A6-1-4 Socio-Economic Survey

1) General Socio-Economic Information

The socio-economic survey was conducted using a subcontracted local consultant. An inquiry survey and a RRA/PRA survey were made at the 30 study villages by six teams each working in parallel at the 6 target Districts. A summary of the general results related to the socio-economic conditions of the study villages is shown below.

General Socio-Economic Situation of Study Villages

District	Village Name	Population	No. of Households	Average Pers/HH	Ave. Expenditure (R/mon/HH)	Village Organization*
Ngqeleni	Kumaxhaka	1,669	231	7.21	720	None
	Qanqu	967	122	7.91	637	None
	Didi	1,234	153	8.09	570	None
	Ezinkozweni	1,199	138	8.72	994	None
	Kuleka	782	118	6.65	813	VWSC
Umtata	Sikobeni	1,467	183	8.00	2,010	VDC
	Centuli	1,810	221	8.18	877	VDC
	Dlova	981	124	7.88	575	VC
	Upper Xongora	457	52	8.80	1,036	VC
	Lower Centuli	749	89	8.41	595	VDC
	Gubevu	563	81	6.96	671	VDC
Mqanduli	Luxolweni	1,033	130	7.93	998	None
	Cezu	711	84	8.42	760	VDC
	Mavundleni	355	51	6.97	607	VDC
	Macosa	637	87	7.32	549	VWSC
	Tafeni	1,696	229	7.40	573	VWSC
	Ngwangweni	589	74	8.00	1,102	VC
Engcobo	Sixhotyeni	159	20	7.80	1,923	VDC
	Luxeni	217	29	7.60	608	
	Sigangeni	310	33	9.27	857	
	Manzana	4,572	494	9.26	1,675	
Qumbu	Lower Roza	1,885	267	7.06	809	VDC
	Ndwane	1,889	271	6.96	448	VDC
	Ncalukeni	905	123	7.33	514	VDC
	Ndasane	676	96	7.06	1,291	VC
	Mvumelwano	1,036	167	6.20	1,705	VDC
Tabankulu	Dambeni	2,102	290	7.24	683	None
	Bhakuba	4,831	587	8.23	1,577	VWSC
	Kwazulu B	1,609	219	7.34	495	VWSC
	Kwazulu D	402	55	7.34		
Total		37,492	4,818		26,672	VWSC: 5 VDC: 11 VC: 4 None: 6
Average				7.75	920	

N.B.: *VWSC Village Water and Sanitation Committee
VDC Village Development Committee
VC Village Committee

2) Needs Ranking

The results from the first round of the needs ranking of the RRA survey conducted as part of the socio-economic survey are shown below. This reveals that water is 1st or 2nd priority at about 90% of the target villages which means that water has the highest need of the target villages. On the other hand, sanitation ranks 1st or 2nd at only 30% of the villages, showing the low awareness on sanitation needs.

Needs Ranking (First Round) of Study Villages

District	Village Name	Water	Sanit.	Road	Med.	Educ.	Elect.	Agric.	Fence	Com. Hall	Income Gen.	Others
Ngqeleni	Kumaxhaka	1st	2nd		3rd		4th			5th		
	Qanqu	1st		2nd	5th	3rd						4th Housing
	Didi	4th		1st	2nd				5th		3rd	
	Ezinkozweni	2nd		1st		3rd			4th			5th Dipping Tank
	Kuleka	1st		2nd		3rd			4th	5th		
Umtata	Sikobeni	3rd		1st	4th	2nd			5th			
	Centuli	2nd		4th	3rd		1st					5th Brick Plant
	Dlova	1st	5th	2nd					4th		3rd	
	Upper Xongora	2nd	1st	3rd	5th				4th			
	Lower Centuli	1st	5th	2nd					4th		3rd	
	Gubevu	1st	2nd	4th	5th				3rd			
Mqanduli	Luxolweni	1st		2nd	3rd						4th	5th Sports Field
	Cezu	1st	2nd	4th	3rd							5th Dipping Tank
	Mavundleni	2nd	4th	1st	5th				3rd			
	Macosa	4th	1st	3rd	2nd		5th					
	Tafeni	1st	5th	2nd	3rd				4th			
	Ngwangweni	1st	5th	3rd	2nd	4th						
Engcobo	Sixhotyeni	1st	5th	2nd				4th		3rd		
	Luxeni	1st	2nd	4th				3rd		5th		
	Sigangeni	1st	5th	2nd				4th		3rd		
	Manzana	2nd		1st		5th		3rd		4th		
Qumbu	Lower Roza	1st	2nd	3rd	5th						4th	
	Ndwane	1st	2nd					4th	3rd			5th Dipping Tank
	Ncalukeni	1st	4th	2nd				3rd	5th			
	Ndasane	1st	4th	2nd		5th		3rd				
	Mvumelwano	1st	2nd	3rd				5th				4th Market
Tabankulu	Dambeni	2nd	4th	3rd		5th	1st					
	Bhakuba	1st	4th		2nd	3rd						5th Preschool
	Kwazulu B	1st	5th	3rd	4th		2nd					
	Kwazulu D	1st	5th	3rd	4th		2nd					
Total		1st:21 2nd: 6	1st:2 2nd:7	1st: 5 2nd:10	2nd:4	2nd:1	1st:2 2nd:2					

3) Water Use Related Situation

The present state of water use of the study villages as obtained from the socio-economic survey is shown in the table below. This shows that the main water sources are streams and springs, but many of the villages cannot acquire water all year round, and the water is usually dirty or has an odor. The main water collectors are women and girls, and they take on the average about 30 min. to collect their water. The average water consumption rate is about 9 lit/cap/day.

Present State of Water Use

District	Village Name	Main Water Source	Main Problem of Water Source	Water Year Round	Main Water Collector	Ave. Water Fetch Time (min/day)	Rainwater Use Ratio (%)	Ave. Water Consumed (l/cap/day)
Ngqeleni	Kumaxhaka	Spring	Dirty	No	Women	28	6	7.3
	Qanqu	Stream	Others	Yes	Women	23	41	8.9
	Didi	Stream	Deficit period	No	Women	18	50	5.2
	Ezinkozweni	Stream, spring	Dirty, odor	No	Women	32	63	10.0
	Kuleka	Stream	None	No/Yes	Women	33	19	8.2
Umtata	Sikobeni	Stream	Deficit period	No	Women	20	51	5.3
	Centuli	Stream	Odor	No	Women	20	27	8.5
	Dlova	Stream	Far away	Yes	Women	24	4	8.6
	Upper Xongora	Stream	Dirty	No	Women	22	40	17.3
	Lower Centuli	Stream	Odor, taste	No	Women	28	16	5.5
	Gubevu	Stream	Dirty	No	Women	33	39	7.9
Mqanduli	Luxolweni	Stream	Dirty	No	Women	22	13	8.6
	Cezu	Stream	None	Yes	Girls	15	16	6.4
	Mavundleni	Stream	Dirty	No/Yes	Women	60	20	12.0
	Macosa	Stream	Dirty	Yes/No	Women	22	32	9.0
	Tafeni	Rainwater	Dirty	No	Women	21	51	8.8
	Ngwangweni	Stream	Deficit period	No	Women	31	28	8.6
Engcobo	Sixhotyeni	Stream	Dirty, odor	No	Women	28	40	12.8
	Luxeni	Stream	None	No	Women	21	0	7.4
	Sigangeni	Stream	None	Yes	Women	23	13	7.6
	Manzana	Communal tap, stream	Dirty	No	Women	34	45	8.1
Qumbu	Lower Roza	Stream	Far away	No	Women	124	40	14.2
	Ndwane	Stream	Dirty, odor	No	Women	10	25	8.7
	Ncalukeni	Stream	Odor	No	Women	15	33	7.7
	Ndasane	Stream	Dirty, odor	No	Women	15	40	8.2
	Mvumelwano	Stream	Far away	No	Women	62	67	10.8
Tabankulu	Dambeni	Stream, spring	Dirty	No	Women	24	2	10.6
	Bhakuba	Stream	Dirty	No/Yes	Women	45	28	11.1
	Kwazulu B	Stream	Odor	No	Women	26	9	10.5
	Kwazulu D	Stream	Odor	No	Women	26	9	10.5
Total				Yes: 4 No: 22 Both: 4				
Average						30	29	9.1

The results related to willingness and capability for operation and maintenance of water supply facilities as listed below reveal that most of the study villages want Level 2 conveniences but some of them are willing to accept Level 1 facilities if level 2 schemes are not feasible. However, 3 of the villages responded as not willing to use neither Level 1 nor Level 2 facilities, but this seems to have resulted from misunderstanding the concepts of service levels. The willingness and affordability for operation and maintenance of water supply facilities is generally high, but a few villages are not willing to contribute to these activities. The average amount the target villagers are willing to pay for operation and maintenance is about 12 Rands, but there seems to be great differences between villages.

Willingness and Capability for O&M of Water Supply Schemes

District	Village Name	Service Level*1		Willingness & Capability on O&M*2				Willing to Pay for O&M (R/mon/HH)	Owner ship*2
		Request	Accept	Willing O&M	Pay for O&M	Capable for O&M	Overall		
Ngqeleni	Kumaxhaka	2	2	B	A	B	B	13	C
	Qanqu	2	2	A	A	C	B	7	B
	Didi	2	2	A	A	B	A	10	D
	Ezinkozweni	2	2	C	A	A	B	46	D
	Kuleka	Other	Other	A	B	C	B	6	C
Umtata	Sikobeni	2	1	A	A	C	B	10	D
	Centuli	1	1	C	B	C	C	N/A	B
	Dlova	2	1	C	B	C	C	6	A
	Upper Xongora	2	1	A	A	D	B	4	D
	Lower Centuli	1	1	D	D	D	D	1	D
	Gubevu	2	1	B	B	B	B	18	A
Mqanduli	Luxolweni	2	1	A	A	D	B	4	D
	Cezu	2	1	A	A	D	B	3	B
	Mavundleni	2	1	A	A	C	B	6	B
	Macosa	2	1	A	A	D	B	4	C
	Tafeni	2	1	A	A	B	A	18	A
	Ngwangweni	2	1	B	A	A	A	20	B
Engcobo	Sixhotyeni	2	1	A	A	B	A	16	A
	Luxeni	2	1	A	A	B	A	12	A
	Sigangeni	2	1	A	A	B	A	17	A
	Manzana	2	1	B	B	A	B	21	B
Qumbu	Lower Roza	Other	Other	B	B	D	C	0	B
	Ndwane	Other	Other	D	D	C	D	10	D
	Ncalukeni	2	2	D	D	A	C	28	D
	Ndasane	2	2	A	A	A	A	28	A
	Mvumelwano	2	2	A	A	A	A	32	B
Tabankulu	Dambeni	2	1	A	A	D	B	3	B
	Bhakuba	2	1	A	A	C	B	7	B
	Kwazulu B	2	1	B	B	D	C	5	B
	Kwazulu D	2	1	B	B	D	C	5	B
Average								12	

N.B.: *1 Level 1 = Handpump scheme; Level 2 = Communal tap system; Other = Neither Level 1 nor Level 2
*2 A: High; B: Moderate; C: Low, D: Very Low or None

4) Sanitation Related Conditions

The present sanitation conditions of the study villages are listed in the next table. The average national coverage rate for toilets is about 79%, but the average for the study villages is a little lower at 57%. However, this rate is much higher than the average rate for Eastern Cape of about 26%. Furthermore, routine sanitary behaviors of the target villages are very well obeyed, which implies that the sanitation awareness of the target villages are above average.

Present Sanitation Conditions

District	Village Name	Toilet Coverage	Diarrhea Cases in past 2 wks	Received Hygiene Education	Water Container Covered	Store Water on Platform	Boil Water & Drink	Wash Hands bef. Eat	Wash Hands aft. Toilet use	Wash Food & Prepare
Ngqeleni	Kumaxhaka	18	6	47	94	94	91	91	91	91
	Qanqu	74	3	3	94	94	88	100	100	100
	Didi	82	0	12	62	100	74	100	100	100
	Ezinkozweni	84	47	22	97	100	100	100	100	100
	Kuleka	85	0	10	100	98	42	100	100	100
Umtata	Sikobeni	80	0	11	63	100	71	100	100	100
	Centuli	11	0	41	91	91	73	100	100	89
	Dlova	4	0	79	100	100	90	96	96	92
	Upper Xongora	80	13	80	100	100	80	100	100	100
	Lower Centuli	30	0	45	100	91	0	100	100	100
	Gubevu	91	0	30	98	96	54	98	100	100
Mqanduli	Luxolweni	80	13	80	100	100	80	100	100	100
	Cezu	16	5	3	97	97	21	97	100	84
	Mavundleni	47	27	33	90	100	53	100	100	100
	Macosa	55	0	24	87	55	76	97	97	82
	Tafeni	69	13	13	91	100	22	100	100	100
	Ngwangweni	94	0	25	100	94	44	97	100	100
Engcobo	Sixhotyeni	100	0	7	100	100	100	100	100	100
	Luxeni	20	0	0	100	100	80	100	100	100
	Sigangeni	67	7	27	100	100	60	100	100	100
	Manzana	95	0	31	98	97	53	98	98	100
Qumbu	Lower Roza	80	0	0	100	100	100	100	100	100
	Ndwane	64	0	0	93	61	100	100	100	100
	Ncalukeni	53	33	53	100	100	93	100	100	100
	Ndasane	60	20	40	100	100	100	100	100	100
	Mvumelwano	93	33	33	100	100	100	100	100	100
Tabankulu	Dambeni	5	3	5	93	54	61	100	100	100
	Bhakuba	53	20	57	87	83	45	100	100	97
	Kwazulu B	13	0	39	85	89	71	100	100	93
	Kwazulu D	13	0	39	85	89	71	100	100	93
Average		57%	8%	30%	94%	93%	70%	99%	99%	97%

According to the needs ranking, the need for sanitation is placed very low for the target villages. This reason seems to stem from the fact that most of the villages already possess some kind of latrines. If new toilets are to be constructed, the target villages prefer private ones rather than public types. Although health and hygiene are being practiced by many, their awareness towards sanitation is very low. The level of awareness on sanitation and the request of the target villages are listed below.

Awareness towards Sanitation

District	Village Name	Toilet Needs	Willing to Use Public Toilet	Awareness on Sanitation*1					Comment
				Aware. Effect	Health Aware	Pract. Hyg.	Maint. Toilet	Over all	
Ngqeleni	Kumaxhaka	A	C	C	D	D	D	D	Want health/hygiene educ.
	Qanqu	D	C	D	D	B	D	C	High toilet coverage
	Didi	D	C	C	D	C	D	C	High toilet coverage
	Ezinkozweni	D	D	C	C	C	B	C	High toilet coverage
	Kuleka	D	C	D	D	B	C	C	High toilet coverage
Umtata	Sikobeni	D	C	C	D	B	D	C	High toilet coverage
	Centuli	D	D	C	B	C	C	C	Not need toilet
	Dlova	C	D	C	D	D	D	D	Want household toilet
	Upper Xongora	A	D	D	C	D	D	D	High toilet coverage
	Lower Centuli	C	C	D	D	C	C	C	Want household toilet
	Gubevu	B	D	B	D	B	B	B	High toilet coverage
Mqanduli	Luxolweni	D	D	C	D	A	A	B	High toilet coverage
	Cezu	B	D	C	D	D	D	D	Want household toilet
	Mavundleni	C	D	D	D	C	C	C	Want household toilet
	Macosa	A	D	B	D	C	C	C	Want household toilet
	Tafeni	C	D	D	D	B	C	C	Want household toilet
	Ngwangweni	C	D	C	C	B	D	C	High toilet coverage
Engcobo	Sixhotyeni	C	B	B	D	A	A	B	High toilet coverage
	Luxeni	B	B	B	D	A	A	B	Not need toilet
	Sigangeni	C	B	B	D	A	A	B	Not need toilet
	Manzana	D	B	B	C	B	B	B	High toilet coverage
Qumbu	Lower Roza	B	D	D	D	C	C	C	High toilet coverage
	Ndwane	B	D	D	D	D	D	D	Not need toilet
	Ncalukeni	D	D	D	C	B	A	B	Not need toilet
	Ndasane	D	D	B	D	B	A	B	Not need toilet
	Mvumelwano	B	D	C	D	B	A	B	High toilet coverage
Tabankulu	Dambeni	B	B	D	D	C	D	D	Make toilet by self
	Bhakuba	B	B	C	D	D	D	D	Make toilet by self
	Kwazulu B	C	B	C	D	C	C	C	Want public toilet
	Kwazulu D	C	B	C	D	C	C	C	Want public toilet

N.B.: *1 A: High; B: Moderate; C: Low, D: Very Low or None

5) Evaluation Ranking

The results of the socio-economic survey were evaluated and summarized as shown in the table below. The study villages are evaluated by ranking them from A to C for water related results and from A to D for sanitation related results according to the conditions described below.

Socio-Economic Evaluation Ranking for Water Project Participation

A: Villages which showed high willingness to use community taps and to participate in operation and maintenance of the facilities.

B: Villages which showed medium to high willingness to use community taps, but various degrees of willingness to participate in O&M.

C: Villages which did not showed much willingness to use community taps and also were not to eager to participate in O&M.

Socio-Economic Evaluation Ranking for Sanitation Project Participation

A: Villages which have high needs for toilets and showed positive willingness to use public toilets.

B: Villages which showed various levels of needs to toilet, but do not oppose using public toilets.

C: Villages which are not willing to use public toilets.

D: Villages which already have a toilet coverage of over 80%, in consideration of the national rate for toilet non-coverage of about 21%.

Evaluation Ranking of Socio-Economic Survey Results

District	Village Name	Evaluation		District	Village Name	Evaluation	
		Water	Sanit.			Water	Sanit.
Ngqeleni	Kumaxhaka	B	A	Engcobo	Sixhotyeni	A	D
	Qanqu	A	B		Luxeni	A	A
	Didi	B	D		Sigangeni	A	A
	Ezinkozweni	B	D		Manzana	B	D
	Kuleka	B	D	Qumbu	Lower Roza	C	D
Umtata	Sikobeni	B	D		Ndwane	C	C
	Centuli	B	C		Ncalukeni	C	C
	Dlova	B	C		Ndasane	B	C
	Upper Xongora	B	D		Mvumelwano	A	D
	Lower Centuli	C	B	Tabankulu	Dambeni	B	A
	Gubevu	B	D		Bhakuba	B	A
Mqanduli	Luxolweni	B	D		Kwazulu B	B	A
	Cezu	B	C		Kwazulu D	B	A
	Mavundleni	A	C	Total		A: 8 B:18 C: 4	A: 7 B: 2 C: 9 D:12
	Macosa	B	C				
	Tafeni	A	C				
	Ngwangweni	A	D				

A6-1-5 Facilities Survey

1) *Existing Conditions*

The study target villages were surveyed for the layout of the villages; location and state of existing facilities; accessibility into the villages and for equipment to approach proposed water sources; possible sites for new facilities (water source, pump house, pipeline, reservoir, tapstands, etc.); and other parameters required for planning and designing the water supply and sanitation facilities. The existing facilities and infrastructures are listed below.

