Table 3.9 Livestock Water Development (3/4)
- Proposed Implementation Programme

Code	District			Source De	velopment	Plan				Impleme Progran	
	District	Surface	Borehole		Small	Subsur-	Sand	Existing	Total	Up to	2001-
		Water	······	Well	Dam	face Dam	Dam	Pipeline	<del></del>	2000	2010
	Nyanza Province	<u> </u>		:							
610	Kisii									33.3	66.7
	- Quantity (m3/d)	13,430	275	299	563	0		0			
	- No. of Facilities	ן מ	10	63	26	-	-		99	· '	
	- Cost (mill.US\$) (mill.K£)	0	1.01 1.27	0.29 0.37	0.29 0.36	0	0		1.58 2		
620	Kisumu	ľ	1,27	1,0,0	0.50	v	U	ľ	2	27.9	72.1
	- Quantity (m3/d)	6,489	1,377	2,940	287	0			11,093	-1.7	
	- No. of Facilities	0	41	384	16	0	0		441		
	- Cost (mill.US\$) (mill.K£)	0	5.09 6.42	1.83 2,3	0.15 0.19	0	0		7.07 8.92	i	
630	Siaya	l "	0.42	٤,3	V.19	U	U	U	0.94	34.9	65.1
	- Quantity (m3/d)	4,776	1,484	3,221	263	0	0	13	9,757	J /	5511
	- No. of Facilities	0	62	623	28	0	0	0	713		
]	- Cost (mill.US\$)	) 0	5,55	2,94	0.1	0	0				
640	(mill.K£) South Nyanza	0	6.99	3.71	0.13	0	0	0	10.83	36.0	64.0
₩.TV	- Quantity (m3/d)	3,025	1,428	2,148	209	8	8	o	6,826	50.0	U,PU
	- No. of Facilities	0	68	366	47	8	8	0	497		
	- Cost (mill,US\$)	0	5.38	1.77	0.1	0.02			7.28		
	(mill.K£)	0	6.79	2.23	0.13	0.02	0.02	0	9.18		
	Sub-total									31.1	68.9
	- Quantity (m3/d)	27,720	4,564	8,608	1,322	8			42,243		
	- No. of Facilities	0	181	1,436	117	8	8		1,750		
	- Cost (mill,US\$) (mill,K£)	0	17.03 21.47	6.83 8.61	0,64 0,81	0.02 0.02	0.02 0.02		24.52 30.93		
		0	21,47	6.01	0.61	0.02	0.02	U U	30,93		
	Rift Valley Province										
710	Kajiado									47.7	52,3
	- Quantity (m3/d)	9,193	9,559	7,539	593				27,408		
	- No. of Facilities - Cost (mill.US\$)	0 0	328 37.2	1,311 6.52	11 0.8	25 0.46	** *	0	1,705 45.37		
	(mill.K£)	ő	46.91	8,22	1.01	0.57	0.5	ŏ			
720	Kericho									43.6	56.4
	- Quantity (m3/d) - No, of Facilities	25,541 0	281	238	1,148	0			27,208		
	- Cost (mill, US\$)	0	10 1.12	50 0.22	27 0.61	0			87 1.94	'	
	(mill.K£)	ő	1.41	0.27	0.77	ő	_		2.44		
730	Laikipia									27.0	73.0
	- Quantity (m3/d) - No. of Facilities	6,650 0	9,227	1,816	943	113	91	0			
	- Cost (mill.US\$)	٥		360 1.75	20 1,22	21 0.32			698 <b>3</b> 8.99		
	(mill.K£)	ŏ		2.21	1.53	0.4	0.24		49.16		
740	Nakuru									19.7	80.3
	- Quantity (m3/d) - No. of Facilities	19,604	14,484	2,694	1,925	182	117		40,768	]	
	- Cost (mill,US\$)	0	470 56.82	277 1.44	26 1.64	25 0.52			820 60.66		
	(mill.K£)	, o	71.65	1.81	2.07	0.52	0.24		76.49	i	
750	Narok									55.4	44.€
	- Quantity (m3/d)	25,717	11,730		1,954	151	139		52,969		
	- No. of Facilities - Cost (mill.US\$)	0	392 44.52	2,326 11.27	28 1,63	22 0.43		0 0	2,789 58.14		
	(mill.K£)	l ŏ	56.14	14.22	2,05	0.54	0.29	ő	73.32		
760	Trans Nzoia									35.1	64.9
	- Quantity (m3/d)	6,529	0	0	268	0		0	6,797	ļ	
	- No. of Facilities - Cost (mill.US\$)		0	0 0	15 0.17	0	0		15 0.17		
	(mill.K£)	Ö	o.	0	0.17	0	-				
770	Uasin Gishu									22.9	77.1
	- Quantity (m3/d)	11,335	0	0	466				11,801		
	- No. of Facilities - Cost (mill.US\$)	0	0	0	22 0,28	0 0			22		
	(mill.K£)	0	0	0	0.28	0			0.28 0.35		
		I [		ĭ	-,00	Ü	Ü		0.55		

Table 3.9 Livestock Water Development (4/4)
- Proposed Implementation Programme

<u> </u>	731-4-1-4			Source De	velopment	Plan				Impleme	
Code	District	Surface	Borehole	Shallow	C-noll	Cularia	Cond	fi. Jakan	Total	Program	
		Water	potenote	Well	Small Dam	Subsur- face Dam	Sand Dam	Existing Pipeline	Total	Up to 2000	2001- 2010
810	Baringo		,							42.5	57.5
0.0	- Quantity (m3/d)	3,932	3,067	1,574	210	30	26	51	8,890	72.5	5,,,,
!	- No. of Facilities	0	97	172	31	16	12		328		
	- Cost (mill.US\$)	Ιo	11.11	0.84	0.18	0.08	0.05		12.25		
i	(mill.K£)	0	14.01	1.05	0.23	0.1	0.07		15.45		
820	Elgey Marakwet									40.8	59.2
[	- Quantity (m3/d)	9,895	1,730	4,028	455	24	0	207	16,339		
} '	- No. of Facilities	0		675	25	3	0		766	ľ	
[	- Cost (mill.US\$)	0		3.46	0.39	0.07	0				
920	(mill.K£)	0	8,33	4.36	0.49	0.09	0	0	13.27	<b>51</b> 0	40.0
830	Nandi	12 211	ا ا	l ol	41.4	۸			10.605	51.8	48.2
	- Quantity (m3/d) - No. of Facilities	12,211	0	l öl	414 23	0	.0		12,625 23		
	- Cost (mill.US\$)	٥	1 -	l ől	0.22	0	0		0.22		1
	(mill.K£)	l ŏ		l ŏl	0.22	0	0		0.22		
840	Samburu		Ĭ	Ĭ	0.20	, i	ľ		0.20	36.7	63.3
"	- Quantity (m3/d)	909	4,702	6,544	86	112	155	2	12,510	20.1	05,5
	- No. of Facilities	0	242	1,287	6	21	24	- 0	1,580		
	- Cost (mill.US\$)	0		5.98	0.12	0.32	0.32	0	27.42		
	(mill.K£)	0	26,07	7.54	0.15	0.4	0.41	0	34.57		
850	Turkana	į								34.7	65.3
}	- Quantity (m3/d)	3,781	22,265	34,948	64	1,157	1,417			ļ	1
	- No. of Facilities	0		5,765	2	124	150		6,837		
	- Cost (mill.US\$)	0		29.46	0.09	3.35	3.02		116.78		
0.00	(mill.K£)	0	101.97	37.15	0.11	4.22	3.8	0	147.26	<b>50</b> 0	40.0
800	West Pokot	1,588	692	2,095	75	20	10	o	4,480	52.0	48.0
	- Quantity (m3/d) - No. of Facilities	1,500		417	14	10	7		4,480		
	- Cost (mill.US\$)	Ιŏ			0.07	0.05	0.02		4,87		
	(mill.K£)	Ιŏ		2.37	0.09	0.07	0.02		6.14		
1	(IIIIIIIIII)		] "		0,07	0.07	0.03	ŀ	0,17		
	Sub-total		]							35,4	64.6
	- Quantity (m3/d)	136,885	77,737	74,677	8,601	1,949	2,145	2,273	304,267		
İ	- No. of Facilities	0		12,640	250	267	284		16,156		
<u> </u>	- Cost (mill.US\$)	0		62.82	7.42	5.6	4.53		377.61		
	(mill.K£)	0	374.86	79.2	9.34	7.05	5.72	[ 0	476.15		
-	Western Province	<u> </u>						<u> </u>			
	_										
910	Bungoma			400	40.5		,	ا ا	0.000	45.6	54.4
	- Quantity (m3/d)	8,921	167	409 84	425	0	0	1 1	9,922		]
	- No. of Facilities - Cost (mill.US\$)	0 0		0.4	19 0,22	0	0		112 1.19		i
1	(mill.K£)	Ö		0.5	0.22	0			1.19		
920	Busia	"	0.72	0,5	0,20	, o		l	1	49.0	51.0
"	- Quantity (m3/d)	3,860	645	1,643	162	5	4	0	6,319	77.0	51.0
	- No. of Facilities	0,000		308	16		2		357		
	- Cost (mill.US\$)	l ő			0.09		0.01		4.14	ļ	
	(mill.K£)	Ö		1.92	0.11	0.02			5.22	[	
930	Kakamega	[								43.1	56.9
]	- Quantity (m3/d)	12,226			365	0		1			
	- No. of Facilities	0			41	0	0				
1	- Cost (mill.US\$)	0		0	0.14		0	_		i	
	(mill.K£)	0	0	0	0.17	0	0	0,	0.17		ŀ
	Sub-total							[ i		45.5	54.5
	- Quantity (m3/d)	25,007	812	2,052	952	5	4	l o	28,832		(r. 18. m
	- No. of Facilities	25,557		392	76						
	- Cost (mill.US\$)	Ō		1.93	0.45	0.01	0.01				
	(mill.K£)	0	3.88	2.42	0.56	0.02	0.01	0	6.89		
	<u> </u>	······································									
	Total							1		33.9	66.1
	- Quantity (m3/d)		133,675		<b>14,40</b> 4		4,256		558,731		
1	- No. of Pacilities	0			688						
	- Cost (mill.US\$)	0			12.03				669.87		
	(mill.K£)	0	638.87	166.84	15.13	12.53	11.32	0	844.71		
		1									
L	<u></u>	<u></u>	<u> </u>	L			L	<u> </u>	L		

**Table 3.10 Provision of Water Points in Nomadic Pasturage Area**- Proposed Implementation Programme

District	I	Asumed	No. of	Executing	Co	ter	Implementa	ion of
Code	Project	Nomadic	Watering		(mill		watering po	
Code	Project	Pasturage Area		Agency	US\$	K£	up to 2000	12001 2010
		(km2)	(Nos)		COO	IV.L	up to 2000	2001-2010
	Nairobi Province	(KIIIZ)	(1105)				:	<b>i</b> .
110	Nairobi	_	_					
110				_		_	_	_
010	Central Province							{
	Kiambu	_	_	_		-		_
	Kirinyaga	-			-			_
	Muranga	_	_			-		_
	Nyandarua	****	_	-	1		-	_
250	Nyeri	_	-	_	_	-	<del></del>	-
	Coast Province		4.0				,	
	Kilifi	7,562	12	MOWD	2.3	2.8	4	8
	Kwale	5,503	9	MOWD	1.9	2.4	3 2	6
	Lamu	3,481	6	MOWD	1.1	1.4	2	4
	Mombasa	-	_	_		-	_	- 6
	Taita Taveta	4,889	8	MOWD	1.5	1.9	2	
360	Tana River	32,277	52	MOWD	8.9	11.2	16	36
	Eastern Province							
	Embu		-		-	-		-
	Isiolo	21,423	34	MOWD	4.9	6.2	10	24
430	Kitui	20,889	33	MOWD	5.3	6.7	10	23
	Machakos/Makue		10	MOWD	1.7	2.1	3	7
450	Marsabit	20,305	32	MOWD	4.9	6.2	10	22
460	Meru	3,098	5	MOWD	0.8	1.0	2	3
	Northeastern Prov							
	Garissa	39,187	63	MOWD	11.6	14.6	19	44
	Mandera	23,946	38	MOWD	5.3	6.6	11	27
530	Wajir	53,124	85	MOWD	11.1	14.0	26	59
	Nyanza Province							
610	Kisii/Nyamira	_	_	<del>-</del>	_	-		
	Kisumu	-				_		_
630	Siaya	-		_				_
640	South Nyanza	-				-	_	_
	Rift Valley Provin	ce						
710	Kajiado	13,830	22	MOWD	3.2	4.0	7	15
720	Kericho	_	-	_	_		_	
	Laikipia	<b>7,</b> 530	12	MOWD	1.9	2.4	4	8
740	Nakuru	_				_	_	
	Narok	13,481	22	MOWD	3.2	4.0	7	15
	Trans Nzoia			_				
	Uasin Gishu	_	-		-	-		_
	Baringo	7,087	11	MOWD	1.9	2.4	3	- 8
820	Elgeyo Marakwet	~	_	_			-	
830	Nandi	1,690	3	MOWD	0.5	0.6	1	2
840	Samburu	13,563	22	MOWD	2.4	3.1	7	15
	Turkana	44,837	72	MOWD	9.1	11.5	22	50
860	West Pokot	4,855	8	MOWD	1.1	1.3	2	6
	Western Province							
910	Bungoma					_	_	
920	Busia		-					
930	Kakamega/Vihiga		_			_	_	_
	ms1							
	Total		559		85	107	171	388

