

## Number of Boreholes with Handpump

The Necessary number of boreholes with handpump in each target year are shown in the attached tables considering the following conditions for the existing water supply facilities.

- (1) Borehole
- 1) Yield of the borehole is used as a capacity of the facility with borehole pump and engine.
  - 2) Capacity of the borehole with windmill is estimated using the data from catalogue by the following conditions;
    - Diameter of Windmill: 3.0m (average size)
    - Total head is calculated by the static water level of the borehole and the height of storage tank (h=3.0m)
    - Small figure of the pumping capacity by windmill and yield of borehole is adopted.
  - 3) Capacity of the borehole with handpump is 720 liter/hr as a capacity of handpump. Present water supply population is 580 under 12 hr's operation of handpump.
- (2) Dug well:
- 1) Water supply population of dug well with handpump is also 580.
  - 2) In case of no handpump water supply population is estimated as a 290 which is held of the above.
    - 1) considering the efficiency of water fetching.
- (3) Water Hole:
- 1) If the shape of water hole is similar to the dug well water supply population is assumed to be the same as the dug well without handpump.
  - 2) Regarding the water hole dug in the riverbed, it is assumed that every family have one water hole at least, and get the water of 5 liter/capita/day at least even in a dry season, Therefore present water supply population by the water hole is calculated as follow:  
Population =(Present population -Population serve the water by other facilities) x 5/20  
5/20: Conversion from 5 liter water supply to 20 liter water supply.
  - 3) Water supply population by the overflowed water hole is assumed to be 600 person/day.
- (4) Dam/Lake:
- 1) Regarding the beneficiaries of large scale dam or lake, remaining population which is calculated from present population minus

population served water by other facilities is assumed to get 20 litter/day from the dam or lake.

- 2) Medium or small size dam and lake which are dried up in the end of dry season are assumed to be out of consideration.
- 3) In the inventory survey sheet for water supply facilities, if no mention is made to the water availability, dam and lake is assumed to be available of water even in a dry season and its capacity is assumed to be 5 litter/capita/day.

- (5) Number of Borehole: If handpumps is installed in the borehole water supply population is 430/borehole on the condition of 20 litter/capita/day and 290/borehole on the condition of 30 litter/capita/day.

Number of borehole in each district and target years is as follows;







Village No.	Village	Population		Existing Facilities												Yr. 2001				Yr. 2006				Yr. 2016				Remarks				
		1997	2016	Borehole			Well			Water Hole			Dam/Lake			Rehabilitation		Daywell		Req. Service		New Const.		Req. Service		New Const.						
				Yld	Pop	Yld	Pop	Yld	Pop	Yld	Pop	Yld	Pop	Yld	Pop	Yld	Pop	Yld	Pop	Yld	Pop	Yld	Pop	Yld	Pop	Yld	Pop		Yld	Pop		
11	(2)	2001	2938	2016	(2)	153	193	103	113	123	133	143	153	163	173	183	193	203	213	223	233	243	253	263	273	283	293	303	313	323		
16	Nimbor	2718	3100	4165	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
17	Unwinyamburi	2409	3252	3787	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
18	Mungwa	1427	1652	1838	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
19	Mugale	1418	1410	1654	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
20	Skati	1800	2155	2408	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
21	Mugale	2092	2432	2738	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
22	Mububi	2530	2929	3298	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
23	Silwa	2466	2925	3298	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
24	Unwinyamburi	2586	2960	3373	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
25	Mungwa	2485	2996	3372	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
26	Mungwa	2432	2996	3372	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
27	Mugale	2482	2889	3277	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
28	Mungwa	2482	2889	3277	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
29	Ungwa	2038	2436	2738	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
30	Mububi	3307	3903	4548	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
		3307	3903	4548	19452	157040	128468	6140	3182490	23450	49409	106	229422	9220	162919	317	192402	0	378800	1240												



Village No.	Village Name	Population										Existing Facilities										Yr. 2021										Yr. 2016										Remarks																																																																																																																																																							
		1997					2001					2016					Water					Wells					Household					W/O					Yr. 2016						Yr. 2016																																																																																																																																																						
		2001		2016		2016		2016		2016		2016		2016		2016		2016		2016		2016		2016		2016		2016		2016		2016		2016		2016																																																																																																																																																													
		Pop.	2016	Pop.	2016	Pop.	2016	Pop.	2016	Pop.	2016	Pop.	2016	Pop.	2016	Pop.	2016	Pop.	2016	Pop.	2016	Pop.	2016	Pop.	2016	Pop.	2016	Pop.	2016	Pop.	2016	Pop.	2016	Pop.	2016																																																																																																																																																														
52	Hake	3,423	3,942	4,528	5,927	6,462	7,000	7,500	8,000	8,500	9,000	9,500	10,000	10,500	11,000	11,500	12,000	12,500	13,000	13,500	14,000	14,500	15,000	15,500	16,000	16,500	17,000	17,500	18,000	18,500	19,000	19,500	20,000	20,500	21,000	21,500	22,000	22,500	23,000	23,500	24,000	24,500	25,000	25,500	26,000	26,500	27,000	27,500	28,000	28,500	29,000	29,500	30,000	30,500	31,000	31,500	32,000	32,500	33,000	33,500	34,000	34,500	35,000	35,500	36,000	36,500	37,000	37,500	38,000	38,500	39,000	39,500	40,000	40,500	41,000	41,500	42,000	42,500	43,000	43,500	44,000	44,500	45,000	45,500	46,000	46,500	47,000	47,500	48,000	48,500	49,000	49,500	50,000	50,500	51,000	51,500	52,000	52,500	53,000	53,500	54,000	54,500	55,000	55,500	56,000	56,500	57,000	57,500	58,000	58,500	59,000	59,500	60,000	60,500	61,000	61,500	62,000	62,500	63,000	63,500	64,000	64,500	65,000	65,500	66,000	66,500	67,000	67,500	68,000	68,500	69,000	69,500	70,000	70,500	71,000	71,500	72,000	72,500	73,000	73,500	74,000	74,500	75,000	75,500	76,000	76,500	77,000	77,500	78,000	78,500	79,000	79,500	80,000	80,500	81,000	81,500	82,000	82,500	83,000	83,500	84,000	84,500	85,000	85,500	86,000	86,500	87,000	87,500	88,000	88,500	89,000	89,500	90,000	90,500	91,000	91,500	92,000	92,500	93,000	93,500	94,000	94,500	95,000	95,500	96,000	96,500	97,000	97,500	98,000	98,500	99,000	99,500	100,000





Table 5.4(1) : No. of Livestock Unit and Proposed Charcos in Hanang District

Division	Ward	Village No.	Village Name	Population (1997)	Livestock Unit	No. of Charco		2001	2006	2016
						in Use	Propose			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Bassotu	Bassotu	1	Mulbadaw	3,696	5,746	1	-	-	-	-
		2	Dang'aida	580	2,867		3	1	1	1
	Laghanga	3	Dajamet	774	2,619		3	1	1	1
		4	Laghanga	1,818	2,598	1	-	-	-	-
		5	Gawidu	1,801	6,075		6	1	1	4
	Bassodesh	6	Garawja	4,438	6,533		7	1	1	5
		7	Bassodesh	1,992	4,642	3	-	-	-	-
	Hirbadaw	8	Hirbadaw	3,007	2,135		2	-	1	1
		9	Mwanga	3,229	4,292		4	1	1	2
	Gatanuwas	10	Wandela	420	2,149		2	-	1	1
		11	Gatanuwas	1,471	6,165		6	1	1	4
		12	Gidika	1,348	6,075		6	1	1	4
Katesh	Mogitu	13	Dumbeta	1,370	4,380		4	1	1	2
	Nangwa	14	Dirma	2,190	3,380		3	1	1	1
	Gisambalang	15	Gisambalang	1,626	985		1	-	-	1
		16	Waranga	1,021	808		1	-	-	1
	Balangdafalu	17	Mureco	1,388	4,565		5	1	1	3
		18	Diloda	1,385	290		1	-	-	1
	Gehanduru	19	Mingenyi	2,424	784		1	-	-	1
		20	Ishponga	1,494	4,498	1	-	-	-	-
Endasak	Measkron	21	Mara	1,976	944		1	-	-	1
	Gidahababieg	22	Gidahababieg	2,290	2,846		3	1	1	1
		23	Endasaboghechan	2,290	1,715		2	-	1	1
	Hidet	24	Hidet	2,000	1,818		2	-	1	1
		25	Bassotughang	1,480	1,607		2	-	1	1
	Sirop	26	Sirop	1,870	2,055		2	-	1	1
		27	Matangarinu	2,280	1,638		2	-	1	1
	Simbay	28	Simbay	621	2,702		3	1	1	1
		29	Gidagharabuk	618	1,207		1	-	-	1
	Masakta	30	Masakta	3,584	1,786		2	-	1	1
		31	Lambo	2,390	1,348		1	-	-	1
Masqaroda	32	Masqaroda	2,504	2,228		2	-	1	1	
	33	Getasum	1,126	1,008		1	-	-	1	
Total				62,501	94,488	6	79	12	21	46

## Summary

District	No. of Charco	2001	2006	2016
Hanang	79	12	21	46
Singida Rural	181	24	48	109
Manyoni	140	17	36	87
Igunga	63	11	22	30
Total	463	64	127	272

Table 5.4(2) : No. of Livestock Unit and Proposed Charcos in Singida Rural District

Division	Ward	Village No.	Village	Population (1997)	Livestock Unit	No. of Charco		2001	2006	2016	
						in Use	Propose				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
Ikungi	Ikungi	1	Ikungi	2,646	2,716	4	-	-	-	-	
		2	Ighuka	3,256	2,545		3	1	1	1	
		3	Ulyampiti	2,103	2,894		3	1	1	1	
		4	Matongo	2,897	7,969		8	1	1	6	
		5	Muungano	1,444	1,501		2	-	1	1	
		6	Matare	3,198	4,016	3	-	-	-	-	
		7	Mahambe	1,360	1,327		1	-	-	1	
	Issuna	8	Issuna	3,303	4,432	2	-	-	-	-	
		9	Choda	1,325	2,187		2	-	1	1	
		10	Mkiwa	1,827	2,530		3	1	1	1	
	Dung'unyi	11	Nkuhi	2,199	3,973	1	-	-	-	-	
		12	Samaka	3,502	3,177	3	-	-	-	-	
		13	Ujaire	1,631	1,386		1	-	-	1	
	Mang'oniyi	14	Kipumbuiko	2,208	1,434		1	-	-	1	
		15	Mkinya	1,662	1,718	4	-	-	-	-	
		16	Mang'oniyi	2,102	2,233		2	-	1	1	
		17	Tupendane	1,570	2,076		2	-	1	1	
		18	Mwau	4,039	5,095		5	1	1	3	
		19	Sambaru	1,273	1,455		1	-	-	1	
Ihanja	Ihanja	20	Ihanja	3,814	2,296	4	-	-	-	-	
		21	Isseke	1,797	1,163		1	-	-	1	
		22	Nkoiree	3,006	3,702		4	1	1	2	
		23	Unyangwe	2,234	2,404	7	-	-	-	-	
	Minyughe	24	Chungu	2,996	3,254	4	-	-	-	-	
		25	Minyughe	2,225	2,794	1	-	-	-	-	
	Muhintiri	26	Misake	2,810	2,664		3	1	1	1	
		27	Muhintiri	2,929	4,241		4	1	1	2	
		28	Mnyange	1,838	2,664		3	1	1	1	
		29	Mpetu	1,320	1,896	3	-	-	-	-	
		Puma	30	Matyuku	1,691	1,620		2	-	1	1
			31	Utaho	2,832	1,599	5	-	-	-	-
	32		Isalanda	838	579	6	-	-	-	-	
	33		Kituntu	2,453	1,286	4	-	-	-	-	
	34		Msambu	1,827	1,667	4	-	-	-	-	
	35		Nkurinkana	2,094	1,822	1	-	-	-	-	
	Sepuka	Sepuka	36	Wibia	2,238	1,484	2	-	-	-	-
			37	Msimi	5,580	2,706		3	1	1	1
38			Msungwa	3,379	2,150	6	-	-	-	-	
39			Kintandaa	3,794	3,269	5	-	-	-	-	
40			Mnang'ana	2,972	2,097	1	-	-	-	-	
Mwaru		41	Mtunduru	4,481	2,967	6	-	-	-	-	
		42	Mwaru	2,368	6,862	1	-	-	-	-	
		43	Mfandala	2,516	10,500		11	1	1	9	
		44	Igombwe	2,049	4,021		4	1	1	2	
Mgungira		45	Msosa	1,421	3,760		4	1	1	2	
		46	Mgungira	2,183	4,620		5	1	1	3	
	47	Ufana	1,390	9,210		9	1	1	7		
Irisya	48	Iyumbu	2,724	4,538		5	1	1	3		
	49	Irisya	2,608	2,473	1	-	-	-	-		
	50	Mwasutianga	1,357	1,259	1	-	-	-	-		
Ntinko	Ntinko	51	Mtinko	3,910	2,335		2	-	1	1	
		52	Malolo	3,048	1,392		1	-	-	1	
		53	Mughanga	2,318	1,047		1	-	-	1	
		54	Mpambaa	2,756	3,010		3	1	1	1	
		55	Kijota	1,716	772	1	-	-	-	-	
	56	Nduu	1,992	1,364		1	-	-	1		
	57	Minyenye	4,034	2,088		2	-	1	1		

Division	Ward	Village No.	Village	Population (1997)	Livestock Unit	No. of Charco		2001	2006	2016		
						in Use	Propose					
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)		
	Makuro	58	Ikiwu	3,803	2,329		2	-	1	1		
		59	Makuro	2,568	1,309		1	-	-	1		
		60	Ghalunyangu	2,454	1,686		2	-	1	1		
		61	Mpipiti	4,043	1,525		2	-	1	1		
		62	Mpoku	3,216	1,442		1	-	-	1		
		63	Matumbo	3,090	1,679		2	-	1	1		
		64	Mkenge	2,389	1,302		1	-	-	1		
	Ughandi	65	Migugu	2,437	1,553		2	-	1	1		
		66	Ughandi 'B'	2,501	1,412		1	-	-	1		
		67	Nkwae	1,899	925		1	-	-	1		
		68	Laghanida	2,849	4,236		4	1	1	2		
		69	Misinko	3,658	2,165		2	-	1	1		
70		Ntondo	1,473	1,882		2	-	1	1			
Ilongero	Ilongero	71	Msisi	3,513	2,911		3	1	1	1		
		72	Senene Mfuru	1,071	879		1	-	-	1		
		73	Madamigha	3,679	1,397	1	-	-	-	-		
		74	Mrama	4,382	925	1	-	-	-	-		
		75	Mwahango	1,851	1,037	2	-	-	-	-		
		76	Ilongero	-	-	-	-	-	-	-		
		77	Mwakiti	2,307	1,048		1	-	-	1		
		78	Itanka	2,263	1,037	1	-	-	-	-		
		79	Sekoutuure	2,280	855	5	-	-	-	-		
		Ilongero	Kinyeto	80	Kinyeto	3,991	1,542		2	-	1	1
				81	Ntunduu	2,367	1,043		1	-	-	1
				82	Mkimbii	1,883	1,299	2	-	-	-	-
83	Minyaa			2,158	1,331		1	-	-	1		
84	Igauri			1,795	976		1	-	-	1		
85	Ntonge			2,380	1,077		1	-	-	1		
86	Mghamo			4,392	2,064	1	-	-	-	-		
87	Merya			4,590	2,373	2	-	-	-	-		
88	Mvae			4,033	2,703	1	-	-	-	-		
89	Makhandi			3,125	1,220		1	-	-	1		
90	Kinyagigi			2,514	1,610	1	-	-	-	-		
Ilongero	Ikhanoda			91	Mwanyonye	3,060	1,533		2	-	1	1
		92	Ikhanoda	2,409	1,137		1	-	-	1		
		93	Mjughuda	3,934	3,151		3	1	1	1		
		94	Msimihi	3,549	441		1	-	-	1		
		95	Mdilu	2,819	1,662		2	-	1	1		
		96	Mwasauya	3,463	2,077		2	-	1	1		
		97	Mgamu	4,093	2,374		2	-	1	1		
	Maghojoe	98	Mipilo	4,221	3,383		3	1	1	1		
		99	Mangida	3,351	2,295		2	-	1	1		
		100	Sefunga	2,705	2,063		2	-	1	1		
		101	Ghata	3,638	881	1	-	-	-	-		
		102	Msange	4,180	1,891	1	-	-	-	-		
Mgori	Mgori	103	Mgori	1,640	4,083		4	1	1	2		
		104	Mkhola	2,379	945		1	-	-	1		
		105	Sughana	2,693	1,120		1	-	-	1		
		106	Unyampanda	1,270	1,521	1	-	-	-	-		
		107	Mughunga	1,195	1,264		1	-	-	1		
		108	Nduamughanga	1,356	1,273		1	-	-	1		
Mgoni	Ngimu	109	Ngimu	3,995	2,530		3	1	1	1		
		110	Mwighanji	2,938	1,308	1	-	-	-	-		
		111	Itaja	5,249	3,352	1	-	-	-	-		
		112	Pohama	3,175	2,473		2	-	1	1		
Mungaa	Mungaa	113	Mungaa	2,532	1,513		2	-	-	-		
		114	Minyinga	2,163	2,434		3	-	-	-		
		115	Kinku	2,517	1,240		4	-	-	-		

