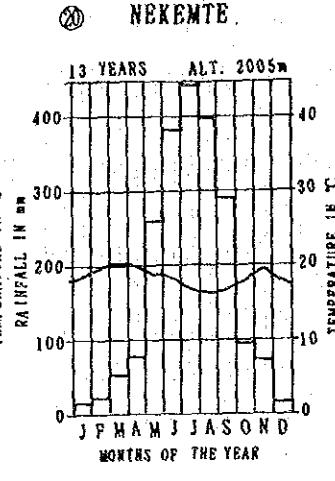
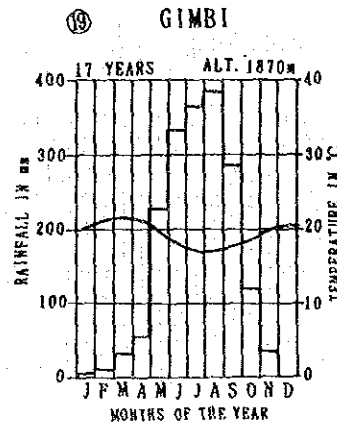
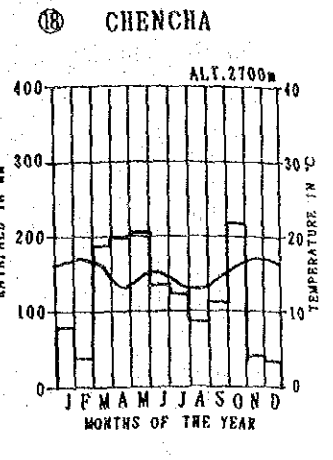
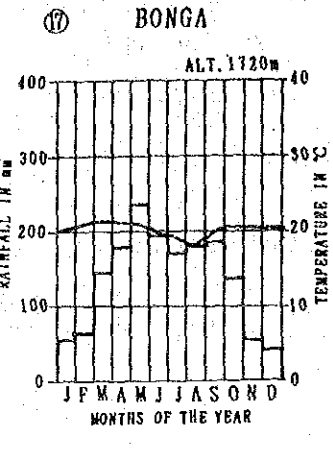
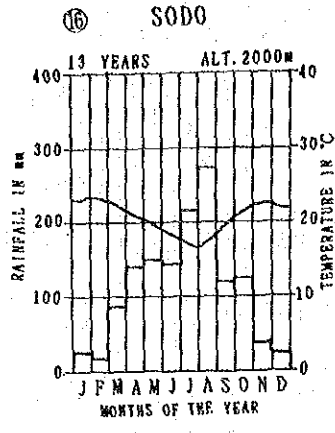
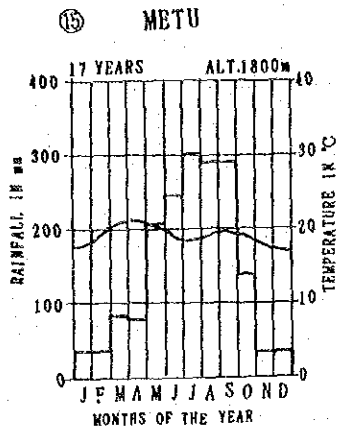
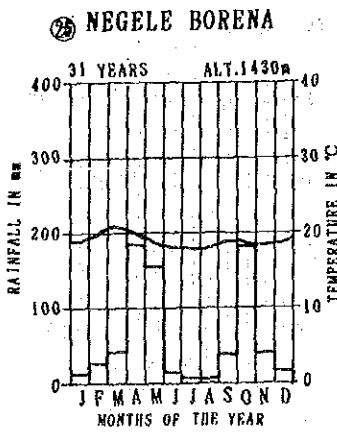
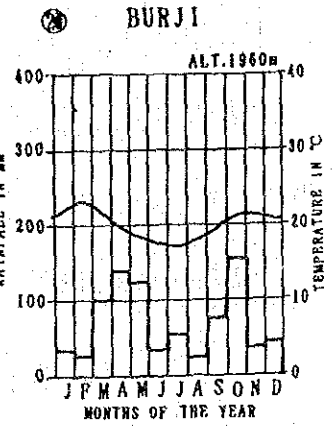
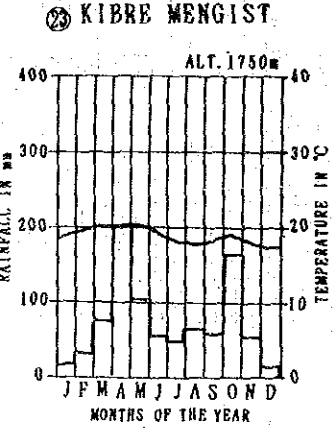
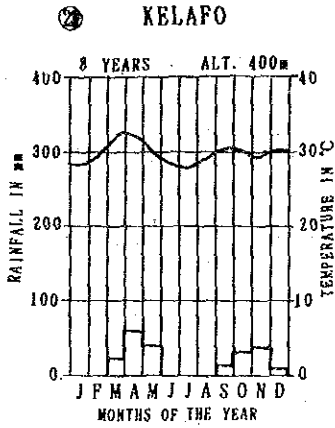
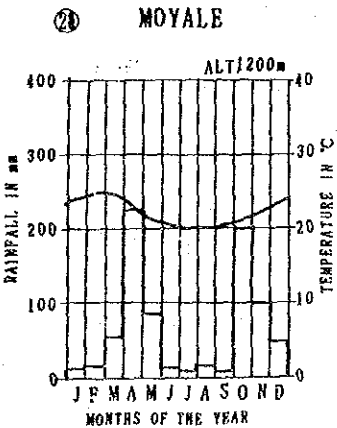


B-6 : Climatological Characters of Main Stations (2/2)

