master plan. However, FIRR was not calculated because a water charge income was too less than the project cost. Then, construction cost is assumed to covering by donor's contribution on the construction phase. And, only the O&M stage of this project evaluates financial evaluation. This procedure agrees with the project evaluation policy of JICA.

(2) Cost and Revenue

Cost and revenue are as follows.

Table 17-19 Cost and Benefit

Cost	Operation & maintenance cost	Operation & maintenance cost of the water supply system
Revenue	Water charges	Water charges from beneficiaries

1) Operation & Maintenance Cost

The operation & maintenance cost was calculated in Chapter 16 as following table.

Table 17-20 Summary of Operation and Maintenance Cost par year

Proposed Operation and Maintenance Cost	Short Term Plan (2010-2015)				Middle Term Plan (2015-2020)				Longt Term Plan (2020-2035)				
	Manpower	Energy	Spareparts /Others	Total	Manpower	Energy	Spareparts /Others	Total	Manpower	Energy	Spareparts /Others	Total	
Iganga District	1	Construction of Boreholes with hand Pump for Village Area	Replacement spareparts per year										(USD 180.00/year/handpump)
	2	Repair of Non-functional Water Supply Facilities	Installation of U2/U3 cylinder										411,000shs/ year/ hand pump
	3	Existing Boreholes with Hand Pumps	Cleaning/ Repair for Platform, Fencing, Soakaway Pit and Others										Note: Maintenance Cost shall not included cost of contributor of villager
	4	Piped Water Supply Facilities for RGCs	1,008,119,000	91,727,000	351,505,000	1,451,351,000	1,337,622,000	162,323,000	467,037,000	1,966,982,000	2,104,343,000	299,490,000	883,323,000
Pallisa District	1	Construction of Boreholes with hand Pump for Village Area	Replacement spareparts per year										(USD 180.00/year/handpump)
	2	Repair of Non-functional Water Supply Facilities	Installation of U2/U3 cylinder										411,000shs/ year/ hand pump
	3	Existing Boreholes with Hand Pumps	Cleaning/ Repair for Platform, Fencing, Soakaway Pit and Others										Note: Maintenance Cost shall not included cost of contributor of villager
	4	Piped Water Supply Facilities for RGCs	467,986,000	23,849,000	177,527,000	669,362,000	743,426,000	59,623,000	297,358,000	1,100,407,000	1,113,783,000	123,787,000	560,077,000
Soroti District	1	Construction of Boreholes with hand Pump for Village Area	Replacement spareparts per year										(USD 180.00/year/handpump)
	2	Repair of Non-functional Water Supply Facilities	Installation of U2/U3 cylinder										411,000shs/ year/ hand pump
	3	Existing Boreholes with Hand Pumps	Cleaning/ Repair for Platform, Fencing, Soakaway Pit and Others										Note: Maintenance Cost shall not included cost of contributor of villager
	4	Piped Water Supply Facilities for RGCs	376,120,000	47,808,000	153,817,000	577,745,000	528,002,000	137,919,000	236,449,000	902,370,000	844,282,000	291,471,000	405,534,000

This table shows only the cost per well about outside RGC area.

On the other hand, the number of hand pump wells is estimated in Chapter 7 as following table.

Table 17-21 Estimated Number of Hand Pump Well

Year	Iganga	Pallisa	Soroti	Total
2010	702	548	658	1,908
2015	1,008	938	961	2,907
2020	1,414	1,299	1,398	4,111
2035	3,525	2,988	3,680	10,193

The number of wells assumed a monotonous increase, and calculated the cost. Table 17-22 shows the result.

2) Water Charge

i) Outside RGC

The water charge or the fee for maintenance fee of hand pumps was investigated by the interview in social economic investigation.

It is assumed that water service can be used by the amount of money from social economic investigation (692 Ugandan shillings per month) in the future.

Water cost per person per year is calculated as shown in Table 17-23. It became 1,013.

Table 17-22 Result of O&M Cost of Handpump Wells

(UGX)

Year	Number of Hand Pump	Total
	1,908	
2011	2,108	866,305,800
2012	2,308	948,423,600
2013	2,507	1,030,541,400
2014	2,707	1,112,659,200
2015	2,907	1,194,777,000
2016	3,148	1,293,745,800
2017	3,389	1,392,714,600
2018	3,629	1,491,683,400
2019	3,870	1,590,652,200
2020	4,111	1,689,621,000
2021	4,516	1,856,267,800
2022	4,922	2,022,914,600
2023	5,327	2,189,561,400
2024	5,733	2,356,208,200
2025	6,138	2,522,855,000
2026	6,544	2,689,501,800
2027	6,949	2,856,148,600
2028	7,355	3,022,795,400
2029	7,760	3,189,442,200
2030	8,166	3,356,089,000
2031	8,571	3,522,735,800
2032	8,977	3,689,382,600
2033	9,382	3,856,029,400
2034	9,788	4,022,676,200
2035	10,193	4,189,323,000

Table 17-23 Estimated Water Charge for Outside RGC

Water cost per household per month (UGX)	Person per household (Person)	Water cost per person per month (UGX)	Water cost per person per year (UGX)
692	8.2	84	1,013

The population of Outside RGC is estimated from the population of whole district as follows. It is decided 92% is Outside RGC and 8% is RGC from a present population ratio.