Note: Normadic pasturage area assumed to be bushland and grassland in ASAL area after deleting area for managed pasture. (see Table F1.9)

30 % of schedule quantity to be implemented twards year 2000

 Table 3.11
 Hydropower Development - Proposed Implementation Programme

District Code	Project	Description	Executing Agency		ost llion)			In	ıpl	em	ent	ati	on	Scl	hed	lule	9		_
	· · · · · · · · · · · · · · · · · · ·			US\$	K£	93	9	5	T .		200	20	2		4	$\Box$	6	8	1
620	Sondu/Miriu	Hydropower 60MW (No.1 P/S) Sondu river -detailed design completed in 1991 -Irrigation included	KPLC/ LBDA	133	168	<b>8</b>	9	3	9										
		Hydropower 20.6MW (No.2 P/S)  -Feasibility study completed in 1991  -Cost of detail design included in No.1 P/S	KPLC	36	45	*	*	3 6	9	•									
460	Low Grand Falls	Hydropower 120MW (Tana river)  -Multipurpose development to be assessed	KPC/ TARDA	291	367	<b>t</b>	**	* *	•	•	0	•							
750	Oldorko	Hydropower 72MW (Ewaso Ngino South river)  -Irrigation included	KPC	71	89		ជា	à l	*	*	•	9							
610	Magwagwa	Hydropower 120MW (Sondu river)  —Irrigation included  —Feasibility study completed in 1991	KPC/ LBDA	329	415				*	*		•		•					
410	Gitaru #3 Extension	Hydropower 72.5MW (Tana river)Extension of existing Gitaru P/S	KPC/ TRDC	25	32			7.	7	*	*	6	3	8	8				
460	Mutonga	Hydropower 60MW (Tana river)  –Multipurpose development to be assessed	KPC/ TARDA	149	188				tir	<b>*</b>		* 7	K 8		8	•			
	Total			1,034	1,304														
	Note:	<ul><li>★ Study</li><li>★ Design</li><li>Construction</li></ul>		<u> </u>		· 1	<b>l</b> .	<u> </u>		.1	<b></b> l		1.	<u> </u>	11		<u>1</u>	· <b></b>	<u>1</u>

T - 29

No hydorpower schemes envisaged for period of 2005 - 2010.

Table 3.12 Major Flood Control Projects - Proposed Implementation Programme

District Code	Project	Description	Executing Agency		os <b>t</b> llion)	······	Imj	ple	me	ent	atio	n S	ch	cdı	ıle		***************************************	
	-	<u>-</u>		US\$	K£	93 9	95			20	00	2	·····	4		6	8	
620	Kano Plain (Nyando river)	- Heightening of existing dykes (2 km) - Construction of new dykes (69 km)	MOWD/ LBDA	20.7	26.1	ጵ ቱ	<b>☆ ©</b>	•	8	9								
110	Nairobi City (Nairobi river, etc)	- Enlargment of existing channels/culverts (13 sites) - Channel improvement (11 sites)	MOLG	10.8	13.6		<b>착</b> 착	* *	8	•	0							
630	Yala Swamp (Yala/Nzoia river)	- Rehabilitation of existing dykes (25 km) - Construction of new dykes (16 km)	MOWD/ LBDA	17.7	22.3				<b>ኢ</b>	☆	φ.	9	9	•				
640	Kuja Rivermouth (Kuja river)	- Construction of new dykes (10 km)	MOWD/ LBDA	5.0	6.3								ቱ	ጵ	☆	<b>e</b> 6	9	
350	Lumi Rivermouth (Lumi river)	- Construction of new dykes (11 km)	MOWD	8.3	10.5										# ·	*		<b>3</b>
	Total			62.5	78.8													
	Note:	<ul><li>★ Study/Design</li><li>Construction</li></ul>				<u></u>		***************************************						I			<del>-</del>	

Table 3.13 Urban Drainage and River Improvement Projects - Proposed Implementation Programme (1/2)