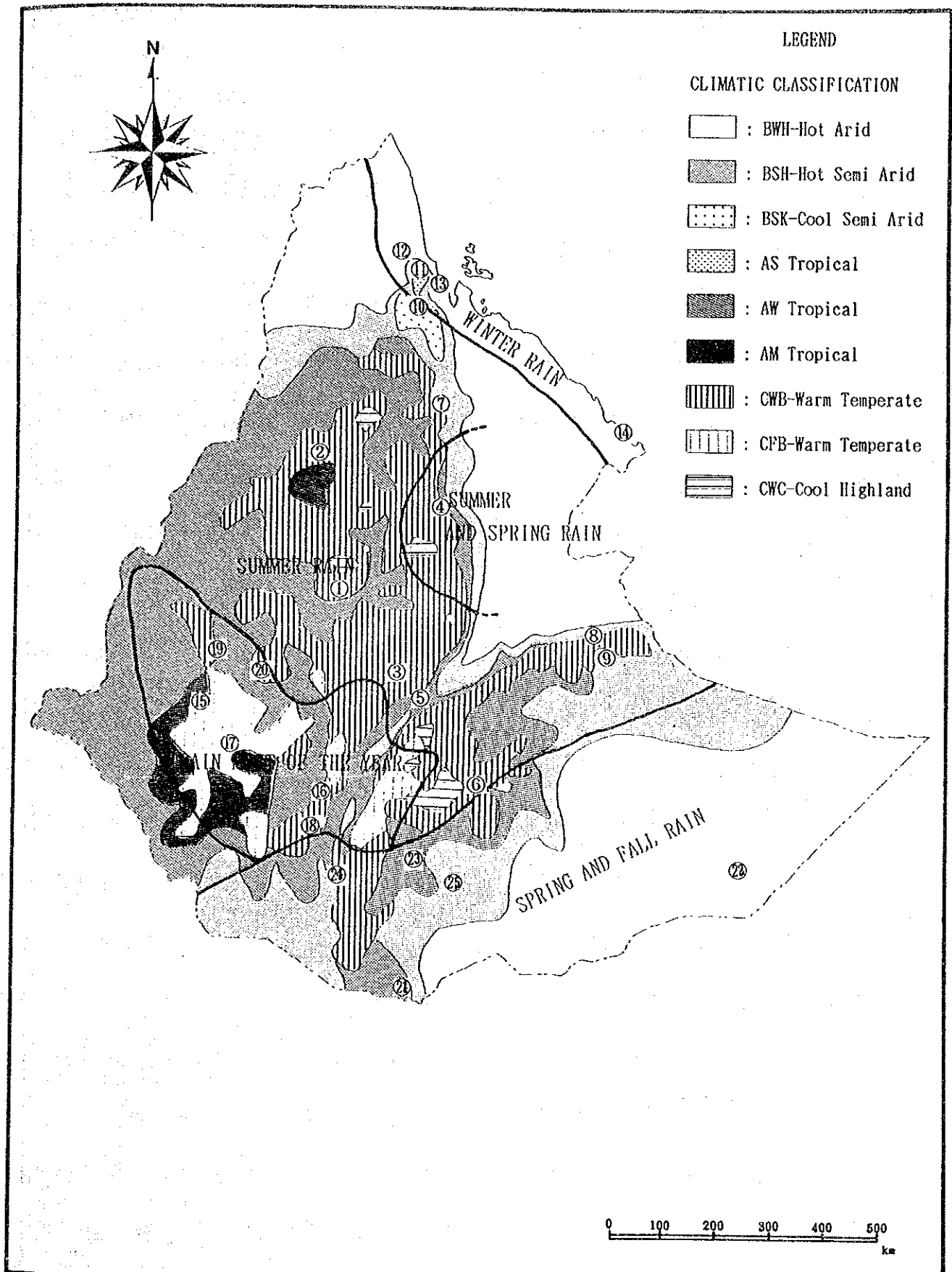
RAIN MOST OF THE YEAR



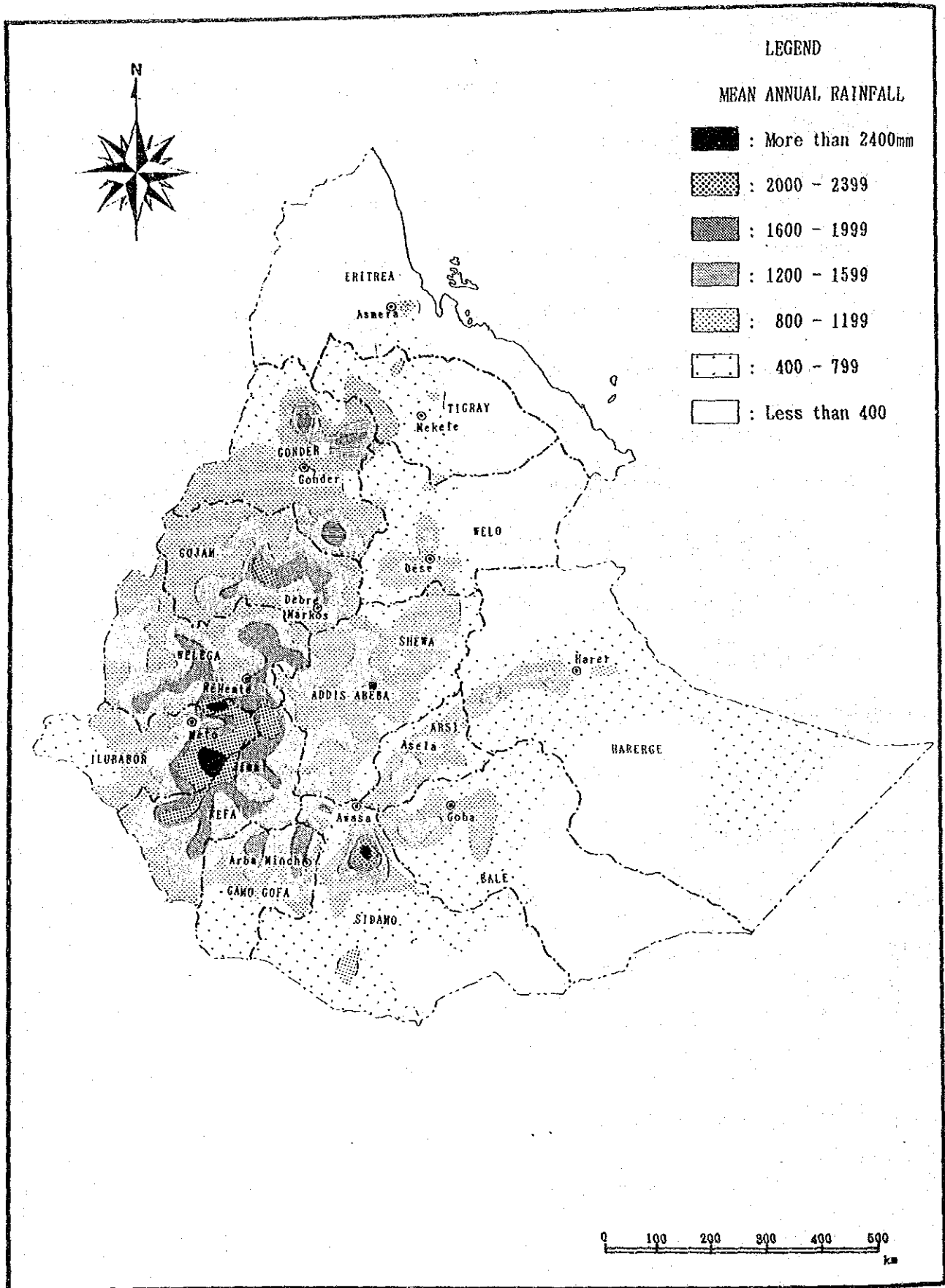
SPRING AND FALL RAIN



B-7 : Climatological Classification Map of Ethiopia



B-8 : Annual Rainfall Map of Ethiopia

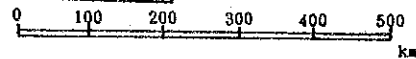


B-9 : Drainage System in Ethiopia



	Name of River	Catchment Area(km ²)	Length in Ethiopia	Length out Ethiopia	Total Length(km)	Direction of Drainage	Major Tributaries
1	Abay(Blue Nile)	198,508	800	560	1,360	the Nile	Besillo, Guder, Didesa, Dabus, Muger
2	Wabi Shebele	205,407	1,340	560	2,000	Somalia	Ranis, Erer, Gobele, Mojo
3	Genale	168,141	480	570	1,050	Somalia	Weyb, Mena, Wlenel
4	Awash	113,709	1,200	-	1,200	inside	Akaki, Kessema, Borkena, etc.
5	Omo	77,205	760	-	760	Kenya	Gojeb, Dincha, etc.
6	Tekeze	87,773	608	560	1,168	the Nile	Tirri, Chiba, etc.
7	Mereb	23,455	440	160	600	the Nile	Small seasonal streams
8	Baro	75,718	277	280	557	the Nile	Small seasonal streams
9	Angereb	-	220	120	340	Red Sea	Small seasonal streams

Sources : National Atlas of Ethiopia (EMA, 1988)



B-10 : Climatological Characteristics in the Project Area (1/4)

表 計画対象地域の気象概要表

No. 90

Station : Kombolcha L = 11° 05' A = 1,903m

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
Rain fall (mm/M)	44	40	66	77	57	48	283	257	127	34	18	18	1,069
Temp. (°C)	16.5	17.6	19.2	19.9	20.9	22.3	20.6	19.8	19.2	17.2	15.7	16.0	18.7
R. H. (%)	61.8	61.1	58.9	58.9	48.1	40.9	60.2	64.1	63.8	60.1	58.9	59.9	58.1
Sunshine (hr/d)	7.3	7.2	6.6	6.9	7.6	6.4	4.7	5.4	5.4	7.6	8.1	7.0	6.7