Division	Ward	Village No.	Village	Population (1997)	Livestock Unit	No. of Charco		2001	2006	2016
						in Use	Propose			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Misughaa	116	Kimwi	2,318	2,013	1	-	-	-	-
		117	Unyamighumbi	2,809	1,343	6	-	-	-	-
		118	Misughaa	1,427	840	2	-	-	-	-
		119	Msule	1,218	1,573	1	-	-	-	-
		120	Sakaa	1,410	549		1	-	-	1
		121	Mnane	1,860	1,559		2	-	1	1
	Siuyu	122	Nkundi	2,092	950		1	-	-	1
		123	Siuyu	2,530	914		1	-	-	1
		124	Unyankanya	2,466	1,023	1	-	-	-	-
	Ntuntu	125	Mkunguakihendo	2,298	2,722	1	-	-	-	-
		126	Ntuntu	2,245	1,824		2	-	1	1
		127	Ntewa	3,437	6,635	3	-	-	-	-
		128	Mampando	2,824	2,747		3	1	1	1
129		Lighwa	2,258	5,208	1	-	-	-	-	
		130	Mwisi	2,038	668		1	-	-	1
Total				339,791	293,523	127	181	24	48	109

Table 5.4(3) : No. of Livestock Unit and Proposed Charcos in Manyoni District

Division	Ward	Village No.	Village Name	Population (1997)	Livestock Unit	No. of Charcos		2001	2006	2016
						in Use	Propose			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Manyoni	Manyoni	1	Manyoni	5,209	2,885		3	1	1	1
		2	Kipondoda	5,210	2,551		3	1	1	1
		3	Mwanzi	1,333	1,230		1	-	-	1
		4	Muhafala	2,256	1,518	1	-	-	-	-
		5	Mdunundu	1,703	232		1	-	-	1
		6	Mitoo	893	583		1	-	-	1
		7	Mkwese	2,630	2,002	1	-	-	-	-
		8	(Blank)							
	Aghondi	9	Aghondi	1,027	500		1	-	-	1
		10	Mabondeneni	599	1,201		1	-	-	1
		11	Njirii	751	470		1	-	-	1
	Idodyandole	12	Kamenyanga	1,449	1,647	3	-	-	-	-
		13	Idodyandole	2,250	2,811		3	1	1	1
		14	Mbugani	2,172	2,430		2	-	1	1
		15	Kashangu	862	466		1	-	-	1
Itigi	Itigi	16	Itigi Mjini	8,258	3,482	4	-	-	-	-
		17	Doroto	1,410	2,010		2	-	1	1
		18	Kitaraka	1,574	2,313		2	-	1	1
	Sanjaranda	19	Sanjaranda	2,183	6,751		7	1	1	5
		20	Gurungu	1,471	2,202		2	-	1	1
		21	Kitopeni	2,032	2,328		2	-	1	1
	Ipande	22	Ipande	2,488	3,614		4	1	1	2
		23	Muhanga	1,660	3,984		4	1	1	2
		24	Damwelu	1,350	2,108		2	-	1	1
	Mgandu	25	Mgandu	4,988	1,380		1	-	-	1
		26	Kalangali	696	198		1	-	-	1
		27	Itagata	1,479	2,050		2	-	1	1
		28	Kayui	2,899	2,175		2	-	1	1
		29	Makale	2,074	1,608		2	-	1	1
	Rungwa	30	Rungwa	1,857	288		1	-	-	1
		31	Mwamagembe	1,793	240		1	-	-	1
		32	Kintanula	410	176		1	-	-	1
	Maweni	33	Maweni	1,741	3,592		4	1	1	2
		34	Mvumi	1,298	2,343		2	-	1	1
35		Ngaiti	2,347	7,705		8	1	1	6	
Kintinku	Chikuyu	36	Chikuyu	2,762	2,017		2	-	1	1
		37	Mbwasa	1,866	4,624		5	1	1	3
		38	Mwiboo	2,934	1,604		2	-	1	1
		39	Makutupora	1,365	1,300	1	-	-	-	-
	Makanda	40	Makanda	1,422	2,985		3	1	1	1
		41	Mangasai	1,421	3,236		3	1	1	1
		42	Kitalalo	1,425	2,825	1	-	-	-	-
	Kintinku	43	Kintinku	1,430	1,148		1	-	-	1
		44	Lusilile	3,130	3,295	2	-	-	-	-
		45	Udimaa	1,710	3,950		4	1	1	2
	Nkonko	46	Nkonko	2,655	555		1	-	-	1
		47	Mpola	1,489	3,858		4	1	1	2
		48	Ntumbi	2,224	3,927		4	1	1	2
	Chikola	49	Chikola	2,152	5,210		5	1	1	3
		50	Chidamsulu	1,081	2,244		2	-	1	1
		51	Winamila	889	946		1	-	-	1
52		Heka	3,425	3,587	2	-	-	-	-	
53		Sasilo	3,734	6,792		7	1	1	5	
54		Chikombo	3,751	1,955		2	-	1	1	
Isseke	55	Isseke	971	824	2	-	-	-	-	
	56	Simbanguru	1,164	925		1	-	-	1	

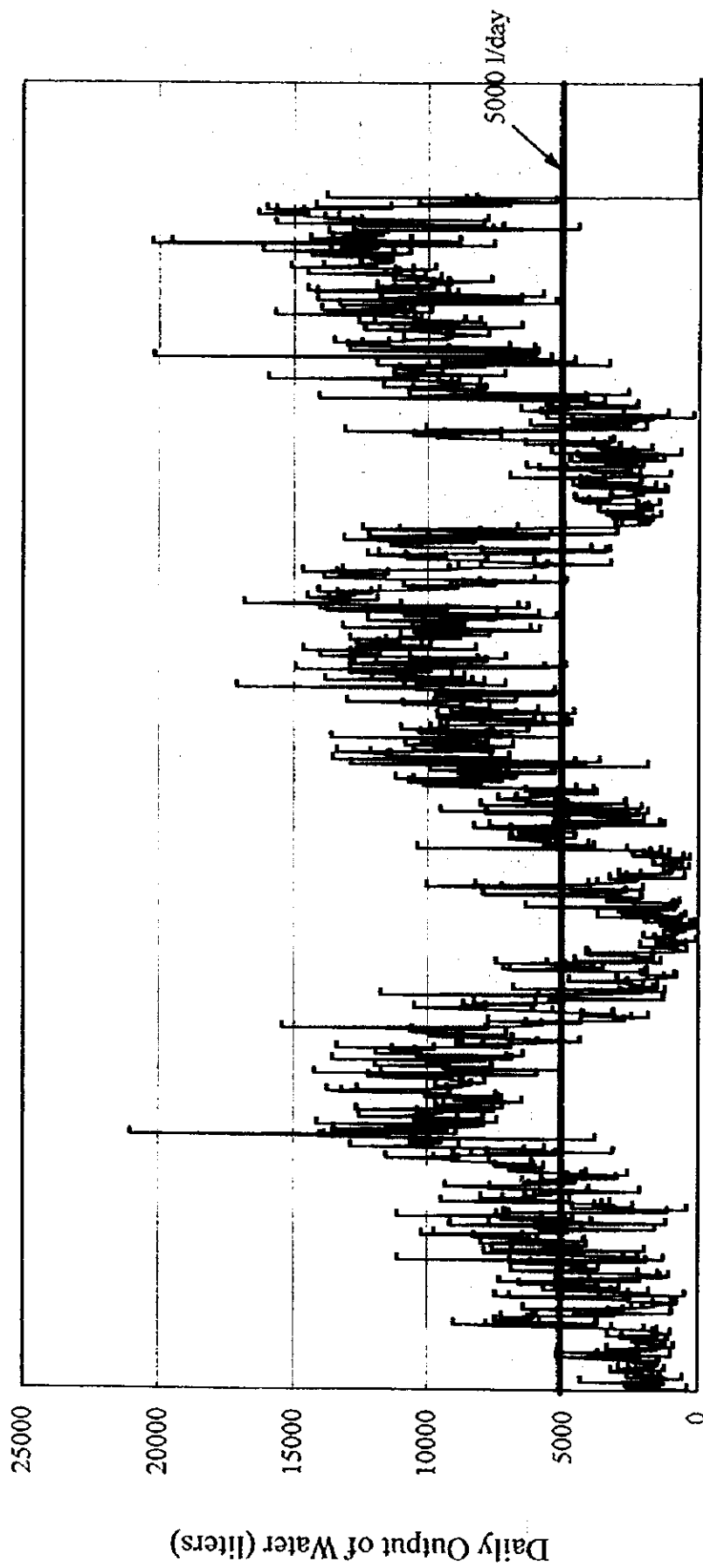
Division	Ward	Village No.	Village Name	Population (1997)	Livestock Unit	No. of Charcos		2001	2006	2016	
						in Use	Propose				
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
	Sanza	57	Igwamadete	2,048	892		1	-	-	1	
		58	Mpapa	1,837	943		1	-	-	1	
		59	Sanza	2,634	1,919		2	-	1	1	
		60	Ntope	2,545	1,843		2	-	1	1	
		61	Chicheho	1,327	1,826		2	-	1	1	
		62	Ikasi	1,118	1,555		2	-	1	1	
	Makuru	63	Msemembo	2,658	1,407		1	-	-	1	
		64	Saranda	2,768	570		1	-	-	1	
		65	Londoni	1,205	386		1	-	-	1	
		66	Hika	467	66		1	-	-	1	
	Kilimatinde	Kilimatinde	67	Kilimatinde	1,247	99		1	-	-	1
			68	Solya	1,709	648		1	-	-	1
69			Sukamahela	3,169	92		1	-	-	1	
Majiri		70	Majiri	2,314	4,731		5	1	1	3	
		73	Kinangali	2,912	1,995		2	-	1	1	
Sasajila		71	Sasajila	1,017	2,191	1	-	-	-	-	
	72	Makasuku	1,031	967		1	-	-	1		
Total				147,358	151,010	18	140	17	36	87	

Table 5.4(4) : No. of Livestock Unit and Proposed Charcos in Igunga District

Division	Ward	Village No.	Village Nme	Population (1997)	Livestock Unit	No. of Charco		2001	2006	2016
						in Use	Propose			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Mangonga	Mwashinku	1	Matinje	4,536	1,430	-	1	-	-	1
		2	Buchenjegele	3,842	1,220	2	-	-	-	-
		3	Mondo	2,517	1,764	1	-	-	-	-
		4	Mwashiku	2,279	395	3	-	-	-	-
	Ngulu	5	Ngulu	2,023	2,472	3	-	-	-	-
		6	Imalilo	2,354	2,500	-	3	1	1	1
		7	Mwansugho	1,543	2,356	1	-	-	-	-
	Chamachankola	8	Chomachankola	6,460	2,260	-	2	-	1	1
		9	Chibiso	2,499	2,695	2	-	-	-	-
		10	Bulangamilwa	4,061	3,278	-	3	1	1	1
	Ziba	11	Ziba	4,923	3,270	-	3	1	1	1
		12	Ibologero	4,643	2,982	-	3	1	1	1
		13	Bulumbela	2,274	3,312	1	-	-	-	-
	Ndembezi	14	Ndembezi	5,293	2,901	1	-	-	-	-
		15	Ntigu	1,496	968	1	-	-	-	-
		16	Kitangili	3,176	2,003	1	-	-	-	-
		17	Moyofuke	1,817	1,112	2	-	-	-	-
	Nkinga	18	Nkinga	6,321	3,048	1	-	-	-	-
		19	Ulaya	2,453	2,104	1	-	-	-	-
		20	Ugaka	2,495	2,051	-	2	-	1	1
		21	Mwakabuta	1,855	3,108	-	3	1	1	1
		22	Ikunguipina	1,392	1,287	-	1	-	-	1
Igurubi	Igurubi	23	Igurubi	4,425	3,026	2	-	-	-	-
		24	Mwagala	1,933	1,216	1	-	-	-	-
		25	Kalangale	1,618	1,215	-	1	-	-	1
	Kinungu	26	Kinungu	2,555	1,302	-	1	-	-	1
		27	Mwandihimiji	2,827	2,432	-	2	-	1	1
		28	Mwamapuli	2,331	2,194	-	2	-	1	1
		29	Mwajilunga	1,375	3,190	2	-	-	-	-
	Mwamashiga Ntobo	30	Migongwa	2,092	2,224	-	2	-	1	1
		31	Ntobo	2,720	3,689	-	4	1	1	2
32		Mwamloti	2,031	3,493	2	-	-	-	-	
33		Mwabubele	1,885	2,309	-	2	-	1	1	
Igurubi	Itunduru	34	Itunduru	3,557	3,304	2	-	-	-	-
		35	Kagongwa	1,307	1,749	2	-	-	-	-
		36	Mwabaraturu	4,768	997	-	1	-	-	1
Igunga	Igunga	37	Mwayunge	3,112	1,332	-	1	-	-	1
		38	Nyandekuwa	3,166	428	-	1	-	-	1
		39	Ussongo	2,463	1,564	-	2	-	1	1
		40	Itale	2,170	1,505	-	2	-	1	1
	Nanga	41	Nanga	2,424	2,706	-	3	1	1	1
		42	Kaumbu	3,181	3,270	-	3	1	1	1
		43	Bulyangombe	3,327	2,810	-	3	1	1	1
		44	Igogo	1,951	2,432	-	2	-	1	1
	Bukoko	45	Bukoko	2,445	3,493	-	3	1	1	1
		46	Ipumbulya	2,932	2,330	-	2	-	1	1
	Itumba	47	Itumba	1,239	1,947	3	-	-	-	-
	Lugubu	48	Lugubu	1,231	2,489	-	2	-	1	1
	Sungwizi	49	Sungwizi	2,692	2,984	1	-	-	-	-
		50	Nguriii	4,689	2,814	-	3	1	1	1
Total				142,698	112,960	35	63	11	22	30

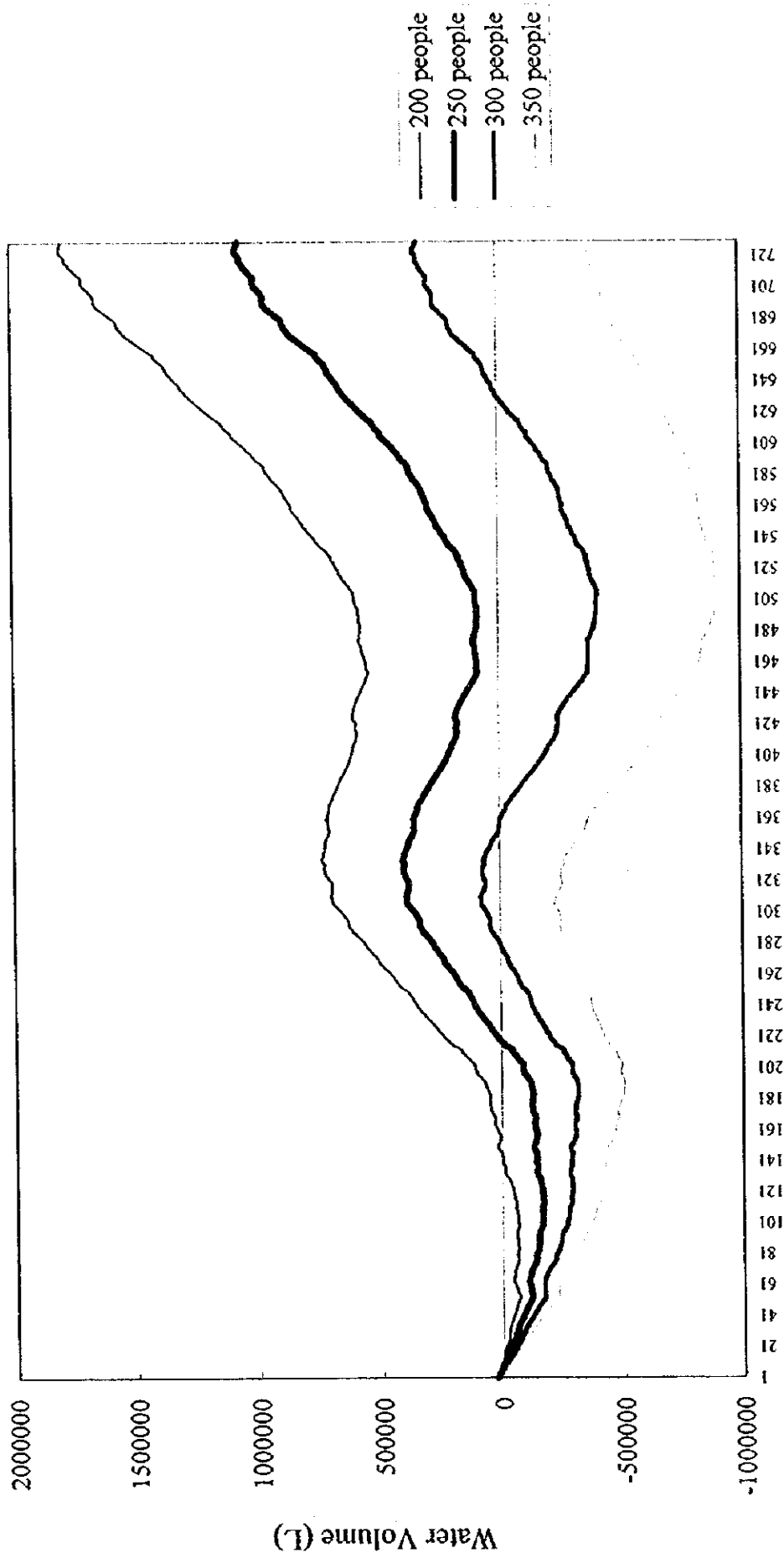


Figure 5.1 Ideal Daily Output of Wind-pump in Singida



Number of Days from Jan. 1, 1987 until Dec. 31, 1989

Figure 5.2 Water Balance Between Wind-pump Output By Service Population with 30 m<sup>3</sup> Water Tank, Singida



**APPENDIX-5**

**JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)  
THE MINISTRY OF WATER,  
THE GOVERNMENT OF THE UNITED REPUBLIC OF TANZANIA**

**THE STUDY  
ON  
THE GROUNDWATER DEVELOPMENT  
FOR  
HANANG, SINGIDA RURAL, MANYONI AND IGUNGA  
DISTRICTS  
IN  
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**TRAINING MATERIALS OF VILLAGERS  
FOR EFFECTIVE MANAGEMENT OF  
RURAL WATER SCHEME**

*August, 1998*

**SANYU CONSULTANTS INC. (JAPAN)  
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## **1.0 INTRODUCTION**

In order for the villagers to effectively and efficiently manage their village Water, Health and Sanitation Programmes, they must be equipped with the necessary skills and knowledge, as well as being given guidelines that, all together, will increase their capability on managing such programmes.