Urban Drainage Projects     Urban Drainage Projects	District	Project	Description	Executing		ost lion)		Iı	mpl	en	en	tati	on	Sc	hed	lul	e		
Urban Drainage Projects   Nairobi	Code	Project	Description	Agency			02	05			200	20	-		4	т	6	8	1
110   Nairobi				ļ	000	IX2.	33	iii	7	7"	7	7	T	: T	Ü	+	Ť	T	$T^{i}$
Nairobi		ا Urban Drainage Pr	rojects						1				1	ĺ		1			
Clambu				MOLG	360.0	453.6	ي إن ا		ء ا	۵		1						1	
210       Thika       P = 59,000       A = 1.9 Km²       1.4.8       18.6       2         220       Murang¹a       P = 21,700       A = 5.3 Km²       31.5       39.7       39.7         240       Olkalou       P = 97,000       A = 5.3 Km²       6.0       7.5         250       Nyeri       P = 97,000       A = 1.6 Km²       13.1       16.5         310       Kilifi       P = 12,500       A = 1.6 Km²       4.9       6.2         310       Malindi       P = 36,700       A = 1.0 Km²       7.6       9.6         320       Kwale       P = 36,700       A = 1.0 Km²       7.2       9.1         330       Larmu       P = 9,000       A = 0.9 Km²       7.2       9.1         340       Mombasa       P = 47,600       A = 1.16 Km²       9.2       11.6       58.7         350       Wundanyi       P = 2,700       A = 0.3 Km²       2.2       2.8         360       Hola       P = 18,400       A = 1.6 Km²       7.4       9.3         400       Isiolo       P = 18,400       A = 0.5 Km²       3.6       4.5         440       Machakos       P = 11,100       A = 0.8 Km²       2.2.1       2.8       4			1			•	^ ^				╽╽					٠,	ہاج	- a	•
220 Kerugoya P= 8,900 A=1.0 Km² 7,7 9.7 3.7 9.7 230 Murang'a P= 21,700 A=5.3 Km² 15.5 39.7 39.7 39.7 39.7 39.7 39.7 39.7 39.7				10							] ]		1	1					8
230   Murang¹a   P = 21,700   A = 5.3 Km²   31,5   39,7				11:															9
220   Olkalou   P = 9,700   A = 0.8 Km2   13.1   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   16.5   1						l .						ı		٠,				9 9	
250   Nyeri		~		17		Į.						1		ľ					9
310 Kilifi P= 12,500 A=0.6 Km2	- :-			14							IJ	٦.	ء ا	ء ا	1 1	~	"	1	
310 Malindi P= 36,700 , A = 1.0 Km2		•					]			1	*	×	۳ ٦	7			، احد		الما
320   Kwale   P = 3,700   A = 0.9 Km2   7.2   9.1   3.0   \$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2}\$\$\frac{1}{2				,,		1		ll				1		1		- 1			1 1
330 Lamu P = 9,000 , A = 0.9 Km2 " 7.0 8.8				*1				П	-		П								9
340   Mombasa   P = 479,600   A = 11.6 Km2   "   46.6   58.7   ★ ★ ★ ● ● ● 12,200   A = 1.2 Km2   "   9.2   11.6   ★ ★ ★ ● ● ● ■ 12,200   A = 1.2 Km2   "   2.2   2.8   360   Hola   P = 8,100   A = 0.9 Km2   "   7.4   9.3			•	, n			Ш				$  \  $	١	1	١.					
Solution   P = 12,200   A = 1.2 Km2   Solution   A = 1.3 Km2   Solution   A = 1.2 Km2   A					ſ	ſ	И.	1.1		1.	$ \cdot $	ł	ł	Ä	Ĥ	Ĥ	9  (	3 9	11
350 Wundanyi P = 2,700 , A = 0.3 Km2 " 7.4 9.3   410 Embu P = 18,400 , A = 0.9 Km2 " 7.4 9.3   410 Embu P = 18,400 , A = 0.5 Km2 " 7.6 9.6   420 Isiolo P = 15,900 , A = 0.5 Km2 " 3.6 4.5   430 Kitui P = 9,300 , A = 0.5 Km2 " 3.6 4.5   440 Machakos P = 91,100 , A = 2.8 Km2 " 22.1 27.8   440 Mitaboni P = 29,400 , A = 0.2 Km2 " 1.6 2.0   450 Marsabit P = 11,100 , A = 0.1 Km2 " 0.8 1.1   510 Garissa P = 29,100 , A = 0.3 Km2 " 6.4 8.1   520 Mandera P = 6,500 , A = 0.1 Km2 " 0.5 0.9   530 Wajir P = 21,400 , A = 0.2 Km2 " 21.1 26.6   620 Kisumu P = 18,8700 , A = 2.6 Km2 " 21.1 26.6   630 Siaya P = 29,400 , A = 0.1 Km2 " 1.5 1.9   630 Siaya P = 19,400 , A = 0.1 Km2 " 1.5 1.9   640 Homa Bay P = 23,000 , A = 1.2 Km2 " 9.2 11.6   710 Kajiado P = 6,000 , A = 1.2 Km2 " 9.2 11.6   720 Kericho P = 41,200 , A = 2.8 Km2 " 9.2 11.6   730 Nanyuki P = 25,100 , A = 2.0 Km2 " 15.6 19.7   740 Naivasha P = 38,500 , A = 0.8 Km2 " 7.2 9.1   740 Naivasha P = 12,000 , A = 0.8 Km2 " 15.6 19.7   740 Naivasha P = 12,000 , A = 0.8 Km2 " 15.6 19.7   740 Nakuru P = 17,200 , A = 1.8 Km2 " 25.2 31.8   750 Narok P = 12,000 , A = 0.8 Km2 " 13.1 16.5   840 Maratal P = 17,800 , A = 0.8 Km2 " 13.1 16.5   840 Maratal P = 17,800 , A = 0.8 Km2 " 13.1 16.5   840 Maratal P = 17,800 , A = 0.2 Km2 " 13.1 16.5   840 Maratal P = 17,800 , A = 0.2 Km2 " 13.1 16.5   840 Maratal P = 17,800 , A = 0.2 Km2 " 13.1 16.5   840 Maratal P = 17,800 , A = 0.2 Km2 " 13.1 16.5   840 Maratal P = 17,800 , A = 0.2 Km2 " 13.1 16.5   840 Maratal P = 17,800 , A = 0.2 Km2 " 13.1 16.5   840 Maratal P = 17,800 , A = 0.2 Km2 " 13.1 16.5   840 Maratal P = 17,800 , A = 0.2 Km2 " 13.1 16.5   840 Maratal P = 17,800 , A = 0.2 Km2 " 13.1 16.6   840 Maratal P = 17,800 , A = 0.2 Km2 " 13.1 16.5   840 Maratal P = 17,800 , A = 0.2 Km2 " 13.1 16.5   840 Maratal P = 17,800 , A = 0.2 Km2 " 13.1 16.6   840 Maratal P = 17,800 , A = 0.4 Km2 " 13.1 16.5   840 Maratal P = 13,300 , A = 0.4 Km2 " 13.1 16.6   840 Maratal P = 13,300 , A = 0.4 Km2 " 13.1 16.6   840 Maratal P = 13,400 , A = 0.4 Km2 " 13.1 16						ı	l l	<sup> </sup>	Ŷ (¢	9	9		İ						
360 Hola P = 8,100 , A = 0.9 Km2 " 7.4 9.3 4							11				$\mathbb{I}$	ł	ŀ						0
410 Embu P = 18,400 A = 1.0 Km2											П	1							9
Siolo						ı			-			1					r e	9 0	•
430 Kitui P = 9,300 , A = 0.5 Km2				ł		1						*	취수				İ		П
Add   Machakos   P = 91,100   A = 2.8 km2			1	i		1	Ш			1	Ιİ		1	*					
440 Mitaboni P = 91,100 , A = 2.8 km2	1							Ш			İΙ	ı				Ħ	# 1	<b>≒</b> €	9
450 Marsabit P = 11,100 A = 0.1 Km2 " 0.8 1.1	1 '			1	l	i													
460 Meru P = 78,900 , A = 0.3 Km2									* *	k   0	9	0				ĺ	ŀ		
Sub-total   P = 70,900   A = 0.3 Km2   Color   A = 0.4 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Color   A = 0.5 km2   Co					l		Н				11			*	*	☆	9	9	1
Samsa	460	Meru			2.7			Н	참	₩	9	0	8				i	ŀ	Ιİ
Solution   P		Garissa	·	1	6.4	8.1			١			₩.	삵	¥ o	0	0	ı		
Signature   F = 21,400   A = 26,6 km2   Signature   F = 21,400   A = 26,6 km2   Signature   F = 45,800   A = 26,6 km2   Signature   F = 45,800   A = 26,6 km2   Signature   F = 45,800   A = 26,6 km2   Signature   F = 45,800   A = 26,6 km2   Signature   Signature   F = 45,800   A = 26,6 km2   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature   Signature		Mandera	P = 6,500 , A = 0.1  Km2	i	0.5	0.6			1	1	11	ľ	1		Ŕ	ń	<b>Á</b>	9	9
620 Kisumu P = 188,700 , A = 5.6 Km2 " 33.5 42.2	530	Wajir	P = 21,400 , A = 0.2  Km2	1	1.5	1.9			-		H				₩	¥	4	<b>5</b> 0	9
630 Siaya	610	Kisii	P = 45,800 , A = 2.6  Km2	"	21.1	26.6	Ш				¥	삵:	<b>☆</b> €	9 0	6				
640   Homa Bay   P = 23,000   A = 1.2 Km2   "   9.2   11.6	620	Kisumu	P = 188,700 , A = 5.6  Km2	ıı ıı	33.5	42.2		w	* 7	ر ا	0	٥			$  \  $				
10	630	Siaya	P = 19,400 , A = 0.1  Km2	"	1.0	1.2			1					1	1	₩	\$ 1	k e	0
720       Kericho       P = 41,200 , A = 1.2 Km2       " 9.4 11.8 15.6 19.7         730       Nanyuki       P = 25,100 , A = 2.0 Km2       " 7.2 9.1	640	Homa Bay	P = 23,000 , A = 1.2  Km2	*	9.2	11.6			1		Ш				삵	¥	☆ (	9 0	8
720   Kericho   P = 41,200   A = 1.2 Km2   "   9.4   11.8   15.6   19.7   740   Naivasha   P = 38,500   A = 0.9 Km2   "   7.2   9.1   ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★	710	Kajiado	P = 6,000 , A = 1.2  Km2	, ,,	9.2	11.6	1		1			-			1	¥	դ,	ģ e	
730       Nanyuki       P = 25,100 , A = 2.0 Km2       " 15.6 19.7         740       Naivasha       P = 38,500 , A = 0.9 Km2       " 7.2 9.1         740       Nakuru       P = 172,200 , A = 13.0 Km2       " 51.8 65.3         750       Narok       P = 12,000 , A = 0.8 Km2       " 6.4 8.1         760       Kitale       P = 56,400 , A = 4.2 Km2       " 34.3 43.2         770       Eldoret       P = 112,900 , A = 8.6 Km2       " 34.3 43.2         810       Kabarnet       P = 9,400 , A = 0.2 Km2       " 1.3 1.6         820       Iten       P = 6,300 , A = 0.2 Km2       " 13.1 16.5         840       Maralal       P = 17,800 , A = 0.7 Km2       " 5.6 7.1         850       Lodwar       P = 9,300 , A = 0.2 Km2       " 1.8 2.2         860       Kapenguria/ P = 12,000 , A = 0.4 Km2       " 15.0 18.8         910       Webuye       P = 29,500 , A = 1.9 Km2       " 15.0 18.8         910       Webuye       P = 26,600 , A = 0.2 Km2       " 1.8 2.3         920       Busia       P = 13,300 , A = 0.1 Km2       " 0.9 1.1         920       Busia       P = 49,200 , A = 2.1 Km2       " 16.6 20.9         Sub-total       P = 3,417,500 , A = 174.6 Km2       " 874.0 1,101.2          No			P = 41,200 , A = 1.2  Km2	"	9.4	11.8			1		₩.	뉽.	<b>☆</b> €	9	0	İ			
740       Naivasha       P = 38,500 , A = 0.9 Km2       " 7.2 9.1	1			0	15.6	19.7	]		-			☆.	ᇵ	۰	ø	0	ŀ		
740 Nakuru P = 172,200 , A = 13.0 Km2 " 51.8 65.3		,		u u		!	*	\delta	ᆈ	s   6									
750 Narok			· ·	"		65.3			- 1			1			1		ı	ļ	
760   Kitale   P = 56,400   A = 4.2 Km2   "   25.2   31.8   34.3   43.2   34.3   43.2   34.3   43.2   34.3   43.2   34.3   43.2   34.3   43.2   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.3   34.		1		"							П				4	☆	ģ,	a e	8
To   Eldoret   P = 112,900   A = 8.6 km2   "   34.3   43.2     43.2			1	"	1			Н		1,	إيا.	<b>.</b>	a	هاه		``		1	ľ
810 Kabarnet P = 9,400 , A = 0.2 Km2	1			"			<b>[</b> [	ĺĺ	ĺ	- 1	1 1					- [	ĺ	ĺ	
Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   Record   R	1			п	l					^	$ \hat{\ } $			ľ		点	<u>با</u>		
R830   Kapsabet/Baraton   P = 13,400   A = 1.6 Km2				n n	1	1		Н							1 1				6
840 Maralal P = 17,800 , A = 0.7 Km2			· · ·		l	ľ	1												8
Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Study/Design   Stud							[			1									
860   Kapenguria/   P = 12,000   A = 0.4 Km2   "   2.8   3.5	1		, ,		l						$  \  $								
910 Bungoma P = 29,500 , A = 1.9 Km2 " 15.0 18.8 1.8 2.3				"	l	1						-							
910 Bungoma P = 29,500 , A = 1.9 Km2 " 15.0 18.8 1	300		1 - 12,000 , A = 0.4 KIII2		2.0	1				-		-	-		ਮੋ	ਮ	"["	1	
910 Webuye P = 26,600 , A = 0.2 Km2 " 1.8 2.3	010		P = 20 500 A = 10 Km2	.,	15.0	18 9						ا	. اب	م ل		ار	l		
920 Busia P = 13,300 , A = 0.1 Km2 " 0.9 1.1	1		1			1											ĺ		
930 Kakamega P = 49,200 , A = 2.1 Km2 " 16.6 20.9	1					l													
Sub-total P = 3,417,500 , A = 174.6 Km2 " 874.0 1,101.2 Note:   ★ Study/Design				]						1	إرا					9			
Note:   Study/Design	930	какатеда	r = 49,200 , A = 2.1  Km2	] .	10.0	20.9	] ]				#	H	۲	9	9	IJ	1	ļ	
		Sub-total	P = 3,417,500 , A = 174.6 Km2	)1	874.0	1,101.2						1							
		Note:	Study/Decion     Study/Decion		<u> </u>	l	1	Щ.		_1	لــــا	!_		ــــــــــــــــــــــــــــــــــــــ	لـــــــــــــــــــــــــــــــــــــ		L		<u></u>
<ul> <li>Construction</li> </ul>		11016.																	
P = Estimated population (1990) A : Area				A + Arca															
r - Estituated population (1990) A. Alea			1 - Estimated population (1990)	A. Aica															

Table 3.13 Urban Drainage and River Improvement Projects - Proposed Implementation Programme (2/2)

District Code	Project	Description	Executing Agency	(mil	ost lion)			]	lmj	plei	mei	nta	tion	Sc	hed	ule	
·				US\$	K£	93	95	Γ,		2	000		2	4	1	3	8
Ali	Minor Ad-hoc Riv Various rivers	erImprovement Works To be taken up as the need is identified	MOWD	90	113.4	*	<b>☆ 6</b>	0	4	0	•	•	0	9	9 (	9 9	9 0
360	Long-term Improv Lower Tana improvement	rement of Lower Tana River Experimental work for rectifying river meanders and bank protection	MOWD/ TARDA	40	50.4	0	9	•	•	•	9						
	Sub-total			130	163.8												
	TOTAL			1004	1265.0												
;																	
!																	
	Note:	★ Study/Design     Construction		·													

Table 3.14 Summary of Development Cost
(Basic Case: Full Development Meeting Whole Demands)

The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s	Budget			cial Requir			
Development Sector	Appropriated	1993	- 2000	2001	- 2010	Tot	
	for	US\$	Κ£	US\$	K£	US\$	K£
1. D&I Water Supply		3,470	4,372	4,106	5,174	<u>7,576</u>	9,546
(1) Urban water supply	MOWD *1						٠
- Source development (Dam)	j l	366	461	211	266	577	727
<ul> <li>Water supply system</li> </ul>		2,614	3,294	1,758	2,215	4,372	5,509
Sub-total		2,980	3,755	1,969	2,481	4,949	6,236
(2) Rural water supply	MOWD *2					:	
- Source development		490	617	924	1,165	1,414	1,782
- Water supply system		-	-	1,213	1,528	1,213	1,528
Sub-total		490	617	2,137	2,693	2,627	3,310
2. Sewerage Development	MOLG *3	420	529	285	359	705	888
3. Irrigation Development		201	253	772	973	973	1,226
(1) Major irrigation projects	MORD *4	196	247	767	966	963	1,213
(2) Small irrigation schemes	MOA *5	5	6	5	7	10	13
4. Livestock Water Development		252	318	503	633	755	951
(1) Source development	MOLD *6	227	286	443	558	670	844
(2) Water points in nomadic pasturage land	MOLD *6	25	32	60	75	85	107
Hydropower Development	MOE *7	542	683	492	621	1,034	1,304
		·					
<ol><li>River and Flood Works</li></ol>		624	785	443	558	1,067	1,343
(1) Major flood control projects	MOWD *8	32	40	31	39	63	79
(2) Urban drainage works	MOLG *3	525	661	349	440	874	1,101
(3) Minor river improvement	MOWD *8	27	34	63	79	90	113
(4) Improvement of Lower Tana	MOWD *9	40	50	-	-	40	50
Total	,	<u>5,509</u>	<u>6,940</u>	<u>6,601</u>	<u>8,318</u>	<u>12,110</u>	<u>15,258</u>

Notes:

Executing agencies will be;

- \*1: MOWD, NWCPC, Municipalities (NCC, etc)
- \*2: MOWD, NWCPC, County councils, NGO, etc
- \*3: Municipal and urban councils under technical assistance by MOWD
- \*4: NIA, LBDA, TARDA, KVDA and other basin development authorities
- \*5: MOA and some agencies listed for \*4
- \*6: Implementation to be entrusted to MOWD and/or basin development authorities
- \*7: KPC, KPLC and basin development authorities
- \*8: MOWD or to be entrusted to basin development authorities and municipal/urban councils
- \*9: To be entrusted to TARDA
- Irrigation development cost represents the cost disbursed during 1993-2010 and is therefore different from total project cost

Table 3.15 Annual Budgetary Schedule (Basic Case: Full Development Meeting Whole Demands)