Existing Facilities and Infrastructures

District	Village Name	Electricity Available	School		Present Water Supply	
			Possess	Latrine	Source	Sufficient
Ngqeleni	Kumaxhaka	Yes	Yes	VIP	Spring	No
	Qanqu	Yes	Yes	VIP	Dam water to reservoirs, supplied thru tapstands. Stream	No
	Didi	Yes	Yes	VIP	Stream, Spring	No
	Ezinkozweni	Yes	Yes	VIP	Stream, Spring	No
	Kuleka	Yes	Yes	VIP	Stream	No
Umtata	Sikobeni	Yes	Yes	VIP	Stream	No
	Centuli	No	Yes	Pit	Stream	No
	Dlova	Yes	Yes	Broken	Stream	No
	Upper Xongora	Yes	Yes	VIP	Stream	No
	Lower Centuli	No	Yes	VIP	Stream, Spring, Handpump	No
	Gubevu	No	Yes	Broken	Stream	No
Mqanduli	Luxolweni	Yes	No	—	Stream, Spring	No
	Cezu	Yes	Yes	VIP	Stream, Spring	No
	Mavundleni	Yes	No	—	Stream	No
	Macosa	Yes	Yes	Broken	Borehole to elevated tanks, supplied thru tapstands. Stream	Yes
	Tafeni	Yes	Yes	VIP	Rainwater, Handpump, Spring	No
	Ngwangweni	Yes	No	—	Stream, Spring	No
Engcobo	Sixhotyeni	Yes	No	—	Spring and dam water to reservoirs, supplied thru tapstands. Stream	Yes
	Luxeni	Yes	No	—		
	Sigangeni	Yes	No	—		
	Manzana	Yes	Yes	VIP		
Qumbu	Lower Roza	Yes	Yes	VIP	Stream, Spring	No
	Ndwane	Yes	Yes	VIP	Stream, Spring	No
	Ncalukeni	Yes	No	—	Stream, Handpump, Spring	No
	Ndasane	Yes	Yes	VIP	Stream, Spring	No
	Mvumelwano	Yes	Yes	Broken	Stream, Spring	No
Tabankulu	Dambeni	No	Yes	VIP	Stream, Spring	No
	Bhakuba	Yes	Yes	Broken	Stream, Handpump	No
	Kwazulu B	No	Yes	Pit	Handpump, Stream	No
	Kwazulu D	No	No	—	Stream	No

2) Topographic Conditions

The study villages are located on hills having altitudes from 760 m to over 1,300 m. The residences are scattered on top of these hills. The topographic conditions of the target villages as well as their accessibilities are shown in the table below.

Topographic Conditions

District	Village Name	Approx. Area (km^2)	Altitude (m ASL)		Height Difference between Proposed Water Source & Proposed Reservoir	Accessibility	
			Lowest	Highest		Into Village	To Proposed Water Source
Ngqeleni	Kumaxhaka	0.8	760	820	80	Good	Good
	Qanqu	0.9	820	903	140	Good	Good
	Didi	0.9	830	880	70	Good	Good
	Ezinkozweni	1.0	824	875	80	Good	Good
	Kuleka	1.5	760	828	80	Good	Good
Umtata	Sikobeni	1.6	920	1,020	90	Good	Good
	Centuli	1.7	760	833	70	Good	Good
	Dlova	1.8	860	1,040	150	Good	Good
	Upper Xongora	1.0	900	1,000	70	Good	Good
	Lower Centuli	1.8	780	860	70	Good	Good
	Gubevu	0.8	860	1,000		Good	Good
Mqanduli	Luxolweni	0.7	825	890	–	Good	Good
	Cezu	1.2	840	910	90	Good	Good
	Mavundleni	1.3	820	880	110	Good	Good
	Macosa	1.2	777	850	–	Good	Good
	Tafeni	1.5	890	974	150	Good	Good
	Ngwangweni	0.9	795	852	–	Good	Fair
Engcobo	Sixhotyeni	0.3	840	900	–	Good	Difficult
	Luxeni	0.1	860	900	–	Good	
	Sigangeni	0.4	870	930	–	Good	
	Manzana	1.5	820	901	–	Good	
Qumbu	Lower Roza	1.3	840	930	70	Good	Good
	Ndwane	1.6	960	1,067	150	Good	Good
	Ncalukeni	0.8	940	979	–	Good	Good
	Ndasane	0.6	960	1,032	150	Good	Good
	Mvumelwano	0.6	940	1,050	–	Good	Good
Tabankulu	Dambeni	8.6	900	1,304	100	Good	Good
	Bhakuba	3.5	1,100	1,234	200	Good	Good
	Kwazulu B	1.5	1,040	1,220	140	Good	Good
	Kwazulu D	0.5	940	1,060	–	Difficult	Difficult

3) Water Supply Planning

Since Level 2, piped system with communal tapstands, will be the focal water scheme, grouping of villages to optimize service becomes essential. The water scheme groups are listed below along with their water service level.

Water Scheme Groups and Service Level

District	Water Scheme Group	Feasible Service Level*		Comments
		Level 2	Level 1	
Ngqeleni	1. Kumaxhaka	○		
	2. Qanqu	○		
	3. Didi	○		
	4. Ezinkozweni	○		
	5. Kuleka	○		
Umtata	6. Sikobeni	○		
	7. Centuli	○		
	8. Dlova	○		
	9. Upper Xongora	○		
	10. Lower Centuli		○	
	11. Gubevu	○		
Mqnduli	12. Luxolweni, 16. Tafeni	○		
	13. Cezu, 14. Mavundleni	○		
	15. Macosa			Existing water scheme suffices
	17. Ngwangweni		○	
Engcobo	18. Sixhotyeni, 19. Luxeni, 20. Sigangeni, 21. Manzana			Existing scheme suffices if pump engine is repaired.
Qumbu	22. Lower Roza, 24. Ncalukeni, 25. Ndasane	○		
	23. Ndwane, 26. Mvumelwano	○		
Tabankulu	27. Dambeni, 28. Bhakuba	○		
	29. Kwazulu B	○		
	30. Kwazulu D		○	
Total		16	3	

*N.B.: Level 1 = Handpump scheme, Level 2 = Communal tap system

4) Toilet in Schools

As a measure to prevent water-borne diseases such as chlolera, provision of sanitation facilities were considered. During the first field survey, considerations were placed on providing toilets as public infrastructures, and during the second field survey, the concept on sanitation was focused on construction of toilets in primary schools. The results of survey on toilets in the schools located in the study sites are shown in the next table.

Condition of Toilets in Schools

Local Municipality	Village Name	School Name	School Type	No. of Puplis			No. of Teachers	No. of Classrooms	No. of Existing Toilets				No. of Planned Renewals	No. of Planned New Toilets	Toilet Condition
				Total	Boys	Girls			Total	Boys'	Girls'	Teachers			
Nyandeni	Kumaxhaka	Maxaka	JSS	357	144	213	12	8	16	8	6	2	None	None	VIP/Brick, CSS: CSS collapsed
	Qanqu	Batonge	JSS	450	275	175	7	8	8	3	3	2	None	None	VIP/Brick: Good Condition
	Didi	Moyake	JSS	275			12	7	12	5	5	2	None	None	VIP/Brick: Good Condition
	Ezinkozweni	Mafini	JSS	370	192	178	9	10	7	3	3	1	None	None	VIP/Brick: Good Condition
	Kuleka	C.H.Bokleni	SSS	1,243	643	600	44	19	22	6	8	8	None	None	VIP/Brick, CSS: CSS collapsed
KSD	Sikobeni	Kulanati	SSS	850	331	469	18	9	6	2	2	2	None	None	VIP/Concrete; Deterioated
	Centuli	Jongibandla	JSS	504	214	290	15	10	8	3	3	2	None	None	Pit/CSS: Pit full
	Dlova	Centuli	PJSS	335	149	186	11	8	0	0	0	0	None	None	Pit/CSS: Collapsed
	Upper Xongor	Upper Xongora	JSS	463	225	238	13	8	2	0	0	2	None	10	VIP/Brick: Plan for new toilets
	Guvebu	Esikobeni	PJSS	300	157	143	8	5	5	1	3	1	None	None	Pit/CSS: Collapsed
	Luxolweni	Share with Tafeni													
	Cezu	Cezu	JSS	755	346	409	21	4	8	3	3	2	None	Have Plan	VIP/Brick: Plan for new toilets
	Mavundleni	Share with Cezu													
	Tafeni	Upper Ngquwara	JSS	400	200	200	10	9	12	5	5	2	None	None	VIP/Brick: Good Condition
Mhlontlo	Lower Roza	Lower Roza	JSS	390			16	10	21	9	8	4	None	None	VIP/Concrete: Some walls broken
	Ndwane	Ndwane	JSS	378	209	169	12	10	12	5	5	2	None	None	VIP/Concrete: Fair Condition
	Ncalukeni	Share with Ndasane													
	Ndasane	Ndasana	JSS	489	256	233	14		10	4	4	2	None	None	VIP/Concrete: Good Condition
	Mvumelwano	Mvumelwano	JSS	760	382	378	24	8	16	3	7	6	None	None	Pit/CSS: Pit full
Ntabankulu	Dambeni	Damba	JSS	830	510	320	16	11	10	4	4	2	None	None	Pit/CSS: Pit full
		Mabudu	JSS	512			9	13	19	8	8	3	None	None	VIP/Brick: Good Condition
		Mfazwe	SSS	300	130	170	10	3	0	0	0	0	Have Plan	None	Have renovation plan
	Bhakuba	Bakuba	JSS	635	318	317	14	11	12	5	5	2	None	None	Pit/CSS: Deterioated
		Daluvolo	JPS	275	140	135	3	3	1	0	0	1	None	None	Pit/CSS: Pit full
	Kwazulu	Zoko	JSS	464	361	303	10	9	10	4	4	2	None	None	Pit/Concrete: Pit full

CSS: Corrugated Steel Sheet

A6-2 Result of Socio-Economic Survey

This section has focused on the collection of baseline information related to the socio-economic conditions of the target villages. In particular, the main concern at this stage is to grasp general feature and verify a realistic possibility to implement a water and sanitation project in the target villages from the social point of view.

The survey has been done in cooperation with a local social consultant firm based in Umtata. The target villages are thirty (30), located in six (6) Magisterial Districts; six (6) survey teams were organized and worked simultaneously and each team was composed of one surveyor and several assistants recruited from each target village after consulting with each village representatives. In addition, one senior staff has supervised the overall procedure of this survey and prepared a preliminary analysis report.

1. Survey procedure

The survey was conducted in three (3) steps.

First, in order to collect general information for the target villages, the surveyors have overviewed each allocated area through the key informant interview. This is because available information was not accurate enough to start household questionnaire survey and other surveys. In this first step, several topics were selected for inquiry. Yet, the focal point was to identify the target village itself, and in particular, household number and population.

Second, the household questionnaire survey was done by the local assistants under the supervision of the surveyors. The total sampling number was fixed in advance, thus the sampling number in each village has been allocated under the fixed number. For statistical correctness the sample size would have been increased, because the actual population was larger than the expected population. While this may limit the application of this survey to some extent, it can still be meaningful as a baseline comparison for each village.

Third, the complementary surveys listed below using participatory tools were conducted by the surveyors.

1) Semi-structured interview with the representatives
2) Mapping
3) Needs Ranking

The results of the household questionnaire survey were coded and other qualitative information were complied with coded numerical data. Finally, the preliminary analysis was conducted by the senior staff. The following report is prepared based on the above information.

2. Remarks

In this report, although each site is identified by the name of the village, it is not always accurate. For example, the names of villages are sometimes thought to be area names including several villages or other times a part of one village. In addition, the names that are indicated by South African officials do not always coincide with local people's understanding.

3. Summary of household questionnaire survey

1) Feature of residents

To show the characteristics of the residents in the surveyed villages, the following is a summary of the general situation on educational background and housing type of the respondents in the household questionnaire survey. According to the national statistics data, "*South Africa Survey 2000/2001*", the percentage of Africans in 1999 without formal education is 14.8%. The level of educational background in most of the surveyed villages is worse than this level and only five (5) villages are better. In addition, as for the percentage of completion of more than sixth (6^{th}) grade, it is less than 10% in eight (8) villages. While the level of educational background is thought to be a very influential factor for the living and economic condition in the long run, the limitation of local human resources would be a critical condition to execute the community-based activity immediately. The level of educational background varies from village to village and general tendency is not recognized among Magisterial Districts.

Summary of Educational Background

	No Education	<Grade3	<Grade6	>Grade6
Average	36.8%	16.8%	19.9%	27.2%
Minimum	0.0%	0.0%	0.0%	0.0%
Maximum	100.0%	45.8%	50.0%	80.0%

As for housing type, the majority lives in a traditional hut, yet a modern brick house is a major housing type in some villages that are located along the paved main road. From the questionnaire survey, the consistent correlation between housing type and economic condition cannot be confirmed.

Summary of Housing Type

	Traditional hut	Modern brick	Others
Average	73.6%	26.7%	2.6%
Minimum	10.5%	0.0%	0.0%
Maximum	100.0%	89.5%	20.0%

2) Water use condition

The major water source for drinking and cooking is considered to be river in most of the surveyed villages and spring or private rain tank are other popular sources. This result coincided with the result of the mapping survey conducted as a complementary survey. In some villages it is recognized that there are public water supply facilities (communal taps or hand pumps). However, the survey result does not clearly confirm it. Considering this situation, it is inferred that the condition of water supply facilities does not necessarily meet the villagers' needs. The prominent problem related to water source is the water quality: dirty, smelly and salty. In addition, the villagers also point out the long distance from their residential area to the water source as a problem. Finally, fetching water is predominantly a burden for adult females and girls. Although such a situation would be common in rural society, it should be required to give a certain consideration to adult females and girls in case of the water supply projects in rural areas. This is because they are considered to be the direct beneficiaries and the most affected groups.

3) Sanitation facilities

According to the national statistics book, "*South Africa Survey 2000/2001*", the percentage of no sanitation facility in 1999 is 21% in non-urban areas and 9% nation wide. Thus, it is obvious to say that some surveyed villages are in very poor situations considering the national level. The pit latrine is overwhelmingly a major option in the surveyed villages. As for such households that do not have any sanitation facilities, people use veld (bush) and donga (valley) in the field as toilet.

Percentage of No Sanitation Facilities

	<20%	<40%	<60%	<80%	>80%
Num. of villages	12	5	4	2	6

*The total number of villages is twenty-nine (29), because Kwazulu B and Kwazulu D are coded as one village.

Here, one remark should be made. From the survey result, certain number of households has sanitation facilities but those are considered to be unused. For, the villagers who have sanitation facilities also respond that they use veld or donga as toilet simultaneously. In addition, "*pit is too full*" is a highly frequent answer related to the problem with sanitation facilities. Considering such a situation, in case of promoting sanitation facilities, it would be better to be considered that there are certain villagers which do not use sanitation facilities although having it.

4) Willingness to participate in communal activities

To know the willingness to participate in communal activities, in particular, rural water supply project, three indicators would be helpful to estimate it.

The first indicator is willingness to bear the cost to receive the service. At this stage, the contents of service have not yet been explained clearly, thus the amount itself is not considered to be a realistic indicator. Moreover, the correlation between willingness to use communal taps and willingness to bear the cost almost coincides, thus those villages where the villagers want to use communal taps has also willingness to bear the cost.

The second indicator is who is supposed to be responsible to maintain the facilities. If people tend to show the willingness to do it by themselves, it would be possible to estimate that they have potentially positive attitude to participate in communal activities. However, if they tend to depend on help out of their village, it means they have rather negative attitude to participate in any communal activities. In fact, some villages show high expectation towards the municipality as a responsible organization to maintain the facilities. If such villages are included in the project, it should be given a careful and detailed explanation about their benefits and responsibilities in advance to avoid future trouble.

The third indicator is the level of hygiene awareness. In case of water supply projects, people's hygiene awareness would be a very important precondition to start the project. Without such awareness, people would not accept any project to improve the water condition, especially, if they are required to contribute to it. In any case, it would be better to prioritize the promotion of hygiene awareness before starting the water supply project.

5) Economic condition

Although the questionnaire includes the topics related to household income and expenditure, the collected information related to the income is not very reliable due to the small number of responses and inconsistent answers. However, it would be possible to compare the economic condition among the surveyed villages from the information related to the expenditure.

According to the household expenditure, the economic condition varies from village to village and the gap in the expenditure level is more than four (4) times among the surveyed villages. However, it would be possible to infer that the villages that show higher expenditure level have a certain capability to bear the cost for additional public services.

To inquire the detail contents of expenditure items, the expenditure gap in the daily consumption (Groceries), that is the main item of the household expenditure, is not very large compared with that for education. The households that are in higher expenditure level tend to spend more money for education than those in lower expenditure level.

Summary of Main Expenditure Items

	Total Expenditure	Groceries	Education
Average	R894	R265	R130
Minimum	R448	R153	R51
Maximum	R1,923	R368	R387

R=Rand

4. Summary of complementary surveys

1) Semi-structured interview with the representatives

The surveyors have done the semi-structured interview to collect qualitative information to complement the household questionnaire survey. The surveyors selected such a group that was responsible for water and sanitation in the village, if available.

First, as the result of the semi-structured interview, it is admitted that many people are interested in personal sanitation facilities and that public sanitation facilities do not seem to be very much a preferable option.

Second, the hand-pump option as an alternative water supply facility should be very carefully treated. This option does not seem to be very attractive for the villagers and some villagers indicate that the location of the hand-pump is a very important factor. If the expected location is farther than the existing water source, it is better to consult with villagers about the hand-pump option, in particular, female groups, ideally before finalizing this option.

2) Mapping

The mapping survey was done and collected information is useful to complement the information collected by the household questionnaire survey. In the mapping survey, existing water sources are also identified and this information would be also helpful to plan the new water supply facilities in the future.

3) Needs ranking

To know the general needs in each village, the surveyors have done the needs ranking together with village representatives. At first, the participants were requested to rank any required development or needs for the village freely. Secondly, if the sanitation facilities were not ranked, the surveyors requested the participants to add the sanitation facilities and re-rank again.

It is recognized that the result of the second ranking is completely different from the result of the first ranking in same cases. It seems that the participants are confused and do not understand the instruction by the surveyors properly. Therefore, the first ranking would be reliable and the second one is not very trustful. However, from the first ranking, although it is obvious that the water supply is highly prioritized in all villages, the sanitation facilities are not always ranked and the needs are considered not to be very high.

Detail information of each village is attached as well as the form used for the Household Questionnaire Survey

Ngqeleni Magisterial District

1. Kwamaxhaka Village

1-1. Village History

The village is very old. The villagers might be descendants of the people who settled down in this village prior to 1953.

1-2. Development Committee & Community Activities

There is no development committee, but the village group exists. The group is engaged in activities such as poultry farming, agriculture, pig raising, candle making and carpentry.

1-3. Existing Infrastructure

School	Church	Electricity	Clinic	Communal Tap	Hand pump	Communal Toilet
1	5	Available	0	0	0	0

Source: Social Mapping

1-4. Development Needs

Rank	1	2	3	4	5
Needs	Water	Toilets	Clinic	Street Lights	Hall

Source: Needs Ranking

1-5. Quantitative Information

Topics								
Educational background	No education	35%			More than G6	9%		
Housing type	Traditional hut	88%			Modern brick	6%		
Main water source	1st Spring / 2nd River /3rd Private tank							
Willingness to bear the cost	97%							
Who maintain the water supply facilities?	Municipality	62%			Self	3%		
Responsibility to fetch water	Female	91%	Male	3%	Girl	9%	Boy	0%
No sanitation facilities	82%							
Habit for covering a water container	94%							
Habit for storing water on the platform	94%							
Habit for boiling water (always/sometimes)	91%							
Average amount of monthly expenditure (Rand)	Total	720	For education	131	For groceries	252		

Source: Household Questionnaire Survey

1-6. Others

The community is unhappy to exclude Zwelitsha area located opposite side of the main paved road from the project. The participants claim that above area is part of this village.