Table 17-24 Estimated Population of Outside RGC

(Person)

Outside RGC	Iganga	Pallisa	Soroti	Total
2010	597,855	450,719	485,116	1,533,690
2015	706,957	536,127	590,218	1,833,302
2020	835,968	635,069	718,090	2,189,127
2035	1,382,230	1,062,167	1,293,240	3,737,637

ii) RGC

The water cost is assumed 2,025 Ugandan shillings per cubic meter from the tariff of the “APPROVAL OF BUSINESS PLANS AND TARIFFS FOR SMALL TOWNS FOR FY2110/2011” by Water Authorities Division of DWD. It is assumed that the water charge rises by 4% per every year because it was understood that the water charge rose 4% from last year according to this material. An individual quantity consumed of water is assumed from the demand as shown in the Table 17-25.

Table 17-25 Water Demand on Basic Plan from SIP

District	(Litter/day/person)			
	Present(2010)	2015	2020	2035
Iganga	15	20	25	30
Palisa				
Soroti				

The population of Outside RGC is estimated from the population of whole district as follows. It is decided 92% is Outside RGC and 8% is RGC from a present population ratio.

Table 17-26 Estimated Population of RGC

RGC	(Person)			
	Iganga	Pallisa	Soroti	Total
2010	88,867	45,744	32,012	166,623
2015	105,084	54,407	38,947	198,438
2020	124,251	64,545	47,386	236,182
2035	205,458	107,801	85,339	398,598

3) Calculation Result and Evaluation

Table 17-27 and Table 17-28 show the result of the financial evaluation of the entire rural water supply project.

However, the revenue summed up 0% on first 2 years, 25% on third year, 50% on fourth year and 100% after fifth year.

Although B/C is almost 1.0 and FIRR is close to the hurdle rate of 10%, the revenue from water charges is not enough to support the O&M of the water supply without funding from the national and local government.

Since the water resource situation is quite different inside and outside the RGC, financial evaluation was also performed separately described below.

Table 17-27 Calculation Result

(Unit: UGX)