No. 74

Station : Gorgora L = 12° 15' A = 1,840m

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
Rain fall (mm/M)	2	9	2	21	71	227	312	282	128	36	10	1	1,101
Temp. (°C)	21.1	22.2	22.6	23.0	22.9	21.4	19.6	19.0	22.3	21.0	21.5	21.8	21.5
R. H. (%)	51.9	48.9	47.0	47.0	55.9	69.8	79.8	80.1	75.0	65.1	60.1	55.9	61.4
Sunshine (hr/d)	8.8	10.1	9.9	8.9	7.0	5.9	1.7	1.9	7.1	8.9	9.8	9.7	7.5

No. 1

Station : Abiy Adi L = 13° 32' A = 1,870m

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
Rain fall (mm/M)	5	1	21	10	43	96	240	304	22	11	4	10	767
Temp. (°C)	21.5	23.0	24.3	25.1	24.0	23.9	20.4	20.0	21.2	22.3	21.8	20.8	22.4
R. H. (%)	53.8	52.0	51.0	49.0	43.9	45.9	73.0	77.0	59.2	60.2	65.1	55.0	57.1
Sunshine (hr/d)	10.9	11.2	10.6	10.7	10.3	9.3	5.5	4.4	9.1	10.6	10.8	10.8	9.5

No. 6

Station : Adigrat L = 14° 16' A = 2,457m

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
Rain fall (mm/M)	6	5	42	54	42	38	139	154	17	14	31	10	552
Temp. (°C)	14.8	15.9	16.6	18.8	17.6	18.0	17.1	16.3	15.8	14.8	13.8	12.8	16.0
R. H. (%)	44.5	46.5	42.3	41.9	49.7	32.0	48.7	65.8	59.0	63.5	64.6	62.9	51.8
Sunshine (hr/d)	10.7	9.9	10.6	10.9	12.3	11.0	8.2	8.1	10.2	11.0	10.3	10.7	10.3

No. 95

Station : Maichew L = 12° 46' A = 2,380m

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
Rain fall (mm/M)	13	23	58	92	48	16	203	211	80	39	35	15	833
Temp. (°C)	14.6	14.6	16.3	17.3	18.8	20.4	18.5	18.1	17.1	15.0	15.4	14.2	16.7
R. H. (%)	54.1	51.7	51.2	49.1	43.8	45.9	72.8	77.0	59.0	49.8	53.1	54.9	55.2
Sunshine (hr/d)	9.2	10.2	10.0	9.7	10.4	9.5	7.3	6.8	8.3	10.4	10.3	10.2	9.4

No. 97

Station : Mckele L = 13° 30' A = 2,212m

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
Rain fall (mm/M)	4	9	22	34	28	36	183	205	33	2	4	3	563
Temp. (°C)	16.3	17.4	18.7	19.6	20.4	20.5	17.9	17.4	18.2	17.6	16.1	15.4	18.0
R. H. (%)	53.9	51.8	51.0	49.1	43.8	46.0	73.1	77.0	58.8	50.2	53.0	54.9	55.2
Sunshine (hr/d)	10.7	10.7	10.6	10.4	11.2	10.2	7.7	7.0	10.2	10.6	10.3	10.8	10.0

No. 10

Station : Adwa L = 14° 10' A = 1,980m

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
Rain fall (mm/M)	1	3	13	25	29	83	215	224	117	27	5	0	742
Temp. (°C)	16.8	17.8	20.4	21.8	21.9	20.2	18.4	18.9	18.8	18.6	18.3	16.7	19.1
R. H. (%)	52.8	49.1	47.1	50.9	47.9	49.0	78.9	80.1	59.9	60.2	65.1	61.0	58.5
Sunshine (hr/d)	10.9	10.9	10.8	10.9	11.6	10.6	6.6	4.8	9.8	11.0	11.1	10.0	9.9

No. 82

Station : Indaselasie L = 14° 06' A = 1,913m

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
Rain fall (mm/M)	3	1	2	22	50	133	322	294	129	16	15	0	987
Temp. (°C)	19.3	20.6	21.3	23.3	23.0	21.8	18.1	18.1	19.8	20.1	19.4	18.5	20.3
R. H. (%)	43.8	38.3	34.7	36.4	37.0	44.8	77.5	81.4	76.6	74.4	68.4	51.6	55.4
Sunshine (hr/d)	10.9	10.1	10.8	10.9	10.3	9.7	5.8	3.9	8.4	10.9	11.1	10.2	9.4

B-10 : Climatological Characteristics in the Project Area (2/4)

Station : Addis Zemen L = 12° 07' A = 2,020m

No. 5

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
Rain fall (mm/M)	6	2	0	11	32	110	355	319	129	51	13	4	1,032
Temp. (°C)	18.9	20.2	20.9	20.7	20.8	19.5	18.0	18.0	18.4	19.0	18.9	19.0	19.4
R.H. (%)	52.2	49.0	46.9	47.1	56.2	70.1	79.9	79.9	75.1	65.1	60.0	56.0	61.5
Sunshine (hr/d)	8.8	10.0	9.8	8.8	7.0	5.5	1.3	1.5	6.8	8.9	9.8	9.5	7.3

Station : Alamata L = 12° 31' A = 2,220m

No. 15

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
Rain fall (mm/M)	32	42	195	85	37	8	159	180	37	17	18	31	841
Temp. (°C)	19.4	20.0	21.5	21.8	24.0	25.5	23.6	22.4	22.7	21.6	20.4	19.3	21.9
R.H. (%)	58.1	56.9	55.0	54.0	45.9	46.0	73.1	77.1	59.1	55.0	53.0	54.9	57.3
Sunshine (hr/d)	8.4	10.1	9.3	9.2	9.8	9.1	6.6	6.6	6.7	9.8	9.7	9.5	8.7

Station : Mendi L = 9° 47' A = 1,650m

No. 99

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
Rain fall (mm/M)	4	6	26	67	164	303	307	309	302	129	29	6	1,652
Temp. (°C)	20.6	21.8	22.7	22.7	21.1	19.5	18.4	18.8	19.1	19.3	19.6	19.9	20.3
R.H. (%)	47.8	47.1	47.8	50.0	73.9	82.0	83.1	83.9	77.8	72.8	65.8	55.9	65.7
Sunshine (hr/d)	9.0	8.8	6.0	8.5	5.5	4.3	3.7	2.1	5.7	7.1	7.3	8.4	6.4

Station : Nejo L = 9° 30' A = 1,800m

No. 111

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
Rain fall (mm/M)	5	13	31	70	184	340	322	350	319	116	33	5	1,788
Temp. (°C)	19.8	21.1	21.8	21.5	19.8	18.3	17.4	17.5	17.9	18.6	18.8	19.3	19.3
R.H. (%)	48.1	47.2	47.9	49.9	74.0	81.8	83.0	84.0	78.0	72.8	65.9	55.8	65.7
Sunshine (hr/d)	9.1	9.1	2.4	8.5	2.3	4.1	3.2	1.9	5.7	7.1	7.6	8.4	5.8

Station : Bati L = 11° 13' A = 1,660m

No. 32

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
Rain fall (mm/M)	38	21	60	92	38	32	184	183	95	17	22	28	810
Temp. (°C)	18.2	20.0	19.6	20.3	21.5	23.1	20.6	19.0	20.8	21.0	19.9	19.9	20.3
R.H. (%)	62.2	61.2	59.2	58.8	48.0	41.0	60.2	64.2	63.9	59.9	58.9	59.8	58.1
Sunshine (hr/d)	7.4	7.2	6.7	7.0	7.7	6.4	4.8	5.5	5.6	7.6	8.1	7.1	6.8

Station : Walidia L = 11° 49' A = 1,960m

No. 120

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
Rain fall (mm/M)	40	42	79	108	97	28	220	256	85	47	47	24	1,073
Temp. (°C)	16.1	16.8	16.8	18.2	19.0	19.5	20.2	19.6	19.3	17.4	16.1	16.3	17.9
R.H. (%)	61.7	61.1	59.0	58.8	47.8	41.0	60.0	64.0	65.9	59.9	59.0	59.9	58.0
Sunshine (hr/d)	7.0	8.0	8.8	8.4	8.2	7.3	4.6	5.9	5.4	8.4	8.3	8.0	7.4