2. Qanqu Village

2-1. Village History

The village was initially composed of two families: Livode and Nqamakwe. Most of the villagers are the descendants of them. Some villagers came from other groups of communities and settled down here. The village was demarcated during the era of the Group Areas Act of 1960.

2-2. Development Committee & Community Activities

There is no development committee, but the village group exists. The group is engaged in the activities such as poultry farming, agriculture and pig raising.

2-3. Existing Infrastructure

School	Church	Electricity	Clinic	Communal Tap	Hand pump	Communal Toilet
2	4	Available	0	1	0	0

Source: Social Mapping

2-4. Development Needs

Rank	1	2	3	4	5
Needs	Water	Road	Pre-school	Housing	Clinic

Source: Needs Ranking

2-5. Quantitative Information

Topics								
Educational background	No education			56%	More than G6			41%
Housing type	Traditional hut			59%	Modern brick			32%
Main water source	1st River / 2nd Private tank/ 3rd Stock dam							
Willingness to bear the cost	97%							
Who maintain the water supply facilities?	Municipality	0%			Self	0%		
Responsibility to fetch water	Female	71%	Male	6%	Girl	44%	Boy	29%
No sanitation facilities	26%							
Habit for covering a water container	94%							
Habit for storing water on the platform	94%							
Habit for boiling water (always/sometimes)	88%							
Average amount of monthly expenditure (Rand)	Total	637	For education	161	For groceries	269		

Source: Household Questionnaire Survey

2-6. Others

The community was affected by Cholera in 2000. Fortunately, no fatalities were reported. There can be a relationship between the outbreak of Cholera and the fact that the whole community rely on one water source located at the Mission.

3. Didi Village

3-1. Village History

The village was initially composed of about twenty scattered households. After the Group Areas Act of 1960, people have been relocated from other places and settled down in this village.

3-2. Development Committee & Community Activities

There is no development committee and no visible development activities for the past three years.

3-3. Existing Infrastructure

School	Church	Electricity	Clinic	Communal Tap	Hand pump	Communal Toilet
2	1	Available	1	0	0	0

Source: Social Mapping

3-4. Development Needs

Rank	1	2	3	4	5
Needs	Road	Clinic	Income Generation	Water	Fencing

Source: Needs Ranking

3-5. Quantitative Information

Topics								
Educational background	No education			56%	More than G6		3%	
Housing type	Traditional hut			88%	Modern brick		15%	
Main water source	1st River / 2nd Private tank/ 3rd Spring							
Willingness to bear the cost	100%							
Who maintain the water supply facilities?	Municipality	24%			Self	0%		
Responsibility to fetch water	Female	74%	Male	0%	Girl	18%	Boy	3%
No sanitation facilities	18%							
Habit for covering a water container	62%							
Habit for storing water on the platform	100%							
Habit for boiling water (always/sometimes)	74%							
Average amount of monthly expenditure (Rand)	Total	570	For education	105	For groceries	227		

Source: Household Questionnaire Survey

3-6. Others

This village was named Ngcilitshana in the request and later changed to Didi during the field survey upon discussions with the village.

4. Ezinkozweni Village

4-1. Village History

Due to the Group Areas Act, although the households in the village were initially scattered, they were converted into one area. The village formed gradually over the years.

4-2. *Development Committee & Community Activities*

There is no development committee, but the village group exists. The group is engaged in the following projects: bakery, poultry farming, agriculture, pig raising and sewing.

4-3. Existing Infrastructure

School	Church	Electricity	Clinic	Communal Tap	Hand pump	Communal Toilet
1	2	Available	0	0	0	0

Source: Social Mapping

4-4. Development Needs

Rank	1	2	3	4	5
Needs	Road	Water	School	Fencing	Dipping tank

Source: Needs Ranking

4-5. Quantitative Information

Topics								
Educational background	No education		22%		More than G6		53%	
Housing type	Traditional hut		88%		Modern brick		13%	
Main water source	1st River / 2nd Spring/ 3rd Private tank							
Willingness to bear the cost	97%							
Who maintain the water supply facilities?	Municipality		0%		Self		0%	
Responsibility to fetch water	Female	97%	Male	0%	Girl	66%	Boy	3%
No sanitation facilities	16%							
Habit for covering a water container	97%							
Habit for storing water on the platform	100%							
Habit for boiling water (always/sometimes)	100%							
Average amount of monthly expenditure (Rand)	Total	994	For education	122	For groceries	368		

Source: Household Questionnaire Survey

4-6. *Others*

This village was named Didi in the request and later changed to Ezinkozweni during the field survey upon discussions with the village.

5. Kuleka Village

5-1. Village History

The village was initially composed of only four households. After the Group Areas Act of 1960, people have been relocated from other places and settled down in this village.

5-2. *Development Committee & Community Activities*

Although a Water Supply Committee was established, the committee has never held a meeting.

A community woman's group has a project for baking.

5-3. Existing Infrastructure

School	Church	Electricity	Clinic	Communal Tap	Hand pump	Communal Toilet
2	4	Available	1	0	0	0

Source: Social Mapping

5-4. Development Needs

Rank	1	2	3	4	5
Needs	Water	Road	Preschool	Fencing	Hall

Source: Needs Ranking

5-5. Quantitative Information

Topics								
Educational background	No education	19%			More than G6	67%		
Housing type	Traditional hut	62%			Modern brick	35%		
Main water source	1st River / 2nd Spring/ 3rd Private tank							
Willingness to bear the cost	73%							
Who maintain the water supply facilities?	Municipality	37%			Self	19%		
Responsibility to fetch water	Female	77%	Male	12%	Girl	6%	Boy	6%
No sanitation facilities	15%							
Habit for covering a water container	100%							
Habit for storing water on the platform	98%							
Habit for boiling water (always/sometimes)	42%							
Average amount of monthly expenditure (Rand)	Total	813	For education	79	For groceries	274		

Source: Household Questionnaire Survey

6. Sikobeni Village

6-1. Village History

There is no clear information of when the village was established. However, it was likely that the village was consolidated into denser settlements around 1960.

6-2. Development Committee & Community Activities

There is a Development Committee that comprises two (2) females and six (6) males. It encourages local people to participate in projects to improve their quality of life. It holds meetings two times per month, on Saturdays.

As for community activities, a communal dam was constructed in 1996 and still works well. In 2000, the project for electrification has started, but the local committee does not oversee the process due to the lack of prior communication with the village.

6-3. Existing Community Infrastructure

School	Church	Electricity	Clinic	Communal Tap	Hand pump	Communal Toilet
2	1	Available	0	1(not used)	0	0

Source: Social Mapping

6-4. Development Needs

Rank	1	2	3	4	5
Needs	Road	School	Water	Clinic	Fencing

Source: Needs Ranking

6-5. Quantitative Information

Topics								
Educational background	No education			43%	More than G6			23%
Housing type	Traditional hut			91%	Modern brick			14%
Main water source	1st River / 2nd Private tank/ 3rd Spring							
Willingness to bear the cost	100%							
Who maintain the water supply facilities?	Municipality		23%		Self		0%	
Responsibility to fetch water	Female	74%	Male	0%	Girl	17%	Boy	3%
No sanitation facilities	20%							
Habit for covering a water container	63%							
Habit for storing water on the platform	100%							
Habit for boiling water (always/sometimes)	71%							
Average amount of monthly expenditure (Rand)	Total	2,010	For education	387	For groceries	191		

Source: Household Questionnaire Survey

7. Centuli Village

7-1. Village History

Around 1960, the village was consolidated into denser settlements.

7-2. Development Committee & Community Activities

There is a **Development Committee** that comprises five (5) males and three (3) females. It holds meetings weekly and aims to bring the community the projects to improve the quality of life.

There has not been any development for about five (5) years.

7-3. Existing Infrastructure

School	Church	Electricity	Clinic	Communal Tap	Hand pump	Communal Toilet
0	1	Available	1	0	0	0

Source: Social Mapping

7-4. Development Needs

Rank	1	2	3	4	5
Needs	Electricity	Water	Clinic	Road	Brick Making

Source: Needs Ranking

7-5. Quantitative Information

Topics								
Educational background	No education		57%		More than G6		21%	
Housing type	Traditional hut		98%		Modern brick		9%	
Main water source	1st River / 2nd Spring / 3rd Communal tap*							
Willingness to bear the cost	66%							
Who maintain the water supply facilities?	Municipality	0%			Self		16%	
Responsibility to fetch water	Female	55%	Male	9%	Girl	27%	Boy	7%
No sanitation facilities	89%							
Habit for covering a water container	91%							
Habit for storing water on the platform	91%							
Habit for boiling water (always/sometimes)	73%							
Average amount of monthly expenditure (Rand)	Total	877	For education	184	For groceries	153		

Source: Household Questionnaire Survey

*There is no water supply facilities in Centuli Village, thus this information would be incorrect.

8. Dlova Village

8-1. Village History

It is not clear when this village was established, but it seems to be fairly new.

8-2. Development Committee & Community Activities

There is a Development Committee but not yet named. It comprises four (4) females and three (3) males. Meetings are held quarterly. As for community activities, there are no clear information.

8-3. Existing Infrastructure

School	Church	Electricity	Clinic	Communal Tap	Hand pump	Communal Toilet
1	1	Available	0	0	0	0

Source: Social Mapping

8-4. Development Needs

Rank	1	2	3	4	5
Needs	Water	Road	Income Generation	Fencing	Toilet

Source: Needs Ranking

8-5. Quantitative Information

Topics								
Educational background	No education		10%		More than G6		4%	
Housing type	Traditional hut		98%		Modern brick		2%	
Main water source	1st River							
Willingness to bear the cost	69%							
Who maintain the water supply facilities?	Municipality	0%			Self		0%	
Responsibility to fetch water	Female	96%	Male	0%	Girl	38%	Boy	8%
No sanitation facilities	96%							
Habit for covering a water container	100%							
Habit for storing water on the platform	100%							
Habit for boiling water (always/sometimes)	90%							
Average amount of monthly expenditure (Rand)	Total	575	For education	75	For groceries	170		

Source: Household Questionnaire Survey

9. Upper Xongora Village

9-1. *Village History*

There is no clear information of when the village was established. However, it was likely that the village was consolidated into denser settlements around 1960.

9-2. Development Committee & Community Activities

There is a Development Committee that comprises six (6) members. Its aim is to uplift the general condition of the village. It holds meetings fortnightly.

The committee has initiated the following development activities;

- Community clinic and day care center has been organized in 1997.
- A poultry project started in 1998.
-Seventy-one (71) plots of land for agricultural were realized in 2000.

9-3. Existing Infrastructure

School	Church	Electricity	Clinic	Communal Tap	Hand pump	Communal Toilet
1	1	Available	1	0	0	0

Source: Social Mapping

9-4. Development Needs

Rank	1	2	3	4	5
Needs	Toilet	Water	Road	Fencing	Clinic

Source: Needs Ranking

9-5. Quantitative Information

Topics								
Educational background	No education			53%	*More than G6*			7%
Housing type	Traditional hut			80%	Modern brick			27%
Main water source	1st River / 2nd Private tank							
Willingness to bear the cost	100%							
Who maintain the water supply facilities?	Municipality		100%		Self		0%	
Responsibility to fetch water	Female	80%	Male	0%	Girl	40%	Boy	20%
No sanitation facilities	20%							
Habit for covering a water container	100%							
Habit for storing water on the platform	100%							
Habit for boiling water (always/sometimes)	80%							
Average amount of monthly expenditure (Rand)	Total	1,036	For education	167	For groceries	262		

Source: Household Questionnaire Survey

10. Lower Centuli Village

10-1. Village History

It is not clear about the village history. Probably, it has been established for a couple of generations.

10-2. Development Committee & Community Activities

There is a Development Committee to organize development projects for the underdeveloped village. The executive members are made up of three (3) females and two (2) males. It holds meetings quarterly.

No significant development has been initiated for a couple of years.

10-3. Existing Infrastructure

School	Church	Electricity	Clinic	Communal Tap	Hand pump	Communal Toilet
1	2	0	0	0	0	0

Source: Social Mapping

10-4.Development Needs

Rank	1	2	3	4	5
Needs	Water	Road	Income Generation	Fencing	Toilet

Source: Needs Ranking

10-5. Quantitative Information

Topics								
Educational background	No education	38%	More than G6	25%				
Housing type	Traditional hut	84%	Modern brick	16%				
Main water source	1st River / 2nd Private tank/ 3rd Spring							
Willingness to bear the cost	4%							
Who maintain the water supply facilities?	Municipality	39%	Self	0%				
Responsibility to fetch water	Female	61%	Male	0%	Girl	39%	Boy	0%
No sanitation facilities	70%							
Habit for covering a water container	100%							
Habit for storing water on the platform	91%							
Habit for boiling water (always/sometimes)	0%							
Average amount of monthly expenditure (Rand)	Total	595	For education	51	For groceries	336		

Source: Household Questionnaire Survey

11. Gubevu Village

11-1. Village History

Around 1960, the village was consolidated into denser settlements.

11-2. Development Committee & Community Activities

There is a Development Committee that comprises three (3) females and three (3) males members. It holds meetings fortnight. However, there have been no development activities for the past five years.

11-3. Existing Infrastructure

School	Church	Electricity	Clinic	Communal Tap	Hand pump	Communal Toilet
1	1	0	1*	0	0	0

Source: Social Mapping

*Although the clinic is not shown on the Social Mapping, a community clinic is referred as the result of semi-structured interview.

11-4. Development Needs

Rank	1	2	3	4	5
Needs	Water	Toilets	Fencing	Road	Clinic

Source: Needs Ranking

11-5. Quantitative Information

Topics								
Educational background	No education		52%		More than G6		20%	
Housing type	Traditional hut		57%		Modern brick		45%	
Main water source	1st River / 2nd Private tank /3rd Communal well							
Willingness to bear the cost	66%							
Who maintain the water supply facilities?	Municipality		20%		Self		27%	
Responsibility to fetch water	Female	77%	Male	7%	Girl	21%	Boy	18%
No sanitation facilities	9%							
Habit for covering a water container	98%							
Habit for storing water on the platform	96%							
Habit for boiling water (always/sometimes)	54%							
Average amount of monthly expenditure (Rand)	Total	671	For education	60	For groceries	263		

Source: Household Questionnaire Survey

11-6. Others

An old water supply system is totally in disrepair. Thus, the community has given first priority to water.

This village was named Sigubudu in the request and later changed to Gubevu during the field survey upon discussions with the village.

12. Luxolweni Village

12-1. Village History

The village was consolidated into denser settlements around 1960.

12-2. Development Committee & Community Activities

There is neither development nor water committee. However, the village holds a meeting every Sunday.

As for community activities, the following was identified;

-Electricity was introduced in 2000.

-A gravel road was constructed.

12-3. Existing Infrastructure

School	Church	Electricity	Clinic	Communal Tap	Hand pump	Communal Toilet
1	1	Available	1	0	0	0

Source: Social Mapping

12-4. Development Needs

Rank	1	2	3	4	5
Needs	Water	Road	Clinic	Income Generation	Sport field

Source: Needs Ranking

12-5. *Quantitative Information*

Topics								
Educational background	No education		20%		More than G6		20%	
Housing type	Traditional hut		80%		Modern brick		20%	
Main water source	1st River / 2nd Private tank							
Willingness to bear the cost	100%							
Who maintain the water supply facilities?	Municipality	100%			Self		0%	
Responsibility to fetch water	Female	80%	Male	0%	Girl	40%	Boy	20%
No sanitation facilities	20%							
Habit for covering a water container	100%							
Habit for storing water on the platform	100%							
Habit for boiling water (always/sometimes)	80%							
Average amount of monthly expenditure (Rand)	Total	998	For education	104	For groceries	307		

Source: Household Questionnaire Survey

13. Cezu Village

13-1. Village History

The village is very old and is comprised of Lower and Upper Cezu.

13-2. Development Committee & Community Activities

There is a Development Committee, but any other information is not available.

Regarding the community development activities, the following was identified;

-The gravel road was constructed in 1996 and 1997.

-Three boreholes were dug in 1996 and 1997.

-The poles for electricity were set up around 1998, yet electricity service has not yet started.

13-3. Existing Community Infrastructure

School	Church	Electricity	Clinic	Communal Tap	Hand pump	Communal Toilet
1	2	0	0	0	0	0

Source: Social Mapping

13-4. Development Needs

Rank	1	2	3	4	5
Needs	Water	Toilet	Clinic	Road	Dipping Tank

Source: Needs Ranking

13-5. Quantitative Information

Topics								
Educational background	No education		42%		More than G6		13%	
Housing type	Traditional hut		11%		Modern brick		90%	
Main water source	1st River / 2nd Public water supply/ 3rd Spring							
Willingness to bear the cost	89%							
Who maintain the water supply facilities?	Municipality	24%			Self	0%		
Responsibility to fetch water	Female	68%	Male	0%	Girl	74%	Boy	5%
No sanitation facilities	84%							
Habit for covering a water container	97%							
Habit for storing water on the platform	97%							
Habit for boiling water (always/sometimes)	21%							
Average amount of monthly expenditure (Rand)	Total	760	For education	100	For groceries	240		

Source: Household Questionnaire Survey

13-6. Others

Originally, this site was indicated under the name of "Cezu". However, as the result of the survey, it is admitted that "Cezu" includes Lower Cezu and Upper Cezu Villages. After consulting with the South African side, Lower Cezu Village was fixed as the target village. Thus, the accurate name is Lower Cezu Village. Based on this understanding, the survey has done only in Lower Cezu Village.

14. Mavundleni Village

14-1. Village History

The village was established before 1960.

14-2. *Development Committee & Community Activities*

There is a Development Committee that consists of eight (8) members. It is responsible for monitoring the development project in the village.

The following development activities were identified.

-Two (2) boreholes were dug.

-The poles for electricity were set up but the service has not yet started.

(Both of them were implemented before 1998.)

14-3. Existing Infrastructure

School	Church	Electricity	Clinic	Communal Tap	Hand pump	Communal Toilet
0	0	0	0	0	0	0

Source: Social Mapping

14-4. Development Needs

Rank	1	2	3	4	5
Needs	Road	Water	Fencing	Toilet	Clinic

Source: Needs Ranking

14-5. Quantitative Information

Topics								
Educational background	No education		50%		More than G6		7%	
Housing type	Traditional hut		87%		Modern brick		13%	
Main water source	1st River / 2nd Spring / 3rd Private tank							
Willingness to bear the cost	97%							
Who maintain the water supply facilities?	Municipality	0%			Self	0%		
Responsibility to fetch water	Female	63%	Male	3%	Girl	50%	Boy	13%
No sanitation facilities	53%							
Habit for covering a water container	90%							
Habit for storing water on the platform	100%							
Habit for boiling water (always/sometimes)	53%							
Average amount of monthly expenditure (Rand)	Total	607	For education	107	For groceries	238		

Source: Household Questionnaire Survey

14-6. Others

The villagers commented that they could not afford to pay for anything since the community was very poor.

15. Macosa

15-1. Village History

It is thought that the village was formed and started in 1930 together with a mission.

15-2. Development Committee & Community Activities

There is a Water Committee to look after water supply facilities. Eight (8) members were originally selected for the committee, but three (3) have left to work out of the village.

The following development activities have been implemented in recent years.

-The water supply facilities were constructed as a part of El Nino Program.

-The telecommunication service was introduced. (Due to the lack of prior arrangement with the villagers, the villagers refused to pay for their phone bill and the telecommunication services were suspended.)

-A road construction was completed.