This Training manual is focused to achieve this objective.

The important topics covered in this manual include: Basic principles in effective management of a village Water, Health and Sanitation Programme; Community Participation strategies; Structure, Roles and Responsibilities of Village Water Committee and User Group Committees; Management and leadership skills; Operation and maintenance of a village water scheme; and Gender Issues.

It is envisaged that, if clearly understood, this manual will result to improved performance of the VWCs as well as UGCs, and thus increased efficiency in managing the village water scheme by the beneficiaries.

## **2.0 BASIC PRINCIPLES FOR EFFECTIVE IMPLEMENTATION OF A VILLAGE WATER, HEALTH AND SANITATION PROGRAMME.**

The following principles are considered important for effective implementation of a village based Water, Health and Sanitation programme:-

- i. **COMMUNITY PARTICIPATION** - Most of activities to be done should strongly be guided by the principles of community participation and bottom up planning and decision making processes. Promoting villagers based on participatory methodologies is the most important tool for achieving true participation.



- ii. **GENDER ISSUES** - There is a need to actively promote the participation of both Women, Youth and Men in all activities in order to succeed in mobilising all available human resources for development activities. Since Women are responsible for procurement of water, cooking and child care, enhancing their awareness of good hygiene can accelerate the improvement of the family health. Most health activities should therefore be targeted towards Women.

Whenever villagers are invited to discuss issues related to water or health, the role of women will inevitably arise. It is therefore essential that women be invited to these meetings and be encouraged to actively participate in discussions of issues that will eventually affect them. It is also an opportunity to promote the modifications of roles within a family and community; and also create understanding for more equal distribution of responsibilities between Women and Men.

iii. **SELF RELIANCE AND OWNERSHIP**

The issue of ownership should be explained, discussed, understood and agreed upon by the community. The users own the facilities and will eventually take full responsibility for the management, financing, operation and maintenance after completion. In most cases investment costs will be shared.

The financial management issues must be cleared and agreed upon within the group.

#### iv. CREDIBILITY

Credibility requires that what is done has been chosen and that the choice was based on sufficient information.

Trust in the programme is promoted amongst the end users.

Genuine credibility requires communication of full information and its assimilation, dissemination, acceptance and internalization. This takes time. In absence of full information, villagers respond rationally to available information by opportunistic behaviour (when it produces immediate benefits) and reluctance (when action would incur costs).

#### v. SUSTAINABILITY

Sustainable development is that which is self perpetuating and which endures. An installation may last long because it was built simply and strongly, and the users have maintained it well through their own efforts and resources.

The villagers should discuss the costs involved. They should also discuss the community's ability and willingness to pay for the services over a longer period of time. From the very beginning the villagers need to understand the financial implications of operating and maintaining their scheme.

One way of generating funds for the sustainability of the water facilities is the payment for such services by the users. This will ensure availability of funds for running and maintaining the facilities.

The availability of spare parts must also be discussed with the end users so that they know what to expect when there is a breakdown.

The users should be made aware of the fact that sustainable development does not proceed from the utilisation of donor funding unless the funding is supportive of the main effort by the people themselves. Therefore the centre-piece of promotion and discussion among the villagers should be self-reliance.

vi. **AFFORDABILITY**

To get the maximum benefit from the Sanitation Water, Health and Sanitation programme, the technologies used must be the ones that the villagers can easily understand, can afford and can maintain. Thus, the means of acquiring clean water and improving environmental sanitation must be financially affordable by individual households or villages. Similarly, the maintenance costs of installations must be made clear to all and must be feasible.

vii. **COST EFFECTIVENESS**

In all discussions with the villagers it is important to discuss cost efficiency and effectiveness of various activities. This should include choice of appropriate technology, methods to be used, as well as operations and financial management.

**3.0 COMMUNITY MOBILISATION STRATEGIES**

- 3.1. In this chapter, members of village water committee, as well as user Group committees, will learn on how best they can mobilise all villagers in identifying their health and water problems as well as problems resulting in environmental

destruction, and at the end come up with their own solutions to these problems.

**Aim** - to empower the VWCs and UGCs with the basic mobilisation techniques.

### **3.2. COMMUNITY MOBILISATION**

In order for the VWCs and UGCs to effectively mobilise the community to participate effectively in the Water, health and Sanitation Programme they need to fulfil the following:-

#### **ON ENVIRONMENTAL SANITATION**

Each member of village Government or VWC or UGC need to demonstrate to others on how best a household could improve its environmental Sanitation by constructing a good and permanent pit latrine; by digging a gabbage pit; by cleaning the surroundings daily; cleanliness in the home; personal hygiene ; etc.

By doing so, it will be easier for others to respond positively when educated or when urged to maintain better environmental sanitation practices at their homes.

#### **REGARDING PAYMENT OF WATER FEES**

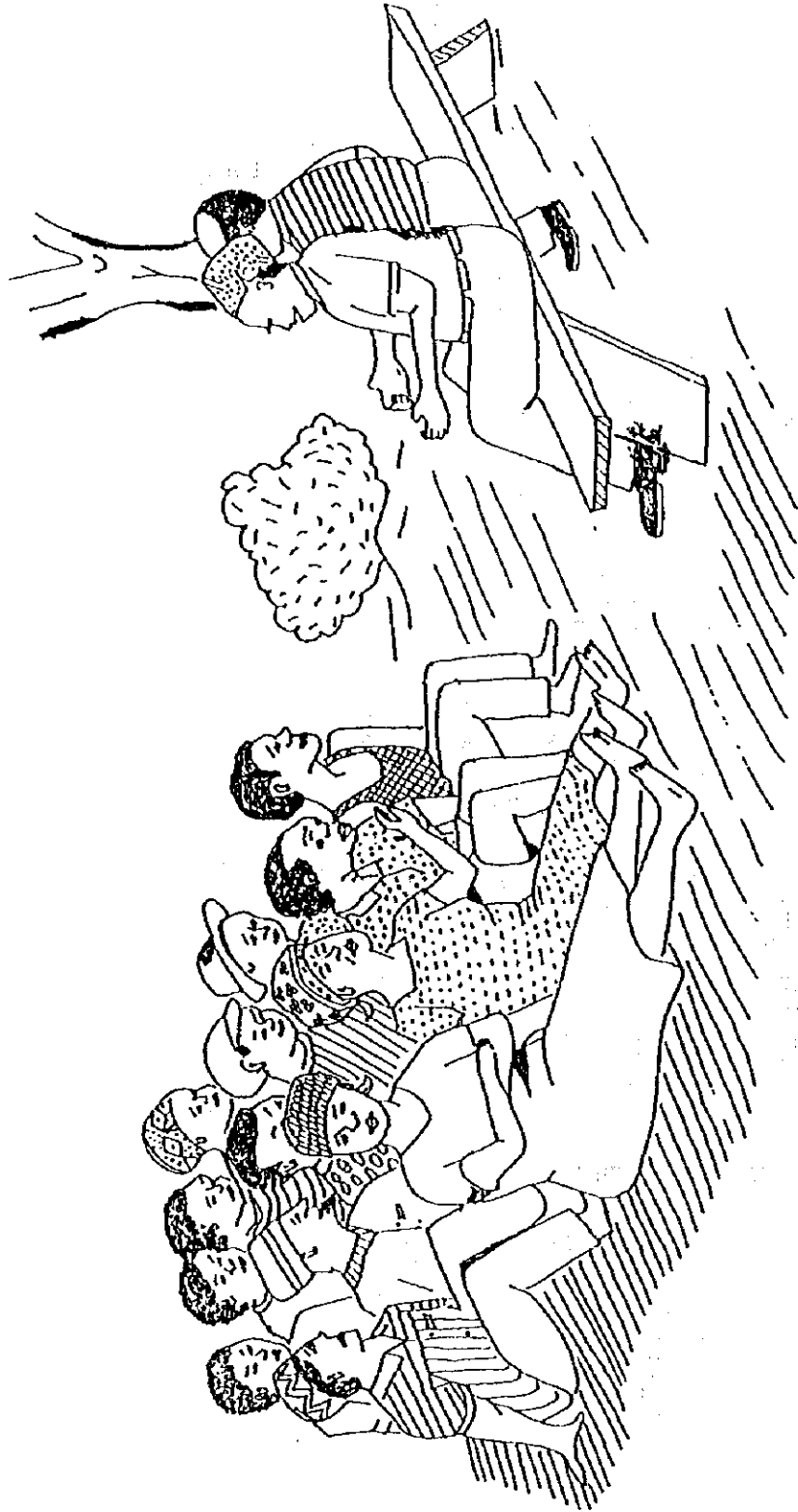
Inorder to mobilise and motivate other villagers to pay the set water fees timely, the village leaders as well as Water Committee members ought to make sure that they are on the forefront. i.e. they have to pay the water fees first before going around collecting water fees from their fellow villagers. For those who are wealthy, they could pay large sums of money, far above the required water fee, which will also be a motivating factor to other rich villagers to pay large sums of money too, and hence more funds in their village water fund.

## **MEETINGS**

Village leaders as well as Water Committee members need to organise meetings at different levels e.g. village Assembly, sub-village meetings, Women Groups meetings, etc. In such meetings users will be able to exchange ideas in various developmental issues, they will participate in making decisions, preparing action plans, etc and as such whatever Development project is being done, they will see it as theirs, which is a very important factor towards sustainability.

## **COMMUNITY PARTICIPATION**

As part of mobilising the community members to effectively participate in implementing, operating and maintaining their water scheme, as well as practice effectively health and sanitation requirements from household level, village leaders as well as water committee members ought to make sure that users/villagers are highly involved in identification, planning, implementation, and evaluation of their development activities.



## 4.0 WATER COMMITTEES - STRUCTURE, ROLES AND RESPONSIBILITIES

### 4.1 STRUCTURE

#### 4.1.1 VILLAGE WATER COMMITTEE (VWC)

A VWC shall be elected in each village. The VWC shall have the overall responsibility of overseeing Water Development activities in a village. The VWC shall perform its duties in collaboration with the Social Services Committee of the village Government.

- **Structure:** It is recommended that VWC shall compose at least 6 members of whom not less than 50% shall be WOMEN. Each sub-village in the village shall have a representative in the VWC (at most 2 members from each sub-village).

The VWC shall have a Chairperson, Secretary and Treasurer.

**Note:** Women should be given equal opportunity with Men in leadership positions.

#### 4.1.2 USER GROUP COMMITTEES (UGCs)

In order to have effective and efficient management of water Development activities at the lowest level possible, which includes effective and efficient operation and maintenance of a water facility at the sub-village level, it is recommended to establish Water User Groups for each Water facility (Water Point) in the village. (A list of all users for each Water Point should be established).

For this reason, each user group shall elect its own committee, here referred as, USER GROUP COMMITTEE (UGC).

- **Structure:** It is recommended that the UGC compose 6 members, of whom, at least 50% being women. These shall include

Chairperson, Secretary, Treasurer, Water Point Caretakers, and a Pump mechanic.

## **REGULATIONS FOR RUNNING ACTIVITIES OF WATER COMMITTEES**

**MEETINGS** - The UGC members need to meet frequently to monitor and evaluate the performance of their water scheme. This could be once every month, although they should meet whenever there is an emergency.

All members shall participate in the meetings, and they are advised to observe time. Each member is required to participate in discussions openly, actively, and without fear. The committee shall invite Experts from different fields e.g. Water, Health, Community Development who will elaborate and give advise on various technical issues, whenever they feel such advise is required.

## **QUALITIES OF A GOOD MEMBER**

Among others, a member of a User Group Committee need to have the following qualities:

- (i) He/she must be a permanent resident of the sub-village.
- (ii) H/She must show a high level of self-motivation, self independent, and high level of maturity and originality.
- (iii) If possible, must be literate (should know how to read and write).
- (iv) Must be eager to learn new ideas, and be able to accept changes.

### **Other regulations:**

It is the role of users, together with their committee to sit and formulate its own regulations regarding the running of its water committee. This is important as it will ensure proper function and efficiency of their water committee and water



development activities in general. These, apart from the ones elaborated above, should include working period for the committee, how does a committee member loose membership, work plan, meetings, etc.

## 4.2 ROLES AND RESPONSIBILITIES

As already elaborated above, the water user committee is a very important instrument in promoting water development in a village or sub-village, and safeguarding the water Project and its facilities. Although, sustainability of a Water Project lies on the hands of all users, but user Group committees have important role to play in such process.

Their major roles and responsibilities, among others, include:

(i) **Management and Administration.**

This refers to the daily management and Administration of their water project.

(ii) **Security of the Project**

The use Group committee or VWC have to develop/plan proper security measures for the water project and its facilities. The security of the project shall fully involve all water users.

(iii) **Water rights**

The Water Committee has to make sure it secures Water Right for the water used by it's users, as well as the proper rights to own the land occupied by their water project (land lease). This will avoid any land disputes that might occur in the future and thus assuring the users of continuous benefits accruing from their project.

(iv) **Advise**

It is the responsibility of Water committees to advise both the village Government as well as its users in all issues/aspect relating to the development of their water project, including O & M issues.

(v) **Health and Hygeine Education**

The Water Committees (i.e. VWC and UGCs) must be in the fore front in educating other villagers on better health and hygeine practices. This should include also environmental Sanitation. This is crucial because getting clean and safe water must go hand in hand with better health practices if you want to raise the health standards of the population.

It is recommended that the water committee work closely with different professionals/experts at the village such as Health officers, Water Technicians,

Community Development workers , as, such experts will give them advise and/or guidance which will help to improve their work performance.

## **5.0 MANAGEMENT AND LEADERSHIP SKILLS**

Good and strong leadership at local level is very important for effective management of village development projects, including the village water scheme.

It is thus important to instill management and leadership skills to VWC members and UGC members to ensure that they become good leaders.

## **Leadership - Its meaning**

Leadership in simple terms can be said to be the process of showing the right way from point A to point B. When you lead you show the way which others will follow.

While it is generally expected that leaders will exercise a role different from that of their followers and display more initiative and concern for the achievement of the group goals, there is a great need for all members of the group to participate to some degree in the leadership function. Thus, the VWC and UGC members in collaboration with the village government are expected to solicit participation and at the same time retain the responsibility for the actions of their people (Group members).

## **Leadership Styles**

### **i- Directive leadership (authoritarian)**

Subordinates know exactly what is expected of them and specific directions are given by the leader. There is no participation by subordinates at all.

### **ii- Supportive leadership**

Self - explanatory. The leader is friendly and approachable and shows a genuine human concern for subordinates.

### **iii- Participative leadership**

A Leader seeks/asks for and uses suggestions from subordinates but still makes the decisions.

iv- **Achievement - oriented leadership**

This leader sets challenging goals for subordinates and shows confidence in them to attain these goals and perform well.

It is recommended that as leaders, the VWC and UGC members select the appropriate leadership approach based on the situation or problem they are dealing with at each moment of time.

**Qualities of A Good leader**

There are many qualities that a good leader has to possess, among others, being:

**INTELLIGENCE** - The leader is expected to have higher intelligence than the average intelligence of his followers.

**SOCIAL MATURITY AND BREADTH**

Leaders tend to be emotionally stable with high level of maturity, and to have broad interests and activities. They have an assured, respectful self-concept.

**INNER MOTIVATION AND ACHIEVEMENT DRIVES**

Leaders have relatively intense motivational drives of the achievement type. They strive for intrinsic rather than extrinsic rewards.

**HUMAN RELATIONS ATTITUDES**

A successful leader recognizes the worth and dignity of his followers and is able to empathize with them.

**ACCEPTABLE TO PEOPLE**

A good leader must be acceptable by his followers, which will result in great respect to the leader by his/her followers.

## **TRUST WORTHY**

A Good leader must be trustfull in all activities he/she does. He/she must as well be transparent in his/her undertakings.

### **The Relationship between Leaders and their followers**

- i. **Formal Relationship** - This sort of relationship is guided by rules, regulations, principles, as agreed upon by the Group.
  
- ii. **Informal Relationship** -  
This relationship is not guided by any rules, principles, regulations. It is quite informal, but it is also very important for effective management of group activities.

## **6.0 HEALTH AND SANITATION**

### **6.1 INTRODUCTION**

Every human being understands that water is the basic need for a human being. In other words it is said that "WATER IS LIFE". However, the most important thing is to ensure that we get clean and "safe" water for human consumption. If drinking water is not safe, then people would be affected by a lot of diseases including diarrhoea, cholera, bilharzia, etc.

Also, everyone knows that most of the villagers health standard is poor as a result of diseases coming up from poor hygiene and poor environmental sanitation, as well as poor diets and unclean food.

In this chapter we would learn on Environment and the importance of environmental sanitation, cleanliness of homes and their surroundings, cleanliness of the body and food, the importance of latrines and best ways of keeping drinking water.

Moreover, you will be able to discuss with your fellow participants as well as facilitators on different strategies that you could use so as to protect your water point (DP) and thus ensuring that you always get clean and safe water.