Station : Degehabur L = 8° 09' A = 1,000m

No. 50

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
Rain fall (mm/M)	6	1	34	79	68	28	5	12	43	61	12	1	350
Temp. (°C)	23.7	25.0	26.7	26.9	26.7	25.5	24.6	25.6	27.3	25.9	24.7	24.9	25.6
R.H. (%)	58.0	55.9	54.0	62.1	66.0	64.1	66.0	66.1	63.1	64.9	60.1	59.1	61.6
Sunshine (hr/d)	10.6	9.4	8.8	5.8	7.0	7.4	6.5	7.3	7.8	7.0	8.4	9.0	7.9

Station : Dabat L = 13° 00' A = 2,685m

No. 44

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
Rain fall (mm/M)	8	1	6	14	141	199	331	304	163	61	21	5	1,254
Temp. (°C)	12.4	12.8	13.7	15.0	14.6	14.2	13.0	12.3	12.8	12.7	10.9	11.8	13.0
R.H. (%)	45.1	43.3	42.1	44.0	52.9	67.9	78.8	79.0	71.7	61.3	52.9	47.7	57.2
Sunshine (hr/d)	10.7	10.5	10.6	9.4	7.9	7.5	1.8	1.5	7.2	10.2	10.6	10.5	8.2

Station : Changni (Metekel) L = 10° 55' A = 1,720m

No. 41

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
Rain fall (mm/M)	11	44	1	23	151	302	358	490	326	184	13	6	1,909
Temp. (°C)	19.5	19.7	21.0	22.0	20.9	19.5	18.6	18.7	18.7	18.8	18.8	18.1	19.5
R.H. (%)	59.1	54.0	48.2	49.2	59.1	71.9	81.2	79.7	77.0	69.1	65.9	63.1	64.8
Sunshine (hr/d)	9.0	9.3	7.4	8.9	6.1	4.7	2.2	1.9	6.2	7.6	8.0	7.7	6.6

B-10 : Climatological Characteristics in the Project Area (3/4)

Station : Dembi Dolo L = 8° 30' A = 1,850m No. 51

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
Rain fall (mm/M)	7	28	70	129	197	170	165	120	163	96	31	19	1,195
Temp. (°C)	21.2	22.2	22.7	22.3	20.8	19.5	19.0	19.2	20.3	20.4	20.6	20.8	20.8
R.H. (%)	58.0	56.8	59.8	66.1	78.2	82.0	82.8	84.0	78.1	75.1	68.8	63.1	71.1
Sunshine (hr/d)	8.5	8.0	6.2	7.3	5.0	4.7	3.9	1.9	5.2	6.7	7.4	8.5	6.1

Station : Begi L = 9° 21' A = 1,722m No. 34

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
Rain fall (mm/M)	3	13	43	68	232	256	165	185	216	125	62	4	1,372
Temp. (°C)	20.9	22.1	22.8	21.9	20.0	18.5	18.2	18.6	19.6	19.2	19.4	19.7	20.1
R.H. (%)	48.1	47.0	47.9	49.9	74.0	82.2	82.8	84.0	78.0	72.8	66.1	55.8	65.7
Sunshine (hr/d)	9.1	8.3	6.2	8.3	5.5	4.7	3.9	2.4	5.6	7.0	7.4	8.4	6.4

Station : Debre Zeil (Bishoftu) L = 8° 44' A = 1,900m No. 49

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
Rain fall (mm/M)	11	25	41	58	45	88	231	229	110	18	6	4	866
Temp. (°C)	17.6	19.0	20.2	20.5	20.5	19.6	18.3	18.1	18.4	18.1	17.2	16.9	18.7
R.H. (%)	60.1	61.0	60.0	61.0	61.0	67.9	78.0	79.9	74.2	62.1	61.1	60.8	65.6
Sunshine (hr/d)	8.4	8.7	9.0	8.5	8.0	6.7	5.3	5.3	6.3	8.7	9.5	8.9	7.8

Station : Didesa L = 9° 00' A = 1,200m No. 53

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
Rain fall (mm/M)	4	6	3	55	195	257	269	227	222	168	65	8	1,479
Temp. (°C)	17.7	23.6	25.6	25.0	23.7	24.0	21.2	20.9	21.7	21.7	21.2	24.1	22.5
R.H. (%)	49.9	49.1	38.1	46.1	64.2	69.0	77.1	76.9	74.0	60.9	41.7	47.0	57.8
Sunshine (hr/d)	8.7	8.6	6.5	8.0	5.1	4.0	2.6	1.9	4.7	7.0	7.6	8.5	6.1

Station : Dangila L = 11° 17' A = 2,180m No. 45

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
Rain fall (mm/M)	3	24	35	33	85	227	345	347	237	91	63	12	1,502
Temp. (°C)	15.6	16.6	17.4	18.1	18.1	17.3	16.5	16.7	17.0	16.9	16.1	15.7	16.8
R.H. (%)	58.7	54.0	50.8	49.1	58.7	71.9	81.0	79.9	76.9	69.1	66.1	62.8	64.9
Sunshine (hr/d)	9.0	9.5	8.2	8.9	6.3	4.9	1.8	1.6	6.6	7.7	8.2	8.1	6.7

Station : Filiklik L = 10° 03' A = 1,800m No. 61

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
Rain fall (mm/M)	0	7	35	34	101	130	280	243	110	17	17	5	979
Temp. (°C)	20.7	21.9	22.8	22.9	22.3	20.6	17.6	17.2	17.9	19.2	19.7	19.7	20.2
R.H. (%)	50.0	49.1	49.0	55.9	52.0	65.1	77.0	79.0	72.1	53.9	51.0	48.8	58.6
Sunshine (hr/d)	8.0	8.0	6.6	6.8	8.0	6.0	3.2	3.2	4.9	7.6	10.0	9.0	6.8

Station : Chefa L = 10° 54' A = 1,600m No. 2

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
Rain fall (mm/M)	26	57	61	105	71	42	222	257	100	25	29	15	1,010
Temp. (°C)	17.6	20.0	22.2	22.3	22.3	24.7	22.6	21.5	21.8	20.7	19.9	17.9	21.1
R.H. (%)	60.1	59.9	59.0	59.0	53.1	44.0	59.8	65.9	63.9	56.9	55.1	56.1	57.7
Sunshine (hr/d)	7.3	7.2	6.6	6.9	7.6	6.4	4.7	5.4	5.4	7.6	8.1	7.0	6.7

Station : Gimbi L = 9° 05' A = 1,870m No. 67

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
Rain fall (mm/M)	5	8	34	59	234	345	373	396	299	127	38	2	1,920
Temp. (°C)	19.6	21.4	22.2	21.6	20.6	18.6	17.9	18.4	18.7	19.7	19.6	20.2	19.9
R.H. (%)	47.8	47.1	47.8	50.0	74.2	83.0	85.8	86.9	83.0	72.8	65.8	55.8	66.7
Sunshine (hr/d)	9.0	8.9	6.4	8.3	5.3	4.0	2.9	1.9	5.2	7.0	7.4	8.5	6.2

B-10 : Climatological Characteristics in the Project Area (4/4)

Station : Dese L = 11° 10' A = 2,540m No. 52

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
Rain fall (mm/M)	26	32	66	102	75	46	283	296	154	55	25	15	1,175
Temp. (°C)	13.8	14.8	14.1	15.5	15.8	16.8	17.0	16.3	15.4	14.2	12.5	12.7	14.9
R.H. (%)	62.1	61.2	59.0	59.0	47.9	40.8	59.9	64.2	64.0	59.9	58.6	59.9	58.0
Sunshine (hr/d)	7.1	7.0	6.6	7.0	7.6	6.3	4.6	5.1	5.2	7.6	8.0	7.0	6.6