Serial Year	Year	Cost			Revenue		Balance	
		RGC	Level1	Total	RGC	Level1		Total
1	2010/11	2,698,459,000	866,305,800	3,564,764,800	0	0	0	-3,564,764,800
2	2011/12	2,698,459,000	948,423,600	3,646,882,600	0	0	0	-3,646,882,600
3	2012/13	2,698,459,000	1,030,541,400	3,729,000,400	501,040,207	309,521,178	810,561,385	-2,918,439,015
4	2013/14	2,698,459,000	1,112,659,200	3,811,118,200	1,077,871,001	640,744,624	1,718,615,625	-2,092,502,575
5	2014/15	2,698,459,000	1,194,777,000	3,893,236,000	3,088,324,017	1,324,893,786	4,413,217,803	519,981,803
6	2015/16	3,969,758,000	1,293,745,800	5,263,503,800	3,334,039,553	1,376,448,354	4,710,487,907	-553,015,893
7	2016/17	3,969,758,000	1,392,714,600	5,362,472,600	3,594,471,014	1,428,002,923	5,022,473,937	-339,998,663
8	2017/18	3,969,758,000	1,491,683,400	5,461,441,400	3,870,402,529	1,479,557,491	5,349,960,020	-111,481,380
9	2018/19	3,969,758,000	1,590,652,200	5,560,410,200	4,162,657,411	1,531,112,060	5,693,769,470	133,359,270
10	2019/20	3,969,758,000	1,689,621,000	5,659,379,000	5,590,125,049	1,582,666,628	7,172,791,677	1,513,412,677
11	2020/21	6,626,093,000	1,856,267,800	8,482,360,800	6,080,259,755	1,657,552,667	7,737,812,422	-744,548,378
12	2021/22	6,626,093,000	2,022,914,600	8,649,007,600	6,600,661,038	1,732,438,705	8,333,099,743	-315,907,857
13	2022/23	6,626,093,000	2,189,561,400	8,815,654,400	7,152,966,008	1,807,324,744	8,960,290,751	144,636,351
14	2023/24	6,626,093,000	2,356,208,200	8,982,301,200	7,738,894,318	1,882,210,782	9,621,105,100	638,803,900
15	2024/25	6,626,093,000	2,522,855,000	9,148,948,000	8,360,252,147	1,957,096,821	10,317,348,967	1,168,400,967
16	2025/26	6,626,093,000	2,689,501,800	9,315,594,800	9,018,936,371	2,031,982,859	11,050,919,230	1,735,324,430
17	2026/27	6,626,093,000	2,856,148,600	9,482,241,600	9,716,938,930	2,106,868,898	11,823,807,828	2,341,566,228
18	2027/28	6,626,093,000	3,022,795,400	9,648,888,400	10,456,351,395	2,181,754,936	12,638,106,332	2,989,217,932
19	2028/29	6,626,093,000	3,189,442,200	9,815,535,200	11,239,369,756	2,256,640,975	13,496,010,730	3,680,475,530
20	2029/30	6,626,093,000	3,356,089,000	9,982,182,000	12,068,299,423	2,331,527,013	14,399,826,436	4,417,644,436
21	2030/31	6,626,093,000	3,522,735,800	10,148,828,800	12,945,560,472	2,406,413,052	15,351,973,523	5,203,144,723
22	2031/32	6,626,093,000	3,689,382,600	10,315,475,600	13,873,693,125	2,481,299,090	16,354,992,215	6,039,516,615
23	2032/33	6,626,093,000	3,856,029,400	10,482,122,400	14,855,363,494	2,556,185,129	17,411,548,623	6,929,426,223
24	2033/34	6,626,093,000	4,022,676,200	10,648,769,200	15,893,369,584	2,631,071,167	18,524,440,751	7,875,671,551
25	2034/35	6,626,093,000	4,189,323,000	10,815,416,000	20,388,777,095	2,705,957,206	23,094,734,300	12,279,318,300

NPV: -2,788,759,228

B/C: 0.95

FIRR : 8.3%

Table 17-28 Evaluation Result

Items	Result	Evaluation criteria	Evaluation
B/C	0.95	B/C>1.0	NG
NPV	-2,789 millionUGX	NPV>0	NG
FIRR	8.30%	FIRR>10.0%	NG

4) Outside RGC

Table 17-29 and Table 17-30 shows the result of the financial evaluation outside the RGC. The water charge of UGX1,013/year/person and UGX185/m³, estimated from the survey of 375 households, was used for the evaluation.

However, the revenue summed up 0% on first 2 years, 25% on third year, 50% on fourth year and 100% after fifth year. In order to fund the O&M of the water resources, UGX 1,600 /year/person needs to be collected raising the existing water charge by 58%.

Table 17-29 Calculation Result (Outside RGC)

(Unit: UGX)

Serial Year	Year	Cost			Revenue	Balance
		Construction	O&M	Total		
1	2010/11	0	866,305,800	866,305,800	0	-866,305,800
2	2011/12	0	948,423,600	948,423,600	0	-948,423,600
3	2012/13	0	1,030,541,400	1,030,541,400	309,521,178	-721,020,222
4	2013/14	0	1,112,659,200	1,112,659,200	640,744,624	-471,914,576
5	2014/15	0	1,194,777,000	1,194,777,000	1,324,893,786	130,116,786
6	2015/16	0	1,293,745,800	1,293,745,800	1,376,448,354	82,702,554
7	2016/17	0	1,392,714,600	1,392,714,600	1,428,002,923	35,288,323
8	2017/18	0	1,491,683,400	1,491,683,400	1,479,557,491	-12,125,909
9	2018/19	0	1,590,652,200	1,590,652,200	1,531,112,060	-59,540,140
10	2019/20	0	1,689,621,000	1,689,621,000	1,582,666,628	-106,954,372
11	2020/21	0	1,856,267,800	1,856,267,800	1,657,552,667	-198,715,133
12	2021/22	0	2,022,914,600	2,022,914,600	1,732,438,705	-290,475,895
13	2022/23	0	2,189,561,400	2,189,561,400	1,807,324,744	-382,236,656
14	2023/24	0	2,356,208,200	2,356,208,200	1,882,210,782	-473,997,418
15	2024/25	0	2,522,855,000	2,522,855,000	1,957,096,821	-565,758,179
16	2025/26	0	2,689,501,800	2,689,501,800	2,031,982,859	-657,518,941
17	2026/27	0	2,856,148,600	2,856,148,600	2,106,868,898	-749,279,702
18	2027/28	0	3,022,795,400	3,022,795,400	2,181,754,936	-841,040,464
19	2028/29	0	3,189,442,200	3,189,442,200	2,256,640,975	-932,801,225
20	2029/30	0	3,356,089,000	3,356,089,000	2,331,527,013	-1,024,561,987
21	2030/31	0	3,522,735,800	3,522,735,800	2,406,413,052	-1,116,322,748
22	2031/32	0	3,689,382,600	3,689,382,600	2,481,299,090	-1,208,083,510
23	2032/33	0	3,856,029,400	3,856,029,400	2,556,185,129	-1,299,844,271
24	2033/34	0	4,022,676,200	4,022,676,200	2,631,071,167	-1,391,605,033
25	2034/35	0	4,189,323,000	4,189,323,000	2,705,957,206	-1,483,365,794