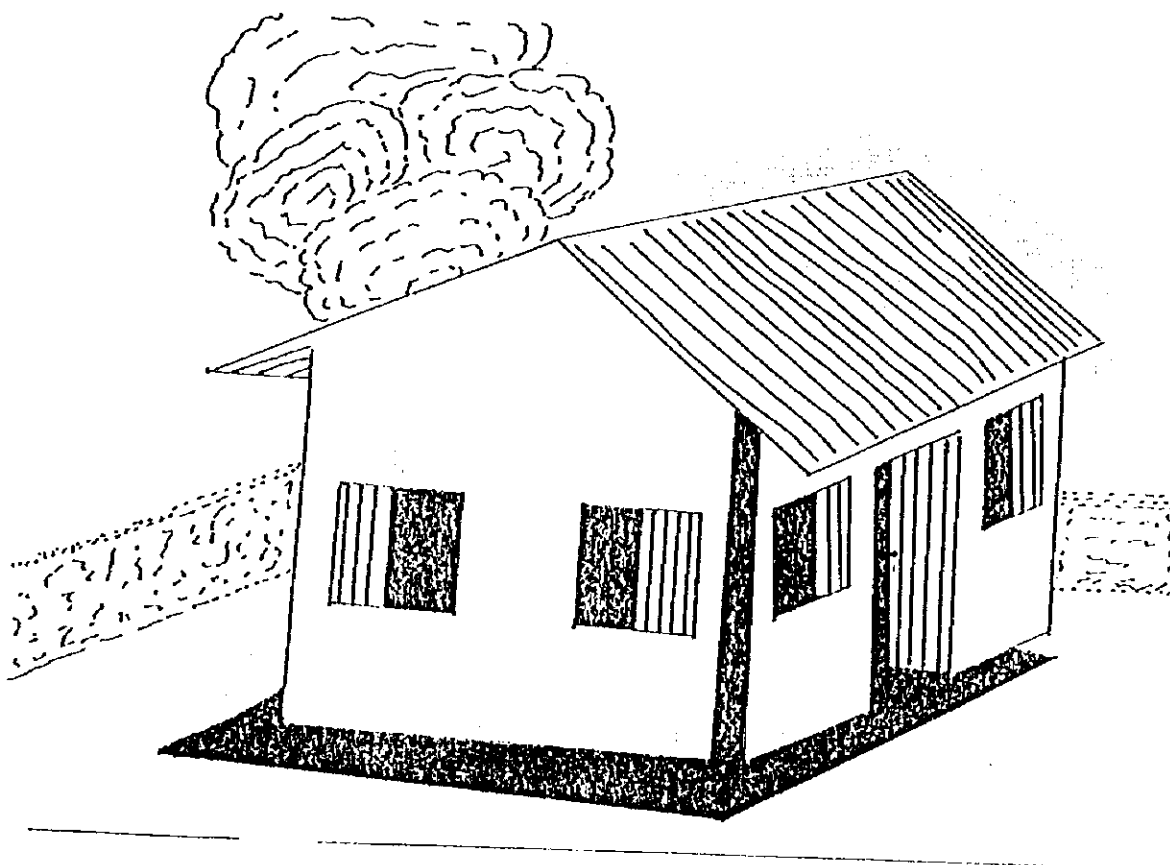
## 6.2. ENVIRONMENTAL SANITTION AND ITS IMORTANCE

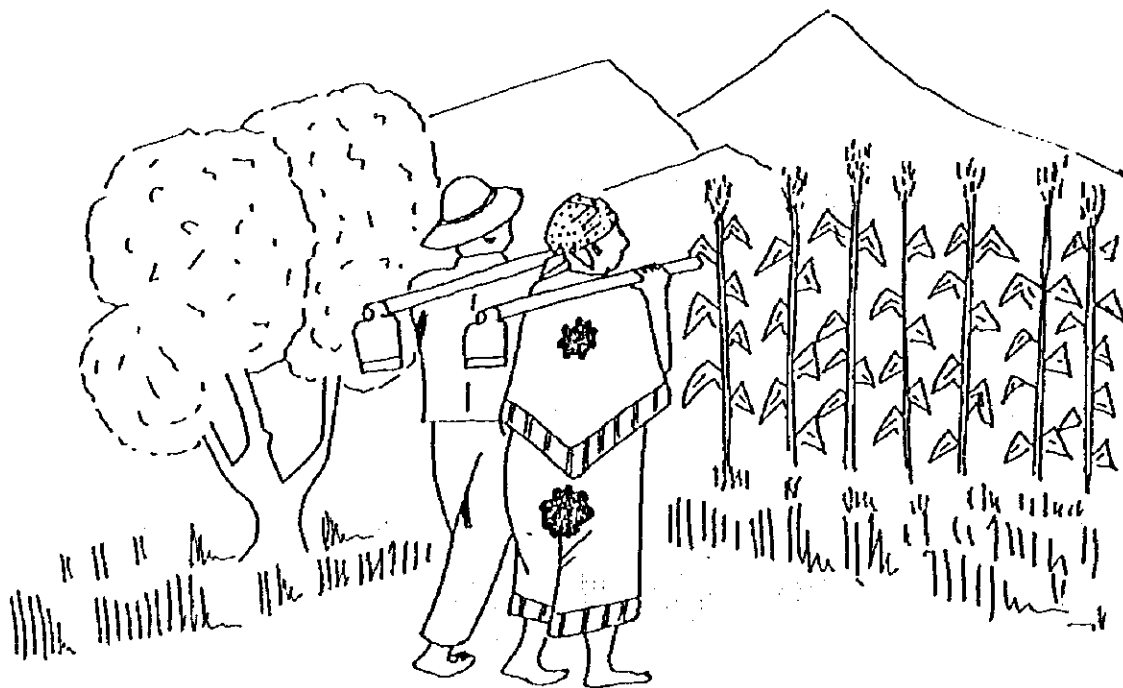
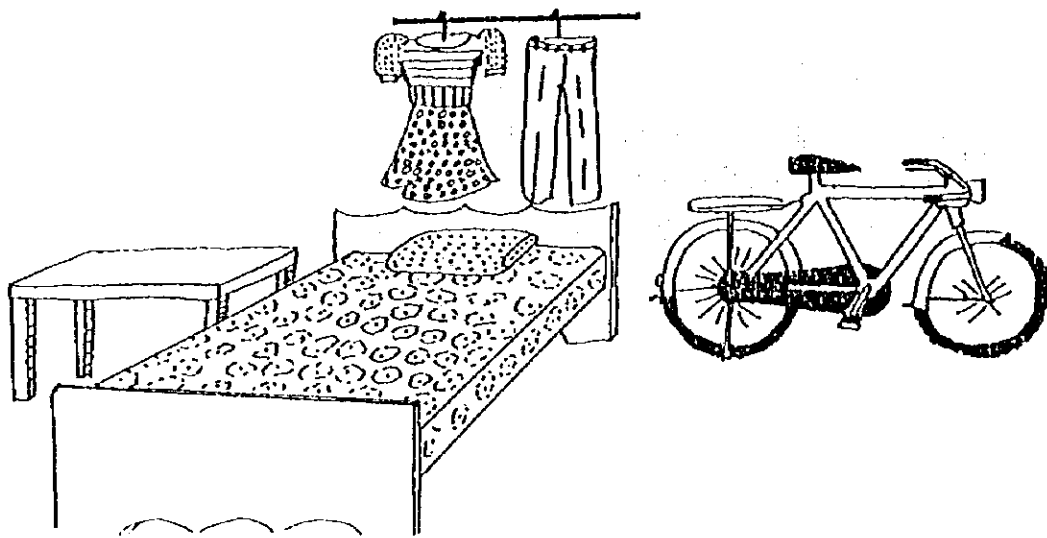
The envionmental sanittion concept incorporates a wide range of things that Surround Man in his/her daily life.

In this chapter therefore, participants, at the end, would be able:

- to explain the importance of environmental sanitation.
- to explain on effects or disadvantages of dirty/unclean environment.

In order to be enlightened on the meaning of environment, look at the following pictures:





Further more, listen to the following story on Environment.

### **Story No.1 - Meaning of Environment.**

Mr. Msengi lived in Mpapa village. One day he attended a village Assembly meeting where the Village Executive Officer (VEO) insisted the need of every household to maintain environmental sanitation with the aim of preventing the spread of diseases as well as raising the health status of the people. Mr. Msengi was very much touched by the VEOs advise/directive and as a result he was very eager to maintain better environmental sanitation at his home. However, Mr. Msengi did not know exactly what the word "Environment" meant.

With Good intention, when he reached home he called his daughter Asha who is in class six and their conversation was as follows:

**Mr. Msengi:** Mr Daughter Asha, come here.

**Asha:** Yes, Dad I am here, what can I do for you.

**Mr. Msengi:** My daughter, I want you to write a letter to your Brother Makalla. Tell him to send some money to me soonest.

I want the money to buy clean environment so that I could raise the health status of my family members.

**Asha:**Father, you said you want money to buy clean environment ( "mazingira" in swahili), or good witchcraft ("mazingara" in Swahili.)

**Mr. Msengi:** you know my daughter Asha, today in the village Assembly meeting the VEO insisted that each household has to maintain better environmental sanitation practices so as to prevent the spread of diseases as well as to raise the health status of its people. I, also need to maintain better environmental sanitation although I dont have money to buy the environment.

**Asha:**Or father, now I understand what you meant. The VEO meant that we should keep our environment clean so as to prevent the spread of diseases and hence raising the health status of the people. Environment refers to everything that surrounds us in our daily life. This include the house, personal belongings, livestock, food crops grown around the home, trees and natural vegetation, etc. All these need to be kept in a good manner and hygeinically.



**Mr. Msengi:** You Daughter, how did you come to know all these things? why hadn't you told me anything on environmental sanitation before. It means you only tell your mother.

**Asha:**No Father, all these things we learn at school in the Health and Sanitation Education period.

**Mr. Msengi:** I am now very happy to know what the VEO meant. Now stop writing that letter to your brother. But tomorrow we shall meet, with your mother and Brothers and sisters and plan on how best we will maintain better health and sanitation practices at our home so that we improve our health status.

**THE END**

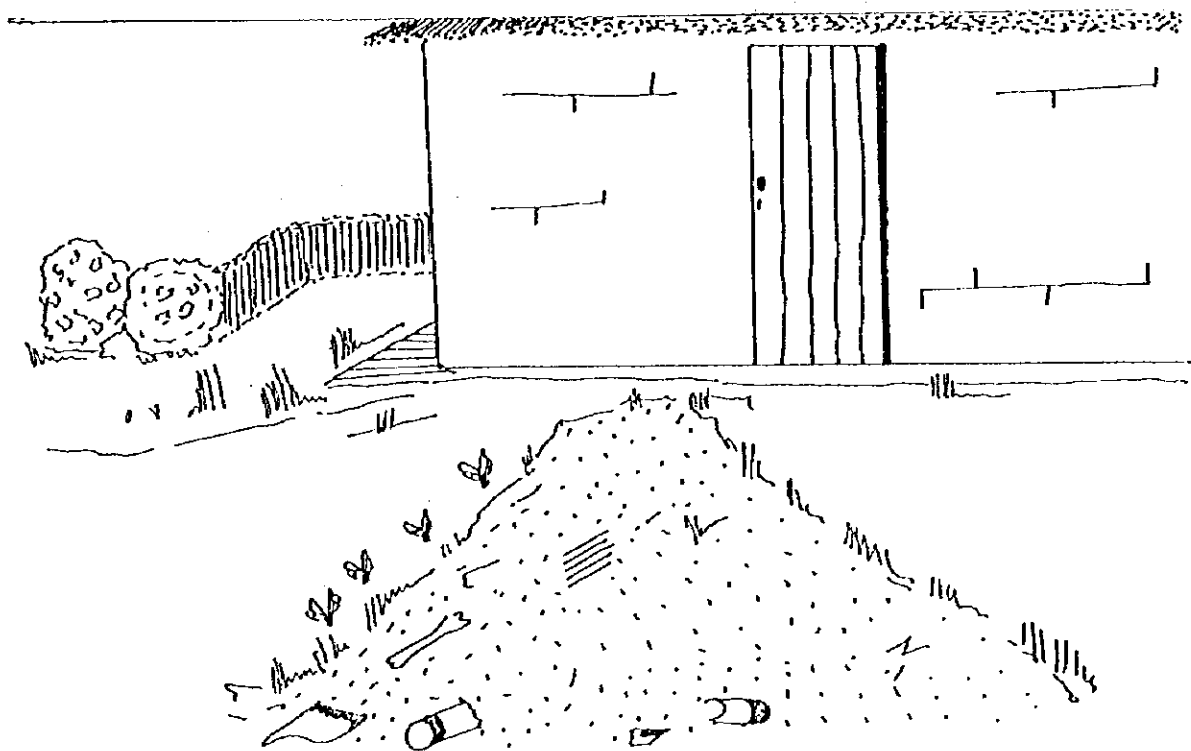
## **6.2.1. EXPLANATION ON ENVIRONMENTAL SANITATION**

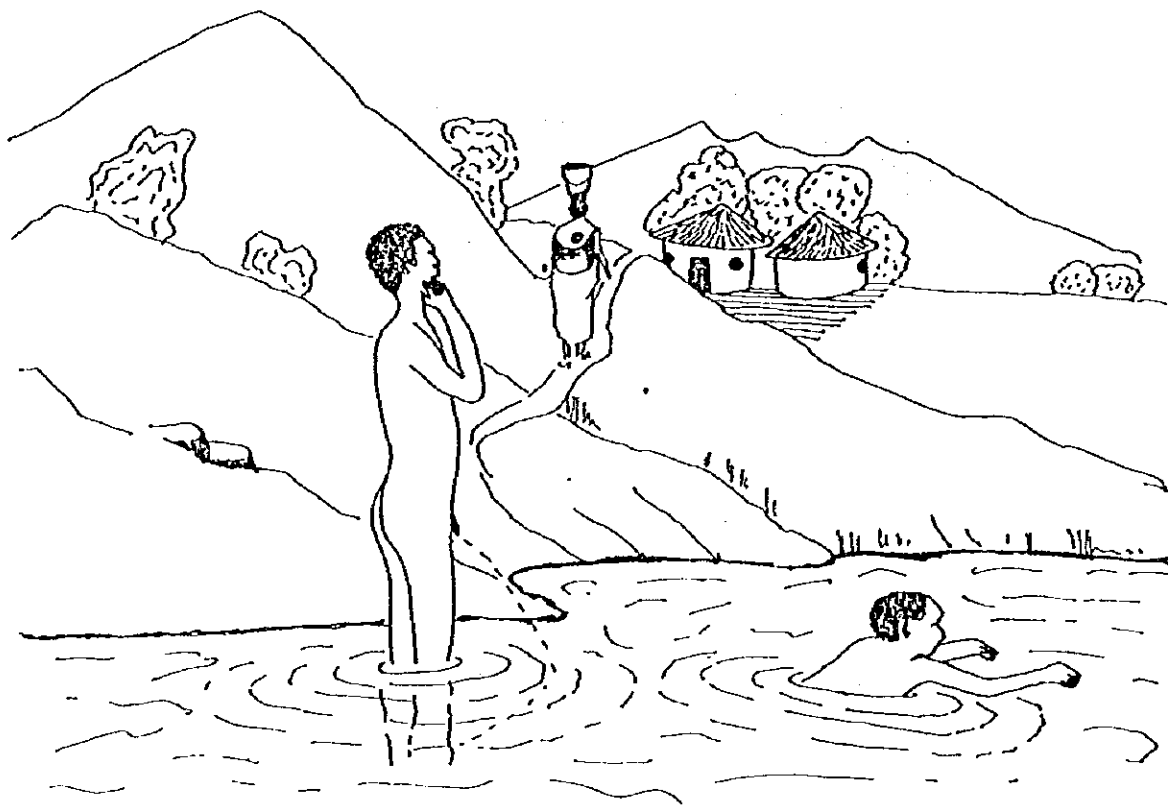
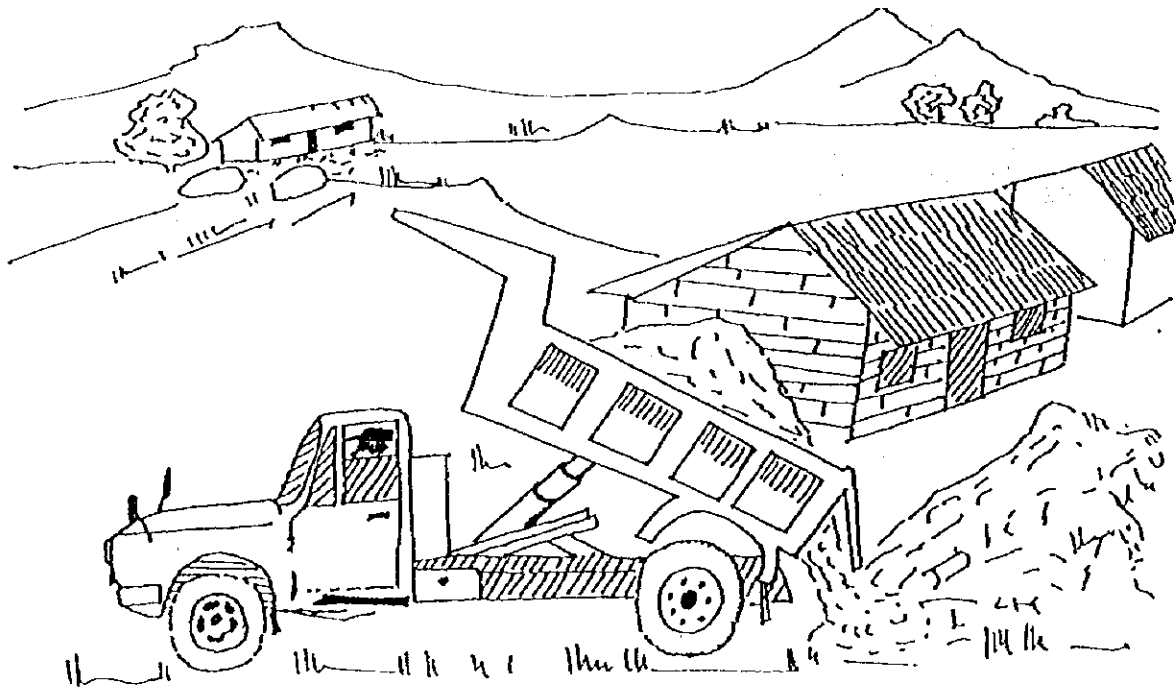
### **6.2.1.1. Environmental Sanitation.**