15-3. Existing Infrastructure

School	Church	Electricity	Clinic	Communal Tap	Hand pump	Communal Toilet
3	2	0	0	8	0	0

Source: Social Mapping

15-4. Development Needs

Rank	1	2	3	4	5
Needs	Toilet	Clinic	Road	Water	Electricity

Source: Needs Ranking

15-5. Quantitative Information

Topics								
Educational background	No education		53%		More than G6		0%	
Housing type	Traditional hut		63%		Modern brick		32%	
Main water source	1st River							
Willingness to bear the cost	84%							
Who maintain the water supply facilities?	Municipality	0%			Self	0%		
Responsibility to fetch water	Female	97%	Male	0%	Girl	0%	Boy	3%
No sanitation facilities	45%							
Habit for covering a water container	87%							
Habit for storing water on the platform	55%							
Habit for boiling water (always/sometimes)	76%							
Average amount of monthly expenditure (Rand)	Total	549	For education	91	For groceries	237		

Source: Household Questionnaire Survey

15-6. Others

The community wants to install additional public taps on the other side of the village.

16. Tafeni Village

16-1. Village History

This village was established a long time ago together with three (3) other villages: Entla Kwendlela, Jojweni and Manzotweni.

16-2. Development Committee & Community Activities

There is a Water Development Committee that comprises twelve (12) members. Meetings are held when necessary.

As for the community activities, the following is identified;

-The electrification started in April 2000 but not yet completed.

-Two (2) boreholes were dug and one works well.

16-3. Existing Infrastructure

School	Church	Electricity	Clinic	Communal Tap	Hand pump	Communal Toilet
1*	1	Available	0	0	1	0

Source: Social Mapping

*Although a school is not identified on the Social Mapping, the villagers referred to a school in the semi-structured interview.

16-4. Development Needs

Rank	1	2	3	4	5
Needs	Water	Road	Clinic	Fencing	Toilet

Source: Results of PRA Needs Ranking

16-5. Quantitative Information

Topics								
Educational background	No education			11%	More than G6		64%	
Housing type	Traditional hut			22%	Modern brick		78%	
Main water source	1st Private tank /2nd River / 3rd Stock dam							
Willingness to bear the cost	100%							
Who maintain the water supply facilities?	Municipality		4%		Self		78%	
Responsibility to fetch water	Female	96%	Male	4%	Girl	0%	Boy	0%
No sanitation facilities	31%							
Habit for covering a water container	91%							
Habit for storing water on the platform	100%							
Habit for boiling water (always/sometimes)	22%							
Average amount of monthly expenditure (Rand)	Total	573	For education	68	For groceries	197		

Source: Household Questionnaire Survey

16-6. Others

There is a serious need for reconstruction of roads, toilets and individual taps. Communal taps are also acceptable. A hand pump works well, but it is located far from their houses.

17. Ngwangweni Village

17-1. Village History

There is no clear information of when the village was established. Originally, this village is a part of Upper Xhonga.

17-2. Development Committee & Community Activities

There is a Village Committee to oversee general issues including water and development. It consist of ten (10) members.

The following development activities have been implemented in this community.

-Although the facilities for the electrification has already completed, the services has not yet started.

-Although the water supply facilities with one borehole and two (2) tanks were installed, they have not worked since the beginning.

17-3. Existing Infrastructure

School	Church	Electricity	Clinic	Administrative House	Communal Tap	Hand pump	Communal Toilet
0	0	0	0	1	0	0	0

Source: Social Mapping

17-4. Development Needs

Rank	1	2	3	4	5
Needs	Water	Clinic	Road	School	Toilet

Source: Needs Ranking

17-5. Quantitative Information

Topics								
Educational background	No education	31%			More than G6	6%		
Housing type	Traditional hut	81%			Modern brick	41%		
Main water source	1st River /2nd Communal tap* / 3rd Private tank							
Willingness to bear the cost	69%							
Who maintain the water supply facilities?	Municipality	6%			Self	31%		
Responsibility to fetch water	Female	66%	Male	9%	Girl	44%	Boy	22%
No sanitation facilities	6%							
Habit for covering a water container	100%							
Habit for storing water on the platform	94%							
Habit for boiling water (always/sometimes)	44%							
Average amount of monthly expenditure (Rand)	Total	1,102	For education	239	For groceries	288		

Source: Household Questionnaire Survey

*Since there are no working water supply facilities in this village, this result would be incorrect.

Engcobo Magisterial District

18. Sixhotyeni Village
19. Luxeni
20. Sigangeni

18/19/20-1. Village History

These villages were formed and consolidated into denser settlements around 1960.

18/19/20-2. Development Committee & Community Activities

There is neither Development Committee nor Water and Sanitation Committee. Three (3) adjacent villages (Sixhotyeni, Luxeni and Sigangni) always work together with the Manzana Development Committee.

The following community development projects were implemented recently.

-Water supply facilities were provided by former Transkeian Government in 1983. In addition, a hand pump and an engine were also provided. However, due to the lack of the community's responsibility, they were broken and the engine was removed by the Government.

-An access road was constructed with the co-operation of the community in 1996.

-Electrification was realized in 1999.

18/19/20-3. Existing Infrastructure

	School	Church	Electricity	Clinic	Communal Tap	Hand pump	Communal Toilet
Sixhotyeni	0	0	1	0	1(not used)	0	0
Luxeni	0	0	1	0	0	0	0
Sigangeni	0	0	1	0	3(not used)	0	0

Source: Social Mapping

18/19/20-4. Development Needs

	1	2	3	4	5
Sixhotyeni	Water	Road	Hall	Agriculture project	Toilet
Luxeni	Water	Toilet	Agriculture project	Road	Hall
Sigangeni	Water	Road	Hall	Agriculture project	Toilet

Source: Needs Ranking

18-5. Quantitative Information (Sixhotyeni)

Topics								
Educational background	No education			27%	More than G6			33%
Housing type	Traditional hut			53%	Modern brick			47%
Main water source	1st River / 2nd Spring/ 3rd Private tank							
Willingness to bear the cost	100%							
Who maintain the water supply facilities?	Municipality		0%		Self		100%	
Responsibility to fetch water	Female	67%	Male	7%	Girl	53%	Boy	7%
No sanitation facilities	0%							
Habit for covering a water container	100%							
Habit for storing water on the platform	100%							
Habit for boiling water (always/sometimes)	100%							
Average amount of monthly expenditure (Rand)	Total	1,923	For education	288	For groceries	350		

19-5. Quantitative Information (Luxeni)

Topics								
Educational background	No education			0%	More than G6			60%
Housing type	Traditional hut			100%	Modern brick			0%
Main water source	1st River							
Willingness to bear the cost	100%							
Who maintain the water supply facilities?	Municipality		0%		Self		100%	
Responsibility to fetch water	Female	100%	Male	0%	Girl	80%	Boy	0%
No sanitation facilities	80%							
Habit for covering a water container	100%							
Habit for storing water on the platform	100%							
Habit for boiling water (always/sometimes)	80%							
Average amount of monthly expenditure (Rand)	Total	608	For education	58	For groceries	262		

20-5. Quantitative Information (Sigangeni)

Topics								
Educational background	No education			7%	More than G6			80%
Housing type	Traditional hut			100%	Modern brick			0%
Main water source	1st River / 2nd Private tank							
Willingness to bear the cost	100%							
Who maintain the water supply facilities?	Municipality		7%		Self		87%	
Responsibility to fetch water	Female	100%	Male	0%	Girl	60%	Boy	0%
No sanitation facilities	33%							
Habit for covering a water container	100%							
Habit for storing water on the platform	100%							
Habit for boiling water (always/sometimes)	60%							
Average amount of monthly expenditure (Rand)	Total	857	For education	93	For groceries	285		

Source: Household Questionnaire Survey

18/19/20-6. Others

The above three (3) villages are located closely to each other and the sizes of villages are very small compared with Manzana Village. In actuality, they keep very close relationship with Manzana Village and their position is like a part of Manzana Village.

21. Manzana Village

21-1. Village History

This village was consolidated into denser settlements around 1960.

21-2. Development Committee & Community Activities

There is a Development Committee. Membership is open to all community members. A meeting is organized every Friday.

The following community development projects have been implemented recently.

-Water supply facilities were provided by former Transkeian Government in 1983. Due to the lack of the community's responsibility, the equipment fell into disrepair quickly.

-An access road was constructed in 1996.

-Electrification was realized in 1999.

21-3. Existing Infrastructure

School	Church	Electricity	Clinic	Communal Tap	Hand pump	Communal Toilet
2	2	Available	1	4(used) and 4(not used)	0	0

Source: Social Mapping

21-4. Development Needs

Rank	1	2	3	4	5
Needs	Road	Water	Agriculture Project	Hall	Preschool

Source: Needs Ranking

21-5. Quantitative Information

Topics								
Educational background	No education			21%	More than G6		42%	
Housing type	Traditional hut			71%	Modern brick		29%	
Main water source	1st River / 2nd Communal taps /3rd Private tank							
Willingness to bear the cost	66%							
Who maintain the water supply facilities?	Municipality		18%		Self		24%	
Responsibility to fetch water	Female	76%	Male	13%	Girl	32%	Boy	18%
No sanitation facilities	5%							
Habit for covering a water container	98%							
Habit for storing water on the platform	97%							
Habit for boiling water (always/sometimes)	53%							
Average amount of monthly expenditure (Rand)	Total	1,675	For education	204	For groceries	353		

Source: Household Questionnaire Survey

21-6. Village's Concern

Manzana Village comprises four (4) areas; Komkulu, Mission, Cottage and Ntshobela. According to the instruction from South African side, the target areas for the project are Komkulu, a part of Mission and a part of Ntshobela.

Qumbu Magisterial District

22. Lower Roza

22-1. Village History

There is no clear information about the village history. Probably, it has been established for a couple of generations.

22-2. Development Committee & Community Activities

There is a Development Committee to organize development projects in this underdeveloped village. The executive members are composed of three (3) females and two (2) males. However, any accomplishment has not yet been realized and no significant development has taken place for a couple of years.

22-3. Existing Infrastructure

School	Church	Electricity	Clinic	Communal Tap	Hand pump	Communal Toilet
1	1	Available	0	10(not used)	0	0

Source: Social Mapping

22-4. Development Needs

Rank	1	2	3	4	5
Needs	Water	Toilet	Road	Income Generation	Clinic

Source: Needs Ranking

22-5. Quantitative Information

Topics								
Educational background	No education		100%		More than G6		0%	
Housing type	Traditional hut		80%		Modern brick		20%	
Main water source	1st River / 2nd Spring, Private well, Private tank							
Willingness to bear the cost	100%							
Who maintain the water supply facilities?	Municipality	0%			Self	0%		
Responsibility to fetch water	Female	100%	Male	0%	Girl	0%	Boy	0%
No sanitation facilities	20%							
Habit for covering a water container	100%							
Habit for storing water on the platform	100%							
Habit for boiling water (always/sometimes)	100%							
Average amount of monthly expenditure (Rand)	Total	809	For education	100	For groceries	288		

23. Ndwane

23-1. Village History

This village was established long years ago. No one in the community has any recollection of their origin.

23-2. Development Committee & Community Activities

There is a Development Committee that comprises fourteen (14) members and half of them are male. Meetings are held twice a month..

No developments have been implemented successfully for the last three years due to the lack of proper water supply and insufficient financial resources.

23-3. Existing Infrastructure

School	Church	Electricity	Clinic	Communal Tap	Hand pump	Communal Toilet
1	4	Available	0	0	0	0

Source: Social Mapping

23-4. Development Needs

Rank	1	2	3	4	5
Needs	Water	Toilet	Fencing	Agricultural Equipment	Dipping Tank

Source: Needs Ranking

23-5. Quantitative Information

Topics								
Educational background	No education		29%		More than G6		11%	
Housing type	Traditional hut		93%		Modern brick		0%	
Main water source	1st River / 2nd Private tank /3rd Spring							
Willingness to bear the cost	18%							
Who maintain the water supply facilities?	Municipality		18%		Self		0%	
Responsibility to fetch water	Female	79%	Male	0%	Girl	14%	Boy	0%
No sanitation facilities	36%							
Habit for covering a water container	93%							
Habit for storing water on the platform	61%							
Habit for boiling water (always/sometimes)	100%							
Average amount of monthly expenditure (Rand)	Total	448	For education	76	For groceries	229		

Source: Household Questionnaire Survey

24. Ncalukeni

24-1. Village History

The ancestors of this village came from Tabankulu and settled down here around 1960.

24-2. Development Committee & Community Activities

There is a Development Committee that consist of eleven (11) members. The committee encourages villagers to participate in the projects to improve the quality of life.

The project started last year, but the ward council does not work properly due to the transitional process in the ANC. (There is no information about the project.)

24-3. Existing Infrastructure

School	Church	Electricity	Clinic	Communal Tap	Hand pump	Communal Toilet
1	2	Available	0	0	0	0

Source: Social Mapping

24-4. Development Needs

Rank	1	2	3	4	5
Needs	Water	Road	Agricultural Equipment	Toilet	Fencing

Source: Needs Ranking

24-5. Quantitative Information

Topics								
Educational background	No education		13%		More than G6		67%	
Housing type	Traditional hut		27%		Modern brick		73%	
Main water source	1st River / 2nd Private tank /3rd Community well							
Willingness to bear the cost	33%							
Who maintain the water supply facilities?	Municipality	7%			Self	13%		
Responsibility to fetch water	Female	60%	Male	7%	Girl	13%	Boy	13%
No sanitation facilities	47%							
Habit for covering a water container	100%							
Habit for storing water on the platform	100%							
Habit for boiling water (always/sometimes)	93%							
Average amount of monthly expenditure (Rand)	Total	514	For education	65	For groceries	222		

Source: Household Questionnaire Survey

25. Ndasane Village

25-1. Village History

There is no clear information about village history, but the establishment of this village might be fairly new.

25-2. Development Committee & Community Activities

There is a Development Committee to develop the village. It consist of four (4) females and three (3) males. Meetings are held quarterly.

As for the community activities, there is no clear information.

25-3. Existing Community Infrastructure

School	Church	Electricity	Clinic	Communal Tap	Hand pump	Communal Toilet
1	0	Available	0	0	0	0

Source: Social Mapping

25-4. Development Needs

Rank	1	2	3	4	5
Needs	Water	Road	Agriculture project	Toilet	Preschool

Source: Needs Ranking

25-5. *Quantitative Information*

Topics								
Educational background	No education		40%		More than G6		20%	
Housing type	Traditional hut		20%		Modern brick		60%	
Main water source	1st River / 2nd Private tank							
Willingness to bear the cost	100%							
Who maintain the water supply facilities?	Municipality	0%			Self		0%	
Responsibility to fetch water	Female	100%	Male	0%	Girl	60%	Boy	0%
No sanitation facilities	40%							
Habit for covering a water container	100%							
Habit for storing water on the platform	100%							
Habit for boiling water (always/sometimes)	100%							
Average amount of monthly expenditure (Rand)	Total	1,291	For education	359	For groceries	197		

Source: Household Questionnaire Survey

26. Mvumelwano

26-1. Village History

This village grew in population around 1960. In those days people relied on farming. Recently, people experience poverty due to the high rate of unemployment.

26-2. Development Committee & Community Activities

There is a Development Committee to create jobs and help economic development in the village. There are eleven (11) members and eight (8) are females. Meetings are held three times per month. The committee has supported a agriculture project since 1997.

26-3. Existing Infrastructure

School	Church	Electricity	Clinic	Communal Tap	Hand pump	Communal Toilet
1	1	Available	0	0	0	0

Source: Social Mapping

26-4. Development Needs

Rank	1	2	3	4	5
Needs	Water	Toilet	Road	Market	Agriculture project

Source: Needs Ranking

26-5. Quantitative Information

Topics								
Educational background	No education	53%	More than G6	20%				
Housing type	Traditional hut	13%	Modern brick	87%				
Main water source	1st River / 2nd Stock dam /3rd Private tanks							
Willingness to bear the cost	100%							
Who maintain the water supply facilities?	Municipality	33%	Self	33%				
Responsibility to fetch water	Female	47%	Male	7%	Girl	20%	Boy	13%
No sanitation facilities	7%							
Habit for covering a water container	100%							
Habit for storing water on the platform	100%							
Habit for boiling water (always/sometimes)	100%							
Average amount of monthly expenditure (Rand)	Total	1,705	For education	194	For groceries	288		

Source: Household Questionnaire Survey

Tabankulu Magisterial District

27. Dambeni Village

27-1. Village History

It is very difficult to trace the history of this village, because its area is very large and many groups of indigenous dwellers inhabit.

27-2. Development Committee & Community Activities

There is neither a Development Committee nor a Water Committee. It relies on a Ward Committee. Two (2) members of Dambeni represent the community. The villages under this committee are Dambeni, Kwazulu, Bonxa, Tshona, Mbangweni, Gxeni and others.

Over the past three (3) years, no development activities took place.

27-3. Existing Infrastructure

School	Church	Electricity	Clinic	Communal Tap	Hand pump	Communal Toilet
3	2	0	0	0	0	0

Source: Social Mapping

27-4. Development Needs

Rank	1	2	3	4	5
Needs	Electricity	Water	Road	Toilet	Preschool

Source: Needs Ranking

27-5. Quantitative Information

Topics								
Educational background	No education			24%	More than G6			32%
Housing type	Traditional hut			95%	Modern brick			5%
Main water source	1st River / 2nd Spring /3rd Communal well							
Willingness to bear the cost	95%							
Who maintain the water supply facilities?	Municipality		31%		Self		2%	
Responsibility to fetch water	Female	86%	Male	0%	Girl	12%	Boy	0%
No sanitation facilities	95%							
Habit for covering a water container	93%							
Habit for storing water on the platform	54%							
Habit for boiling water (always/sometimes)	61%							
Average amount of monthly expenditure (Rand)	Total	683	For education	67	For groceries	310		

Source: Household Questionnaire Survey

28. Bhakuba Village

28-1. Village History

It is not clear when this village was formed, but it is believed to be several centuries old.

28-2. Development Committee & Community Activities

There is a Village Water and Sanitation Committee. In the village there are seven (7) sub-villages and each sub-village is represented by two (2) members. Thus, the total number of members is fourteen (14).

There is no clear information about community activities.

28-3. Existing Community Infrastructure

School	Church	Electricity	Clinic	Communal Tap	Hand pump	Communal Toilet
3	6	Available	0	10(not used)	1	0

Source: Social Mapping

28-4. Development Needs

Rank	1	2	3	4	5
Needs	Water	Clinic	School	Toilet	Preschool

Source: Needs Ranking

28-5. Quantitative Information

Topics								
Educational background	No education			45%	More than G6			33%
Housing type	Traditional hut			78%	Modern brick			23%
Main water source	1st River / 2nd Spring /3rd Private tank							
Willingness to bear the cost	90%							
Who maintain the water supply facilities?	Municipality		13%		Self		2%	
Responsibility to fetch water	Female	75%	Male	10%	Girl	55%	Boy	12%
No sanitation facilities	47%							
Habit for covering a water container	87%							
Habit for storing water on the platform	83%							
Habit for boiling water (always/sometimes)	45%							
Average amount of monthly expenditure (Rand)	Total	1,577	For education	204	For groceries	357		

Source: Household Questionnaire Survey

28-6. Others

A borehole was dug and water supply facilities were constructed in 1982, but due to the trouble with a neighboring tribe, the valves were closed and use of the facilities were given up.

29. Kwazulu B Village
30. Kwazulu D Village

29/30-1. Village History

It is very difficult to trace the history of these villages, but it is believed that the history goes back more than 200 years.

29/30-2. Development Committee & Community Activities

There is a Water Supply Committee that was formed when an NGO donated a hand pump and two tapstands in 1995. The committee's main duty is to take care of the facilities.

The following development activities were conducted in recent years.