NPV: -4,801,699,761

B/C: 0.72

FIRR : #DIV/0!

Table 17-30 Evaluation Result (Outside RGC)

Items	Result	Evaluation criteria	Evaluation
B/C	0.72	B/C>1.0	NG
NPV	4,802milli onUGX	NPV>0	NG
FIRR	-.-%	FIRR>10.0%	NG

5) RGC Area

On the other hand, sustained O&M supported by high B/C, NPV, and FIRR is expected inside RGC as shown in Table 17-31 and Table 17-32. This is based on the water charge of about UGX 2,025/year/person used by DWD in small towns, RGC, and large gravity schemes. A system to collect water charge without delinquency is needed to maintain the expected revenue.

However, the revenue summed up 0% on first 2 years, 25% on third year, 50% on fourth year and 100% after fifth year.

Table 17-31 Calculation Result (RGC Area)

Serial Year	Year	Cost			Revenue	Balance
		Construction	O&M	Total		
1	2010/11	0	2,698,459,000	2,698,459,000	0	-2,698,459,000
2	2011/12	0	2,698,459,000	2,698,459,000	0	-2,698,459,000
3	2012/13	0	2,698,459,000	2,698,459,000	501,040,207	-2,197,418,793
4	2013/14	0	2,698,459,000	2,698,459,000	1,077,871,001	-1,620,587,999
5	2014/15	0	2,698,459,000	2,698,459,000	3,088,324,017	389,865,017
6	2015/16	0	3,969,758,000	3,969,758,000	3,334,039,553	-635,718,447
7	2016/17	0	3,969,758,000	3,969,758,000	3,594,471,014	-375,286,986
8	2017/18	0	3,969,758,000	3,969,758,000	3,870,402,529	-99,355,471
9	2018/19	0	3,969,758,000	3,969,758,000	4,162,657,411	192,899,411
10	2019/20	0	3,969,758,000	3,969,758,000	5,590,125,049	1,620,367,049
11	2020/21	0	6,626,093,000	6,626,093,000	6,080,259,755	-545,833,245
12	2021/22	0	6,626,093,000	6,626,093,000	6,600,661,038	-25,431,962
13	2022/23	0	6,626,093,000	6,626,093,000	7,152,966,008	526,873,008
14	2023/24	0	6,626,093,000	6,626,093,000	7,738,894,318	1,112,801,318
15	2024/25	0	6,626,093,000	6,626,093,000	8,360,252,147	1,734,159,147
16	2025/26	0	6,626,093,000	6,626,093,000	9,018,936,371	2,392,843,371
17	2026/27	0	6,626,093,000	6,626,093,000	9,716,938,930	3,090,845,930
18	2027/28	0	6,626,093,000	6,626,093,000	10,456,351,395	3,830,258,395
19	2028/29	0	6,626,093,000	6,626,093,000	11,239,369,756	4,613,276,756
20	2029/30	0	6,626,093,000	6,626,093,000	12,068,299,423	5,442,206,423
21	2030/31	0	6,626,093,000	6,626,093,000	12,945,560,472	6,319,467,472
22	2031/32	0	6,626,093,000	6,626,093,000	13,873,693,125	7,247,600,125
23	2032/33	0	6,626,093,000	6,626,093,000	14,855,363,494	8,229,270,494
24	2033/34	0	6,626,093,000	6,626,093,000	15,893,369,584	9,267,276,584
25	2034/35	0	6,626,093,000	6,626,093,000	20,388,777,095	13,762,684,095

NPV: 2,012,940,533

B/C: 1.05

FIRR : 11.3%

Table 17-32 Evaluation Result (RGC Area)

Items	Result	Evaluation criteria	Evaluation
B/C	1.05	B/C>1.0	Good
NPV	2,013millionUGX	NPV>0	Good
FIRR	11.30%	FIRR>10.0%	Good