590.7         51994         1995         1996         1996         2000         2000         2004         2004         2004         2004         2004         2006         2009         2009         2009         2000         2000         2004         2009         2009         2009         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         2000         <								چَر ا	Year											
717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.9   717.	Development Sector	1993	198	1995	1986	1997	1998	§.	2000	2001	2002	2003	2004	2002	2006	2007	2008	2009	2010	Total
m) 779 779 563 564 255 257 6 259 590 590 500 568 568 568 238 238 238 1850 1850 1858 1859 1859 1859 1859 1859 1859 1859	1 D&I Water Supply	509.7	509.7	497.1	497.1	388.8	388.8	339.6	339.6	385.7	385.7	428.0	428.0	£113	441.3	398.6	398.6	399.4	399.4	7,576
7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103   7103																			- :	
910.2 370.3 370.3 370.3 277.6 277.6 277.6 277.3 778.3 172.0 172.0 172.0 172.0 214.3 274.3 277.6 172.0 172.0 172.0 172.0 214.3 274.5 277.6 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0 172.0	Source development (dam)	77.9	77.9	36.3	36.3	6.62	29.9	39.0	39.0	25.0	8,0	56.8	56.8	23.8	ន្តដ	0.0	0.0	0.0	0.0	577
613 613 613 613 613 613 613 613 613 613	Water supply system Sub-total	370.5	370.5 448.4	399.5	399.5 435.8	297.6 327.5	297.6 327.5	239.3 278.3	239.3 Z78.3	172.0	147.0	157.5 214.3	157.5 214.3	203.8	203.8	185.0	185.0	185.8	185.8	4,949
613 613 613 613 613 613 613 613 613 613																				
661.3 61.3 61.3 61.3 61.3 61.3 61.3 61.3	Source development	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	92.4	27.5	92.4	92.4	92.4	47.	92.3	92.3	92.3	92.3	
806 806 804 804 226 226 263 263 263 227 227 229 370 370 330 330 272 272 272 272 272 272 272 272 272 27	water supply system Sub-total	61.3	61.3	61.3	61.3	61.3	61.3	61.3	61.3	213.7	213.7	213.7	213.7	213.7	213.7	213.6	213.6	213.6	213.6	2,627
327 339 9.9 15.4 44.4 22.8 16.3 24.9 34.6 35.3 49.8 54.1 124.7 140.7 133.5 103.6 79.9  321 333 9.3 148 43.8 22.2 15.7 24.3 34.0 35.7 49.2 53.5 124.1 140.1 132.9 103.0 79.3  315 31.5 31.5 31.5 31.5 31.5 31.5 31.6 31.6 50.3 50.3 50.3 50.3 50.3 50.3 50.3 50.3	2 Sewerage Development (for 158 urban centres)	80.6	80.6	80.4	80,4	22.6	22.6	26.3	26.3	7.22	7.22	22.9	22.9	37.0	37.0	33.0	33.0	27.2	27.2	
31.5 31.5 31.5 31.5 31.5 31.5 31.5 31.6 31.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0	3 Irrigation Development	32.7	33.9	9.9	15.4	42.4	22.8	16.3	24.9	34.6	36.3	49.8	54.1	124.7	140.7	133.5	103.6	79.9	15.8	
13.5 31.5 31.5 31.5 31.5 31.5 31.6 31.6 50.3 50.3 50.3 50.3 50.3 50.3 50.3 50.3		32.1	33.3	9.3	14.8	43.8	22.2	15.7	24.3	34.0	35.7	49.2	53.5	124.1	140.1	132.9	103.0	79.3	15.2	
284 284 284 28 28 28 4 28 4 28 4 28 4 2		9.0	9.0	0.6	9.0	9.0	9.0	9.0	0.6	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	
28.4 28.4 28.4 28.4 28.4 28.4 28.4 28.4	4 Livestock Water Development	31.5	31.5	31.5	31.5	31.5	31.5	31.6	31.6	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3	50.3	
20.0 27.0 52.0 45.0 63.0 93.0 113.0 129.0 129.0 121.0 56.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0 6.0		28.4	28.4	28.4	28.4	28.4	28.4	28.4	28.4	44.3	44.3	44.3	44.3	44.3	44.3	44.3 6.3	44.3	44.3	44.3	
20.0 27.0 52.0 45.0 63.0 93.0 113.0 129.0 129.0 121.0 56.0 27.0 55.0 27.0 5.0 27.0 5.0 5.0 99.5 104.7 139.9 162.5 73.4 33.1 31.4 50.6 66.4 46.5 22.1 22.3 38.2 71.2 55.3 3 mont 4.5 4.5 4.5 4.5 4.5 4.5 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3 6.3		H -	3.1	3,1	3.1	3.1	3.1	3.2	3.2	6.0	0.0	6.0	0.9	6.0	6.0	6.0	6.0	6.0	0.9	
5.0 5.0 99.5 104.7 139.9 162.5 73.4 33.1 31.4 50.6 66.4 46.5 22.1 22.3 38.2 71.2 55.3 3 odd olynojects  orks  vernent  4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.4 4.4 4.4	5 Hydropower Development	20.0	27.0	52.0	45.0	63.0	93.0	113.0	129.0	129.0	159.0	121.0	56.0	27.0						
Major flood control projects         5.2         5.2         8.8         8.8         3.6         4.4         4.4         4.4         4.4         4.4         4.4         4.4         4.4         4.4         4.4         4.4         4.4         4.4         4.4         4.4         4.4         4.4         4.4         4.4         4.4         4.4         4.4         4.4         4.4         4.4         4.4         4.5         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3         6.3	6 River and Flood Works	5.0	5.0	286	104.7	139.9	162.5	73.4	33.1	31.4	50.6	66.4	46.5	22.1	23	38.2	71.2	55.3	39.4	
Uthen dealings works  Uthen dealings works  Winor river improvement  Minor river Tana  5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0					5.2	5.2	90 90	85	3.6	4.4	4.4	4.4	4,4	0.0	1.7	1.7	4.4	2.8	2.8	
Improvement of Lower Tana 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 1.0 5.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1	-			90.0 2 4	0.5	125.2 4 5	144.2	55.1	20.0	5. 5.	96. 6	55.7	35.8	15.8	14.3 5.3	302	60.5	46.2 6.3	30.3	
679-5 687.7 770.4 774.1 680.2 721.2 600.2 584.5 653.7 704.6 738.4 657.8 702.4 691.6 653.6 656.7 612.1		5.0	5.0	5.0	6,	5.0	8.0	5.0	0,5	l	1	}	)		}		!	!	!	
	Total (USS)	5.679	687.7	770.4	774.1	690,2	721.2	600.2	584.5	653.7	704.6	738.4	657.8	702.4	691.6	653.6	656.7	612.1	532.1	12,110

Table 4.1 Trend of Projected Public Expenditure for Development up to 2010

(Unit: K.Pound Million)

		1989	1990	1995	2000	2005	2010
	Item	Provisional	1990/91	1995/96	2000/01	2005/06	2010/11
							-
1.	GDP at 1989 Constant Prices *1 (at Factor Cost)	7,330.5	7,762.8	10,351.5	13,832.1	16,805.0	20,435.8
2.	Total Expend, by National Government	3,522.7	3,700.4	4,742.8	6,100.0	7,411.0	9,012.2
1)	Recurrent Expenditure	2,516.2	2,653.8	3,463.4	4,520.1	5,491.6	6,678.0
2)	Development Expenditure	1,006.5	1,046.5	1,279.4	1,579.9	1,919.5	2,334.2
	a) Appropriations-in-Aid	548.9	560.2	620.5	687.3	835.0	1,015.4
	b) Net Expenditure	457.7	486.3	658.9	892.6	1,084.5	1,318.8
3.	Capital Expenditure	665.9	678.3	743.6	815.2	990.4	1,204.4
	a) Gross Fixed Capital Formation	603.4	613.5	666,3	723.6	879.1	1,069.0
4.	Expenditure for Projects Related to Water Development	225.4	232.8	273.7	322.3	391.6	476.2
	a) Expenditure by MOWD	75.2	78.5	96.9	119.6	145.3	176.7
	b) Expend, by Agencies Concerned	150.1	154.3	176.9	202.7	246.3	299.5
5,	Accumulation of Expenditure	-		1,284.0	2,795.0	4,608.9	6,813.9
	for Projects Related to Water Development after 19	92					
	a) Expenditure by MOWD	-	-	446.0	996.5	1,669.5	2,487.6
	b) Expend, by Agencies Concerned	-	=	838.0	1,798.5	2,939.4	4,326.4
	Equivalent in US\$ (US\$ Million) *2						
	Total Expenditure Accumulation	-	•	1,188.8	2,587.8	4,267.3	6,308.9
	1) Expenditure by Ministry						
	a) Expenditure by MOWD	•	-	412.9	922.7	1,545.8	2,303.2
	b) Expend. by Agencies Concerned	-	-	775.9	1,665.2	2,721.5	4,005.7
	2) Expenditure by Sector*3						
	a) Water Supply	-	-	489.1	1,064.8	1,755.8	2,595.9
	b) Sewerage	-	-	41.6	90.5	149.2	220.5
	c) Irrigation	•	-	113.8	247.6	408.4	603.7
	d) Livestock	-	-	0.0	0.0	0.0	0.0
	e) Hydropower	-	-	541.7	1,179.3	1,944.6	2,874.9
	f) Flood Control	-	•	2.6	5.7	9.4	13.8

Source:

A.01, A.13 and A.24 (Sectoral Report A)

Remark:

\*1 Refer to Table A5.1. (Sectoral Report A)

<sup>\*2</sup> Foreign exchange rate: KShs21.6/US\$ (as of December, 1989)

<sup>\*3</sup> Distribution(1) in Table A2-48 is applied.

Table 6.1 Estimated Cost of Studies and Design of Individual Projects by Development Sector (1/3)

Description	Executing Agency	Cost (millio	n)					Im	ple	mer	ıtati	on i	Sch	edu	le				
osciipiioii	/ Igonoj	US\$	K£	93		95			20	000		2		4		6		8	
. D&I Water Supply																			
(1) Urban water supply *1	MOWD	259.41	326.85																
(2) Rural water supply	MOWD	197.05	248.29																
Sub-Total of Item 1.		456.46	575.14																
2. Sewerage Development	MOLG	52.87	66.62																
i. Irrigation Development																			
(1) Major irrigation projects	MORD																		
- Kano Plain - Bunyala Ext Mwea Ext Kunati - Lower Kuja - Lower Rupigazi - Kanzalu - Kimira - Yala Swamp - Arror - Sabaki Ext Thanantu - Kibwezi Ext Upper Nzoia - Turkwel - Taveta - Lower E, Ngiro  (2) Small irigation schemes	MORD MORD MORD MORD MORD MORD MORD MORD	11.63 0.93 4.78 0.26 0.42 0.45 2.86 1.36 4.88 0.47 1.49 1.30 17.04 6.60 0.13 0.89 4.28	14.65 1.17 6.02 0.33 0.53 0.57 3.60 1.71 6.14 0.60 1.87 1.64 21.47 8.32 0.17 1.13 5.39	☆☆	☆★		**☆☆☆	☆ ☆	*☆☆☆☆	,	**	女女女 公公	***********	*	<b>***</b>	*			
l, Livestock Water							:												
(1) Source development	MOLD	50.24	63.30				***												
(2) Water points in nomadic pasturage land	MOLD	5.48	6.90																
Sub-Total of Item 4.		55.72	70.20						 								 		

Table 6.1 Estimated Cost of Studies and Design of Individual Projects by Development Sector (2/3)