-The improvement of an access road and a public transport system

-The construction of a junior secondary school

29/30-3. Existing Infrastructure

School	Church	Electricity	Clinic	Communal Tap	Hand pump	Communal Toilet
2	6	0*	0	1(used) & 1(not used)	1	0

Source: Social Mapping

*Grid line is not yet available in this village, but some households use solar power generators.

29/30-4.Development Needs

Rank	1	2	3	4	5
Needs	Water	Electricity	Road	Clinic	Toilet

Source: Needs Ranking

29/30-5. Quantitative Information

Topics								
Educational background	No education			66%	More than G6		14%	
Housing type	Traditional hut			89%	Modern brick		11%	
Main water source	1st River / 2nd Spring /3rd Communal tap							
Willingness to bear the cost	71%							
Who maintain the water supply facilities?	Municipality	0%			Self		14%	
Responsibility to fetch water	Female	86%	Male	9%	Girl	23%	Boy	4%
No sanitation facilities	87%							
Habit for covering a water container	85%							
Habit for storing water on the platform	89%							
Habit for boiling water (always/sometimes)	71%							
Average amount of monthly expenditure (Rand)	Total	495	For education	107	For groceries	213		

Source: Household Questionnaire Survey

29/30-6. Others

Kwazulu B and Kwazulu D are considered to be the same village traditionally and the boundary between the two is not necessary clear. Thus it might be better to consider these two sites as one unit, but their locations make it difficult.

PROJECT FOR RURAL WATER SUPPLY AND PROVISION OF SANITATION IN EASTERN CAPE

JAPANESE WATER PROJECT - STEP 2 HOUSEHOLD SURVEY

QUESTIONNAIRE FOR HOUSEHOLD SURVEY

FORM REF NUMBER: S2/

SECTION 1: INTERVIEW DETAILS

1.1 DATE OF THE INTERVIEW: .....April 2001

1.2 NAME OF INTERVIEWER/SURVEYOR:

1.3 DISTRICT NAME:

1.4 VILLAGE NAME:

1.5 SUB-VILLAGE NAME (if applicable):

SECTION 2: DETAILS OF THE RESPONDENT(s):

2.1 NAME OF THE PERSON INTERVIEWED:

	MALE	FEMALE	AGE(yrs)	EDUCATION LEVELS (tick only) NO EDUC	SCHOOLING	< GR 3	<GR 6	> GR 6
a) MAIN RESPONDENT:								
b) ATTENDING FAMILY MEMBERS:								
c) OHERS:								

2.2 MAIN RESPONDENT IS: HEAD of H/H | SPOUSE To HEAD | OTHER

2.3 MAIN RESPONDENT IS: POOR | RICH | DIS-ABLED | PENSIONER

2.4 AGE OF RESPONDENT ____ yrs

2.5 INTERVIEWER TO INDICATE OBJECTIVE OBSERVATION ON ECONOMIC STANDING OF H/HOLD

POOR | MIDDLE | RICH

SECTION 3; HOUSEHOLD SIZE AND LIVING INDICATORS:

3.1 HOW MANY PEOPLE (in the category listed) USUALLY LIVE IN THE HOUSEHOLD?

	ADULT MALE	ADULT FEMALE	CHILDREN under 19 yrs	BABIES under 3 yrs
Insert Numbers:				

3.2 WHAT IS THE TYPE OF HOUSING USED?

Please tick one: MODERN BRICK | TRADITIONAL HUT | OTHER | Specify:.....

3.3 IS HOUSE EQUIPPED WITH (tick what is applicable)?

a) CURRUGATED ROOF WITH GUTTERS?
b) CURRUGATED ROOF WITHOUT GUTTERS?
c) THATCHED ROOF?
d) WATER TANK?
e) ELECTRICITY?
f) TELEPHONE?
g) OTHER ? Please specify

SECTION 4: WATER SOURCE(s) AND PRESENT USAGE PATTERNS:

4.1 WHAT IS THE MAIN SOURCE OF WATER FOR DRINKING & COOKING?

	Tick
a) PUBLIC SUPPLY TO THE HOUSE?	
b) SHARED COMMUNAL WATER TAP? (standtap)	
c) ROOF COLLECTION FROM TANK OWNED BY HOUSEHOLD?	
d) ROOF COLLECTION FROM TANK OWNED BY COMMUNITY?	
e) BOREHOLE/WELL OWNED BY HOUSEHOLD?	
f) BOREHOLE/WELL OWNED BY COMMUNITY?	
g) RIVER OR STREAM?	
h) SPRING?	
I) WATER CART OR VENDOR?	
j) STOCK DAM?	
k) OTHER (please specify source)	

4.2 WHAT PROBLEMS DO YOU HAVE WITH THE CURRENT WATER SUPPLY?

	Tick Box
a) NO PROBLEM	
b) LOW PRESSURE	
c) IRREGULAR OR INTERMITTENT SUPPLY	
d) PERIODS OF NO SUPPLY	
e) TASTES SALTY OR MUDDY	
f) DIRTY	
g) SMELLY	
h) FAR AWY FROM HOUSE (normally more than 500 m)	
I) COST OF WATER SUPPLY TO HIGH	
j) LABOUR COST OF COLLECTING WATER	
k) OTHER (please specify)	

4.3 WHERE DO YOU GET WATER TO .....?

a) PERSONAL WASHING/BATHING?	
b) WASHING CLOTHES?	
c) WASHING DISHES?	
d) GARDEN OR IRRIGATION?	

Please fill into box any of the following:

* Public Supply to House
** Shared Communal Standtap
*** Rain Water Tank
**** River or stream
***** Spring
****** Stock Dam
****** Handpump
******* Water Cart OR OTHER (please specify)

4.4 DO YOU HAVE ENOUGH WATER FOR DRINKING AND COOKING THROUGHOUT THE YEAR ? YES NO

SECTION 5: PAYMENT FOR WATER SERVICES:

5.1 DOES YOUR HOUSEHOLD SPENT SOME MONEY FOR WATER EVERY MONTH? YES NO

5.2 If Yes: How MUCH? _____ RAND PER MONTH

5.3 HOW DO YOU FEEL ABOUT THE AMOUNT? CHEAP | FAIR | EXPENSIVE | NO IDEA Tick Box

5.4 IF YOU PAY FOR WATER SERVICES, WHO DO YOU PAY TO? VENDOR | COMMITTEE | CHIEF | OTHER

5.5 IF A COMMUNAL STANDTAP IS MADE AVAILABLE TO YOU (say some 500 M of walking distance), WOULD YOU JOIN? YES NO

5.6 HOW MUCH WOULD YOU BE PREPARED TO PAY FOR SUCH A SERVICE? R ...../month

SECTION 6: TOILET FACILITIES & WASTE DISPOSAL:

6.1 WHAT TYPE OF TOILET DOES YOUR HOUSEHOLD USE?

	Tick One
a) NO TOILET	
b) FLUSH TOILET INSIDE HOUSE	
c) FLUSH TOILET OUTSIDE HOUSE	
d) PRIVATE PIT LATRINE (Ventilated Pit Latrine)	
e) ORDINARY PIT LATRINE	
f) SHARED PIT LATRINE	

6.2 WHAT PROBLEMS DO YOU HAVE WITH YOUR TOILET (tick any applicable)?

NO PROB	NO WATER	INSECTS	SMELLS	BLOCKAGE	TOO FULL	CULTURAL	OTHER		

Specify

6.3 If you do not have a toilet: Where do you and the household members go to "toilet"?

IN YARD	THE BUSH	THE VELD	DONGHA	RIVER	OTHER	Specify other

6.4 WHERE DOES YOUR HOUSEHOLD DISPOSE OF THE FOLLOWING RUBBISH? Please Tick a Box for each!

	BIN	TOILET	BURIED	BURNED	RIVER	VELD	OTHER
a) FOOD SCRAPS							
b) SANITARY PACKS/CLOTHS							
c) BABY FEACES							
d) PLASTICS AND PAPER							

SECTION 7; HEALTH & HYGIENE INDICATORS:

7.1 DOES YOUR HOUSEHOLD PRACTISE THE FOLLOWING?

	ALWAYS	SOMETIMES	NEVER
a) BOIL WATER FOR DRINKING?			
b) WASH HANDS BEFORE HAVING FOOD?			
c) WASH HANDS AFTER GOINT TO TOILET?			
d) WASH FOOD IN PREPARATION?			

Tick Box

7.2 DURING THE PAST TWO WEEKS, DID ANY MEMBER OF THE FAMILY HAVE DIARRHEA?

YES	NO	DON'T KNOW

7.3 IF YES --- WHO HAD DIARRHEA?

ADULT MALE	ADULT FEMALE	CHILD < 19 yrs	BABY < 3 yrs

7.4 WHERE DID YOU SEEK TREATMENT?

HOSPITAL	CLINIC	HEALTH WORKER	CHEMIST	DOCTOR	TRAD DOC	SELF

7.5 DO YOU THINK YOU CAN PROTECT YOURSELF FROM DIARRHEA?

YES	NO	DON'T KNOW

7.6 HOW WOULD YOU PROTECT YOUR FAMILY FROM GETTING DIARRHEA?

7.7 HAS ANYBODY IN YOUR HOUSEHOLD RECEIVED HEALTH & HYGIENE EDUCATION (relating to Water & Sanitation)?

YES	NO	DON'T KNOW

7.8 IF YES — WHERE DID YOU GET THE INFORMATION? Tick Box

HOSPITAL	CLINIC	HEALTH WORKER	RADIO TV	SCHOOL	CHURCH	FAMILY	NEWSPAPER	OTHER	

Specify

SECTION 8: WATER COLLECTION & RESPONSIBILITY:

8.1 WHO NORMALLY COLLECTS WATER FOR THE HOUSEHOLD?

ADULT MALE	ADULT FEMALE	MALE CHILD	FEMALE CHILD	NO IDEA

8.2 HOW MUCH TIME DO YOUR HOUSEHOLD SPEND PER DAY TO COLLECT WATER?

FIRST COLLECTION		*minutes*
SECOND COLLECTION		minutes
THIRD COLLECTION		minutes

TOTAL TIME / day

8.3 WHAT DO YOUR HOUSEHOLD USE TO COLLECT WATER ?

PLASTIC BUCKET 20 L	GALVAN BUCKET 20 L	DRUM	PLASTIC BOTTLE 5 L	OTHER

8.4 HOW MUCH WATER DO YOU REQUIRE DAILY FOR THE HOUSEHOLD?

Tick One

20 litres	30 litres	40 litres	50 litres
60 litres	70 litres	80 litres	100 litres
More than 100 litres			

8.5 DO YOU COVER OR CLOSE YOUR WATER CONTAINER? YES NO

8.6 DO YOU STORE WATER ON A RAISED PLATFORM? YES NO

SECTION 9: THE ROLE OF AGENCIES IN PROVIDING WATER & SANITATION:

9.1 HAS ANY AGENCY ASSISTED TO PROVIDE WATER OR SANITATION SERVICES TO YOUR COMMUNITY? YES NO

9.2 WHAT IS THE NAME OF THE AGENCY?

9.3 *WHEN AND WHAT DID THEY PROVIDE?*

9.4 IS THE FACILITY STILL IN WORKING ORDER? YES NO

9.5 IF IT IS NOT IN WORKING ORDER - PLEASE GIVE YOUR REASONS FOR FAILURE.

SECTION 10: HOUSEHOLD & COMMUNITY WILLINGNESS TO PARTICIPATE:

10.1 DOES YOUR HOUSEHOLD PARTICIPATE IN ANY WAY WITH THE WATER SUPPLY? YES NO NO IDEA

10.2 WOULD YOUR HOUSEHOLD BE WILLING TO CONTRIBUTE TO THE UPKEEP OF A WATER SUPPLY SCHEME?

YES NO NO IDEA

10.3 WOULD YOUR HOUSEHOLD BE WILLING TO CONTRIBUTE MONEY FOR CONSTUCTING & MAINTAINING A WATER AND/OR SANITATION PROJECT IN THE VILLAGE?

YES NO NO IDEA

10.4 IF YOUR WATER SYSTEM IS BROKEN, WHO DO YOU THINK WOULD BE RESPONSIBLE FOR REPAIRS?

SELF	VILLAGE VOLUNTEER	COMMITTEE	DISTRICT MUNICIPALI	TRIBAL AUTHOR	NO IDEA	OTHERS

Please specify others

10.5 WHY DO YOU THINK WATER SUPLLY PROJECTS FALL INTO DIS-REPAIR?

SECTION 11: HOUSEHOLD INCOME & EXPENDITURE PATTERNS:

11-1 HOW MANY MEMBERS OF YOUR HOUSEHOLD ARE EMPLOYED?

	FULL TIME	PART TIME	SELF-EMPLOYED	TOTAL
MALE				
FEMALE				

11-2 PLEASE INDICATE WHICH OF THE FOLLOWING INCOME CATEGORIES PROVIDE CASH TO YOUR HOUSEHOLD.
Note: The amount will be per month

	Tick	Amount
a) SALARIES FROM EMPLOYER		R
b) BUSINESS ACTIVITIES SUCH AS SPAZA, SHEBEEN, SHOP		R
c) GRANTS SUCH AS PENSIONS		R
d) REMITTANCES FROM FAMILY EMPLOYED ELSEWHERE IN SA		R
e) OTHER ..... Please specify		R

11-3 DOES YOUR HOUSEHOLD PRODUCE ENOUGH FOOD FROM OWN GARDEN? | YES | NO | NO IDEA |

11-4 PLEASE LIST FIVE FOOD STUFF COMING FROM YOUR OWN GARDEN OR FIELDS Including meats from own stock

1)
2)
3)
4)
5)

11-5 THINK ABOUT WHICH FOODS YOU BUY FROM SHOPS PER MONTH AND HOW MUCH YOU SPEND.

TYPE OF FOOD	AMOUNT
	R
	R
	R

11-6 HOW MUCH DOES YOUR HOUSEHOLD SPEND PER MONTH ON THE FOLLOWING?

TAXI OR PUBLIC TRANSPORT	R
ELECTRICITY	R
WATER	R
CLOTHES	R
PETROL	R
RENT	R
TELEPHONE	R
FURNITURE ACCOUNT	R
VEHICLES OR HIRE PURCHASE	R
GROCERIES	R
SCHOOL FEES - EDUCATION	R
SCHOOL UNIFORM & BOOKS	R
REPAYMENT OF LOANS TO MONEY LENDER/BANK	R

11-7 IS YOUR HOUSEHOLD CONNECTED TO ESKOM ELECTRICITY SUPPLY? | YES | NO |

11-8 IF NO TO 11-7, WHY ARE YOU NOT CONNECTED?

	Tick Box
a) NO SUPPLY GRID	
b) TOO EXPENSIVE	
c) OTHER REASON (Please state reason)	

11-9 HOW MANY LEARNERS(STUDENTS) ARE THERE IN YOUR HOUSEHOLD?

PRE-SCHOOL	
PRIMARY SCHOOL	
HIGH SCHOOL	
UNIVERSITY OR TECHNICON	

Insert the numbers for each

11-10 DOES YOUR HOUSEHOLD KEEP ANY SAVINGS OR CASH FOR EMERGENCIES? | YES | NO |

11-11 WHERE DO YOUR HOUSEHOLD KEEP SAVINGS OR CASH? | BANK | CO-OP | CASH | OTHER |

11-11 DOES YOUR HOUSEHOLD BELONG TO A BURIAL SOCIETY OR GROUP? | YES | NO |

11-12 HOW MUCH DOES YOUR HOUSEHOLD CONTRIBUTE PER MONTH TO BURIAL? R

THANK YOU VERY MUCH FOR PARTICIPATING IN THIS SURVEY. THE INFORMATION PROVIDED WILL ASSIST THE FUNDERS IN DECIDING WHETHER THEY CAN PROVIDE FUNDING FOR A WATER & SANITATION PROJECT IN YOUR COMMUNITY. THIS SURVEY IS ONLY PART OF AN INVESTIGATION INTO THE FEASIBILITY OF PROJECTS--ALSO NOTE THAT USER-PAYMENT FOR SERVICES REMAIN A PRINCIPLE. THEREFORE HOUSEHOLDS WILL HAVE TO CONTRIBUTE IF A PROJECT IS FUNDED BY THE JAPANESE GOVERNMENT

A6-3 Plan for Provision of Sanitation

For provision of sanitation, construction of toilets in the premise of selected primary schools are planned. The construction standards used in the Japanese grant assisted "Project for Construction of Primary and Junior Secondary Schools in Eastern Cape Province" based on the school toilet construction standards of the Department of Education will be adopted for this project. New toilets should be constructed in primary schools which presently have no toilets, broken or non-functioning toilets, with sufficient willingness for maintenance and awareness on sanitation.

The adopted standards for toilets of this project are the following:

- Toilet Type — VIP toilets
- Housing Construction — Bricks walls; Doors with locks for each toilet booth; Module units
- Module Specification — See table below
- No. of Toilets — 1.5 toilets per classroom
- Boys' to Girls' Ratio — 1 toilet for boys to 2 toilets for girls
- Urinals for Boys — Urinals of same width as designed toilets for boys
- For Teachers — A men's room and a women's room for each module
- Appurtenance — A tapstand to be constructed near the toilet for hand washing

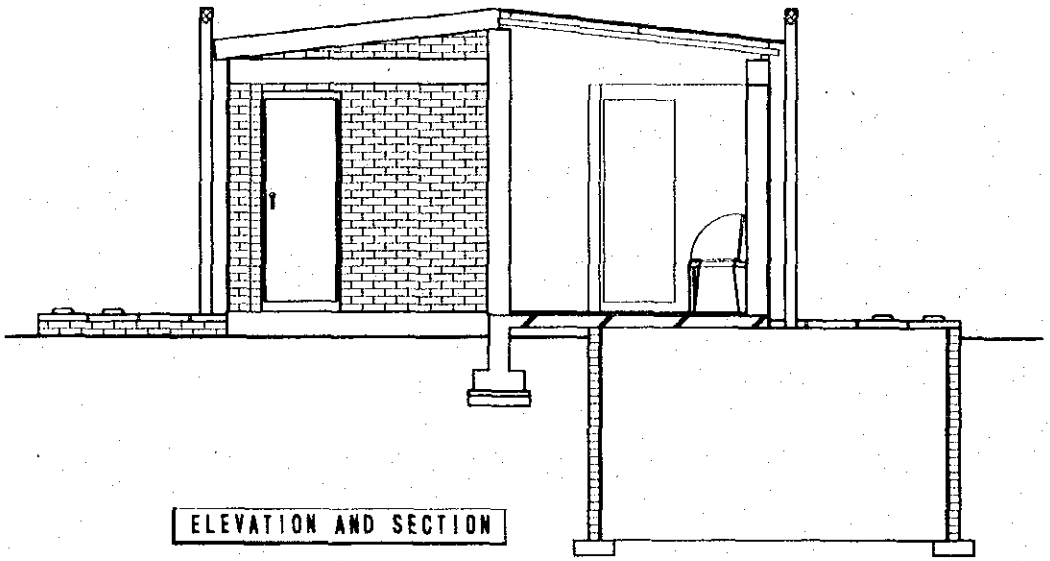
Specifications for Standard Toilet Module

Module Type	No. of Booths	No. for Girls	No. for Boys	Urinals for Boys	No. for Teachers
Type A	6	4	2	2 toilet width	Men's & Women's 1 ea.
Type B	8	6	3	3 toilet width	Men's & Women's 1 ea.