Station : Bako Shewa L = 9° 07' A = 1,590m No. 29

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
Rain fall (mm/M)	16	29	61	69	130	199	269	198	151	55	34	16	1,227
Temp. (°C)	19.8	21.1	21.7	22.4	21.2	19.6	18.8	18.8	19.1	19.2	18.8	18.8	19.9
R.H. (%)	51.1	51.9	48.9	48.0	65.1	75.0	78.8	80.2	77.8	67.0	59.0	54.0	63.1
Sunshine (hr/d)	8.1	7.9	7.2	7.9	6.3	5.4	2.9	3.6	4.9	7.6	8.9	8.6	6.6

Station : Fincha L = 9° 32' A = 2,320m No. 62

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
Rain fall (mm/M)	18	33	51	70	124	237	364	352	205	96	50	10	1,610
Temp. (°C)	16.5	14.8	16.9	16.6	17.3	16.4	15.4	15.2	15.4	14.9	14.7	14.7	15.7
R.H. (%)	39.9	35.0	49.8	42.9	54.2	67.0	74.8	78.7	73.7	62.0	53.2	47.2	56.5
Sunshine (hr/d)	8.4	8.0	6.9	8.4	5.8	4.2	1.9	1.9	4.9	7.4	8.4	8.2	6.2

Station : Arjo L = 8° 45' A = 2,565m No. 19

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
Rain fall (mm/M)	22	16	111	128	191	290	283	311	357	120	21	36	1,886
Temp. (°C)	17.2	17.5	17.5	17.6	16.3	15.9	16.0	15.9	16.2	16.8	17.2	17.6	16.8
R.H. (%)	47.9	47.0	48.0	50.2	73.9	83.0	85.8	86.9	83.1	73.2	65.7	56.1	66.7
Sunshine (hr/d)	8.5	8.0	6.9	7.8	5.5	4.0	2.9	2.4	4.7	7.0	7.7	8.0	6.1

Station : Gidami L = 8° 58' A = 2,040m No. 65

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
Rain fall (mm/M)	82	9	74	56	190	381	273	142	234	198	41	4	1,684
Temp. (°C)	20.7	20.9	21.3	21.0	20.5	19.2	17.7	19.7	18.1	19.3	19.9	19.8	19.8
R.H. (%)	58.2	57.0	60.0	65.9	78.0	81.8	82.9	84.1	78.0	75.0	68.8	62.8	71.0
Sunshine (hr/d)	3.4	3.4	2.7	7.5	5.1	4.7	3.9	1.9	5.2	6.9	7.4	8.5	5.1

Station : Bahirdar L = 11° 36' A = 1,890m No. 27

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
Rain fall (mm/M)	4	1	7	23	90	186	459	411	211	94	29	6	1,521
Temp. (°C)	16.0	16.9	19.8	20.5	20.7	19.6	18.3	18.1	18.2	18.5	17.4	15.8	18.3
R.H. (%)	58.8	54.0	51.1	48.9	59.0	71.9	80.8	79.9	77.0	69.0	65.9	62.9	64.9
Sunshine (hr/d)	8.4	9.7	8.9	8.8	6.6	4.9	1.5	1.9	6.3	8.3	9.0	8.7	6.9

Station : Gonder L = 12° 32' A = 2,270m No. 72

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
Rain fall (mm/M)	5	7	18	43	88	162	330	307	120	51	28	13	1,172
Temp. (°C)	19.0	20.5	21.9	22.5	21.6	19.6	18.1	18.0	18.6	18.9	18.8	18.4	19.7
R.H. (%)	45.0	43.1	41.9	44.0	53.1	67.9	78.9	79.0	71.8	60.9	53.0	48.2	57.2
Sunshine (hr/d)	9.7	10.2	10.0	9.1	7.1	6.8	1.7	1.5	6.9	9.7	10.3	10.0	7.8

Station : Asosa L = 10° 04' A = 1,750m No. 23

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
Rain fall (mm/M)	0	0	31	32	118	189	207	208	207	103	21	0	1,116
Temp. (°C)	22.2	23.6	24.4	24.4	22.4	20.4	19.5	19.4	20.2	20.4	20.9	22.0	21.7
R.H. (%)	47.8	47.0	48.1	50.1	73.8	81.8	82.9	83.9	78.1	73.0	65.9	56.0	65.7
Sunshine (hr/d)	9.4	8.6	6.0	8.8	6.0	4.7	4.2	2.4	6.1	7.3	7.8	8.4	6.6

Station : Bambesi L = 9° 45' A = 1,450m No. 30

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
Rain fall (mm/M)	0	6	4	54	162	228	193	198	203	94	20	2	1,164
Temp. (°C)	21.7	23.1	23.3	21.3	21.6	20.4	19.9	19.9	19.9	20.2	17.5	20.3	20.8
R.H. (%)	45.0	39.9	37.1	36.1	36.0	41.1	65.0	69.0	55.0	47.0	49.0	47.9	47.3
Sunshine (hr/d)	8.9	8.2	6.0	8.6	5.9	4.8	4.0	2.4	5.7	7.1	7.5	8.2	6.4

C : Population

- C-1 : Regional Population Distribution by Sex in 1984**
- C-2 : Population Distribution by Age-groupe and Sex in 1984**
- C-3 : Population in Rural and Urban by Region in 1984**
- C-4 : Population Distribution Map in 1984**
- C-5 : Distribution of Economical Activity in 1984**
- C-6 : Literacy Rate in Rural/Urban Area by Region in 1984**

C-1 : Regional Population Distribution by Sex in 1984

No.	Administration Region 1984	Population			Male/Female Ratio	Remarks
		Male	Female	Total		
1	Arssi	830,882	831,908	1,662,790	99.88%	Project Area
2	Bale	503,193	514,143	1,017,336	97.87%	
3	Eritria	1,309,736	1,311,830	2,621,566	99.84%	
4	Gemo Gofa	641,085	628,392	1,269,477	102.02%	
5	Gojam	1,659,323	1,614,201	3,273,524	102.80%	
6	Gondar	1,542,698	1,476,211	3,018,909	104.50%	
7	Harargha	2,153,965	2,038,933	4,192,898	105.64%	
8	Illubabor	484,637	491,021	975,658	98.70%	
9	Keffa	1,256,642	1,222,315	2,478,957	102.81%	
10	Showa	4,027,371	4,074,955	8,102,326	98.83%	
11	Sidamo	1,918,327	1,894,748	3,813,075	101.24%	
12	Tigray	1,223,314	1,192,557	2,415,871	102.58%	
13	Wellega	1,243,873	1,234,552	2,478,425	100.76%	
14	Wello	1,891,959	1,854,185	3,746,144	102.04%	
15	Addis Ababa	685,221	737,761	1,422,982	92.88%	
16	Asseb A.	64,716	62,022	126,738	104.34%	
	Total	21,436,942	21,179,734	42,616,676	101.21%	