Description	Executing Agency	Cos (milli							Im	plei	ner	ıtati	on	Sch	edu	ile				
Dosonpaon	Agonoy	US\$	K£.	93		95	<u> </u>			20	000		2		4		6		8	
5. Hydropower Development	мое						:													
- Low Grand Falls	KPC/ TARDA	21.83	27.50	☆	☆	*	*													
- Oldorko	КРС	5,33	6.71		☆	☆		*	*					:						
- Magwagwa	KPC/ LBDA	17.00	21.42					*	*			:								
- Gitaru #3 Extension	KPC/ TRDC	-	-				☆		×	*										
- Mutonga	KPC/ TARDA	11.18	14.08					☆	☆		*	*								
Sub-Total of Item 5.		55.33	69.71												Ė					
.River and Flood Works															,					
(1) Major flood control projects	MOWD	:																		
- Kano Plain (Nyando river)	MOWD/ LBDA	1.55	1.96	☆	*	*														
- Nairobi City	MOLG	0.81	1.02			圿	*	*												
(Nairobi river, etc)									١.	١.										-
- Yala Swamp	MOWD/	1.33	1.67	1					ជា	*	*									
(Yala/Nzoia river)	LBDA	0.00	0.45											٨	١	l.				
- Kuja Rivermouth	MOWD/	0.38	0.47											ਮ	*	×				
(Kuja river) - Lumi Rivermouth	MOWD	0,62	0.78			٠.		ŀ		l						Ļ	*	4		Į
(Lumi river)		5,02	0.70													ľ				Ì
(2) Urban drainage works	MOLG																			
- Nairobi	MOLG	18.00	22.68	*	*															
- Kiambu	MOLG	0.97	1.22					<b>l</b> .									女			
- Thika	MOLG	1.11	1.40														¥			1
- Kerugoya	MOLG	0.58	0.73				}	\		1					١	Ŷ	×	*	1	1
- Muranga - Olkalou	MOLG MOLG	2.36 0.45	2.98 0.57				1							Ĥ	*	×	*	ــا		ı
- Nyeri	MOLG	0.43	1.24							-√-		*				M	×	<b>X</b>		
- Kilifi	MOLG	0.37	0.47		}			į		~	^	^			☆	↓	*			
- Malindi	MOLG	0.57	0.72				l								ı̂.		*			
- Kwale	MOLG	0.54	0.68					Ì		ŀ					``		*			
- Lamu	MOLG	0.53	0,66											☆	*	*				-
- Mombasa	MOLG	3.49	4.40	l	☆	*	*										•	1		-
- Voi	MOLG	0.69	0.87														*			
- Wundanyi	MOLG	0.17	0.21													☆		<b>*</b>		
- Hola	MOLG	0.56	0.70		-							١.			☆	*	¥			
- Embu	MOLG	0.57	0.72								ਸ	×	*		١.	١.				
- Isiolo	MOLG	0.27	0.34	ı.										×	*	*		١.		
- Kitui	MOLG	0.27	0.34			,	١,	۱. ا						Ì		耸	*	★		
- Mchakos	MOLG	1.66	2.09	,		Ϋ́	*	*							1		Ī	ļ		
- Mitaboni	MOLG	0.12	0.15			រវ	×	*						_ [		۰	Ī			
- Marsabit	MOLG	0.06	0.08	,	ĺ		7							ᅜ	<b>*</b>	*				
- Meru	MOLG	0.20	0.26				भ	*	×											
				entropy.																
Note: 🖈 Study		🖈 Design			,	~		Des		_										

Table 6.1 Estimated Cost of Studies and Design of Individual Projects by Development Sector (3/3)

scription																			
<u>.</u>	Agency	(mill US\$	K£	93		95				20	00		2	 4		6		8	
- Garissa	MOLG	0,48	0.60								إب	*							
- Mandera	MOLG	0.04	0.05								^ا			4.	ـــا	4			
- Wajir	MOLG	0.12												₩,	1	<b>*</b>	ļ	ļ	
- Kisii	MOLG	1.58	1.99							☆	ᆈ	J.		Μ,	^	7	1	l	
- Kisumu	MOLG	2.51	3.16			☆	*	4		м	^	^			l			l	
- Siaya	MOLG	0.07	0.09		İ		^	^		١		- 1			ᆛ	4	ــا	l	İ
- Homa Bay	MOLG	0.69												☆	يّا	* * *	^		1
- Kajiado	MOLG	0.69	0.87		1						- 1			14	12	12	بدا	1	
- Kericho	MOLG	0.70								☆	ᆈ	ايد			~	^	^		
- Nanyuki	MOLG	1.17			l			ļ		"	긺	Â	J.		i	1	1	l	
- Naivasha	MOLG	0.54			٠,,	بدا	بندا		li		^	^	*		l			l	1
- Nakuru	MOLG	3.89			7	<u>.</u>	*				i				l			l	İ
- Narok	MOLG	0.48			н	~	ж							J.	ــا	*		l	1
- Natok - Kitale	MOLG	1.89							الدا	_	ᅬ			14	*	×			
- Eldoret	MOLG	2.57	3.24						띴	*	긻				ĺ	ĺ	{		[
- Eldoret - Kabarnet	MOLG	0,10		1					~	×	^				١,,	1	L		
- Kapsabet/Baraton	MOLG	0.10		•					Ιl						1	X	<b>★</b>	l	
- Kapsabey Baraton - Iten	MOLG	0.20						ĺ				-			X	X	*	l	1
- nen - Maralal	MOLG	0.98											'	٦.	ᄣ	***	*		
- Maraiai - Lodwar	MOLG	0.42	0.53											쇼	A	K L			
— 1	MOLG	0.13	0.17	1	) ,	ļ				ļ	ļ		١,	17	X	×	1		Į
- Kapenguria/Makutano	1 ' 1										ᆚ			ਅ	*	×	ĺ	l	
- Bungoma	MOLG	1.12			'						낅	*			l			l	
- Webuye	MOLG	0.14	1						ŀ				*		l			l	İ
- Busia - Kakamega	MOLG MOLG	0.07 1.24	1							☆	☆	*	⋆		l				!
3) Minor river improvement  - Various rivers  4) Improvement of Lower Tan	MOWD	6.75	8.51																
- Lower Tana improvement	MOWD/ TARDA	3.00	3.78																
Sub-Total of Item 6.		70.99	89.44																
Total		751.89	947.38																

Table 6.2 River Basin Development Study - Proposed Study Programme

District Code	Description	Executing Agency		ost lion)	Implementation Schedule
			US\$	K£	93 95 2000 2 4 6 8 1
	Lake Victoria Drainage Area				
910 920	Sio/Malaba River Basin Study	LBDA	2.0	2.5	<b>☆☆</b>
630, 910, 930 760, 770, 830	2. Nzoia/Yala River Basin Study	LBDA	3.0	3.8	* * *
620 720	3. Nyando River Basin Study	LBDA	2.5	3.2	x x x
	Rift Valley Drainage Area				
810, 820 850, 860	4. Kerio River Basin Study (Update)	KUDA	2.0	2.5	<b>☆</b> ☆
740 240	5. Nakuru and Environs Integrated Water Use Study	NWCPC	3.0	3.8	* * *
710 750	6. Ewaso Ngiro South River Basin Study	ENSRDA	2.5	3.2	
	Athi River Drainage Area				
110, 210, 440 710, 350, 310	7. Athi River Basin Study (Update)	TARDA	4.0	5.0	* * * * * *
	Tana River Drainage Area		j		
220, 230, 250 410, 460, 420 430, 360, 510	8. Tana River Basin Study (Update)	TARDA	4.0	5.0	* * * * *
730, 240, 840 420, 450, 510	9. Ewaso Ngiro North River Basin Study	ENNRDA	2.5	3.2	x x x
	Total		25.5	32.1	
Note:	± Study			I	<del></del>

List of Urban Water Supply Schemes to be Served by Groundwater Table 6.3

Urban centre	Location	Water demand*1 (m3/day)	Number of boreholes	Number of shallow wells	Outer radius of development (km)
Msambweni	Msambweni	2,671	50	54	32
Isiolo	Isiolo	9,343	167	187	58
Garbatula	Garbatula	1,417	22	28	22
North Horr	North Horr	1,218	29	23	24
Korr	Korr	3,366	76	68	39
Kargi	Kargi	3,241	90	61	42
Marsabit	Mountain	8,971	214	0	65
Sololo	Sololo	2,787	99	56	44
Moyale	Moyale	5,885	78	589	39
Mudo Gashe	Madogashe	1,121	27	22	23
Ijara	Ijara	584	13	11	16
Kotile	Kotile	534	26	11	23
Elwak	Elwak	4,170	100	84	45
Wajir	Wajir Town	6,148	188	224	61
Buna	Buna	3,047	162	61	57
Bute	Bute	989	24	20	22
Nyabikaye	Bugembe	1,370	32	28	25
Wamba	Wamba	2,604	124	51	50
Barogoi	Elbarta	2,252	205	45	64
Lodwar	Lodwar	7,792	179	155	60
Nyahururu*2	Nyahururu	4,282	172	10	60
Rumuruti*2	Rumuruti	780_	32	16	23

Note: \*1 For year 2010

<sup>\*2</sup> Tentatively listed in view of scarcity of surface water resources, but the main supply source to be developed first for these two centres should be surface water (eg. Nyahururu Dam, Rumuruti Dam).

Table 6.4 Groundwater Resources Study for Urban Water Supply
- Proposed Study Programme

District Code		Description	Executing Agency	Co (mil)					S	Stu	dy	So	che	edi	ule	:			·······			
		•		US\$	K£	93	1	95				200	00		2		4	I	6		3	10
320	1.	Msambweni	MOWD / NWCPC	1.6	2.0				ជ			ĺ										
420	2.	Isiolo	MOWD / NWCPC	3.6	4.5			ά	ቱ													,
420	3.	Garbatula	MOWD / NWCPC	1.6	2.0		×															
450	4.	North Horr	MOWD / NWCPC	- 1.6	2.0		☆		•													
450	5.	Korr	MOWD / NWCPC	1.6	2.0				ħ													
450	6.	Kargi	MOWD / NWCPC	1.6	2.0		☆								ĺ							
450	7.	Marsabit	MOWD / NWCPC	3.6	4.5	☆	☆					-										
450	8.	Sololo	MOWD / NWCPC	1.6	2.0		☆							ļ						Ì		
450	9.	Moyale	MOWD / NWCPC	1.6	2.0				ជ													
510	10.	Mudo Gashe	MOWD / NWCPC	1.6	2.0		*															
510	11.	Ijara	MOWD / NWCPC	1.6	2.0		¥															
510	12.	Kotile	MOWD / NWCPC	1.6	2.0		*								ı							
520	13.	Elwak	MOWD / NWCPC	1.6	2.0		☆															
530	14.	Wajir	MOWD / NWCPC	5.4	6.8	☆	☆	☆				١										
530	15.	Buna	MOWD / NWCPC	3.6	4.5	☆	☆															
530	16.	Bute	MOWD / NWCPC	1.6	2.0		☆															
640	17.	Nyabikaye	MOWD / NWCPC	1.6	2.0		*															
730	18.	Rumuruti	MOWD / NWCPC	1.6	2.0		¥								Ì							
730	19.	Nyahururu	MOWD / NWCPC	3.6	4.5					አ	ជ											
840	20.	Wamba	MOWD / NWCPC	1.6	2.0		*															
840	21.	Barogoi	MOWD / NWCPC	3.6	4.5	☆	☆															
850	22,	Lodwar	MOWD / NWCPC	3.6	4.5			☆	☆													
		TOTAL	_	51.0	64.3		L															
Note:	☆	Study					_		_				_						_			

Table 6.5 District Water Resources Study
- Proposed Study Programme (1/2)

District Code	Description	(Basin Study	Executing Agency		ost lion)	Implementation Schedule
	•	proposed)		US\$	K£	93 95 2000 2 4 6 8
110	<u>Nairobi Province</u> Nairobi	(Athi)	NCC		-	(To be coveredby separate studies)
·	Central Province					
210	Kaimbu	(Athi)	MOWD	2.0	2.5	00000**
220	Kirinyaga	(Tana)		2.0	2.5	00000*
230	Muranga	(Tana)	"	2.0	2.5	00000
240	Nyandarua	(Nakuru)	11	2.0	2.5	000**
250	Nyeri	(Tana)	"	2,0	2.5	00000
	Coast Province					
310	Kilifi		MOWD	2.5	3.2	☆☆ (WRAP underway for two divisions)
320	Kwale		"	3.0	3.8	
330	Samu		"	_	_	☆☆☆(WRAP proposed)
340	Mombasa		"	2.5	3.2	* * * *
350	Taiota Taveta		] "]	2.5	3.2	
360	Tana River	(Tana)	14	-	-	☆ ☆ (WRAP proposed)
	Eastern Province					
410	Embu	(Tana)	MOWD	2.5	3.2	00000
420	Isiolo	(Ewaso Ngiro N.)	н	_		(WRAP proposed)
430	Kitui	(Tana)	19	2.5	3.2	00000
440	Machakos/Maku	(Athi)	"	-	_	☆ ☆ ☆ (WRAP proposed)
450	Marsabit	(Ewaso Ngiro N.)	"	_	ļ —	☆ ☆ (WRAP proposed)
460	Meru	(Tana)	41		****	(WRAP completed)
	North Eastern Province	•		ı		
510	Garissa		MOWD		_	☆ ☆ (WRAP proposed)
520	Mandera		11	3.0	3.8	
530	Wajir		11	-	_	☆ ☆ (WRAP proposed)
	Note: * Study	asin Study (propose	d under sen	arate pro	\nran\m	a)