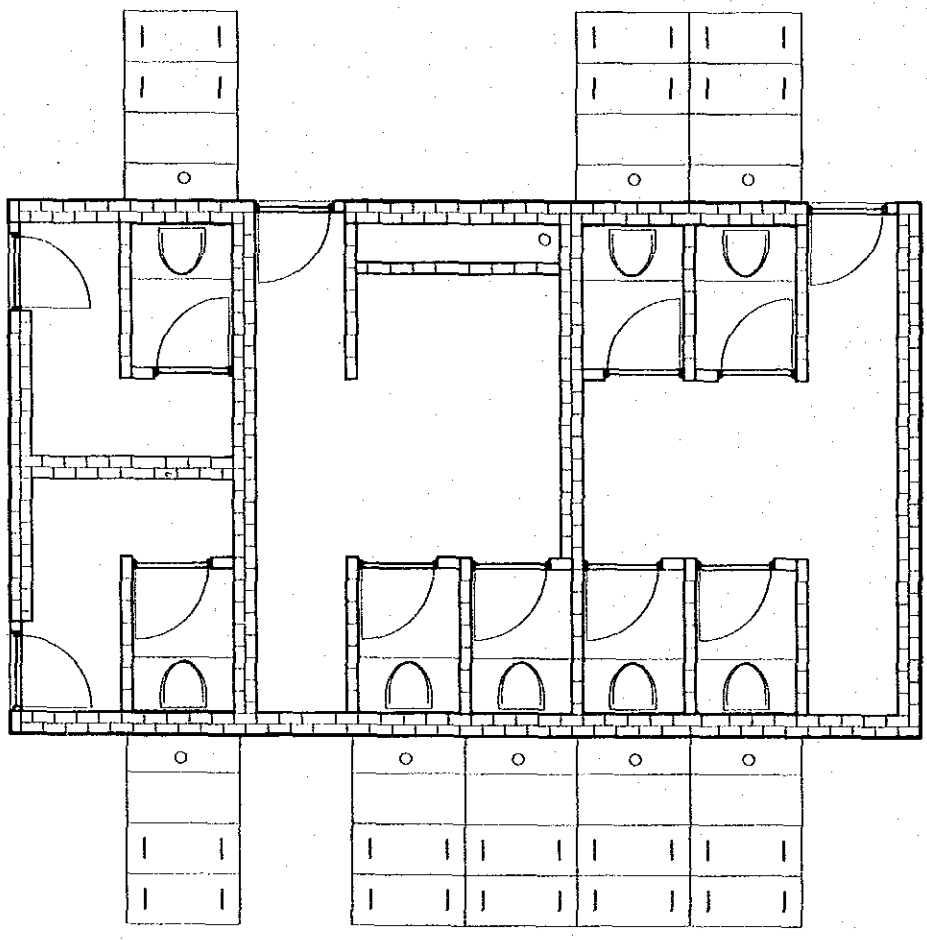
Villages Targeted for Construction of Sanitation Facilities

Local Municipality	Target Village	Target Schools	Design No. of Toilets	Module No.	
				Type A	Type B
KSD	1. Centuli	Jongibandla JSS	15	1	1
	2. Gubevu	Esikobeni PJSS	9		1
Mhlontlo	3. Mvumelwano	Mvumelwano JSS	12	2	
Ntabankulu	4. Kwazulu	Zoko JSS	15	1	1
Total	4 Villages	4 Schools	51 Toilets	4	3

The basic design of the standard toilet module is depicted in the next page.



ELEVATION AND SECTION



PLAN

SCHOOL VIP LATRINES

A6-4 Geophysical Survey

During the field surveys, geophysical surveys were conducted in the target area in order to select the optimum drilling points and well depths,. The results can contribute to proper knowledge of the geological structures and determine the groundwater potential which can be reflected upon the proper water source design.

1. Prospecting Methods

The methods used in this study and the number of measurements are as follows.

- Magnetic prospecting: Proton-Precession method
  Measurements: Total 59 linear measurements
- Horizontal electrical prospecting: Wenner method
  Electrode arrangement (for a = 40 m and a = 60 m)
  Measurements: a = 40 m x 21,440 m
  a = 60m x 19,895 m
- Vertical electrical prospecting: Wenner method
  Measurements: 80 points x 150 m depth

2. Survey Description

The details of the various prospecting methods described above are listed in the following table. Representative results of the geophysical surveys are shown in the subsequent pages.

Details of Geophysical Surveys

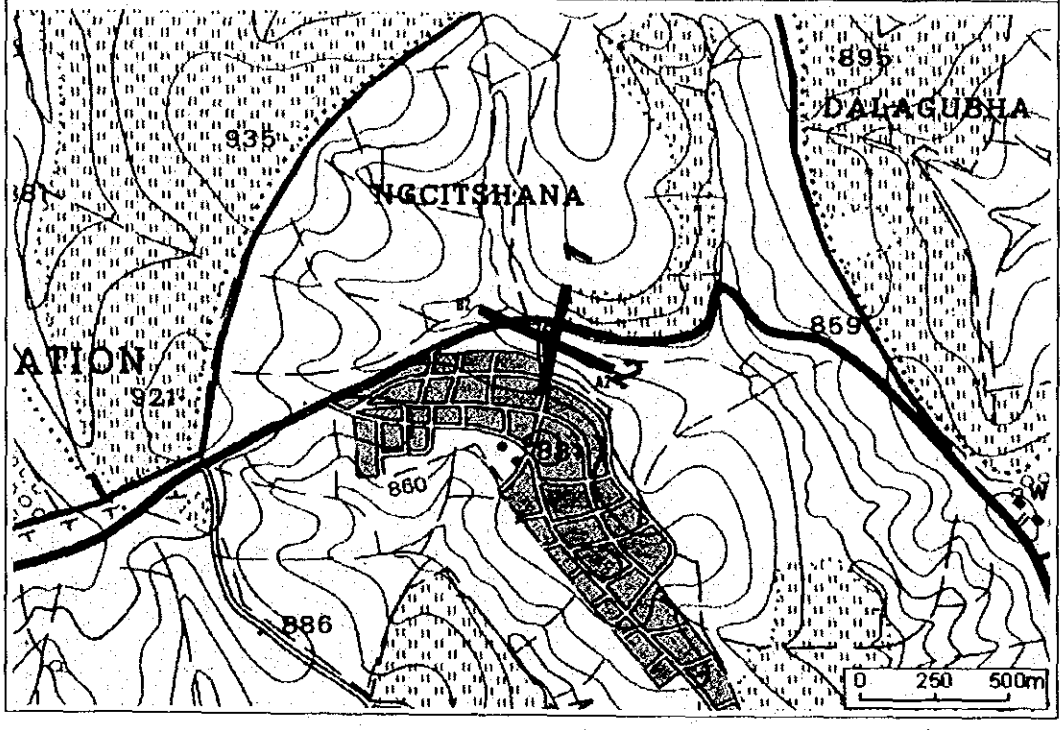
Mag. Dist.	Site Name	Location		Geomagnetic	Electrical Horizontal		VES (Wenner)	
		Latitude	Longitude		a=40m	a=60m	Depth	No.
Ngqeleni	1. Kumaxhaka	31°33.872'	29°00.709'	1) 410m	400 m	400 m	150 m	6
		31°33.800'	29°00.758'	2) 420m	400 m	400 m		
		31°33.071'	29°01.015'	3) 500m	500 m	500 m		
	2. Qanqu	31°31.844'	29°02.262'	1) 250m	240 m	240 m	150 m	3
		31°31.758'	29°02.342'	2) 300m	290 m	290 m		
	3. Didi (Ngcilitshana)	31°31.227'	29°04.958'	1) 300m	300 m	300 m	150 m	3
		31°31.229'	29°04.987'	2) 400m	400 m	400 m		
	4. Ezinkozweni (Didi)	31°32.384'	29°04.209'	1) 330m	330 m	330 m	150 m	3
		31°32.339'	29°04.214'	2) 400m	400 m	400 m		
	5. Kuleka	31°33.447'	29°06.325'	1) 400m	400 m	400 m	150 m	2
		31°33.516'	29°06.309'	2) 300m	300 m	300 m		
Umtata	6. Sikobeni	31°38.971'	28°31.578'	1) 400m	400 m	400 m	150 m	2
		31°38.918'	28°31.600'	2) 300m	300 m	300 m		
	7. Centuli	31°40.365'	28°37.066'	1) 400m	400 m	400 m	150 m	4
		31°39.908'	28°37.006'	2) 390m	390 m	390 m		
		31°39.924'	28°37.086'	3) 400m	400 m	400 m		
		31°40.328'	28°37.032'	4) 400m				
	8. Dolova	31°40.980'	28°34.947'	1) 280m	280 m	280 m	150 m	3
		31°41.187'	28°34.779'	2) 400m	400 m	400 m		
		31°41.235'	28°34.907'	3) 400m	400 m	400 m		
	9. Upper Xongora	31°40.682'	28°31.011'	1) 400m	400 m	400 m	150 m	2
		31°40.713'	28°31.030'	2) 340m	340 m	340 m		
	10. Lower Centuli	31°41.751'	28°38.088'	1) 400m	400 m	400 m	150 m	4
		31°41.521'	28°38.224'	2) 565m	565 m	565 m		
		31°41.384'	28°37.567'	3) 525m	525 m			
	11. Gubevu (Sigubudu)	31°38.718'	28°34.176'	1) 1300m	1300 m	1300 m	150 m	2
Mqanduli	12. Luxolweni							
	13. Cezu							
	14. Mavundleni	31°47.623'	28°42.588'	1) 400m	400 m	400 m	150 m	4
		31°47.635'	28°42.592'	2) 360m	360 m	360 m		
	15. Macosa							
	16. Tafeni							
	17. Ngwangweni	31°47.336'	28°45.485'	1) 400m	400 m	400 m	150 m	2
		31°47.329'	28°45.456'	2) 300m	300 m	300 m		

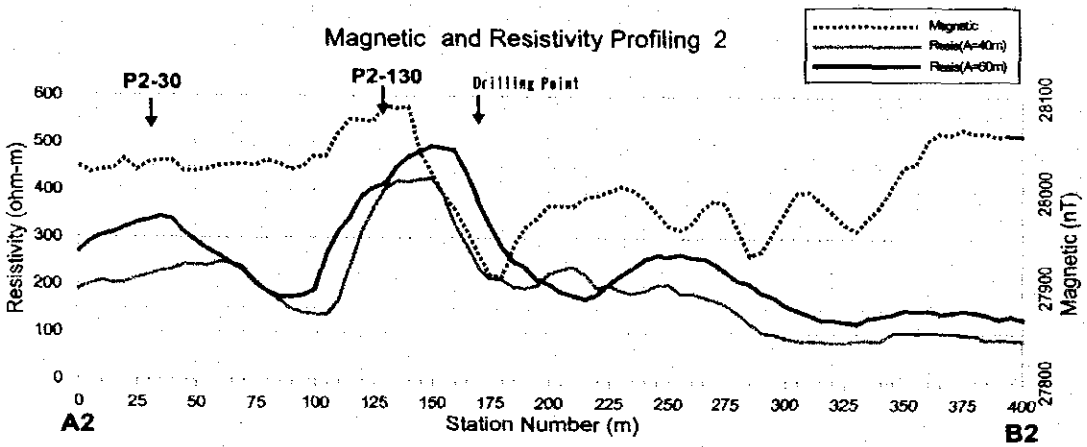
Mag. Dist.	Site Name	Location		Geomagnetic	Electrical Horizontal		VES(Wenner)	
		Latitude	Longitude		a=40m	a=60m	Depth	No.
Engcobo	18. *Sixhotyeni* (Cefane River Basin)	31°41.941'	27°58.089'	1) 400m	400 m	400 m	150 m	3
		31°41.950'	27°58.165'	2) 350m	350 m	350 m		
	19. *Luxeni*							
	20. Sigangeni	31°42.478'	28°01.327'	1) 400m	400 m	400 m	150 m	2
		31°42.805'	28°01.547'	2) 400m	400 m	400 m		
	21. Manzana	31°43.618'	28°01.231'	1) 400m	400 m	400 m	150 m	2
		31°43.615'	28°01.228'	2) 400m	400 m	400 m		
Qumbu	22. Lower Roza							
	23. Ndwane	31°12.873'	28°53.328'	1) 360m	360 m	360 m	150 m	3
		31°12.575'	28°53.329'	2) 400m	400 m	400 m		
	24. Ncalukeni	31°11.212'	28°51.770'	1) 280m	280 m	280 m	150 m	3
		31°11.213'	28°51.768'	2) 400m	400 m	400 m		
	25. Ndasane	31°12.468'	28°51.494'	1) 400m	400 m	400 m	150 m	7
		31°12.593'	28°51.560'	2) 400m	400 m	400 m		
		31°12.593'	28°51.560'	3) 230m	230 m	230 m		
		31°12.480'	28°51.333'	4) 400m	400 m	400 m		
	26. Mvumelwano							
Tabankulu	27. *Dambeni*	30°54.431'	29°18.935'	1) 400m	400 m	400 m	150 m	7
		30°54.431'	29°18.935'	2) 400m	400 m	400 m		
		30°53.769'	29°19.549'	3) 400m	240 m			
		30°53.769'	29°19.549'	4) 330m	330 m			
	28. Bhakuba	30°52.262'	29°17.315'	1) 400m	400 m	400 m	150 m	8
		30°53.103'	29°17.083'	2) 400m	400 m	400 m		
		30°53.105'	29°17.087'	3) 260m	250 m	250 m		
		30°53.072'	29°17.227'	4) 200m	200 m			
		30°52.278'	29°17.508'	5) 140m	140 m	140 m		
		30°52.257'	29°17.500'	6) 140m	140 m	140 m		
		30°52.275'	29°17.596'	7) 170m	170 m	170 m		
	29. Kwazulu B	30°56.793'	29°15.895'	1) 380m	380 m	380 m	150 m	3
		30°56.816'	29°15.868'	2) 250m	250 m			
	30. Kwazulu D	30°57.274'	29°14.860'	1) 600m	600 m	600 m	150 m	2
		30°57.215'	29°14.909'	2) 160m				
Total				59 Lines	21,440 m	19,895 m		80

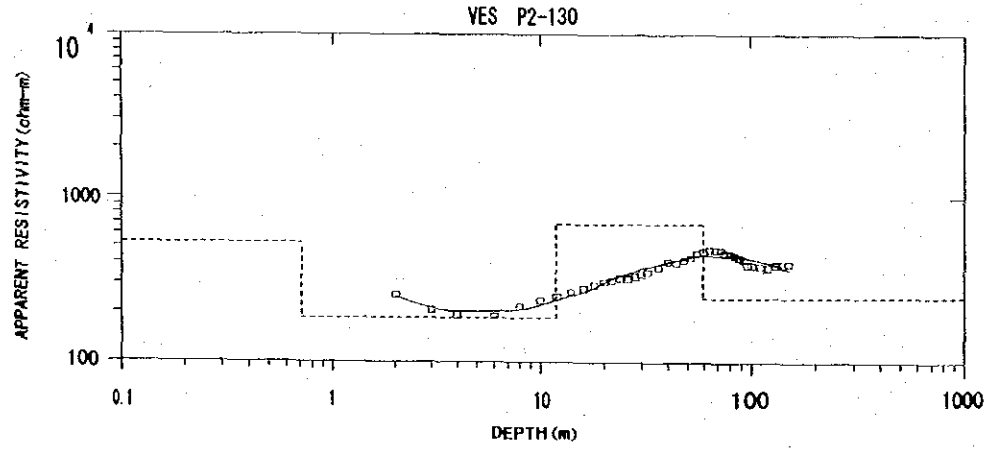
VES: Vertical Electrical Sounding

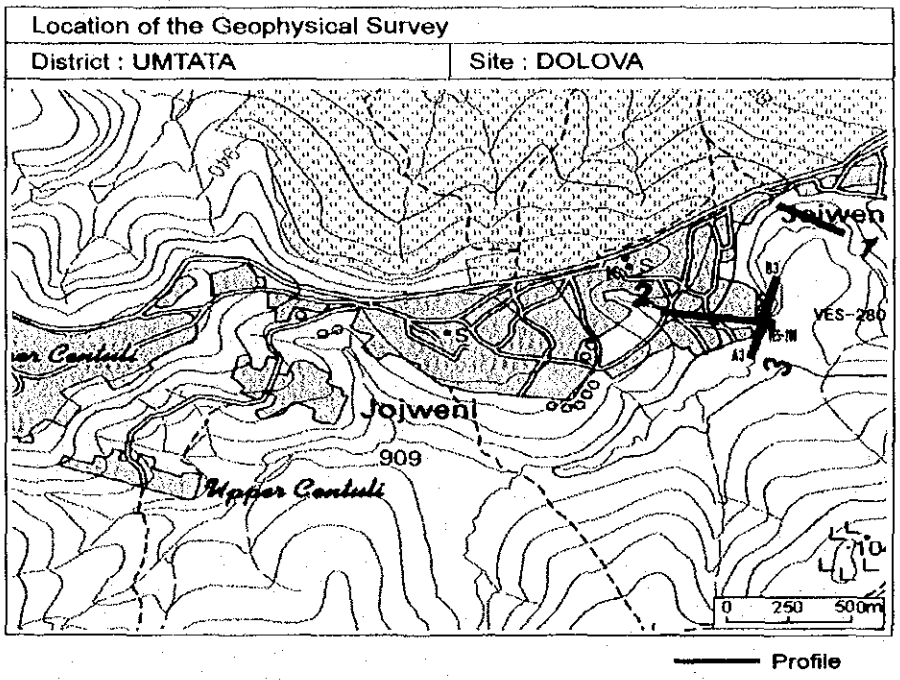
Location of the Geophysical Survey

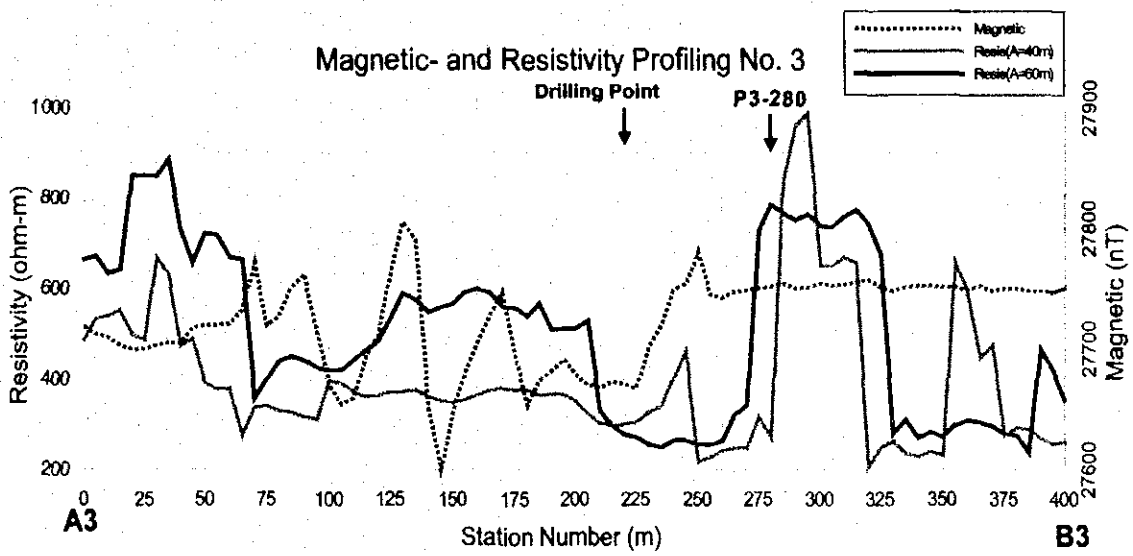
District : NGQELENI | Site : NGCILITSHANA (DIDI)