Note : A. : Administration

Source : C.S.A., The 1984 population and housing census, Dec. 1991

C-2 : Population Distribution by Age-group and sex in 1984

Age Group	Population			Age Group Ratio	Rural Population		
	Male	Female	Total		Male	Female	
1	under 1	608,940	596,231	1,205,171	4.06%	89.53%	89.41%
2	1-4	2,625,307	2,565,454	5,190,761	17.48%	88.77%	88.82%
3	5-9	3,228,919	2,937,383	6,166,302	20.76%	88.31%	87.14%
4	10-14	2,151,174	1,899,261	4,050,435	13.64%	84.14%	80.68%
5	15-19	1,404,085	1,370,431	2,774,516	9.34%	83.35%	78.15%
6	20-24	997,121	1,125,800	2,122,921	7.15%	86.14%	83.93%
7	25-29	909,323	1,204,109	2,113,432	7.12%	87.72%	86.00%
8	30-34	884,134	1,118,370	2,002,504	6.74%	84.21%	84.39%
9	35-39	913,442	967,798	1,881,240	6.33%	85.73%	83.92%
10	40-44	769,441	789,732	1,559,173	5.25%	86.68%	88.13%
11	45-49	604,330	525,971	1,130,301	3.81%	87.06%	86.65%
12	50-54	540,949	603,623	1,144,572	3.85%	88.10%	86.66%
13	55-59	377,676	326,342	704,018	2.37%	88.08%	81.96%
14	60-64	416,033	422,043	838,076	2.82%	90.09%	86.60%
15	65-69	265,550	210,236	475,786	1.60%	88.71%	82.18%
16	70-74	237,994	237,111	475,105	1.60%	90.34%	85.77%
17	75-80	122,939	89,109	212,048	0.71%	89.68%	84.05%
18	80-84	130,695	130,051	260,746	0.88%	91.81%	86.59%
19	80 more	102,356	77,659	180,015	0.61%	91.46%	84.91%
20	not stated	8,128	5,722	13,850	0.05%	66.88%	74.22%
	Total	17,298,536	17,202,436	29,701,293	100.00%	86.99%	85.18%

Source : C.S.A., The 1984 population and housing census, Dec. 1991

C-3 : Population in Rural and Urban by Region in 1984

Unit : No. & %

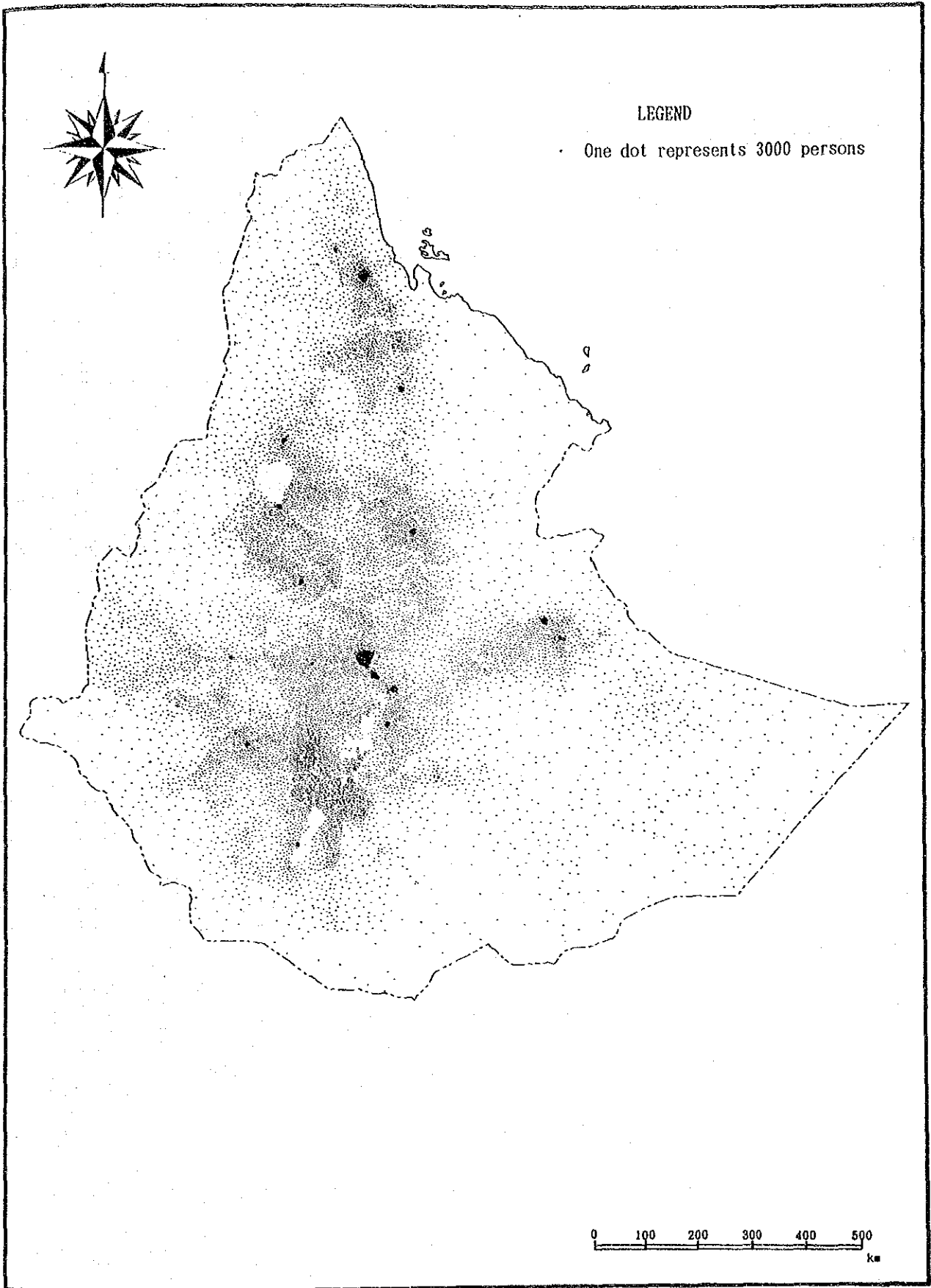
Region	Rural		Urban		Total	
	Number	%	Number	%	Number	%
Arrsi	1,533,199	92.2 (3.60)	129,591	7.8 (0.30)	1,662,790	100.0 (3.90)
Bale	938,020	92.2 (2.20)	79,316	7.8 (0.19)	1,017,336	100.0 (2.39)
Eritrea	2,238,251	85.4 (5.25)	383,315	14.6 (0.90)	2,621,566	100.0 (6.15)
Gamo Gofa	1,199,211	94.5 (2.81)	70,266	5.5 (0.16)	1,269,477	100.0 (2.98)
Gondar	2,786,449	92.3 (6.54)	232,460	7.7 (0.55)	3,018,909	100.0 (7.08)
Gojjam	3,014,968	92.1 (7.07)	258,556	7.9 (0.61)	3,273,524	100.0 (7.68)
Hararge	3,247,288	91.8 (9.03)	345,610	8.2 (0.81)	4,192,898	100.0 (9.84)
Illubabor	307,375	93.0 (2.13)	68,283	7.0 (0.16)	975,658	100.0 (2.29)
Keffa	2,226,090	93.8 (5.46)	152,867	6.2 (0.36)	2,478,957	100.0 (5.82)
Sidamo	3,562,886	93.4 (8.36)	250,189	6.6 (0.59)	3,813,075	100.0 (8.95)
Shewa	7,327,479	90.4 (17.19)	774,847	9.6 (1.82)	8,102,326	100.0 (19.01)
Tigray	2,174,894	90.0 (5.10)	240,977	10.0 (0.57)	2,415,871	100.0 (5.67)
Wellega	2,320,018	93.6 (5.44)	158,407	6.4 (0.37)	2,478,425	100.0 (5.82)
Wello	3,477,178	92.8 (8.16)	268,966	7.2 (0.63)	3,746,144	100.0 (8.79)
Addis Ababa	NA	0.0 (0)	1,423,182	100.0 (3.339)	1,423,182	100.0 (3.339)
Asseb	94,281	74.4 (0.22)	32,457	25.6 (0.08)	126,738	100.0 (0.30)
Total	37,717,587	88.6	4,869,289	11.4	42,616,876	100.0

Note : Number : Population includes estimated values of areas not covered in the census.

Percentages in () show distribution in national level.