T - 42

Table 6.5 District Water Resources Study
- Proposed Study Programme (2/2)

District		(Basin	Executing			
Code	Description	Study	Agency		·	
	· · · · · · · · · · · · · · · · · · ·	proposed)		US\$	K£	93 95 2000 2 4 6 8
	,					
<b>610</b>	Nyanza Province			• •		
610	Kisii/Nyamira		MOWD	2.0	2.52	
620	Kisumu	(Nyando)		2.5	3.2	
630	Siaya	(Yala)		2.0	2.5	
640	South Nyanza		19	2.0	2.5	
	Rift Valley Province		1			
710	Kajiado	(Athi)	MOWD	_	_	☆ ☆ (WRAP underway)
720	Kericho		19	2.5	3.2	
730	Laikipia	(Ewaso Ngiro N.)	"			(WRAP completed)
740	Nakuru	(Nakuru)	D 1	2.0	2.5	000*
750	Narok	(Ewaso Ngiro N.)	"	2.5	3.2	000**
760	Trans Nzoia	(Nzoia)	"	2.0	2.5	
770	Uasin Gishu	(Nzoia)	",	2.0	2.5	000**
810	Paringo		MOWD			Auman
820	Baringo	(Kerio)		_		(WRAP completed)
830	Elgeyo Marakwe Nandi		]	2.0	2.5	(WRAP completed)
840	Samburu	(Yala) (Ewaso Ngiro N.)	.		2.3	
850	Turkana	(Ewaso right iv.)	n	3.0	3.8	(WRAP completed)
860			U	'	}	1 1 1 1 1 1 1 1 1 1
800	West Pokot			_	_	(WRAP completed)
	Western Province					
910	Bungoma	(Nzoia)	MOWD	2.0	2.5	000 \$ \$
920	Busia	(Sio)	"	2.0	2.5	000 * *
930	Kakamega/Vihiş	(Nzoia)	л	2.0	2.5	000 0 12 12
	Total			59.0	74.3	
				, ,		
	,				<u></u>	

Note:

<sup>☆</sup> District Study

o River Basin Study (proposed under separate programme)

Table 6.6 Programmes for Data Collection and Water Management (1/2)

District Code		Description	Executing Agency		ost lion)		_		În	ıpl	em	ent	atio	n Sc	hec	iule		
		1		US\$	K£	93	9	5			20	00	2	4		6	8	1
·	1.	Surface Water Management																
	(1)	Hydrological data management																
		(a) Reinstatement of river water level gauging stations	MOWD	1.6	2.0	<b>☆</b>	řt 1	* *	<b>Y</b>	* *	☆	¥						
		(b) Reinforcement of MOWD database system	MOWD	0.2	0.3			3	4	t								
		(c) Reinforcement of regional offices' activities	MOWD	2.0	2.5		۲ م	te v	*   *	*								
	(2)	Water abstraction permit data - review and upgrading, including water use survey for Upper Athi and Upper Tana basins	MOWD	2.5	3.2		ź n	* *	<b>,</b>									
	(3)	Assessment of river maintenance discharge	MOWD	Inclu in (2)	ded above	, 	÷ 3	*   *	\$									
	(4)	Reinforcement of water use monitoring/control activities	MOWD	2.0	2.5		A 7	* 1	* *	*								
		Sub-total		8.3	10.5				ŀ									
	2.	Groundwater Resources Management	ļ					ļ		l								
	(1)	Groundwater data management	MOWD	0.1	0.1			7	* *	}								
	(2)	Assessment of groundwater potential	MOWD		-	*	ķ,	*	۶ ۲	ম	×	rk	3					
·		Sub-total		0.1	0.1													
	3.	Water Quality and Pollution Control								ļ								
	(1)	Water quality monitoring programme																
		(a) Surface water quality monitoring programme	MOWD	2.5	3.2		4	A										
		(b) Groundwater quality monitoring programme	MOWD	3.0	3.8		,	ir s	* *	<b>&gt;</b>								
	(2)	Establishment of water quality standards	MOWD	1.5	1.9					*	*	☆						
	(3)	Enforcement of water pollution control	MOWD	6.5	8.2		* 1	* 5	÷	<del>د</del> اء	×	☆						
		Sub-total		13.5	17.0													
Note:		☆ Study										<b>L</b> ,				·		

 Table 6.6
 Programmes for Data Collection and Water Management (2/2)

istrict Code	_ <del>_</del>	Description	Executing Agency	Co (mil	ost lion)		I	mp	lem	ente	ation :	Sche	dule		
	••••	· ·		US\$	K£	93 9	5		- 2	5000	2	4	6	8	
	4.	Domestic/Industrial Water Supply					i.								
	(1)	Inventory list of water supply facilities	MOWD	-	-	* *									
	(2)	Measurement of water supply	MOWD	20	25.2	* 7	4	₩	* 1	₽₩					
		Sub-total		20	25.2										
	5.	Irrigation Inventory/Water Use Record													
	(1)	Inventory list of irrigation schemes	.MOA	_	-	<b>☆</b> ☆									
	(2)	Irrigation water use recrod	MOA	-	-	* * 1	r r	¢	<b>†</b>	<b>† †</b>					
	6.	Livestock and Wildlife Water Facilities Inventory													
	(1)	Inventory survey	MOLD MOTW	_	-	* * 1	À								
	(2)	Livestock/wildlife population survey	DRSRS	2.0	2.5	,	Å			☆					
		Sub-total		2.0	2.5		}								
	7.	Hydropower Resources Survey													
		Update of National Power Development Plan	МОЕ	3.0	3.8		ń			垃					
	8.	River/Flood Control Works													
	(1)	Inventory survey of rivers and river facilities	MOWD		_	* *									
	(2)	Formulation of river improvement works	MOWD	-	-	* * :	Ŕ								
	(3)	Urban drainage hydrological studies - Installation of hourly rainfall gauges	KMD	0.1	0.1	# 1	4	☆	¥						
		Sub-total		0.1	0.1										
															1
		Total		47.0	59.2										

Table 6.7 Environmental Studies - Proposed Study Programme

District Code	Description	Executing Agency	Co (mi)	ost lion)	Implementation Schedule
			US\$	K£	93 95 2000 2 4 6 8 10
	Regional Environmental Study				
750	Mara river environmental study	NES	1.5	1,9	**0000000000000
350	2. Lake Jipe environmental study	NES	1.5	1.9	**00000000000
850	3. Lake Turkana environmental study	NES	2.0	2.5	**00000000
	Environmental ImpactAssessment and Management Guidelines				
-	4. Preparation of environmental guidelines	NES	2.5	3.2	ΔΔΔΔΑΑΑ
	· .				
	Total		7.5	9.5	
		þ			
· i					
Note:	<ul> <li>Study</li> <li>Δ Data and information accumulation</li> <li>Monitoring</li> </ul>				**************************************

Table 6.8 Further Study Programme - Annual Budgetary Schedule

				•	,	Ì			,								٦	(Unit: thousand US\$)	and US\$ )
Development Sector								200										1	Total
	1993	1 <u>8</u>	1995	1996	1997	1998	<u>\$</u>	2002	2001	2002	2003	2004	2005	2002	2007	2008	5000	2010	
A. Development Project																			
1 D&I Water Supply	24,119	24,119	24,119	24,119	24,119	24,119	24,119	24,119	26,351	26,351	26,351	26,351	26,351	26,351	26,350	26,350	26,350	26,351	456,459
(1) Urban water supply (2) Rural water supply	19,525 4,594	10,321 16,030	10,321 16,030	10,321 16,030	10,321 16,030	10,321 16,030	10,321 16,030	10,320	10,320 16,030	10,320 16,030	10,320 16,031	259,406 197,053							
2 Sewerage Development	3,937	3,937	3,937	3,937	3,937	3,937	3,937	3,937	2,137	2,137	2,137	2,137	2,138	2,138	2,138	2,138	2,138	2,138	52,872
3 Irrigation Development	7,604	7,648	1,990	655	2,673	2,296	5,610	6,861	1,770	1,992	9,722	7,967	385	1,766	1,466	42	42	42	60,531
(1) Major irrigation projects	7,561	7,605	1,947	612	2,630	2,253	5,567	6,818	1,727	1,949	619'6	7,924	342	1,723	1,424	0	0	0	59,761
(2) Small irrigation schemes	43	43	43	43	43	43	43	43	43	43	43	43	43	43	42	42	42	42	770
4 Livestock Water Development	2,334	2,334	2,334	2,334	2,334	2,334	2,334	2,334	3,705	3,705	3,705	3,705	3,705	3,705	3,704	3,703	3,703	3,703	55,715
(1) Source development (2) Water points in normadic pasturage land	2,128	2,128	2,128	2,128	2,128 206	2,128	2,128 206	2,128 206	3,322 383	3,322	3,322	3,322	3,322 383	3,322 383	3,321 383	3,321 382	3,321 382	3,321 382	50,240 5,475
5 Hydropower Development	3,638	4,525	8,163	7,275	12,138	12,138	0	3,724	3,724	0	0	. 0	0	0	0	0	0	٥	55,325
6 River and Flood Works	5,510	5,510	5,780	5,262	5,262	5,435	5,435	5,435	2,636	2,636	2,761	2,761	2,969	2,844	2,844	2,637	2,637	2,637	786,07
<ol> <li>(1) Major flood control projects</li> <li>(2) Urban drainage works</li> <li>(3) Minor river improvement</li> <li>(4) Improvement of Lower Tana</li> </ol>	518 4,242 375 375	518 4,242 375 375	788 4,242 375 375	270 4,242 375 375	270 4,242 375 375	443 4,242 375 375	443 4,242 375 375	443 4,242 375 375	0 2,261 375	0 2,261 375	125 2,261 375	124 2,261 375	332 2,261 375	207 2,261 375	207 2,261 375	0 2,262 375	0 2,262 375	0 2,262 375	4,688 56,549 6,750 3,000
Sub-total of Item A	47,142	48,073	46,323	43,582	50,463	50,259	41,435	46,410	40.323	36,821	44,676	42,921	35,548	36,804	36,502	34,870	34,870	34,871	751,889
B. River Basin Study	1,833	4,467	5,300	4,267	3,767	2,933	2,133	800	0	0	0	0	0	0	0	0	0	0	25,500
C. Groundwater Resources Study	6,400	27,200	5,000	8,800	1,600	2,000													51,000
D. District Water Sources Study	6,556	6,556	6,556	6,556	6,556	6,555	6,555	6,555	6,555										29,000
E. Data Collection/Water Management	213	6,693	7,693	8,193	6,693	5,018	4,998	7,499	0	٥	0	0	0	0	0	0	0	0	47,000
F. Enironnental Study	313	313	406	<del>2</del>	513	513	089	089	368	368	368	368	368	368	367	367	367	367	7,500
Sub-total items A to F	62,457	93,302	71,278	71,804	69,592	81719	55,801	61,944	47,246	37,189	45,044	43,289	35,916	37,172	36,869	35,237	35,237	35,238	941,889
G. Additional Study	18,737	27,990	21,383	21,541	20,878	20,183	16,740	18,583	14,174	11,157	13,513	12,987	10,775	11,151	11,061	10,571	10,571	10,571	282,567
GRAND TOTAL	81,193 121,292	121,292	92,661	93,345	90,470	87,461	72,541	80,527	61,420	48,346	58,557	56,276	46,690	48,323	47,929	45,808	45,808	45,809	1,224,455

**Table 7.1** Estimated Manpower Requirement (1/3)

(unit: person)