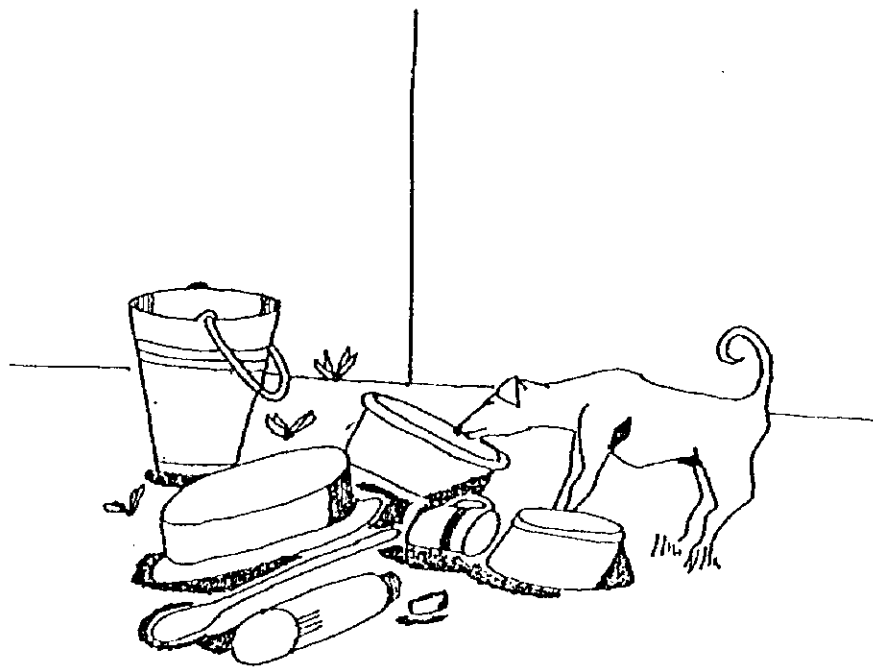
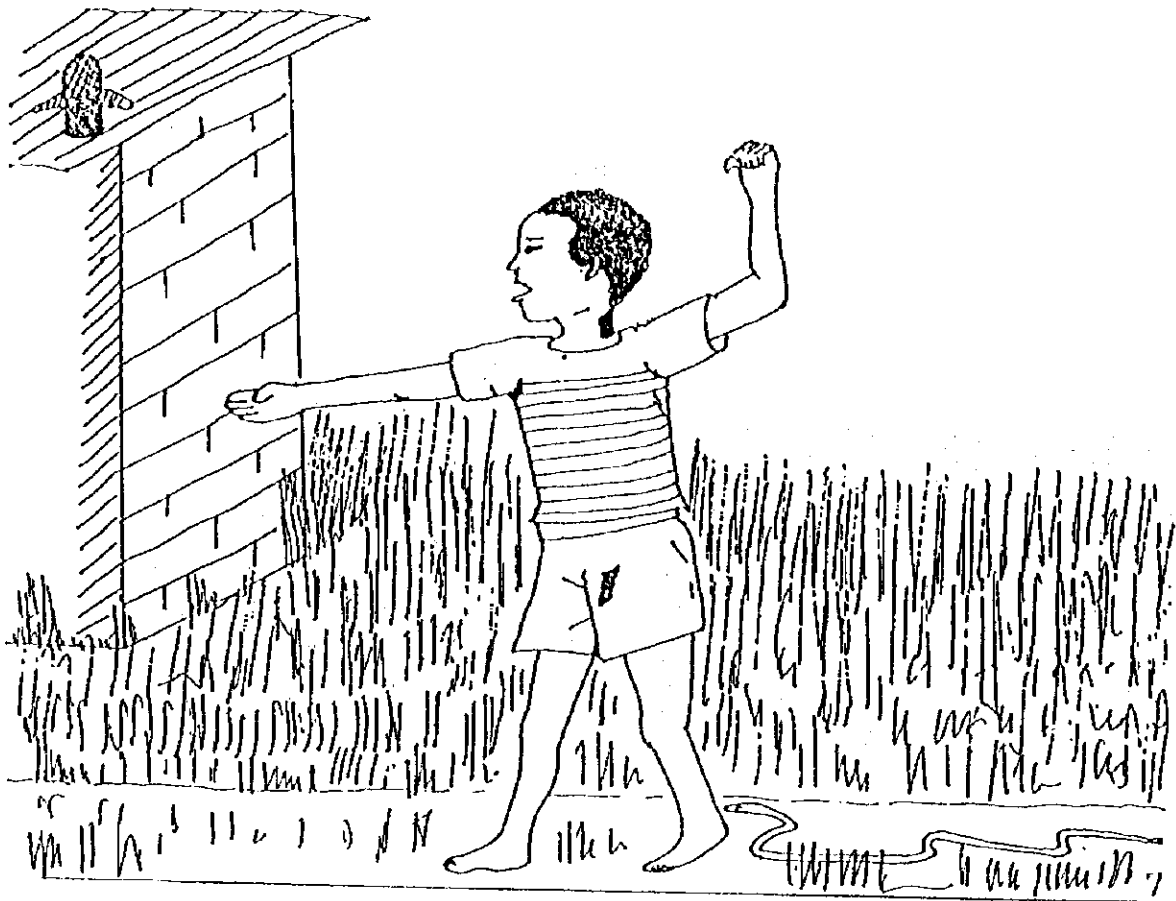
This refers to state of maintaining cleanliness of all things that surround a human being in his day to day life, to make his life as safe as possible. Cleanliness includes both personal hygiene (cleanliness of the body, clothes), cleanliness of the home and its surroundings, as well as maintaining good procedure of disposal of excreta and other refuse.

The main aim of advocating on better environmental sanitation is to prevent the spread of diseases that result from dirty and polluted environment and thus raising the health status of the people.

Look at the following Pictures on environmental pollution and discuss with your fellow Participant/Facilitator what you can learn and give your opinions on the same:





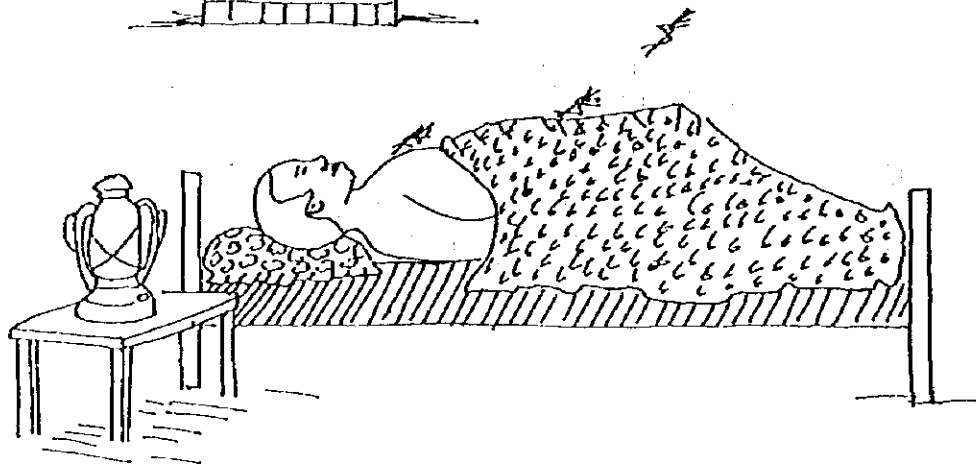
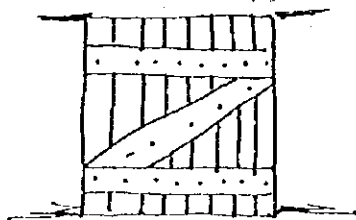


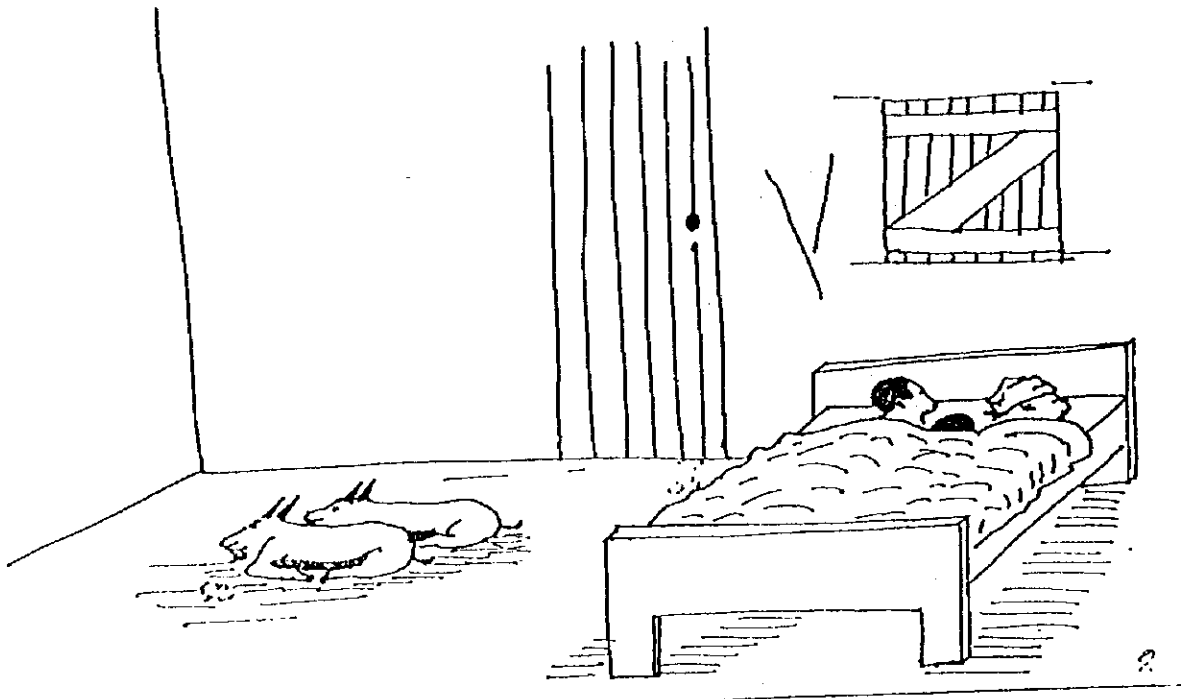
### 6.2.1.2. Dirty/or Polluted Environment.

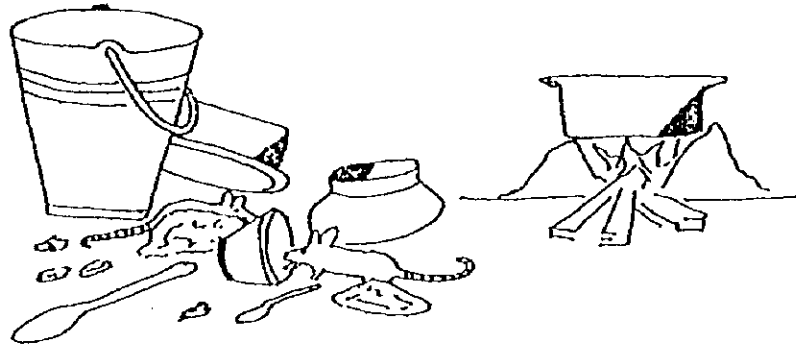
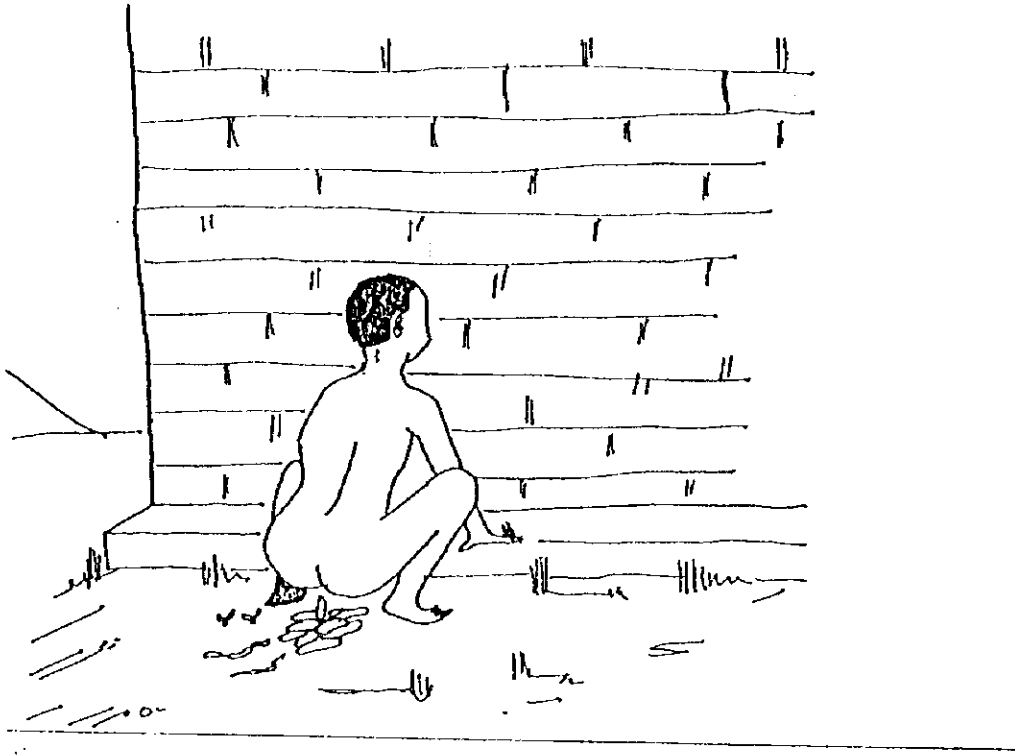
This is the state of keeping the things that surround a human being in a dirty and unhealthy condition thus being a threat to the health of the people.

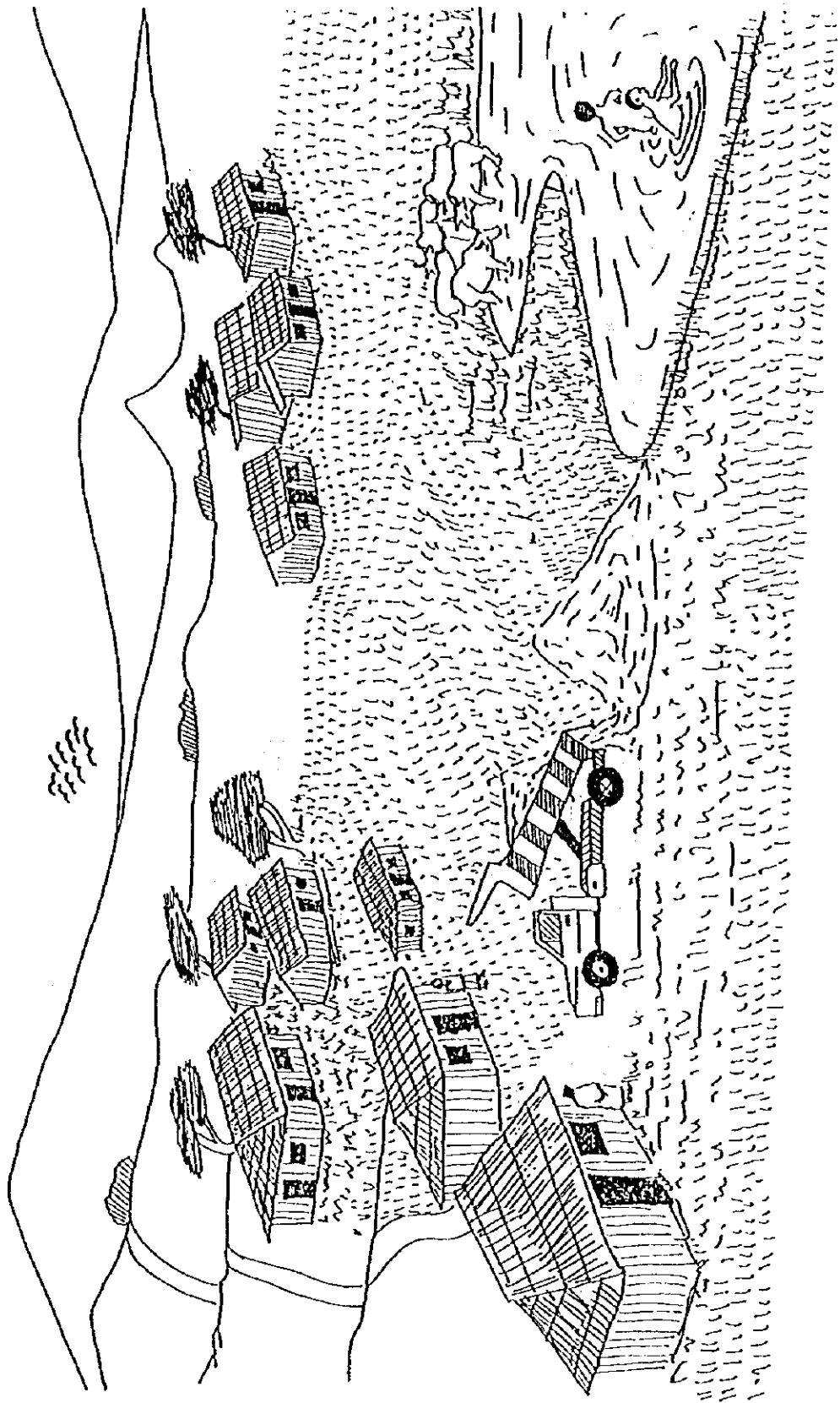
Dirty/or polluted environment speeds up the spread of diseases such as diarrhoea, cholera, malaria and it may cause great harm to a human being by allowing insects or reptiles such as snakes to grow and harm people.