SOURCE : The 1984 Population and Housing Census Dec. '91

C-4 : Population Distribution Map in 1984



C-5 : Distribution of Economical Activity in 1984

	Rural			Urban			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Agriculture, Forestry	7,513,746	5,308,815	12,822,561	95,461	28,378	123,839	7,609,207	5,337,193	12,946,400
Hunting & Fishery	51.4	36.3	87.7	0.7	0.2	0.8	52.0	36.5	88.5
	97.8	95.3	96.7	11.7	5.1	9.0	89.5	87.2	88.3
Mining & Quarrying	3,469	2,219	5,688	5,688	3,800	9,488	9,157	6,019	15,176
	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1
	0.0	0.0	0.0	0.7	0.7	0.7	0.1	0.1	0.1
Manufacturing	32,697	51,563	84,260	101,777	44,657	146,434	134,474	96,220	230,694
	0.2	0.4	0.6	0.7	0.3	1.0	0.9	0.7	1.1
	0.4	0.9	0.6	12.4	8.0	10.7	1.6	1.6	1.1
Construction	5,679	508	6,187	6,187	27,867	34,054	11,866	28,375	40,241
	0.0	0.0	0.0	0.0	0.2	0.2	0.1	0.2	0.2
	0.1	0.0	0.0	0.8	5.0	2.5	0.1	0.5	0.6
Electricity, Gas and Water	671	146	817	8,209	1,210	9,419	8,880	1,356	10,236
	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.1
	0.0	0.0	0.0	1.0	0.2	0.7	0.1	0.0	0.7
Wholesale, Retail Trade & catering	34,272	146,571	180,843	166,955	212,610	379,565	201,227	359,181	560,406
	0.2	1.0	1.2	1.1	1.5	2.6	1.4	2.5	3.1
	0.4	2.6	1.4	20.4	38.3	27.6	2.4	5.9	3.1
Transport. & Related Worker	4,372	4,617	8,989	48,417	4,461	52,878	52,789	9,078	61,867
	0.0	0.0	0.1	0.3	0.0	0.4	0.4	0.1	0.5
	0.1	0.1	0.1	5.9	0.8	3.8	0.6	0.1	0.7
Bank, Insurance & Business Service	290	288	578	8,419	2,665	11,084	8,709	2,953	11,662
	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.1
	0.0	0.0	0.0	1.0	0.5	0.8	0.1	0.0	0.9
Public Administration, Social Culture, Personal & Household Service	89,362	54,115	143,477	377,418	229,552	606,970	466,780	283,667	750,447
	0.6	0.4	1.0	2.6	1.6	4.1	3.2	1.9	5.1
	1.2	1.0	1.1	46.1	41.3	44.2	5.5	4.6	5.1
Total	7,684,558	5,568,842	13,253,400	818,531	555,200	1,373,731	8,503,089	6,124,042	14,627,131
	52.5	38.1	90.6	5.6	3.8	9.4	58.1	41.9	100.0
	100	100	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Note : Figures in brackets refer to percentages
 SOURCE : The 1984 Population and Housing Census Dec. '91

C-6 : Literacy Rate in Rural/Urban Area by Region in 1984

Unit : %

Region	Rural and Urban	Literacy Rate			Rank Order		
		Male	Female	Both	Rural	Urban	Total
Arrsi	Rural	37.2	15.8	26.5	2		
	Urban	77.6	59.2	67.6		7	
	Total	40.4	19.9	30.1			2
Bale	Rural	38.7	21.1	29.5	1		
	Urban	81.2	65.6	72.7		3	
	Total	43.3	26.5	34.5			1
Eritrea	Rural	-	-	-	-		
	Urban	78.9	60.7	68.6		5	
	Total	-	-	-			-
Gamo Gofa	Rural	13.7	4.5	9.1	12		
	Urban	73.5	52.9	62.4		14	
	Total	17.0	7.6	12.3			12
Gondar	Rural	24.8	8.6	16.8	9		
	Urban	76.8	55.2	64.2		12	
	Total	28.4	13.2	1.2			9
Gojjam	Rural	31.5	15.2	23.7	5		
	Urban	76.3	56.8	64.4		11	
	Total	35.6	21.4	28.6			3
Hararge	Rural	27.6	13.3	1.3	6		
	Urban	76.7	58.0	66.7		8	
	Total	33.9	1.8	27.2			5
Illubabor	Rural	33.0	15.0	23.8	4		
	Urban	80.0	58.0	68.6		5	
	Total	36.5	18.3	27.1			6
Keffa	Rural	19.2	7.7	13.5	11		
	Urban	77.5	58.9	67.7		6	
	Total	22.9	11.3	17.1			11
Sidamo	Rural	26.8	10.2	18.3	8		
	Urban	76.9	56.3	65.7		9	
	Total	31.7	15.3	23.2			7
Shewa	Rural	28.0	9.0	18.5	7		
	Urban	75.7	55.9	65.4		10	
	Total	31.3	12.5	21.8			8
Tigray	Rural	-	-	-	-		
	Urban	74.4	51.5	60.5		15	
	Total	-	-	-			-
Wellega	Rural	34.7	15.0	24.7	3		
	Urban	81.9	59.6	70.2		4	
	Total	37.8	18.1	27.8			4
Wello	Rural	21.9	10.6	16.3	10		
	Urban	73.9	54.7	62.5		13	
	Total	25.6	15.1	20.4			10
Addis Ababa	Rural	-	-	-	-		
	Urban	89.2	75.8	82.1		1	
	Total	-	-	-			-
Asseb	Rural	-	-	-	-		
	Urban	83.8	70.2	77.4			
	Total	-	-	-			-
Total	Rural	27.0	11.1	19.1	-		
	Urban	81.0	62.7	71.0		-	
	Total	34.6	19.6	27.0			-

SOURCE : The 1984 Population and Housing Census Dec. '91

D. : SOCIO-ECONOMY

- D-1 : Gross Domestic Product of Ethiopia**
- D-2 : Import and Export Amount by Category and Commodity**
- D-3 : Summary of Balance of Payment**
- D-4 : Government Expenditure**
- D-5 : Consumer Price Index (1980 = 100)**
- D-6 : Foreign Aids for Ethiopia**
- D-7 : Drought and Food Shortage Map**
- D-8 : Road Network Map**
- D-9 : Telecommunication Map**