<u></u>		Relevant		Mannouve	r Addition	person)
	Work	Agency	Engineer		Technical	
	WOIK	Agency	2000	2010	2000	2010
<u> </u>			2000	2010	2000	2010
Imple	mentation of Projects					
IIIDIC	menation of Frogeets					
1.	Domestic/Industrial Water Supply					
	(a) Urban water supply	MOWD/	39	39	118	118
		MWCPC/				
		MOLG				
	(b) Rural water supply	MOWD	12	43	29	128
2.	Sewerage Development	MOLG/	6	6	17	17
<b>Z</b> .	Sewerage Development		0	U	1'	17
		MOWD				
3.	Irrigation Development					
	(a) Major irrigation schemes	MOA/	20	60	50	190
		NIB/				
		RBDA		:		
	(b) Small scale irrigation schemes	МОА	2	2	3	3
4.	Livestock Wate Supply					
	(a) Livestock water development	MOLD/	6	9	17	27
	(a) Enough water do not produce	MOWD			''	257
	(h) Wataring raints in		1	1		2
	(b) Watering points in	MOLD/	1	1	2	3
	nomadic pasturage area	MOWD				
5.	Hydropower Development	MOE	9	9	26	26
6.	River and Flood Control Works					
	(a) Major flood control projects	MOWD	2	2	2	2
	(b) Urban drainage works	MOLG/	7	7	21	21
	(-)	MOWD	'	<b>'</b>		2.
	(c) Minor river improvement	MOWD	8	16	8	16
	(b) Long-term improvement of	TARDA/	5	10	5	10
	Lower Tana river	MOWD				;
L					<u></u>	

Note: See last page of table

Table 7.1 Estimated Manpower Requirement (2/3)

(unit: person)

		· · · · · · · · · · · · · · · · · · ·				person)
1		Relevant			Addition	
1	Work	Agency	Engineer		<del> </del>	Assistant
			2000	2010	2000	2010
						·
Further Sta	udy Programme					
1. Stu	dies and Design of Individual Projects					
(a)	Water Supply	MOWD, etc.	36	40	72	79
(b)	Sewerage	MOLG. etc.	3	3	6	6
(c)	Irrigation	MOA, etc.	4	4	8	8
(d)	Livestock	MOLD, etc.	3	6	7	11
(e)	Hydropower	MOE, etc.	4	4	8	8
(f)	River and flood conrol works	MOWD	5	5	10	10
2. Riv	er Basin Studies	RBDA	4	-	10	-
	oundwater Resources Study Urban Water Supply	MOWD	10	-	19	•
4. Dis	tict Water Resources Study	MOWD	9	-	18	
5. Dat	a Collection and Water Management					
(a)	Surface water management	MOWD				
	- Hydrological data management		2	4	3	6
	<ul> <li>Water abstraction permit data management</li> </ul>		4	8	6	12
	- Water use monitoirng and control		10	45	20	90
(b)	Groundwater resources	MOWD	3	6	4	8
	data management					
(c)	Water quality and pollution control	MOWD				
}	<ul> <li>Water quality monitoring programme</li> </ul>	1	5	45	10	60
	<ul> <li>Water quality standards</li> </ul>		2	2	2	2
	- Water pollution control		10	45	20	90

Note: See last page of table

**Table 7.1** Estimated Manpower Requirement (3/3)

(unit: person)

		Date	T T	) <i>(</i>	***************************************	person)
	XX	Relevant			r Addition	····
	Work	Agency	Engineer			Assistant
			2000	2010	2000	2010
(d)	Domestic/industrial water	MOWD	_	_		_
	supply facilities inventory					
(e)	Irrigation inventory/water use	MOA	_	-	_	
(f)	Livestock and wildlife	MOLD			_	
	water facilities inventory	MOTW				
						]
(g)	Hydropower resources study	MOE.	_	-	-	-
(h)	River and flood control	MOWD				
(11)	River and nood condor	MOVD				_
(i)	Environmental studies	NES	1	2 ·	1	3
	<ul> <li>Regional environmental studies</li> </ul>					
	- Environmental guidelines		2	2	2	2
	· ·					
						_
	Total		234	424	525	956
			,			
		,				

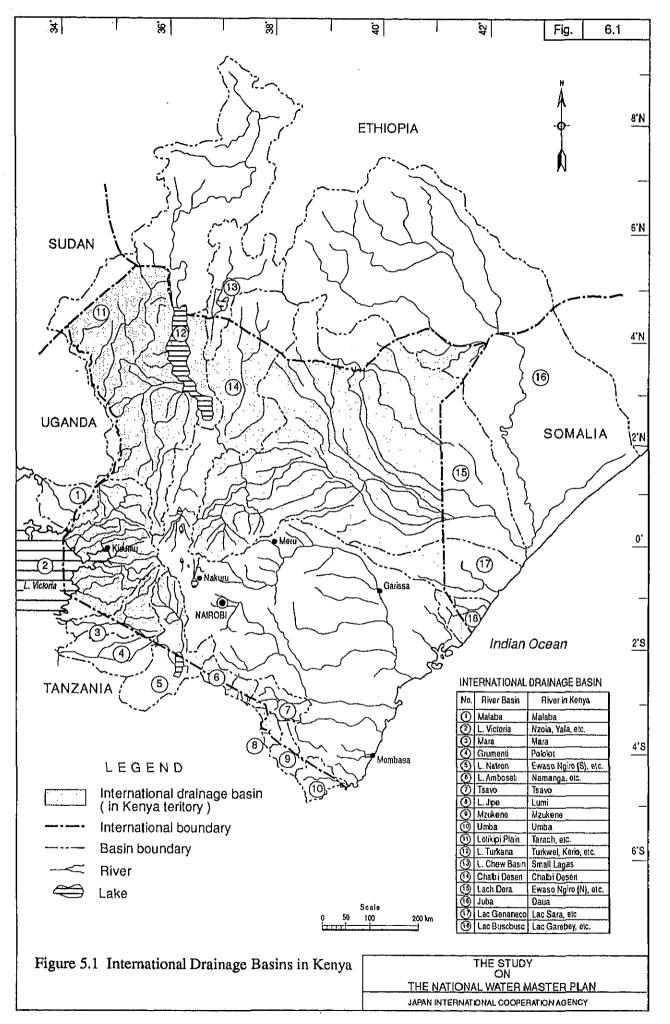
Notes: [1] RBDA: River basin development authorities

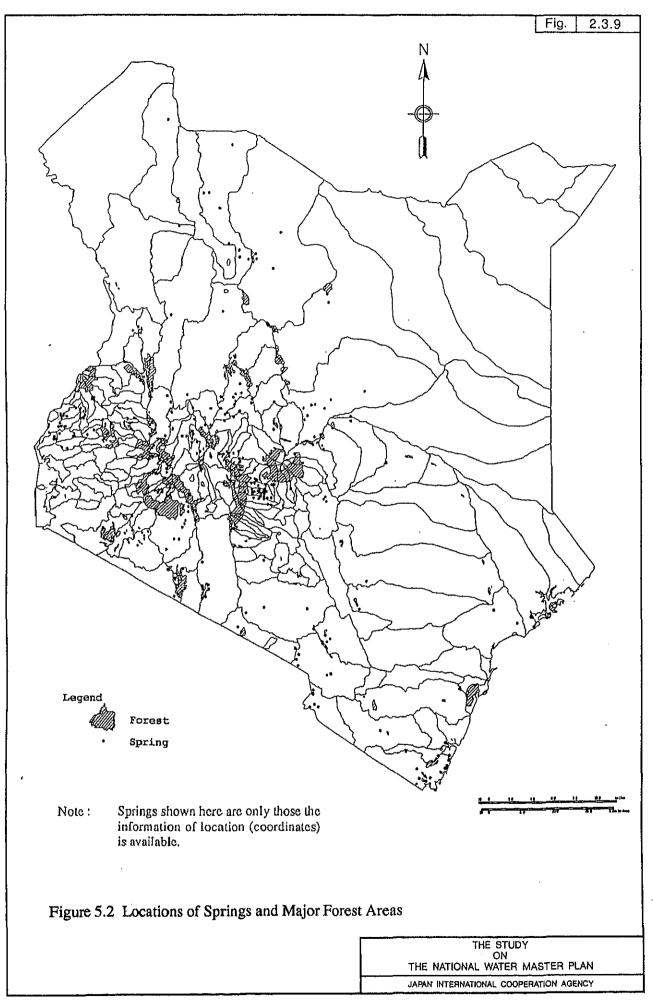
[2] The above estimate is based on an assumption that the following number of supervisory/management staff would be required per implementation of the annual works/duties amounting US\$ 1 million:

	Implementation	Studies
Engineer/Officer	0.2	1.5
Technical assistants	0.6	3.0

However, separate estimates were made for those items not falling in the above two categories.

**FIGURES** 





## **APPENDIXES**

## APPENDIX 1

## ANNUAL BUDGETARY SCHEDULE BY SCHEME

(Basic Case: Full Development meeting Whole Demands)

Appendix 1.1	Annual Budgetary Schedule by Dam Schedules	<u>Page</u> A.1-1
Appendix 1.2	Annual Budgetary Schedule by Urban Water Supply Schemes	A.1-2
Appendix 1.3	Annual Budgetary Schedule by Sewerage Development	A.1-4
Appendix 1.4	Annual Budgetary Schedule by Irrigation Projects	A.1-6
Appendix 1.5	Annual Budgetary Schedule by Hydropower Projects	A.1-7
Appendix 1.6	Annual Budgetary Schedule by Flood Control Projects	A.1-8
Appendix 1.7	Annual Budgetary Schedule by Urban Drainage and River Improvement Projects	A.1-9