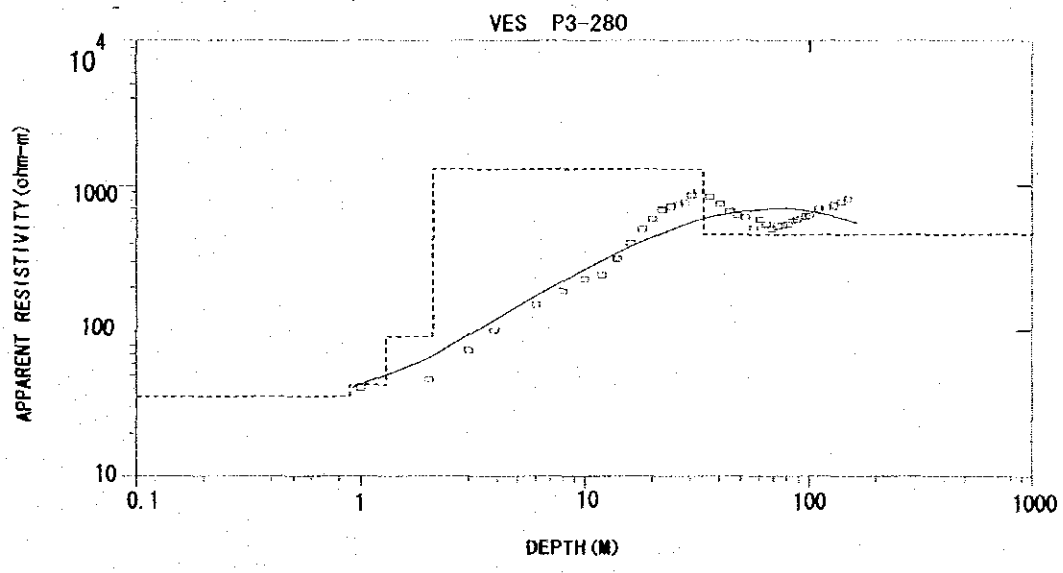






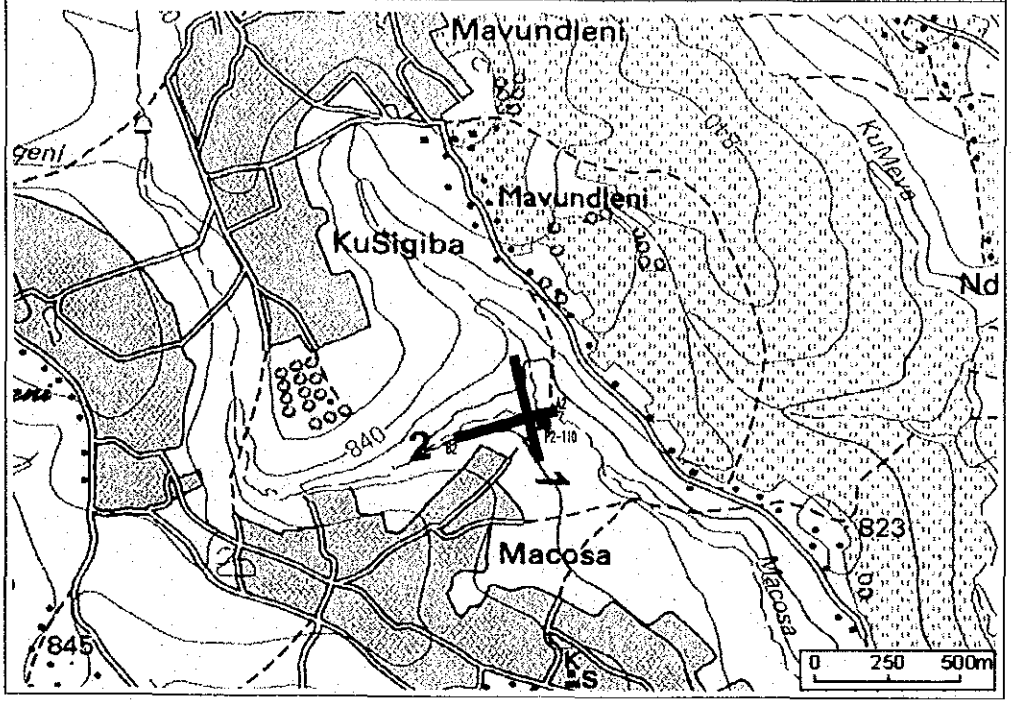

Location of the Geophysical Survey
District : UMTATA
Site : DOLOVA
Jojweni
909
Upper Cantuli
VES-280
0 250 500m
Profile

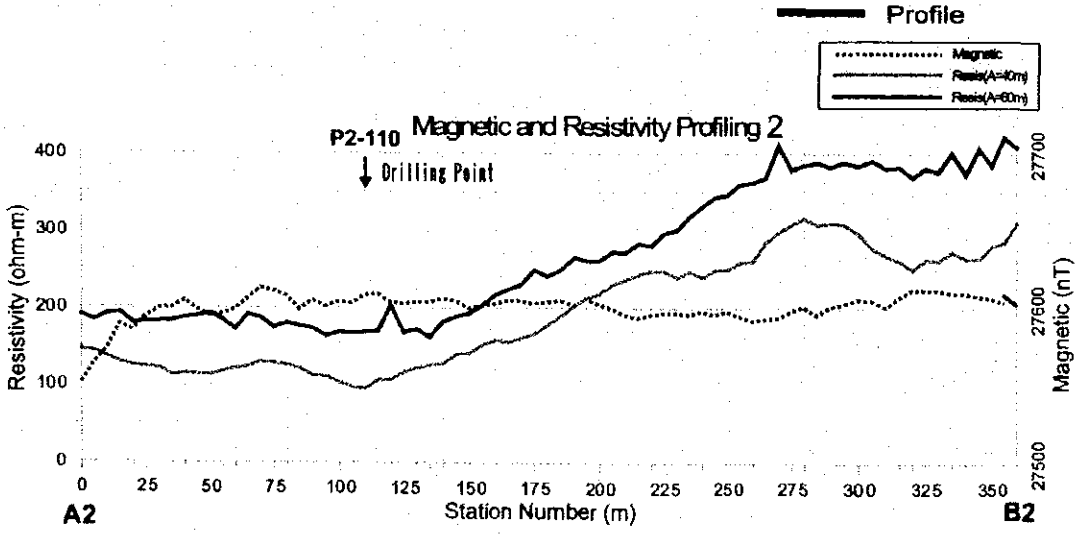

Magnetic- and Resistivity Profiling No. 3
Drilling Point
P3-280
Magnetic
Resis(A=40m)
Resis(A=60m)
Resistivity (ohm-m)
Magnetic (nT)
Station Number (m)
A3
B3

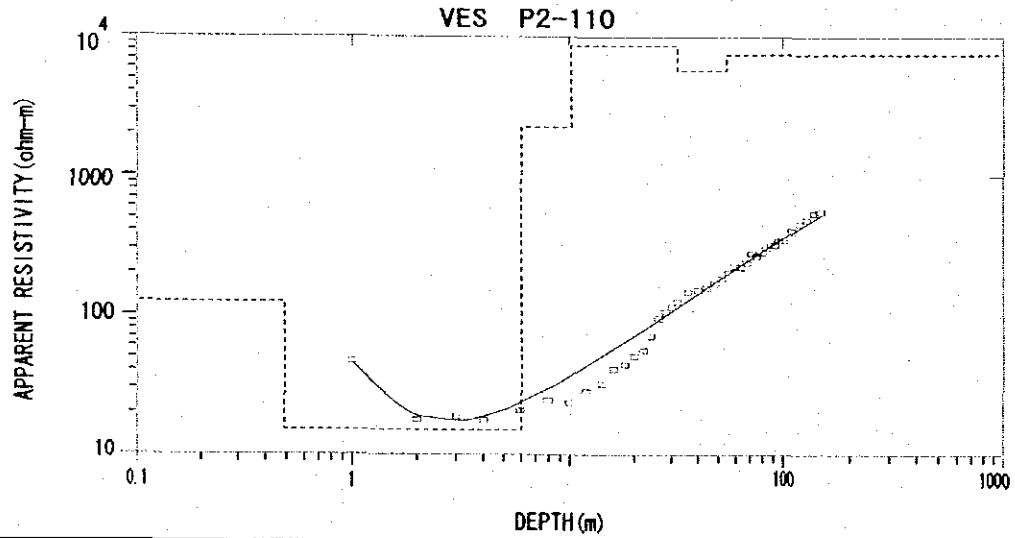

VES P3-280
APPARENT RESISTIVITY (ohm-m)
DEPTH (M)