Look at the following pictures and discuss with your fellow Participant/Facilitator important lessons:







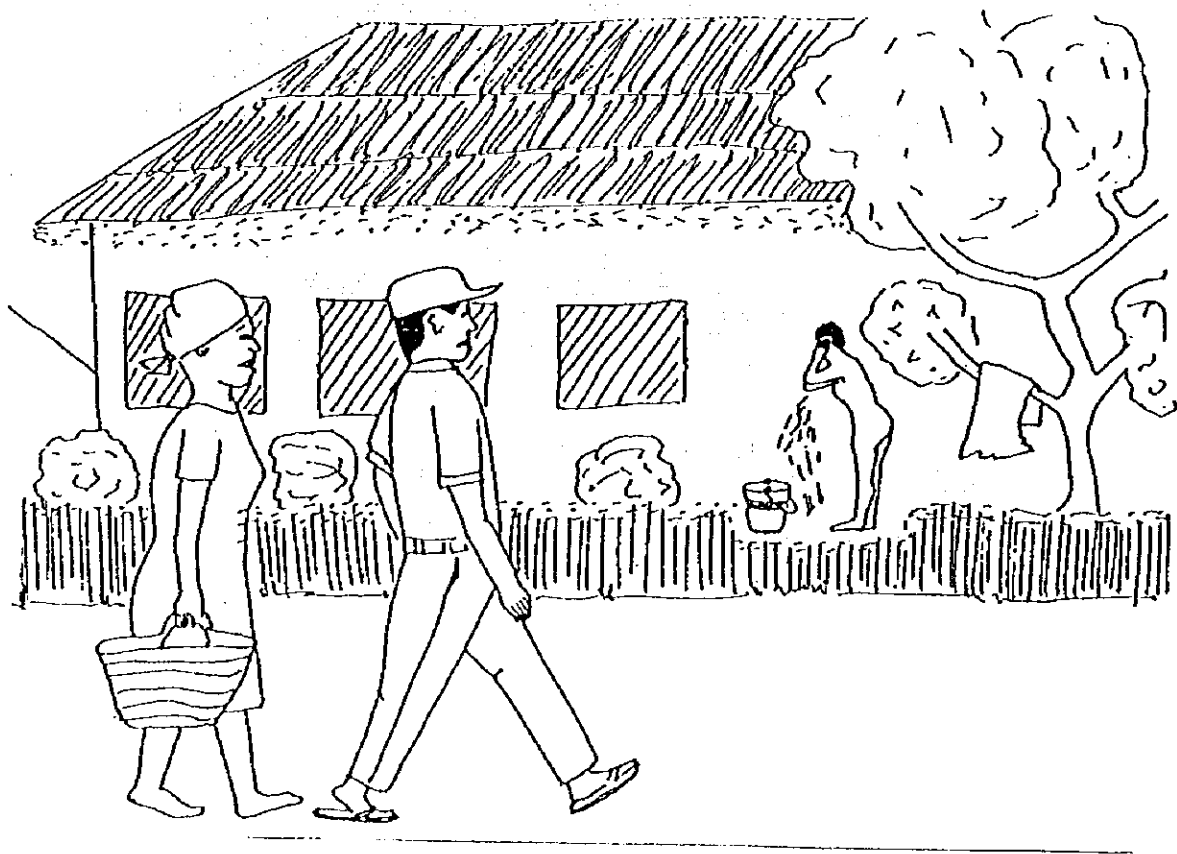




### 6.3. CLEANLINESS OF THE HOME (HOUSE HOLD) AND ITS SURROUNDINGS.

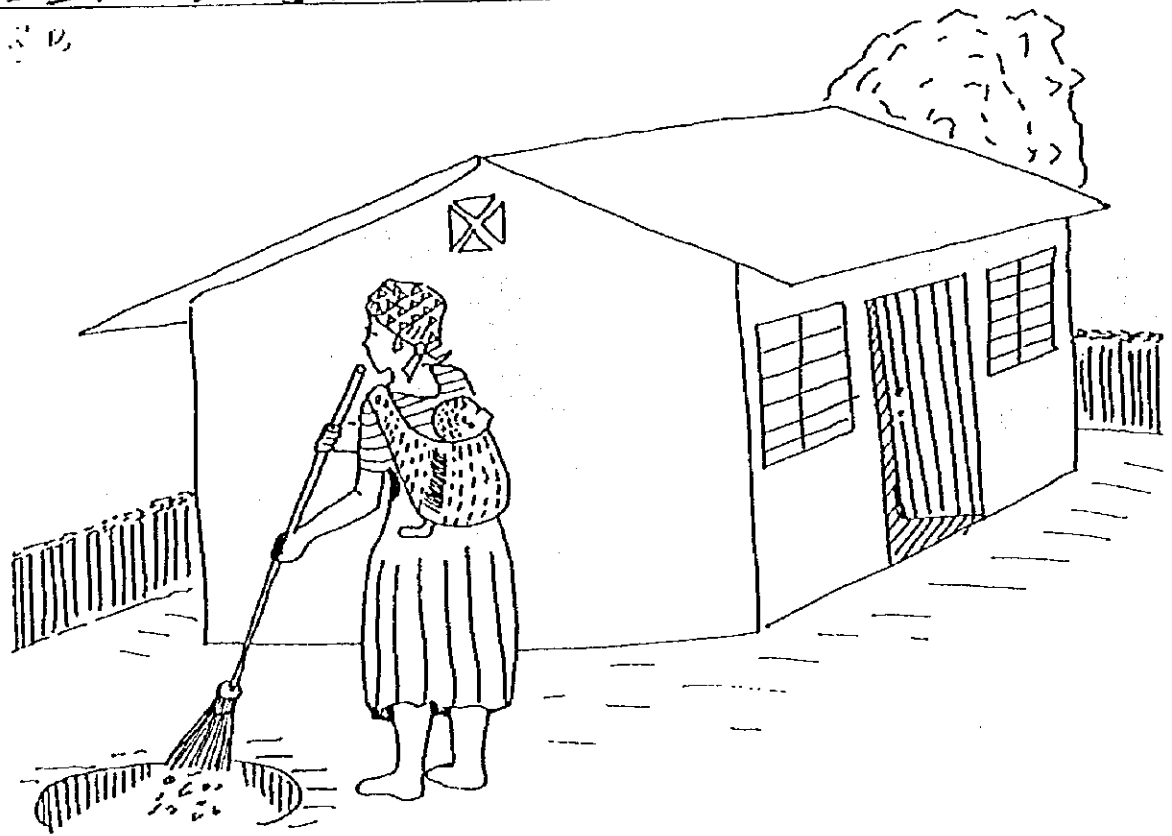
On this part we shall learn the importance of cleanliness of the home and its surroundings.

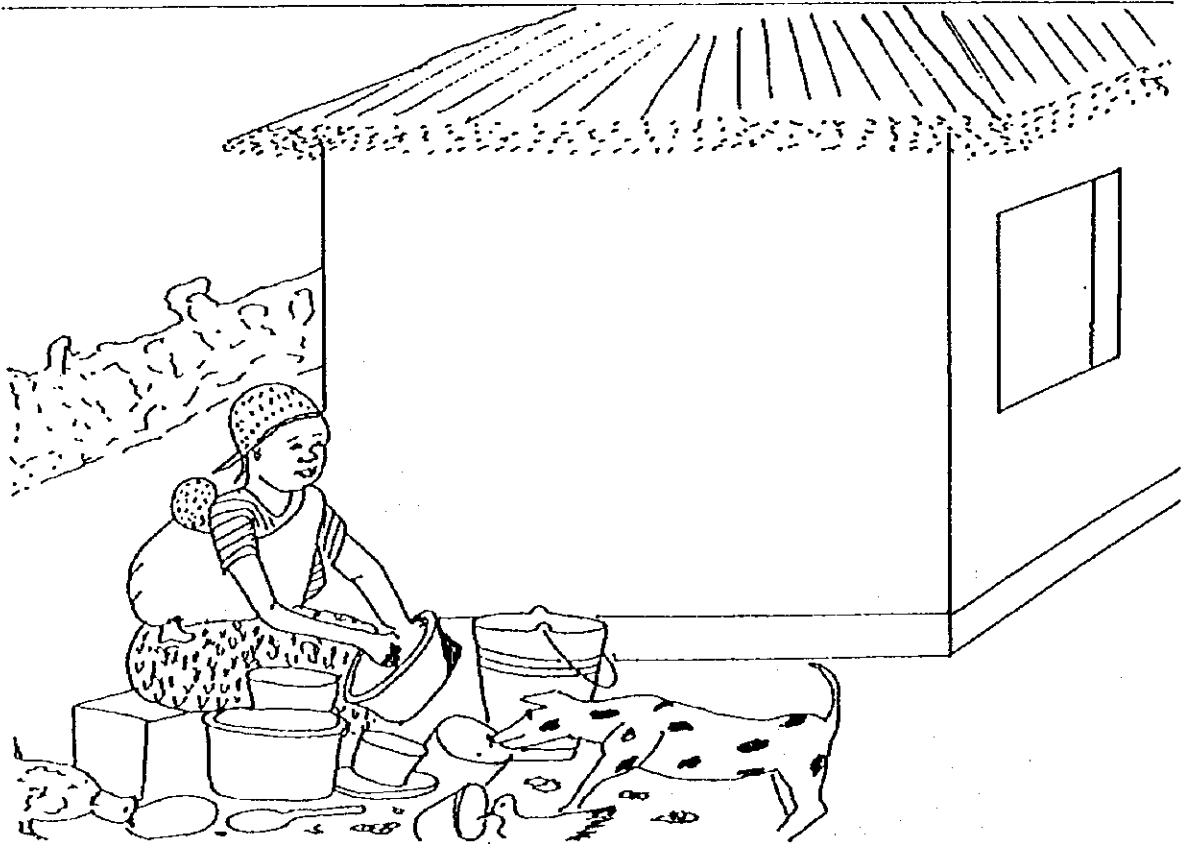
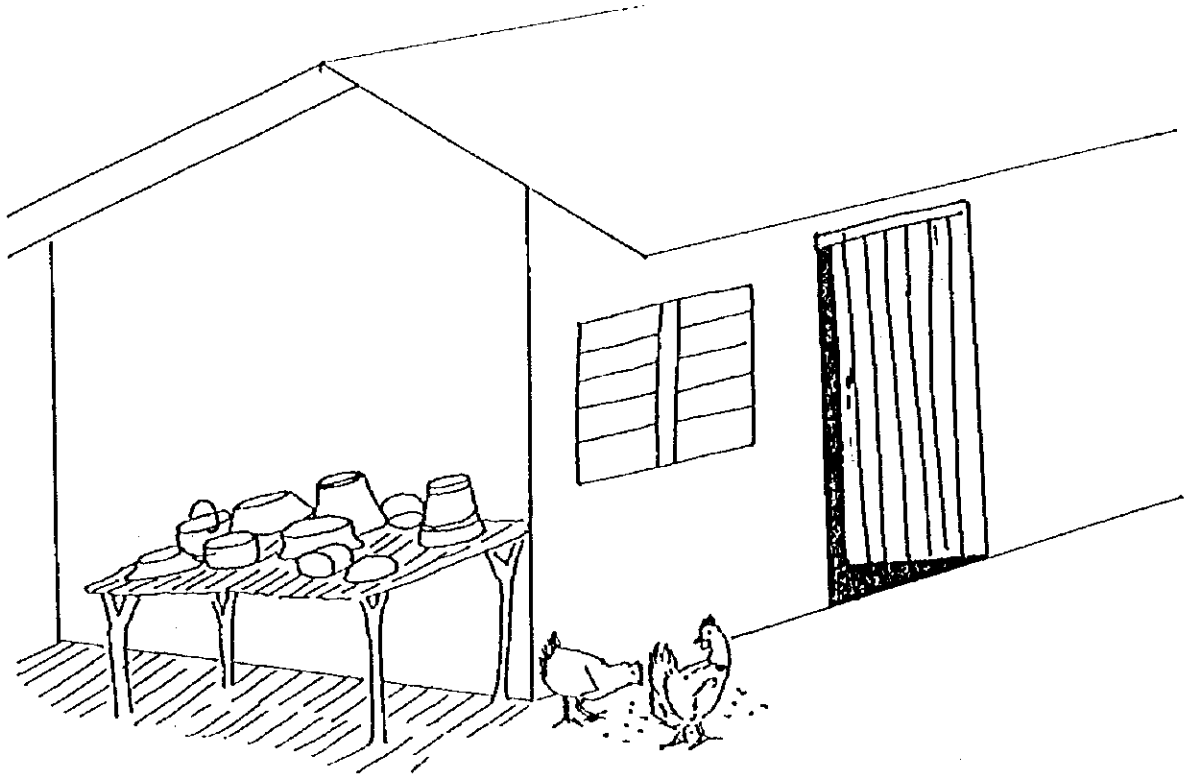
Look at these pictures and discuss with your fellow participant/facilitator what you have learnt:

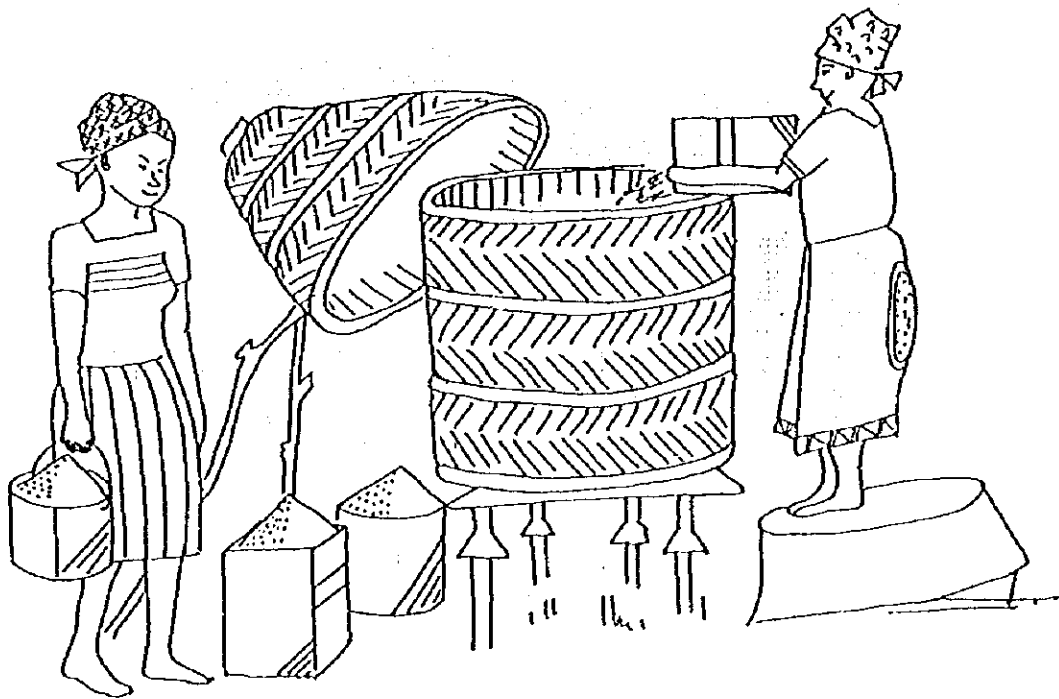
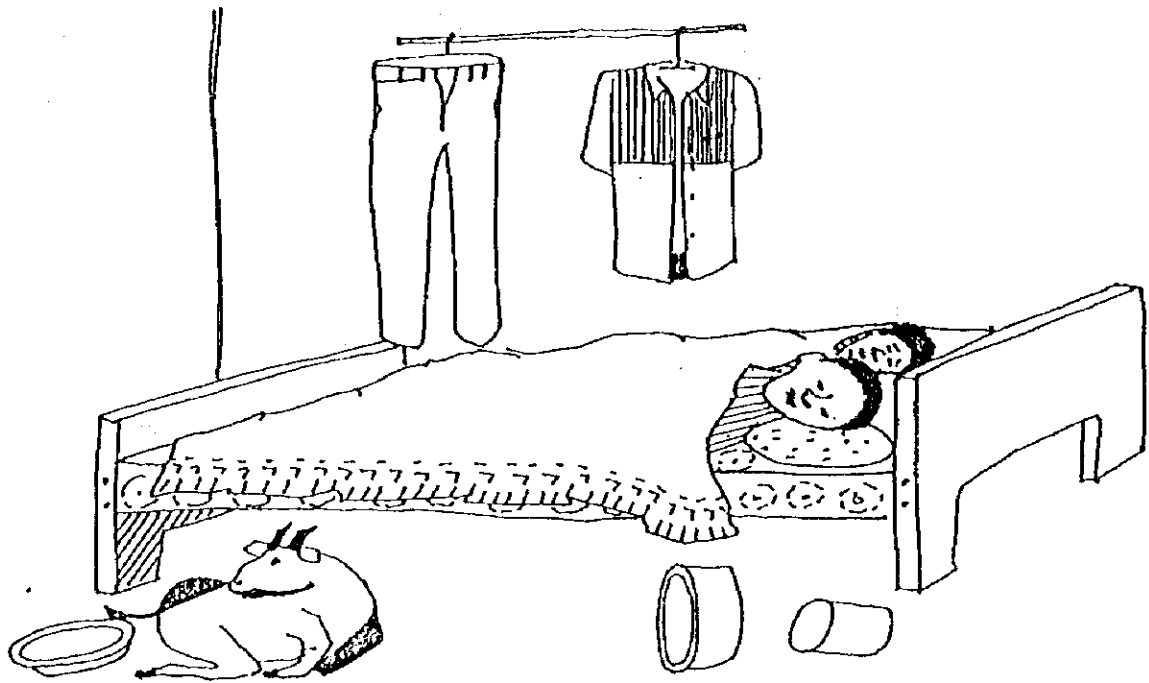