Appendix 1.1 Annual Budgetary Schedule by Dam Schemes

1100 Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurchein   Nurc	;	4	Total Mana	Miner of Part		1000						(0000				Total
11.1   Karmi   Kizuchas   345 94 95 96 97 98 99   00 01 10 05 07 08 07 108 10 10 10 10 10 10 10 10 10 10 10 10 10	Ì	3		INTEREST OF LAKE	1	RI .		╀				糽 .		ļ		401
1100 Nairobb Nahanga Rairo-A, Chanish 3, 44600   44920   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277   113277	Code				- 1		ŀ		5	8			ı	Į	1	(028,000)
211.1         Kareni         Kambaa         3,006           212.6         Kizubu         1,702         8,250         .           214.4         Maleis         Karen         1,702         .           34.0         Moorehsea         Maradii, Pemba         97,013         .         .         25,117           44.2         Addii River         Upper Ahii         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .         .	U- 1	110.0		Ndarugu, Ruiru-A, Chania-B	34,060				48,92		12				· · · · · · · · · · · · · · · · · · ·	196,507
1114         Kimuhu         Kizumbu         1,772           3144         Malaya         8,250         35,117           3144         Malaya         Rabaya         35,117           340.0         Monthasa         Mwadal Pamba         97,013         35,117           44.2         Ahli River         Upper Addi         36         519           61.1         Magas         Banyamyu         3,050         3,550           61.2         Kariat         Banyamyu         2,366         3,550           62.3         Kirama & Kibosa         Kibos         2,369         3,550           77.1         Loodiani         Loodiani         1,195         2,340         31,910           74.1         Navan         Makewa         1,152         2,343         31,910           74.2         Nivan         Makewa         1,152         2,343         31,910           74.2         Nivan         Makewa         1,152         2,343         31,910           74.1         Nivan         Jane         1,422         2,343         31,910           74.2         Nivan         Jane         1,422         2,343         32,90           74.2         Niac				Kiambaa	3,006											3,006
146 Kikaye         Kikaye         \$250         33.117           344 Akliwich         Kare         97,013         3.5117         1.100           442 Akliwich         Kare         97,013         3.5117         1.100           611.2 Amaps         Banyunyu         56         5.519         1.100           611.2 Amaps         Banyunyu         56         2.00         1.100           612.3 Kizuri         Banyunyu         23,856         3.558         3.558           613.4 Kizuri         Londiani         24,86         3.550         2.943         31,910           727.1 Londiani         Nydaruru         Nydaruru         Nydaruru         1.105         2.450         2.943           744.1 Nivivaha         Malewa         1.105         2.450         2.943         31,910           744.1 Nivivaha         Malewa         1.172         2.45         2.240           744.1 Nivivaha         Inac         1.172         2.45         2.240           744.1 Nivivaha         Inac         1.172         2.45         2.240           744.1 Nivivaha         Inac         1.172         2.45         2.240           744.2 Nivivah         Inac         1.172         2.45				Kiambaa	1,702											1,702
34.4 Malindi         Alaindi         Alaindi         35.117         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100         1.100	u- 9			Kikuyu		8,250	1									8,250
44.23         Akhi River         Mwachi, Pembh         97,013         1,100           44.23         Akhi River         Upper Akhi         97,013         1,100           61.12         Manga         Banyumya         56         1,200           61.20         Kiri         Banyumya         2,386         3,586           62.21         Kisti         Banyumya         2,386         3,580           727.1         Londiani         Londiani         Londiani         1,097           727.1         Londiani         Londiani         Londiani         1,097           74.1         Niyahumu         Malewa         1,195         1           74.2         Niyahumu         1,197         1           74.1         Niyahumu         1,197         1           74.2         Niyahumu         1,197         1           74.1         Niyahumu         1,195         1           74.2         Niyahumu         1,195         1           74.2         Niyahumu         1,195         1           74.2         Niyahumu         1,195         1           74.2         Niyahumu         1,105         1           74.2         Niyahumu </th <th>U- 26</th> <th></th> <th></th> <th>Rare</th> <th></th> <th></th> <th></th> <th>35,11</th> <th>7</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>35,117</th>	U- 26			Rare				35,11	7							35,117
4423         Athi Kiver         Upper Athi         56         519           6112         Manga         Banyanyu         56         6.519           6113         Karreka         Banyanyu         270         3.08           6213         Karreka         Banyanyu         23.86         3.458           6223         Kithor         Londani         2.386         2.386         31.910           723         Nyahurun         Nyahurun         1.08         2.386         31.910           7421         Londani         Malewa         1.195         2.943         31.910           7441         Nivacha         Malewa         1.195         2.943         31.910           7441         Nivacha         Malewa         1.195         2.943         31.910           7441         Nivacha         Malewa         1.195         2.943         31.910           7441         Nivacha         Inne. Malewa         1.172         2.943         31.910           7442         Malewa         1.105         2.242         2.946         2.943         2.940           7475         Bidoret         Mochen         1.1725         2.422         2.943         2.943         2.943 <th>U- 32</th> <th></th> <th></th> <th>Mwachi, Pemba</th> <th>97,013</th> <th></th> <th></th> <th></th> <th>1,10</th> <th>0</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>98,113</th>	U- 32			Mwachi, Pemba	97,013				1,10	0						98,113
611.2         Managa         Bunyunyu         56           611.5         Kereda         Bunyunyu         270           615.5         Kisisi         Bunyunyu         23,836           615.5         Kisisi         Bunyunyu         23,836           727.1         Lodhari         Lodhari         Lodhari           743.2         Gilgil         Malewa         1,195           744.1         Nivoraha         Malewa         1,195           744.1         Nivoraha         Malewa         1,195           747.2         El Burgon         Inare         1,195           747.3         El Burgon         Inare         1,195           747.4         Molor         Inare         1,195           747.5         Eldoret         Molor         1,172           752.1         Nixeu         Upper Nanck         1,172           752.1         Nixeu         Upper Nanck         1,172           814.5         Eldoret         Molber         20,000           814.5         Interpretation         1,172           814.6         Interpretation         1,172           814.6         Interpretation         1,172           814.7				Upper Athi				6,51	σ.							615,9
611.5         Kerokat         Bunyumyu         270           615.0         Kisii         Bunyumyu         3,958           622.1         Kisii         Bunyumyu         23,856           727.1         Londiani         Londiani         2,943           733.9         Mishurum         Mishurum         1,195           744.1         Nivasha         Malewa         1,195           745.1         Jise         1,195         A           747.2         Elbugon         Iare         1,472           747.3         Molo         Iare         1,472           747.4         Molo         Iare         1,472           747.5         Eldone Nairum         1,722         A           747.5         Eldone Nairum         1,722         A           747.5         Eldone Ravine         Operando         13,779           747.5         Eldone Ravine         Chemasusu         13,779           812.4         Estabunet         Chemasusu         20,000           812.4         Estabunet         Chemasusu         20,000           822.4         Isantumin         Mochen         20,000           732.4         Ramunut         4,210				Вшушуп			56								, <del></del>	56
652.2         Kisimu & Kiboswa         Modern         23,836         3,938           727.1         Londiani         Londiani         54,550         2,943         31,910           727.1         Londiani         Moderna         Moderna         Moderna         1,195         A           744.1         Nivora         Inar         1,195         A         A           747.1         Hill         Inar         1,195         A         A           747.2         Hill         Inar         1,195         A         A           747.3         Hill         Inar         1,172         A         A           747.5         Hill         Modern         Inar         A         A           747.5         Hill         Modern         Inar         A         A         A           747.5         Hill         Modern         Inar         A         A         A         A           747.5         Hill         Modern         Inar         A         A         A         A         A         A         A         A         A         A         A         A         A         A         A         A         A         A         A<				Bunyunyu			270									270
52.2 Kisumu & Kiboswa         Kibos         24.836         A.550           727.1 Londiani         Londiani         Londiani         2.943         31,910           742.1 Londiani         Malewa         A.550         31,910         A.510           744.1 Naivasha         Malewa         1,195         A.550         A.510         A.510           744.1 Naivasha         Malewa         1,195         A.520         A.520         A.520           744.1 Naivasha         Inare         1,195         A.520         A.520         A.520           747.2 El Burgoon         Inare, Malewa         1,472         A.520         A.520         A.520           752.1 Naivet         Inare, Malewa         17,125         A.520         A.520         A.520           812.5 Kabamet         Moiben         13,779         A.520         A.520         A.520           815.1 Mogoio         Chemususu         20,000         A.560         A.560         A.560           822.4 Inti-Tambach         Moiben         20,000         A.560         A.560         A.560           753.4 Kakameg         Malembari         4310         A.756         59,798         71,968         50,000         113,527         47,628         0				Bunyunyu			3,958									3,958
727.1         Londiami         54,550         2,943         54,550         594           733.9         Nyahururu         Nyahururu         Nyahururu         31,910         31           744.1         Naivasha         Malewa         1,195         2,943         31,910         31           744.1         Naivasha         Malewa         1,195         2         4         10,478         10           744.1         Niavasha         Inare         1,195         2         4         10,478         10           744.1         Niavasha         Inare         1,472         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2				Kibos		23,836										23,836
733.9         Nyaharurun         2943         31,910         2           743.2         Gilgil         Malewa         1,195         2,943         31,910         31           744.1         Naivasha         Malewa         1,195         2         4         10,478         10           744.1         Niave         Iare         1,195         2         2         4         1         1         1         1         1         1         1         1         1         1         1         1         1         2         2         2         2         2         1         1         1         1         1         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2         2				Londiani			54,550									54,550
743.2         Gligli         Malewa         31,910         31           744.1         Naivasha         Malewa         1,195         1         10,478         10           746.1         Nivor         Itare         1,633         1         1         1           747.2         Molo         Itare         1,472         2         2         2         1           749.0         Nakun         Itare, Malewa         17,125         2         2         2240         22           772.1         Narok         Usper Nurok         13,779         2         2         2         2           813.5         Eldoret         Mospien         20,000         13,779         2         2         2         2           814.5         Eldoret         Mospien         20,000         3,590         2         2         2         2           815.1         Mogosio         Chemususu         945         3,590         8         3         3         3         3         3         3         3         3         4         4         4         4         4         4         4         4         4         4         4         4         4				Nyahurun				2,94	8						••••	2,943
746.1         Närvasha         Mälewa         1,195         1         10,478         10           746.1         Njöro         Itare         1,195         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         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         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         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1 <td></td> <td></td> <td></td> <td>Malewa</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>31,910</td> <td></td> <td></td> <td></td> <td>31,910</td>				Malewa								31,910				31,910
746.1         Njoro         lane         1,195           747.2         El Burgon         lane         1,633         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany         Accompany				Malewa								10,478				10,478
747.3         El Burgon         liare         1,673         Action         liare         1,472         Action         liare         1,472         Action         liare         1,472         Action         liare         1,472         Action         liare         1,472         Action         liare         1,472         Action         liare         17,125         Action         liare         17,125         Action         liare         17,125         Action         liare         17,125         Action         liare         13,192         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action         Action				Itare		1,195										1,195
747.5       Molo       lare       1,472       3,240       22         749.0       Nakuru       lare, Malewa       17,125       5,240       22         752.1       Narok       Upper Narok       13,779       3,540       13         772.5       Eldoret       Molbern       13,779       3,590       3,590       3,590         815.1       Askamega       Mukulusi       4,310       3,590       3,590       3,590         733.4       Kakamega       Mukulusi       4,310       364       4,500       13,527       4,1628       0       0       577         733.4       Rumuruti       Rumuruti       155,781       72,545       59,798       77,968       50,020       113,527       47,628       0       0       577				Itare		1,633										1,633
749.0         Nakuuu         Inare, Malewa         17,125         13,192         5,240         22           752.1         Narok         Upper Narok         13,779         13,179         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192 </td <td></td> <td></td> <td></td> <td>Itare</td> <td></td> <td>1,472</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1,472</td>				Itare		1,472										1,472
752.1         Narok         Upper Narok         13,779         13,179         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,192         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,132         13,1				Itare, Malewa		17,125						5,240	•		<del></del>	22,365
772.5         Eldoret         Moiben         13,779           812.5         Kabarnet         Kirandich         20,000         16,607         16,607         16,607         16,607         16,607         16,607         16,607         16,607         16,607         16,607         16,607         16,607         16,607         16,607         16,607         16,607         16,607         16,607         16,607         16,607         16,607         16,607         16,607         16,607         16,607         16,607         16,607         16,607         16,607         16,607         16,607         16,607         16,607         16,607         16,607         16,607         17,608         16,607         17,608         17,608         17,608         17,608         17,608         17,608         17,608         17,608         17,608         17,608         17,608         17,708         17,708         17,708         17,708         17,708         17,708         17,708         17,708         17,708         17,708         17,708         17,708         17,708         17,708         17,708         17,708         17,708         17,708         17,708         17,708         17,708         17,708         17,708         17,708         17,708         17,708         17,708 </td <td></td> <td></td> <td></td> <td>Upper Narok</td> <td></td> <td></td> <td></td> <td>13,19</td> <td>2</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>13,192</td>				Upper Narok				13,19	2							13,192
812.5         Kabarnet         Kürandich         20,000         16,607         16,607         16           814.5         Eldama Ravine         Chemususu         3,590         16           815.1         Mogotio         Chemususu         945         3,590           822.4         Iten+Tambach         Moiben         964         4,310           935.4         Kakamega         Mukulusi         4,310           733.4         Rumurui         Rumurui         4,310           707AL         TOTAL         155,781         72,545         59,798         777,968         50,020         113,527         47,628         0         0         577				Moiben		13,779										13,779
814.5         Eldama Ravine         Chemususu         16,607         16,607         16           815.1         Mogotio         Chemususu         3,590         3           822.4         Iten+Tambach         Moiben         945         3           935.4         Kakamega         Mukulusi         964         4,310           733.4         Rumurui         Rumurui         4,310         4           TOTAL         TOTAL         155,781         72,545         59,798         77,968         50,020         113,527         47,628         0         0         577				Kirandich	20,000											20,000
815.1         Mogotio         Chemususu         3,590         3           822.4         Iten+Tambach         Moiben         945         4,310         964         4,310         4,310         4,310         4,310         4,310         4,310         4,310         50,020         113,527         47,628         0         0         577           TOTAL         TOTAL         155,781         72,545         59,798         77,968         50,020         113,527         47,628         0         0         577				Chemususu				16,60	1							16,607
822.4 Iten+Tambach         Moiben         945           935.4 Kakamega         Mukulusi         964           723.4 Rumurui         Rumurui         4,310           TOTAL         155,781         72,545         59,798         77,968         50,020         113,527         47,628         0         0         577				Chemususu				3,59	0							3,590
935.4 Kakamega Mukulusi 964 733.4 Rumuruti Rumuruti 155,781 72,545 59,798 77,968 50,020 113,527 47,628 0 0 577	U- 116			Moiben		945									•	945
733.4 Rumurui         Rumurui         4.310           TOTAL         155,781         72,545         59,798         77,968         50,020         113,527         47,628         0         0         57	U- 132			Mukulusi			*									964
155,781 72,545 59,798 77,968 50,020 113,527 47,628 0 0	U- 150		- 1	Rumuruti		4,310						ĺ				4,310
			TOTAL		155,781	72,545	59,798	77.96		1		47,628		0	0	577,267