Location of the Geophysical Survey

District : MQANDULI | Site : MAVUNDLENI

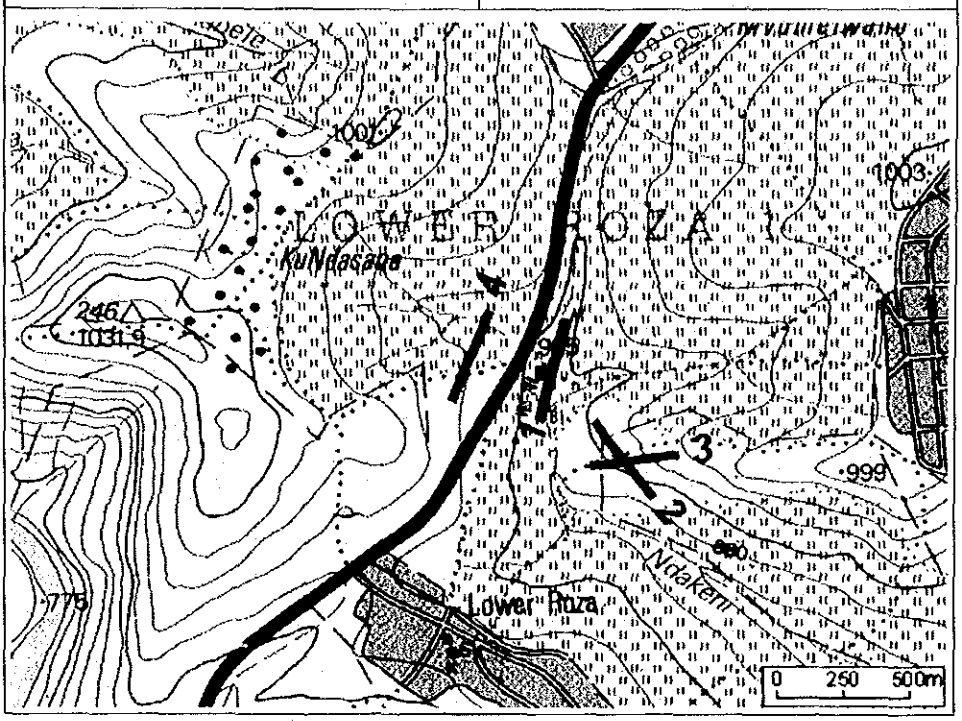


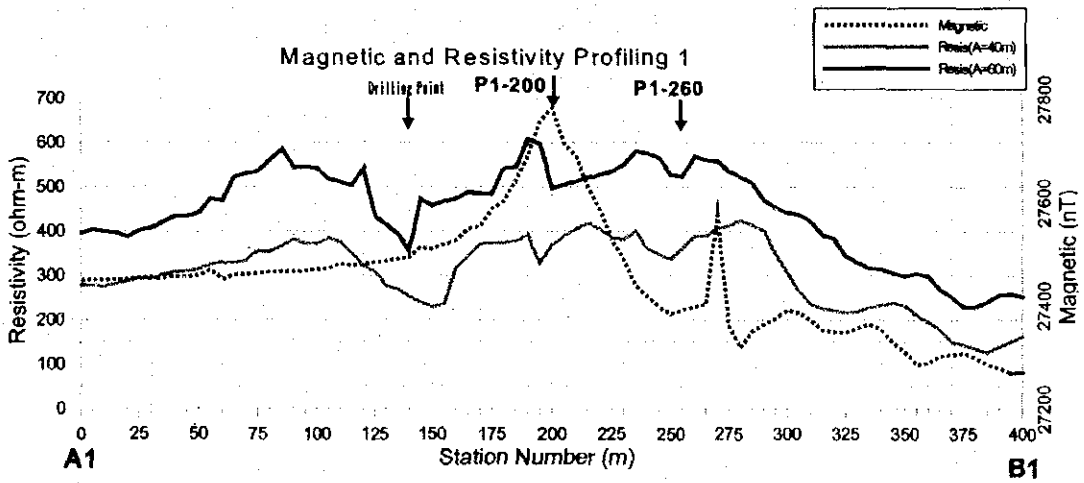


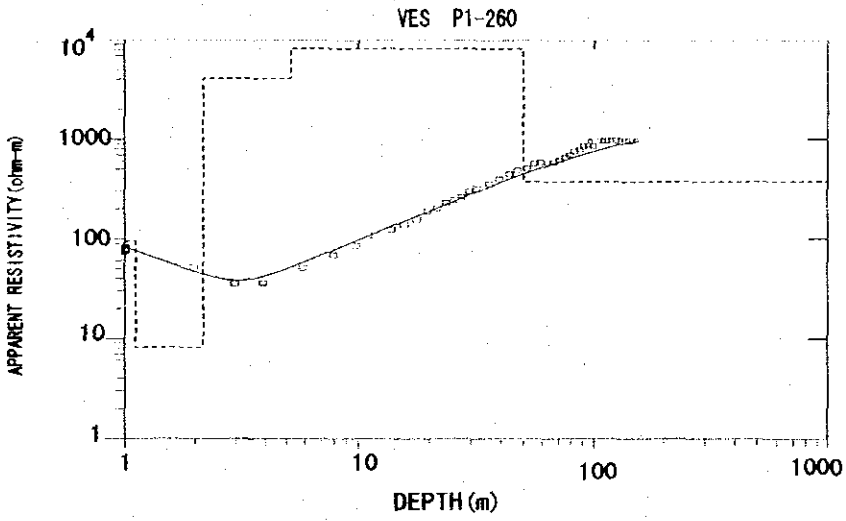


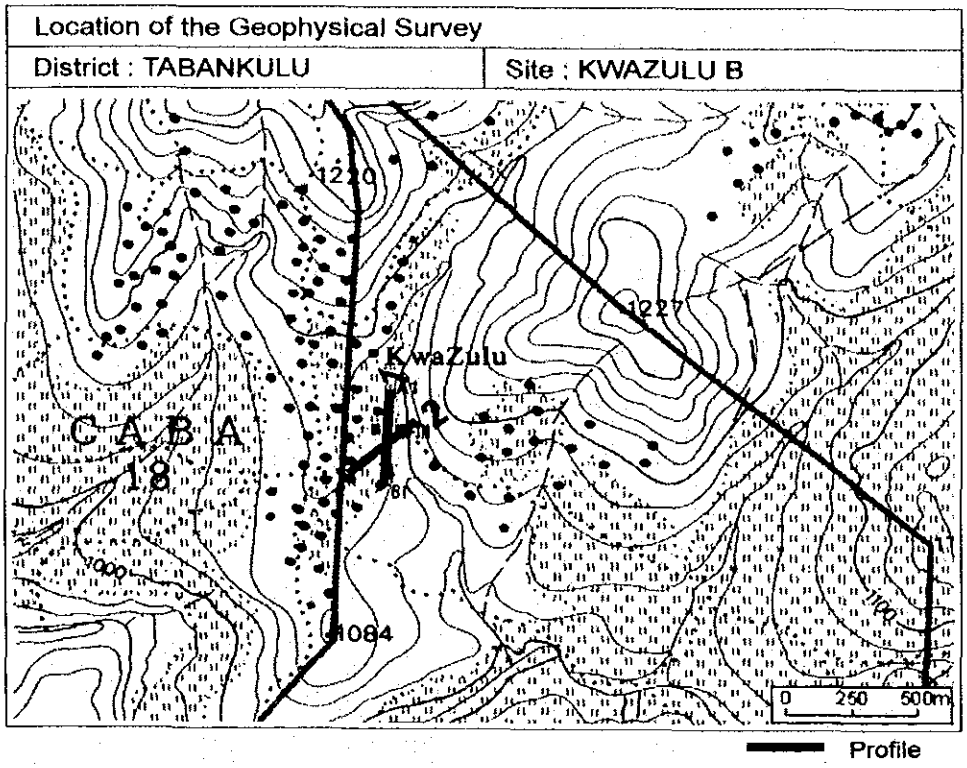
Location of the Geophysical Survey

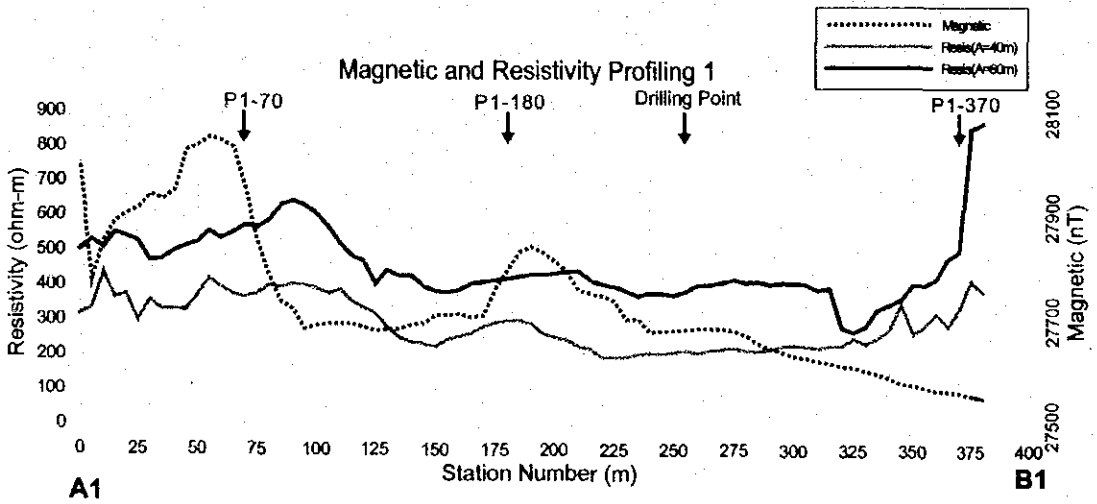
District : QUMBU | Site : NDASANE

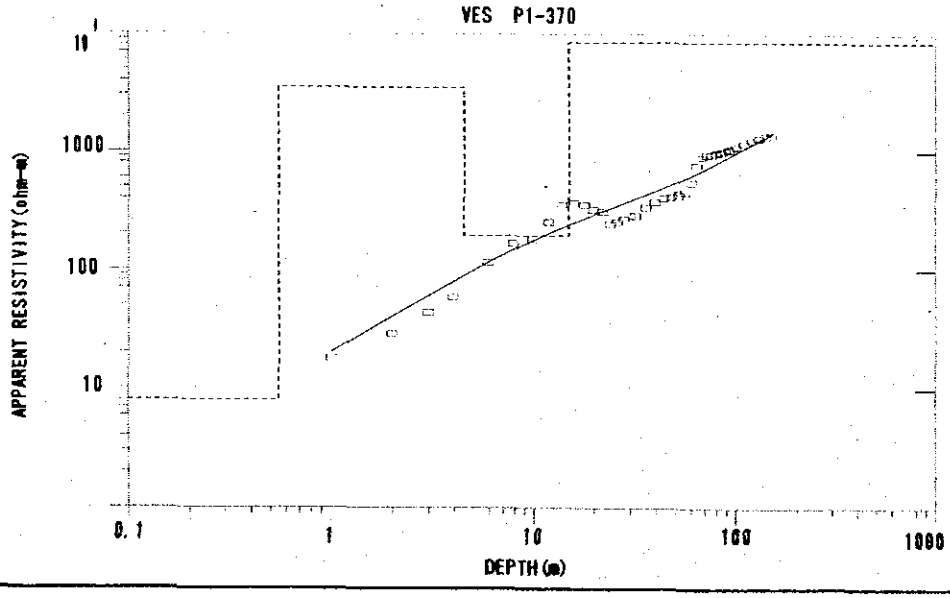


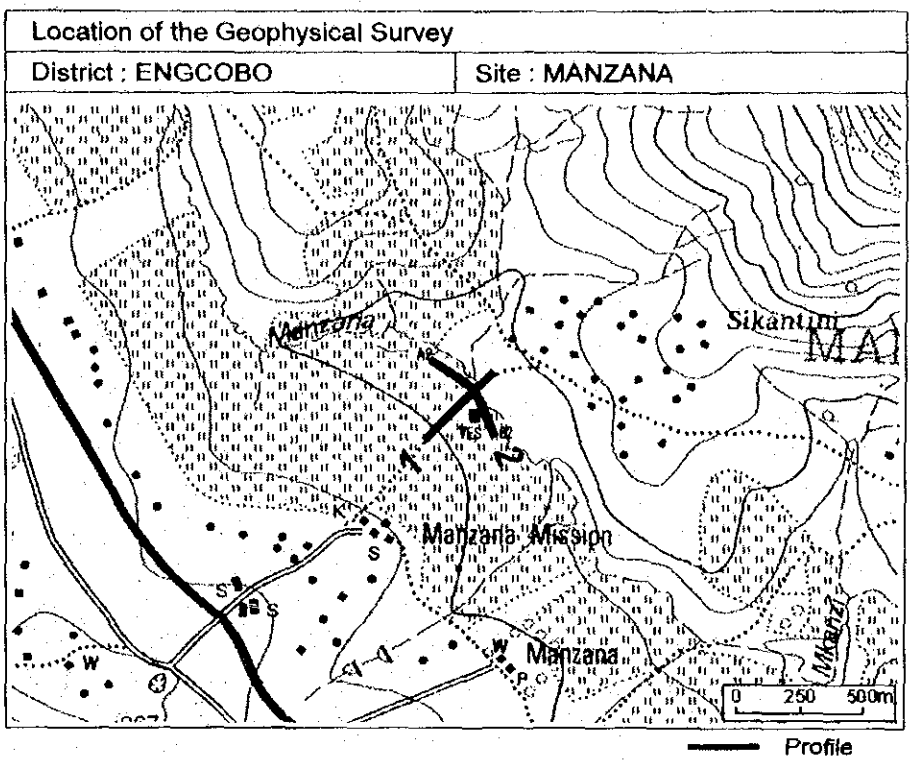


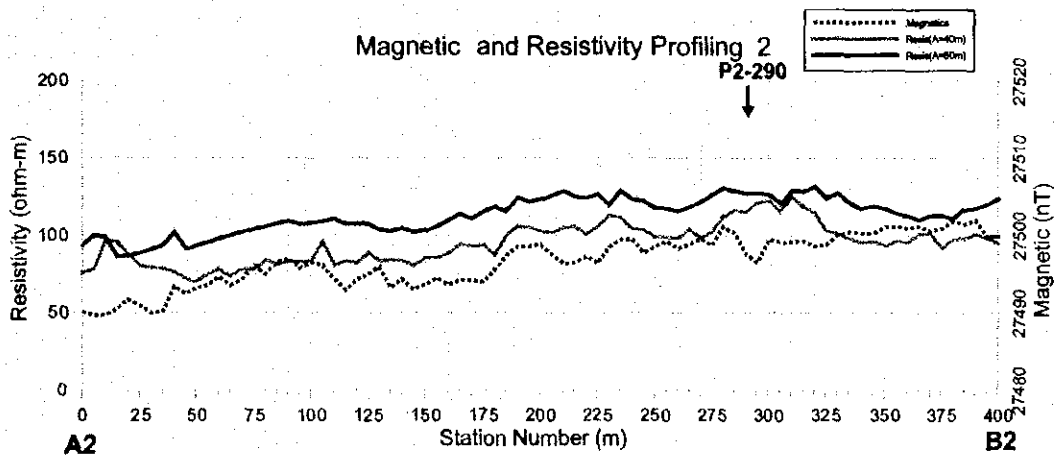


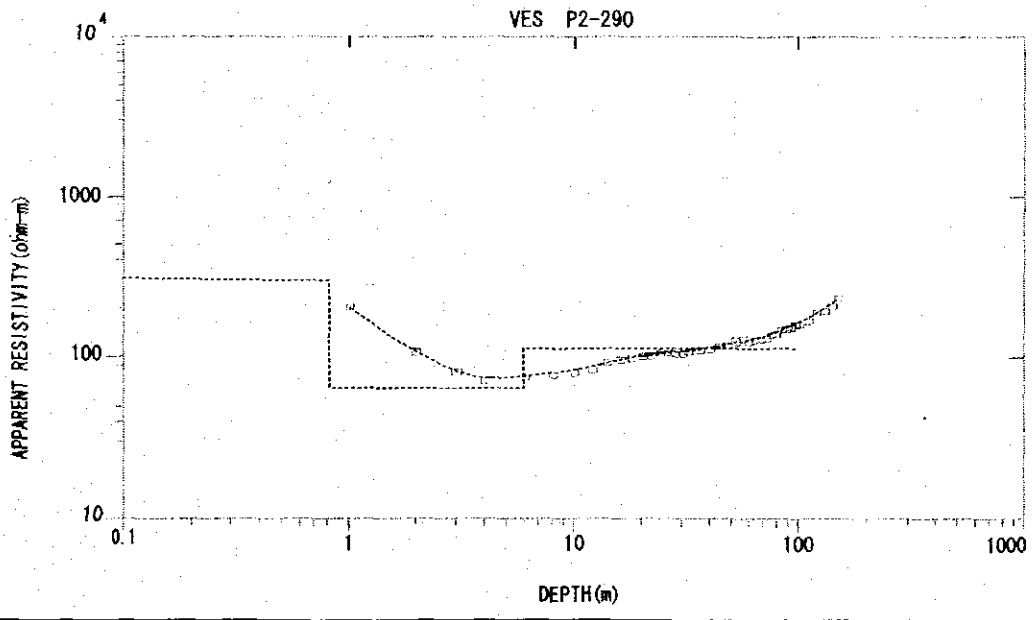

Location of the Geophysical Survey
District : TABANKULU
Site : KWAZULU B
1220
1227
KwaZulu
CABA
18
1084
0 250 500m
Profile


Magnetic and Resistivity Profiling 1
P1-70
P1-180
Drilling Point
P1-370
Resistivity (ohm-m)
Magnetic (nT)
Station Number (m)
A1
B1


VES P1-370
APPARENT RESISTIVITY (ohm-m)
DEPTH (m)


Location of the Geophysical Survey
District : ENGCOBO
Site : MANZANA
Manzana
Sikantini
Manzana Mission
Manzana
A2
B2
VES
1
2
0 250 500m
Profile


Magnetic and Resistivity Profiling 2
P2-290
Resistivity (ohm-m)
Magnetic (nT)
Station Number (m)
A2
B2


VES P2-290
APPARENT RESISTIVITY (ohm-m)
DEPTH(m)

A6-5 Environmental Consideration

In this project, an appropriate balance between the natural and living environments was considered in striving for a sustainable development. The result of evaluation on the impacts to the environment revealed that this project consists of small scale construction works having insignificant environmental influences. The status of environmental impacts due to the project is shown below and results of environmental screening is presented in the next page.

Environmental Status of Project

Parameter		Status
Social Environment	Community	Stable supply of good quality drinking water is supplied
	Infrastructures	Existing water supply facilities are scarce. Villagers are relying on water sources such as streams and springs which require long walking distances to fetch, and rainwater which is unstable.
	Sanitation and Health	Present water sources are unsanitary which can cause water-borne diseases.
Natural Environment	Topography and Geology	The villages are scattered on lightly undulating hills having altitudes between 760 m and 1,300 m.
	Groundwater and Surface Water; Meteorology	This project uses groundwater found in cracks of sedimentary rocks or fissures of coarse basalt of Karoo sequence. Some areas need caution due to water quality problems with fluoride, arsenic and manganese.
	Precious Animals and Plants	None is found in project area.
Environmental Disruption	Complaints	Not applicable in project area
	Countermeasures	Not applicable in project area

Environmental Screening Evaluation

Environmental Parameter			Description	Impact	Comment
Social Environment	1	Resettlement	Resettlement of villagers due to land securing (Transfer of land rights, etc.)	No	Not necessary
	2	Economic Activity	Loss of productive opportunity; Transformation of economic structure	Yes	Water services can activate economic activity
	3	Traffic; Public Facilities	Impact on traffic, schools, clinics, etc. due to traffic jam or accidents	Yes	Infrastructure will be improved
	4	Community Division	Division of society due to traffic obstacles, etc.	No	No conceivable impact
	5	Relics; Cultural Artifacts	Loss or decrease in value of religious artifacts and relics	No	None to be found
	6	Water Rights: Admission Rights	Hindrances to rights for water, fishing, irrigation and others	No	Rights are not hindered
	7	Sanitation and Health	Deterioration of sanitary environment due to generation of wastes, vectors, etc.	No	Clean and safe drinking water can improve health
	8	Wastes	Generation of domestic waste, construction debris, soils, etc.	No	No wastes generated
	9	Disaster; Risk	Increase in danger risks due to land collapse, landslide, etc.	No	Will not cause any disruption
Natural Environment	10	Topography; Geology	Change in topography and geology of value due to drilling, mounding, etc.	No	Not a significant change
	11	Soil Erosion	Surface runoff caused by ground work, deforestation, etc.	No	No significant impact
	12	Groundwater	Water level lowering due to overpumping and resultant contamination	No	Appropriate pumping rate determined through test drilling and so overpumping is prevented, hence no impact on groundwater lowering
	13	Surface Water	Changes in flow rate and quality due to landfilling and wastewater inflow	No	Not present around project water sources
	14	Seashore; Beaches	Coastal erosion and soil accumulation due to landfilling and sea level changes	No	Project area is inland
	15	Animals and Plants	Breeding obstructed by changes in inhabitation; extinction of seeds	No	Small-scale facilities will have no influence
	16	Weather	Changes in temperature, wind direction, etc. due to large-scale ground works and buildings	No	No large-scale structures
	17	Aesthetics	Topographical change due to ground works; Obstruction of scenic harmony by buildings and structures	No	No large-scale structures
Environmental Disruption	18	Air Pollution	Pollution due to vehicle exhaust and factory fume	No	No generation of gases
	19	Water Contamination	Inflow of mudwater, oils, etc. during drilling	No	No impact if proper drilling techniques used
	20	Soil Pollution	Contamination due to effluence and dispersion of wastewater, hazardous materials, etc.	No	No sources
	21	Noise; Vibration	Noise and vibration caused by drilling, pumping, etc.	No	Drilling done away from residences for short periods only
	22	Land Subsidence	Foundation changes due to groundwater lowering by pumping	No	Project area composed of rock formation
	23	Odor	Generation of exhaust gases and other odor causing substances	No	No generation
Overall Evaluation: Does the project require IEE or EIA?				No	

A6-6 Project Design Matrix (PDM)

Project Title: The Project for Rural Water Supply and Provision of Sanitation in Eastern Cape
Project Area: 21 Villages in 4 Local Municipalities of O.R. Tambo District Municipality, Eastern Cape Province, RSA
Project Period: April 2001 to March 2005 Target Group: Villagers of Target Villages Input Date: March 2002

Narrative Summary	Objectively Verifiable Indicator	Means of Verification	Important Assumption
Overall Goal ☐ Supply 25 lit/cap/day of clean and stable water accessible within 200 m from the residence.			
Project Purpose ☐ Supply 25 lit/cap/day of water to target villagers and provide continuous water service through the constructed water supply system.	☐ The constructed water supply system is operating in the horizon year and 25 lit/cap/day of water is supplied to the target villagers.	☐ Post-Project Evaluation Report	
Output 1. Water supply facilities are constructed to create a possibility for water services in the target area.	1-1. Water sources satisfying the water quality standards of RSA are developed in the target area. 1-2. Water supply facilities are constructed. 1-3. Water services can commence. 1-4. The served population of the target area will increase from the present 38,627 persons to 49,446 persons in the horizon year. 1-5. The water supply coverage in the target area will increase from the present 8% to 12% in the horizon year.	1-1. Water Quality Analyses Results 1-2. Completion Report 1-3. Completion Report, Test Run Records 1-4. Completion Report, Demographic Statistics 1-5. Completion Report, Demographic Statistics	☐ Target villagers are satisfied with service level of constructed water supply facilities ☐ The quality of the water sources to be developed will continue to satisfy the RSA drinking water standards still after completion of the facilities.
Expected Outputs from ISD Intervention 2. Through mutual understanding of the project by the stakeholders, participation and cooperation are strengthened.	2. Stakeholder representatives attend the workshops.	2. Workshop Report	
3. The present problems in water and sanitation of the community becomes apparent to determine the action plans for training, awareness activities and sanitation education.	3. As a result of problems analysis on water and sanitation by the community, action plans for training, awareness program and sanitation education are prepared.	3. Community Evaluation Results, Action Plans	
4. Village water and sanitation committees (VWSCs) are formed to create a community-based operation and maintenance system.	4-1. VWSCs are formed to operate and maintain the constructed facilities. 4-2. The community can cover the O&M fees. 4-3. Water services can start and the target villagers are supplied 25 lit/cap/day of water.	4. VWSC Member List, Post-Project Evaluation	
5. Project steering committees (PSCs) are formed to support O&M activities of the community.	5. PSCs are formed and start activities.	5. Workshop Report, O&M Records, Post-Project Evaluation Report	
6. Participation and sanitation awareness of the community will increase.	6-1. The villagers can cover the O&M fees. 6-2. Water-borne diseases such as cholera will decrease.	6. Post-Project Evaluation Report	

Activity

1-1. Formulate water supply plan through basic design study and detailed design survey
1-2. Develop water sources and construct water supply schemes in target area.

ISD Intervention Activities

2. Train and capacitate local personnel to foster local facilitators on community development and sanitation promotion.
3-1. Hold stakeholder meetings to explain details of the project and to receive their cooperation .
3-2. Hold meetings with villagers to explain details of the project and to receive their cooperation .
4. Conduct condensed participatory evaluation surveys at the target villages based on information obtained during the basic design field survey.
5-1. Form VWSCs.
5-2. Conduct training sessions and hold workshops to build capacity of VWSCs on facilities O&M.
6-1. Form PSCs.
6-2. Hold workshops on capacity strengthening of PSCs.
7. Promote community participation, build awareness on proper water use, and promote health and hygiene.

Input

Japanese Input
Human resources: Basic design study team, detailed design team, consultant members for supervision of construction works
Fund: Grant aid assistance

South African Input
Human resources: Counterpart staff from DWAF and O.R. Tambo DM
Fund: Local costs

Pre-Conditions

☐ Target villagers continue their willingness to maintain the facilities
☐ Customs clearance is carried out smoothly without any significant delays

A6-7 Letters Submitted by DWAF

1. Confirmation of Undertakings of South African Side

2. Comments on Draft Final Report

DEPARTMENT OF WATER AFFAIRS AND FORESTRY: EASTERN CAPE
Private Bag X 7485, King William's Town

Fax: 047-532 5752

Enquiries: N. G. Gule
Phone: 047-532 3389

DEPARTMENT OF WATER AFFAIRS & FORESTRY
28 NOV 2001
PRIVATE BAG X5290
UMTATA, 5100

Consultant Leader
Japan Techno CO. LTD
JAPAN

Attention: Shoji Fuji

RE: Letter confirming that the institutions mentioned below will undertake the tasks as mentioned.

1. The capacity building of O. R. Tambo as the Water Services Authority will be covered by ISWIP and MAAP, DWAF can also fund the mentoring periods as well as the activities by DWAF Institutional and Social Development staff through salaries. The Japanese side is requested to support the remaining portion from the formation of the Project Steering Committees and the Village Water and Sanitation Committees up to their capacity building including Japanese supervision.

2. The Department of Water Affairs and Forestry would fund the extension of power lines to the project pump stations and the transformers to 3-phase lines only within one kilometre from the power receiving point. Any other extensions will be made only after the 3-phase transformer is erected within one kilometre.

28/11/2001.

T. R. Mbassa
DIRECTOR: Planning, Development and Implementation

Prepared by N. G. Gule

2002·03·06

DEPARTMENT: WATER AFFAIRS AND FORESTRY
Private Bag X313, Pretoria, 0001
Sedibeng Building, 185 Schoeman Street, Pretoria
Tel: (012) 336-7500 Fax: (012) 323-4472 / (012) 328-2715

Ref. 7/7/1/25
Tel: (012) 336 7509
Enq: C L van den Berg

The Resident Representative
Japan International Cooperation Agency
P O Box 14068
HATFIELD
0028

Fax (012) 346 4966

Attention : Dr Y Maruo

Dear Sir

BASIC DESIGN STUDY REPORT ON THE PROJECT FOR RURAL WATER SUPPLY AND PROVISION OF SANITATION IN EASTERN CAPE IN REPUBLIC OF SOUTH AFRICA : DRAFT FINAL REPORT DATED JANUARY 2002

I refer to your presentation to the Department of Water Affairs and Forestry in Pretoria on 6 February 2002, as well as the draft final Basic Design Report, dated January 2002.

Your presentation and report have been studied and the following additional comments are offered for your consideration.

1. With reference to par. 2-1-5 (Policy on use of Local Contractors) and par. 2-4-1 (Implementation Policy), and par.2-4-6 (Procurement Plan), it is recommended that at least 50% of the funds allocated should be spent locally in South Africa in terms of local sub-contractors and local materials.

2. With reference to par.3-2 (obligations of South African Government), the following practical arrangements are proposed to implement the requirements on customs and taxes:

- The Japanese Contractors must pay all customs duties, internal taxes (including valued added tax) and other fiscal levies and claim it back from the DWAF on a monthly basis. To enable DWAF to budget for this expenditure, the total cost estimate of the proposed assistance should be included in the Basic Design Report.

- The DWAF will appoint an agent at the RSA port chosen by the Contractors to take responsibility for the unloading, customs clearance at the port of disembarkation and internal transport of the products to be imported. To enable DWAF to budget for this activity, a cost estimate of the materials to be imported, should be included in the Basic Design Report.

3. Paragraph 4-3 (Free Basic Water Policy) should be changed to reflect government policy that all Local Government must implement the policy without any exception. The O R Tambo District Municipality is currently working on their implementation strategy and it is expected that this will be finalised by the time the proposed project comes into operation. This strategy will provide for the mechanisms to finance the operation and maintenance of the project.

4. The design criteria in paragraph 2-2-1 (Water Supply) for the population growth rate should be changed to the latest DWAF criterion of 0%. This growth rate is in line with the latest estimates for rural areas, taking into consideration influences like the move from rural areas to urban areas and also the impact of HIV/AIDS.

5. The Public Finance Management Act and the Division of Revenue Act of South Africa requires that no capital works may be initiated before a Business Plan is approved. For the purpose of a Business Plan cost estimates for the total project are required. The DWAF is also required to report on the values of all donor assistance received to the National Treasury. It is therefore essential that the Basic Design Report should contain the total cost estimate of not only the proposed RSA contribution, but also of the proposed Japanese contribution.

I trust that you will be able to accommodate my comments in the revised Basic Design Report. It will be appreciated if you can also respond on every issue by the way of a letter.

Yours sincerely

DIRECTOR GENERAL
DATE : 04/05/02.

Copy to : The Japanese Embassy
PRETORIA
Fax : (012) 433 922