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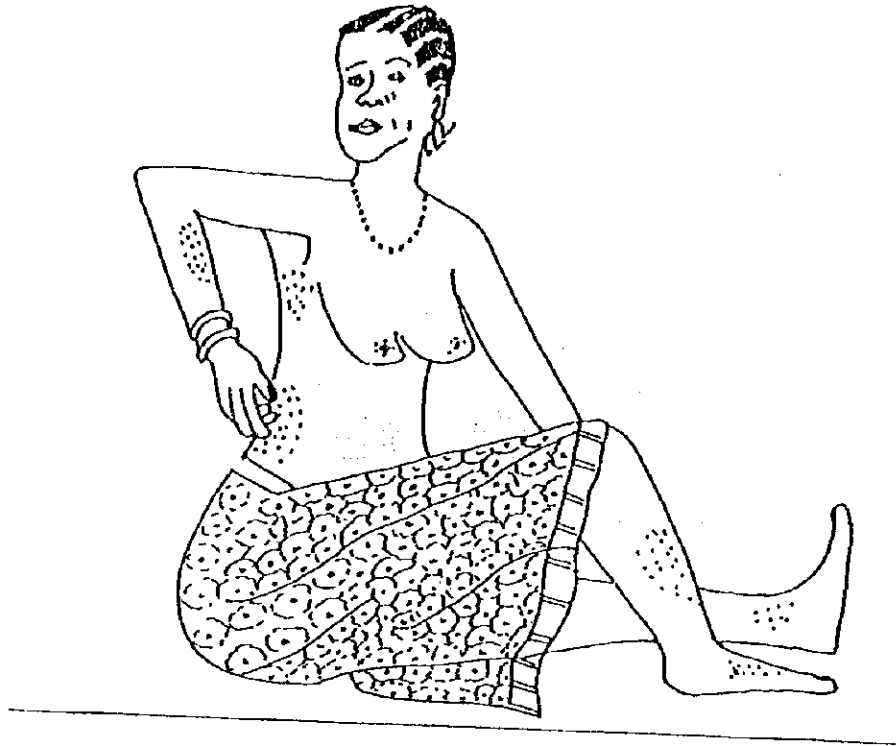
Cleanliness of the home is very important as it assures better health for the family members. It avoids the spread of diseases, as well as growth of pesticides, insecticides, reptiles, etc. It makes a person enjoy life at his home. This includes cleanliness of the house inside and outside, removing dust, washing clothes, bedsheets, curtains, digging a garbage pit and using it, constructing a bathroom and latrine, constructing a washing slab, constructing an Animals cage/house, etc.

#### 6.4. CLEANLINESS OF THE BODY AND FOOD

In this part we shall learn on the importance of cleanliness of the body as well as the importance of keeping our food clean.

Look at the following pictures and discuss what you can see and learn with your fellow participant/facilitator:





Also, listen to the following story and Discuss what you have learnt:

Story No.2 -

There was a person called Maganga who lived at Igurubi Village, Igunga District. One day Mr. Maganga invited his closest friend Mr. Nyanda to visit him at his home. Mr. Nyanda lived at Ndembezi village, about 30 kms form Igurubi.

Because of the closeness they had Mr. Maganga organised a very big party for his friend where he slaughtered a Big Bull. He also prepared local brew/beer and invited his neighbours to come and enjoy with him and his Guest.

On his way to Igurubi, Mr. Nyanda had a stomach pain which latter resulted to diarrhoea. Because he was on the way he had no choice but to go to the bush. He had no papers so he had to wash himself with grass thus contaminating his hands with faeces. Because the diarrhoea was severe he had to go to the bush twice where the situation was the same as it was in the first time.

On his arrival, he was greeted with great happiness with his friend Mr. Maganga and food was served immediately. Before eating, a bowl of water for washing hands was passed around for all people to wash their hands. Because Mr. Nyanda was the Guest of honour, he was the first person to wash his hands in that bowl. All others followed thereafter but in the same bowl, with the same water. All together they were about 15.

After the meal Mr. Maganga ordered for a soap which was used to remove the smell of meat on their hands. They continued to drink the local brew happily.

The following day they all fell seriously sick, with severe stomach pain which latter developed to diarrhoea. They had to search for medicines to cure themselves. The last born son of Mr. Maganga was in very bad condition and when being rushed to the hospital he died on they way.

**THE END**

## **6.5. THE IMPORTANCE OF OWNING AND USING A LATRINE**

### **6.5.1 A GOOD AND PERMANENT PIT LATINE**

Listen to the following story and discuss with your fellow participant/Facilitator what you have learnt:

#### **Story No.3 - A Good and Permanent latrine**

One day Mr. Msengi was travelling by bus from Nkuhi to Singida. On his way the bus stopped at a certain village and he went to a nearby house and sought permission to use their latrine.

There was no objection, and he was directed to the same. When he was about to reach to the latrine building he hesitated abit, wondering as to whether that was a latrine. He was told that it was the same latrine he asked for. He asked himself, that Water Jar outside the latrine, what use does it have. What about the cup and soap that was also there?

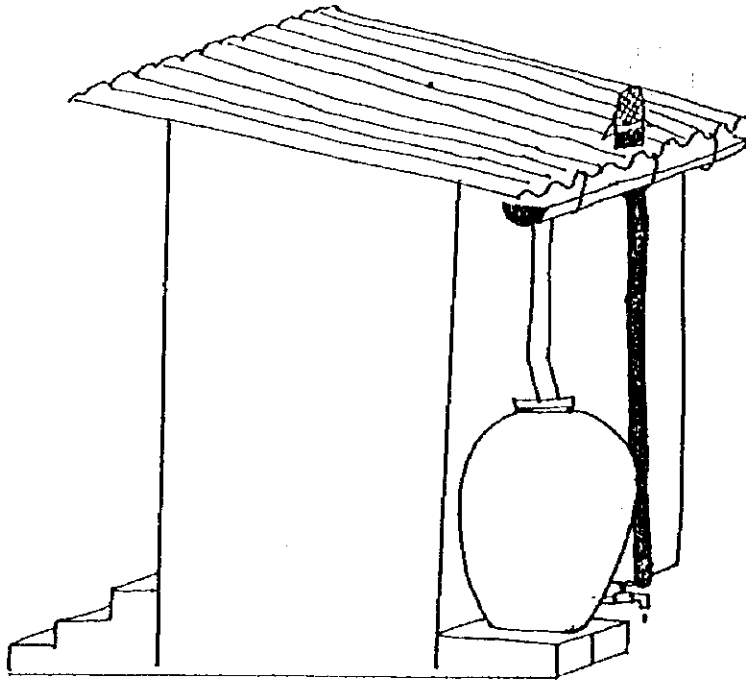
When he entered in, he was very suprised to see a clean, well constructed latrine. It had no smell at all, no flies around. The floor, walls, roof were all well done. What suprised him most is the fact that the latrine was constructed using locally available and cheap materials/resources.

He remembered his latrine at home, shabily constructed, alot of bad smell, alot of flies, and which a person outside could easily see someone inside.

He then asked himself how could he also construct a good pit latrine like this one? He then decided to make all initiatives possible to consrtuct a good and permanent latrine for his family.

**THE END**





#### **Story No.4**

**Listen to this story and discuss what you have learn't from it with your fellow partipant/Facilitator.**

Mr. Paul of Mpapa did not want to use a latrine to the extent that at his household there was no latrine. Himself, as well as his family members had to go to the nearby bushes for defaecating. Even when he went to Manyoni he made sure the doesnt eat just to avoid going to a latrine.

According to their traditional beliefs, which Mr. Paul strongly believed and followed, it was very bad and harmful for a Father (Parent) to defaecate in the same place with his children, as well as in-laws.

He was frequently fined for not having a latrine, but he considered paying fines to be better than acting against his customary beliefs/rules.

For this reason, he selected a nearby bush, which he always visited at night when in need to defaecate. What he did not know is the fact that, even his daughter in-law used the same bush.

One night when going to the bush to defaecate, his daughter in-law called Tatu was there already (in the same bush). Because of heavy darkness none of them could see each other. The lady thought it was somebody wanting to rape her and so she started yelling (screaming), Mr. Paul was astonished and he panicked to be beaten by the people who came running.

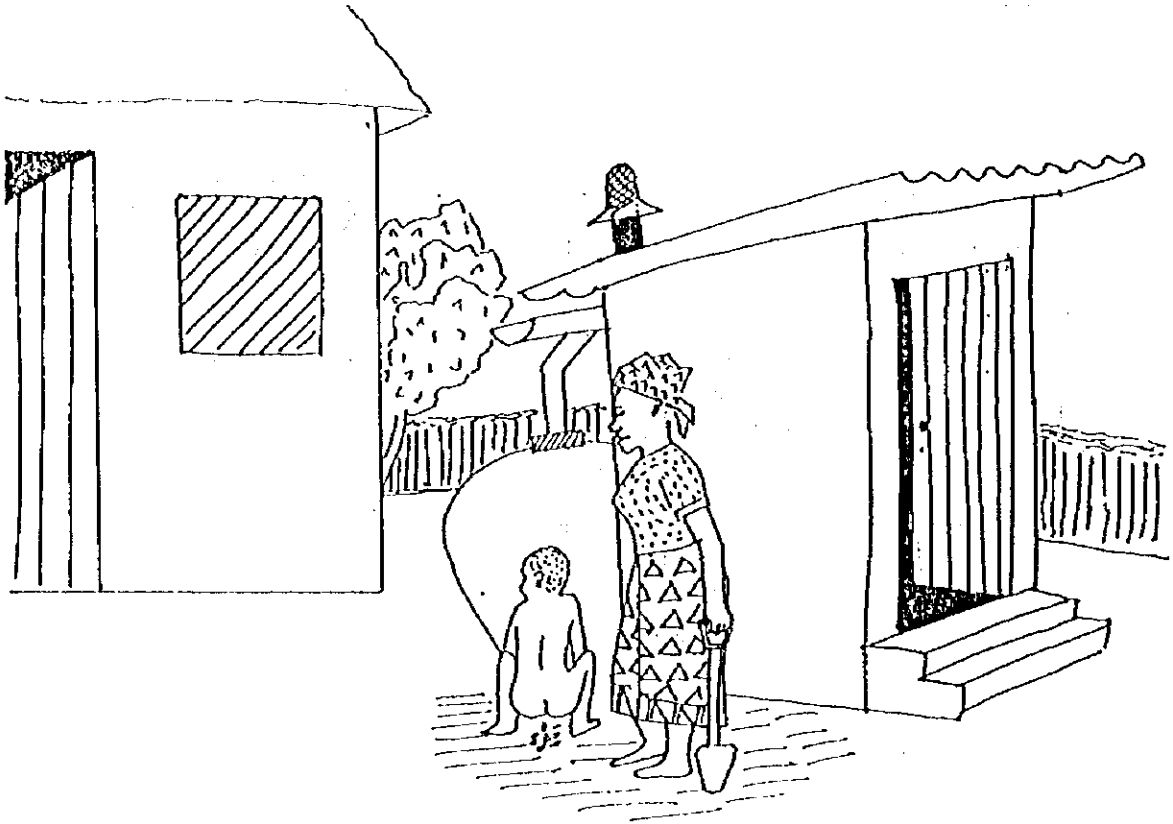
When the people arrived at the scene (whom also included his sons), they asked Tatu where that person who wanted to rape her was. She pointed to the direction that person was and when they went there they were all surprised to find that it was their Father.

When running, the Lady (Tatu) broke her leg.

Mr. Paul was very much ashamed for what happened that day. Considering the fact that he shared the same bush with his children, while he believed it couldn't happen like it is the case with a latrine, he considered himself a fool.

Also, thinking of all the money he paid as fines for not having a latrine, as well as breaking the leg of his daughter in-law, he immediately decided to construct a good Pit latrine for use by himself and his family members.

**THE END**





#### 6.6. ST ORING DRINKING WATER

Getting clean water itself is not sufficient to maintain good health of the people. What is of utmost importance is to ensure that, at all times, people drink clean and safe water.

Therefore, the following should be observed:

- When fetching/collecting water for drinking, clean utensils should be used.
- Water from sources should be boiled before drinking.
- After boiling water should be filtered. Clean drinking water should be stored in clean utensils which should always be covered to avoid pollution.
- A clean utensil should be used to collect water for drinking where it has been stored.

## 6.7. CLEANLINESS AROUND THE DOMESTIC POINT

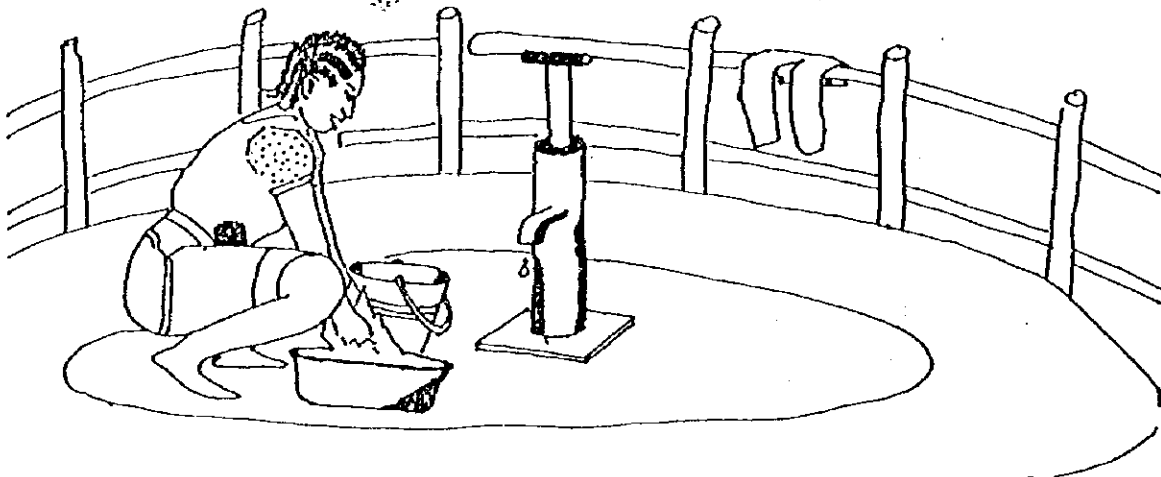
In order to avoid animals going around DPS as well as children playing around DPs, the villagers should look on the possibility of constructing fences. A good Fence also makes the DP to look attractive.

Also it is important to construct a trench to flow out water away from the slab.

People should not be allowed to bath or wash at the DPs as this is unhealthy and it will easily pollute water. As an alternative, the villagers, guided by their VG and/or VWC, should look on the possibility of constructing bathrooms as well as washing slabs close to the DPs. The village health workers should be involved in selecting good sites for the same.

Daily cleanliness of the DPs should be maintained by involving all users.

Also, Hygiene education should be conducted for both elders and children with the aim of maintaining good hygiene behaviour and thus raising the health status of the villagers.



## **7.0. STRATEGIES FOR OPERATION AND MAINTENANCE OF VILLAGE WATER SUPPLY SCHEME**

The village water supply project, just like other development projects, need to have its own strategies for O & M so as to ensure sustainability of the project and hence provision of the required services over a longer period of time.

In this chapter, the VWC/UGCs as well as the VG, shall be enlightened on some of the strategies to be adopted for O & M of their village water supply project.

**These, among others, include:**

- Having sufficient Funds to be able to fully meet O & M costs. This will involve:
  - . Setting reasonable water fees
  - . Establishing proper procedures for collection and use of water fees.
  - . educating villagers on the importance and use of water funds.
  - . Maintaining proper financial records on water funds (Book Keeping).
  - . Ensure that every water user pays for the water he/she uses.
- Having village scheme Attendants who have been trained on how to operate and maintain the water scheme and who have the necessary tools to perform their work efficiently.
- Ensuring that preventive maintenance is done frequently and timely.
- General education on water sources protection, environmental sanitation etc. to the villagers.
- Establishing by-laws to protect the water scheme and to guide its operation. However, the VWC/UGC have to sit and develop its own strategies on how best to operate and maintain their water scheme and thus assuring its sustainability over a longer period.

## **8.0. GENDER AND DEVELOPMENT**

### **8.1. GENDER SENSITIVITY IN DEVELOPMENT PROCESS**

#### **8.1.1. Introduction**

In this chapter we shall look on the Gender concept and how Gender issues arise in our societies. Also we will discuss the importance of Gender on Community Development.

We shall also be able to differentiate between the terms Sex (Jinsi in Swahili) and Gender (Jinsia in Swahili).

#### **8.1.2. SEX**

Sex refers to the biological differences between a Man and a Woman.

#### **8.1.3. GENDER**

Gender refers to the social relationship between Men and Women in Society. Such relationships differ from one society to another based on customs, beliefs, norms, values, etc.

Therefore, where as Sex is God made, Gender is an outcome of the society.

##### **8.1.3.1. Gender Division of Labour**

Gender Division of labour refers to the different roles and responsibilities between men and women that have been established by the society based on traditional customs and beliefs. Such a division of labour is Man-made and thus it could be biased and hence one sex can be overworked as compared to the other.

##### **8.2.3.2. Sexual Division of Labour**

This refers to the division of labour based on sex (biological differences between Men and Women). Such jobs cannot be shared between sexes. For example, breast feeding is done by women and cannot be done by men.

#### 8.1.4. Current/Prevailing Situation

It is important now, after understanding the meaning of Gender, to analyse the gender situation as it prevails in our village.

##### A. DIVISION OF LABOUR IN SOCIETY

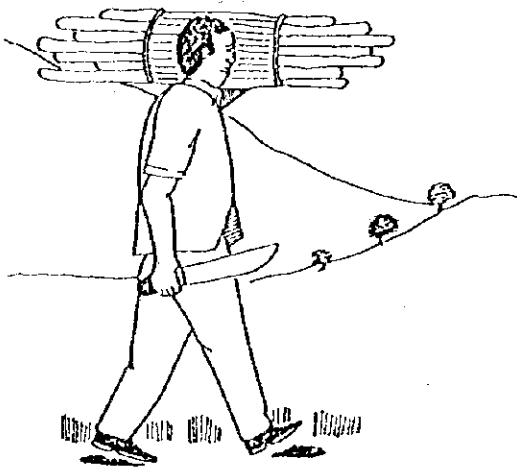
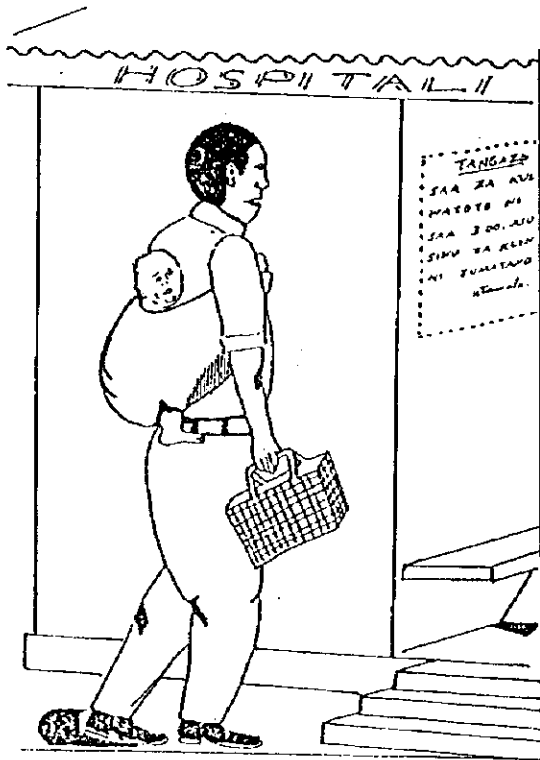
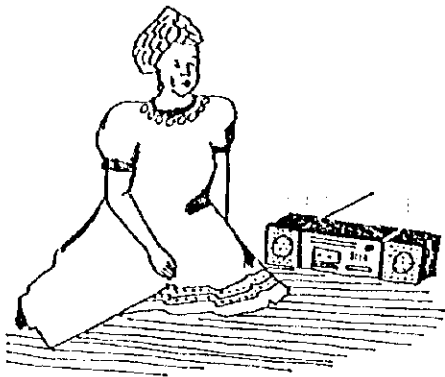
Looking at the pictures below, who is responsible in performing each Job? Men or women. Tick (✓) the appropriate answer.

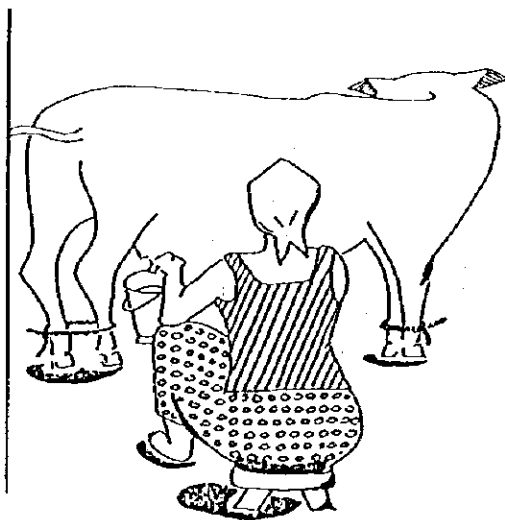
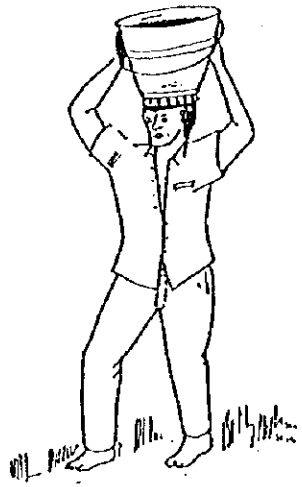
JOB

RESPONSIBLE









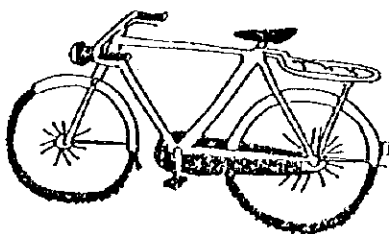
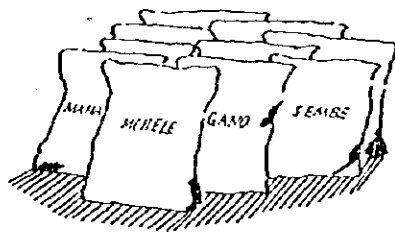
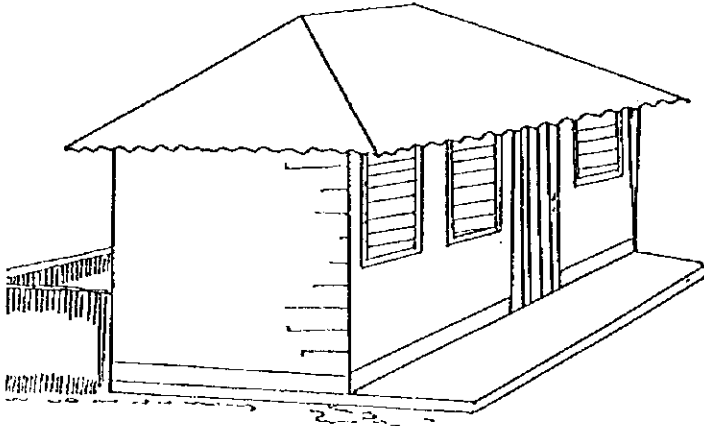


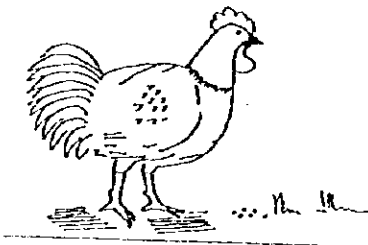
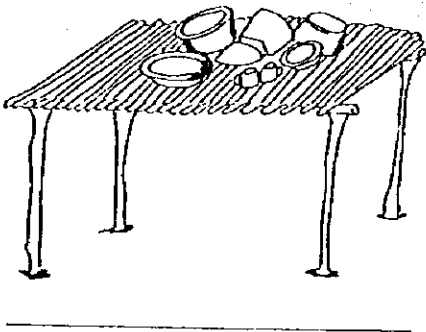
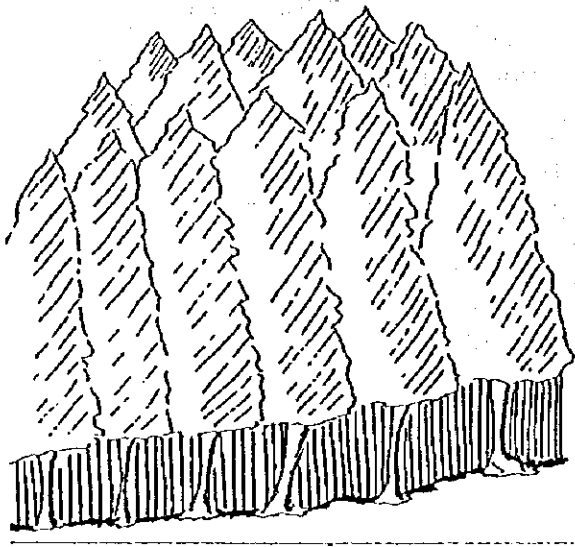
**B. OWNERSHIP OF RESOURCES**

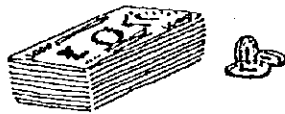
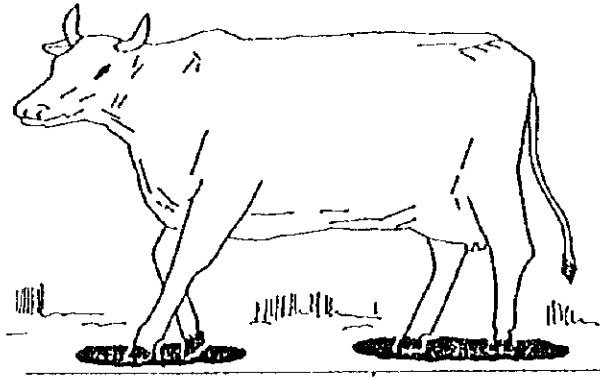
Look at the pictures below and say who owns what between Men and Women.

**RESOURCE**

**OWNER**

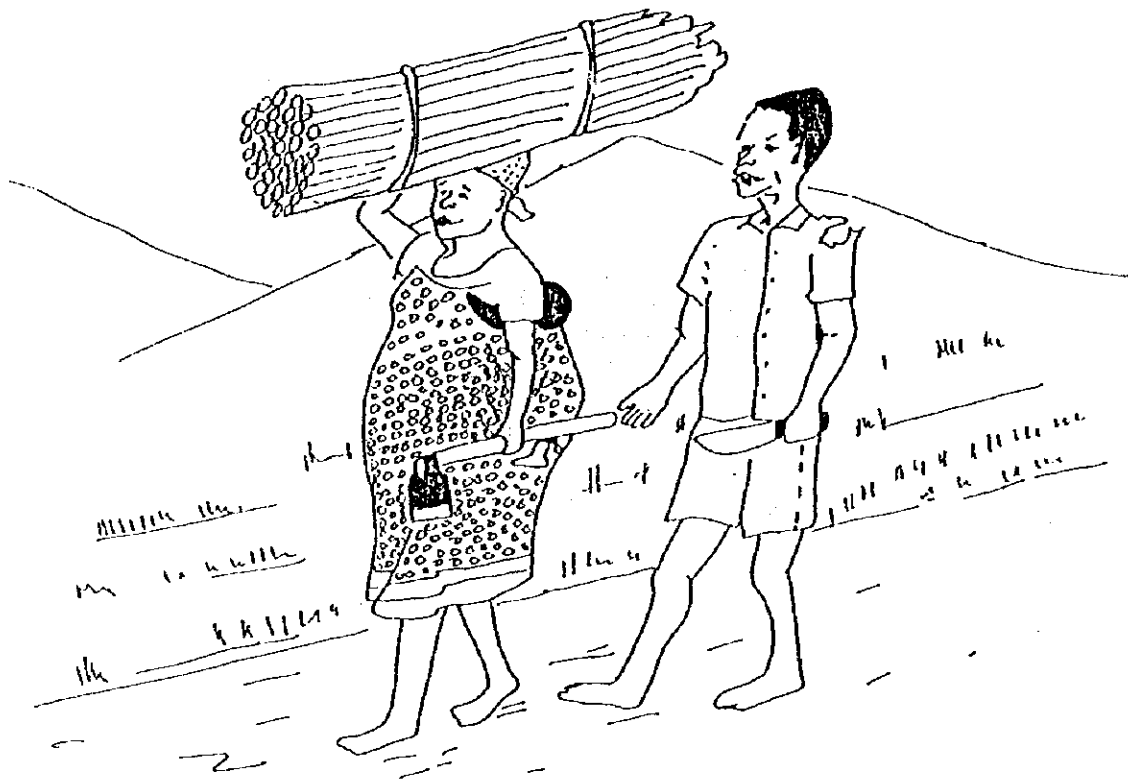
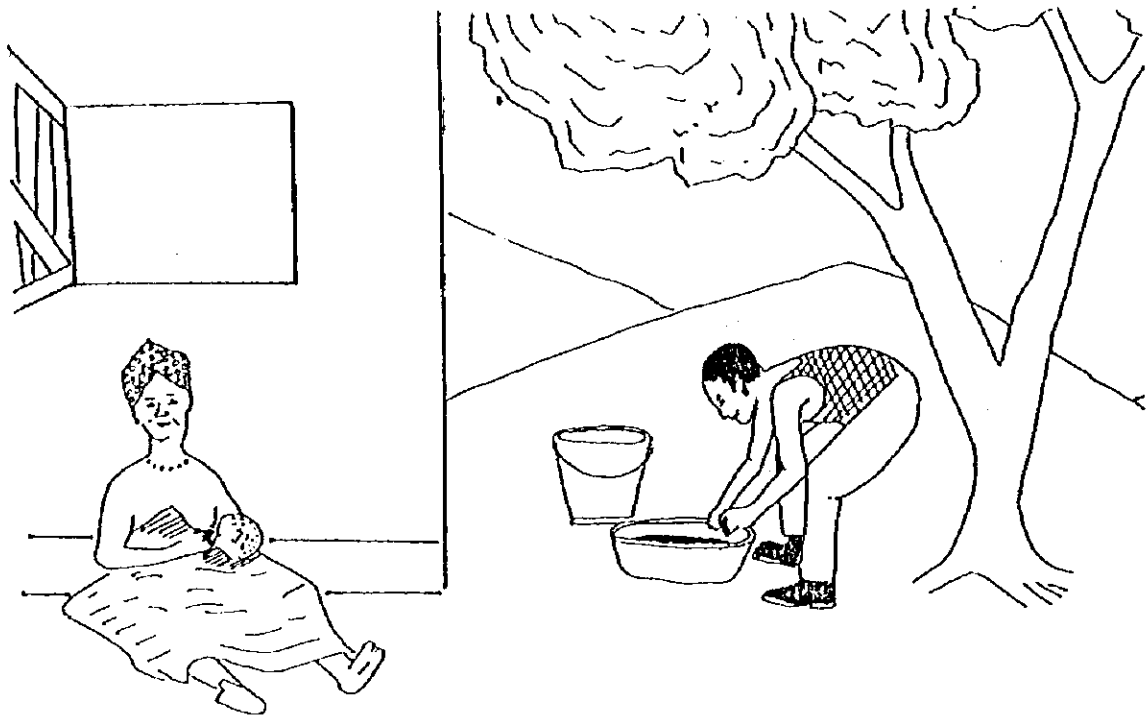






**C. DAILY ACTIVITY PROFILE**

Discuss the Daily activity profile between Men and Women in your society, since waking up until when one goes to sleep. Which sex is overworked or with heavy workload? What improvements can be done. Discussions should be held in Groups of Men and Women separately, and findings discussed Jointly.





## 8.2. WOMEN PARTICIPATION IN DEVELOPMENT

Experience from different parts of the world, and particularly in developing countries like Tanzania, shows that the level of women participation/involvement in Development is very low. The overall development and planning process has neglected the role of women and as such women needs are not taken care of, and therefore, their status in society deteriorates.

However, the gender - analysis approach to development shows that both men and women need to equally be involved in development processes.

Seeing the need and urgency for women involvement in Development, the



United Nations, declared year 1975 being International year for Women and it prepared a Ten year strategy for the Social and economic empowerment of women (1975-1985). In 1985 International Womens' Conference was held in Nairobi to assess the status of implementation of the strategy set by the UN in 1975. The assessment showed that very little had been achieved interms of the social and economic empowerment of women in the world, and therefore, further efforts towards the same was required.

### **Women Participation - Its meaning**

This refers to the process of giving women the opportunity to fully participate in all stages of the development process, equally as men.

As it is today, the level of women participation/involvement in Development is generally very low . This should now be a challenge for each society to critically examine the factors that may be an obstacle to the participation of women in such areas as Decision-making, education, employment, science and technology, etc.

**Take the following Example and relate it your village situation:**

VARIOUS POSITIONS	NO.OF MEN	NO. OF WOMEN
1. Village Government Members		
2. Members - Defence & security Committee		
3. Village Water committee - members		
4. Social Services Committeee		
5. Chairpersons - Village Govt. Committees		

6. Secretaries - village Govt. Committees		
7 Chairperson sub village		
8. Sub-villages secretaries		
9. Village Health Workers		
10. Chairperson -Political parties		

### The Participation of Women in Education.

Education is the basis for full promotion and improvement of the status of women. However, there are inequalities as related to access to basic education.

Lets examine the level of women involvement in education by filling statistics in the following table ( This should involve your own village)

LEVEL OF EDUCATION	MALE	FEMALE
Primary School		
Secondary School		
Teachers College		
Technical Colleges		
Universities		

### 8.3 OBSTACLES TO GENDER EQUALITY

It is quite evident that women are the most important Group to the development of their families and the community at large. However, there are alot of factors that block effective involvement of women in development. Such obsstacles differ from one society to another, and thus the participants need to discuss and come out with what could be the main obstacles to Gender equality in their society.

This should be done under the guidance of the Facilitator.

At the end, strategies to remove the obstacles should be developed so as to raise both the social and economic status of women in the society.