D-1 : Gross Domestic Product of Ethiopia

Category	Current factor cost				
	1983/84	1984/85	1985/86	1986/87	1987/88
AGRICULTURE	4,070.2	3,915.8	4,354.5	4,317.9	4,326.7
Agriculture	3,840.2	3,673.2	4,109.2	4,060.3	4,056.3
Forestry	224.3	236.3	238.1	249.3	262.0
Hunting & Fishing	5.7	6.3	7.2	8.3	8.4
INDUSTRIES	1,476.4	1,495.0	1,595.7	1,737.0	1,775.4
Mining & Quarrying	12.3	15.1	15.3	12.3	13.5
Manufacturing	670.1	683.9	722.5	804.1	824.1
Handicraft & S-Scale Industry	339.1	339.1	350.4	365.2	375.4
Building & Construction	387.3	383.3	397.6	422.6	418.8
Electricity & Water	67.6	73.6	109.9	134.8	143.6
DISTRIBUTIVE SERVICES	1,562.4	1,576.1	1,754.4	1,769.9	1,789.4
Wholesale and Retail Trade	997.5	962.1	1,036.3	1,056.9	1,068.0
Transport & Communication	564.9	614.0	718.1	713.0	721.4
OTHER SERVICES	1,834.5	1,923.6	2,013.0	2,173.5	2,355.7
Banking, Insurance, Real Estate	286.5	312.6	339.2	378.5	449.7
Public Admi. & Defence	750.9	770.0	781.6	850.6	916.0
Ownership of Dwellings	223.9	230.3	238.2	246.1	255.1
Educational Services	253.1	281.5	302.7	330.8	351.7
Medical & Health Services	59.6	62.2	74.6	81.7	86.2
Domestic Services	70.1	70.8	71.6	72.4	73.1
Others	190.4	196.2	205.1	213.4	223.9
TOTAL	8,943.5	8,910.5	9,717.6	9,998.3	10,247.2
GDP per capita	89.8	89.5	97.6	100.4	102.9
Annual rate of growth					
	Constant factor cost of 1980/91				
AGRICULTURE	3,792.5	3,176.0	3,468.1	3,968.9	3,938.3
Agriculture	3,576.4	2,950.6	3,241.3	3,735.2	3,698.9
Forestry	210.8	219.9	220.6	226.6	232.3
Hunting & Fishing	5.3	5.5	6.2	7.1	7.1
INDUSTRIES	1,436.7	1,445.8	1,500.7	1,567.8	1,589.2
Mining & Quarrying	11.6	14.1	14.2	11.4	12.5
Manufacturing	657.5	667.7	703.3	744.7	760.9
Handicraft & S-Scale Industry	330.6	330.6	338.9	348.3	357.0
Building & Construction	362.5	353.0	358.7	371.5	359.1
Electricity & Water	74.5	81.2	85.6	91.9	99.7
DISTRIBUTIVE SERVICES	1,367.6	1,356.6	1,464.2	1,540.1	1,566.1
Wholesale and Retail Trade	938.4	887.4	938.6	1,013.2	1,014.6
Transport & Communication	429.2	469.2	525.6	526.9	551.5
OTHER SERVICES	1,718.3	1,757.8	1,821.4	1,916.6	2,029.3
Banking, Insurance, Real Estate	304.8	312.1	335.8	360.3	411.6
Public Admi. & Defence	659.3	665.8	672.5	710.6	746.5
Ownership of Dwellings	217.3	221.0	224.9	230.1	236.1
Educational Services	229.6	247.2	261.9	279.2	291.0
Medical & Health Services	56.9	58.8	68.1	72.4	74.6
Domestic Services	70.1	70.8	71.6	72.4	73.1
Others	180.3	182.1	186.6	191.6	196.4
TOTAL	8,315.1	7,737.0	8,254.4	8,993.4	9,122.9
GDP per capita	83.5	77.7	82.9	90.3	91.6
Annual rate of growth		-6.95%	6.69%	8.95%	1.44%
	Constant factor cost of 1980/91 in %				
AGRICULTURE	45.61%	41.05%	42.02%	44.13%	43.17%
Agriculture	43.01%	38.14%	39.27%	41.53%	40.55%
Forestry	2.54%	2.84%	2.67%	2.52%	2.55%
Hunting & Fishing	0.06%	0.07%	0.08%	0.08%	0.08%
INDUSTRIES	17.28%	18.70%	18.18%	17.43%	17.42%
Mining & Quarrying	0.14%	0.18%	0.17%	0.13%	0.14%
Manufacturing	7.91%	8.63%	8.52%	8.28%	8.34%
Handicraft & S-Scale Industry	3.98%	4.27%	4.11%	3.87%	3.91%
Building & Construction	4.36%	4.56%	4.35%	4.13%	3.94%
Electricity & Water	0.90%	1.05%	1.04%	1.02%	1.09%
DISTRIBUTIVE SERVICES	16.45%	17.53%	17.74%	17.12%	17.17%
Wholesale and Retail Trade	11.29%	11.47%	11.37%	11.27%	11.12%
Transport & Communication	5.16%	6.06%	6.37%	5.86%	6.05%
OTHER SERVICES	20.66%	22.72%	22.07%	21.31%	22.24%
Banking, Insurance, Real Estate	3.67%	4.03%	4.07%	4.01%	4.51%
Public Admi. & Defence	7.93%	8.61%	8.15%	7.90%	8.18%
Ownership of Dwellings	2.61%	2.86%	2.72%	2.56%	2.59%
Educational Services	2.76%	3.20%	3.17%	3.10%	3.19%
Medical & Health Services	0.68%	0.76%	0.83%	0.81%	0.82%
Domestic Services	0.84%	0.92%	0.87%	0.81%	0.80%
Others	2.17%	2.35%	2.26%	2.13%	2.15%
TOTAL	100.00%	100.00%	100.00%	100.00%	100.00%

Source : CSA, Statistical Abstract 1988

D-2 : Import and Export Amount by Category and Commodity

Import and Export Amount by Category and Commodity
in '000 Birr

Category	1984	1985	1986	1987
IMPORT				
Food and live animals	17,622	500,566	496,236	247,608
Beverages and tobacco	19,549	8,458	11,150	15,623
Crude materials, except fuels	43,264	67,588	51,652	49,790
Mineral fuels, lubricants etc.	360,491	302,824	211,685	226,314
Animal & vegetable oil	24,371	99,084	66,190	19,741
Chemical elements & components	205,971	150,433	247,247	262,659
Manufactured goods	290,210	275,790	299,472	323,002
Machinery & transport equipment	774,069	588,185	810,835	1,037,461
Misc. manufactured articles	61,550	53,512	84,087	97,111
Commodities & transaction	7	2	153	226
Total	1,797,104	2,046,442	2,278,707	2,279,535
EXPORT				
Food and live animals	619,710	486,496	782,290	504,638
Beverages and tobacco	1,891	369	356	1,042
Crude materials, except fuels	163,916	133,877	146,795	196,948
Mineral fuels, lubricants etc.	63,851	68,613	22,092	44,038
Animal & vegetable oil	5,260	1,632	1,406	1,416
Chemical elements & components	2,023	4,020	4,271	6,575
Manufactured goods	914	671	253	1,106
Machinery & transport equipment	45	11	88	17
Misc. manufactured articles	3,809	1,649	3,064	10,215
Commodities & transaction	1,158	1,374	714	1,210
Total	862,577	698,712	961,329	767,205
Ratio : import/export	208.34%	292.89%	237.04%	297.12%
Balance	-934,527	-1,347,730	-1,317,378	-1,512,330

Commodity	1985		1986		1987	
	Value	%	Value	%	Value	%
Main Export Commodities						
Live animals	18,982.7	2.72%	14,139.1	1.47%	25,850.8	3.37%
Vegetable fresh or frozen	14,602.3	2.09%	15,415.8	1.60%	29,039.8	3.79%
Sugar & honey	8,855.0	1.27%	10,891.9	1.13%	13,880.7	1.81%
Coffee	432,723.0	61.93%	733,757.5	76.33%	422,033.2	55.01%
Hides & skins, raw	111,196.7	15.91%	111,453.1	11.59%	129,128.3	16.83%
Oil seeds oleaginous fruits	9,109.4	1.30%	11,376.1	1.18%	18,894.5	2.46%
Crude vegetable materials	7,871.2	1.13%	19,253.6	2.00%	42,830.3	5.58%
Petroleum products	68,613.1	9.82%	22,091.9	2.30%	44,037.5	5.74%
Others	26,758.2	3.83%	22,948.8	2.39%	41,509.7	5.41%
Total	698,711.6	100.00%	961,327.8	100.00%	767,204.8	100.00%
Main Import Commodities						
Milk & cream	59,551.7	2.91%	59,991.8	2.63%	18,203.9	0.80%
Meat, unmilled	160,274.5	7.83%	166,959.5	7.33%	112,630.9	4.94%
Meal & Flour of wheat	135,670.3	6.63%	122,460.6	5.37%	57,525.7	2.52%
Petroleum, crude & part. refined	276,319.3	13.50%	151,374.4	6.64%	190,592.6	8.36%
Medical & pharmaceutical products	47,293.8	2.31%	67,201.4	2.95%	62,506.8	2.74%
Fertilizers, manufactured	28,845.2	1.41%	55,772.7	2.45%	51,692.1	2.27%
Telecommunication equipment	17,336.3	0.85%	42,942.5	1.88%	79,490.5	3.49%
Parts & accessories for vehicle	61,920.5	3.03%	96,980.9	4.26%	108,911.9	4.78%
Aircraft & parts	44,911.9	2.19%	33,497.2	1.47%	166,606.7	7.31%
Others	1,214,318.0	59.34%	1,481,526.4	65.02%	1,431,374.0	62.79%
Total	2,046,441.5	100.00%	2,278,707.4	100.00%	2,279,535.1	100.00%

Source : CSA, Statistical abstract 1988

D-3 : Summary of Balance of Payment

in million US\$

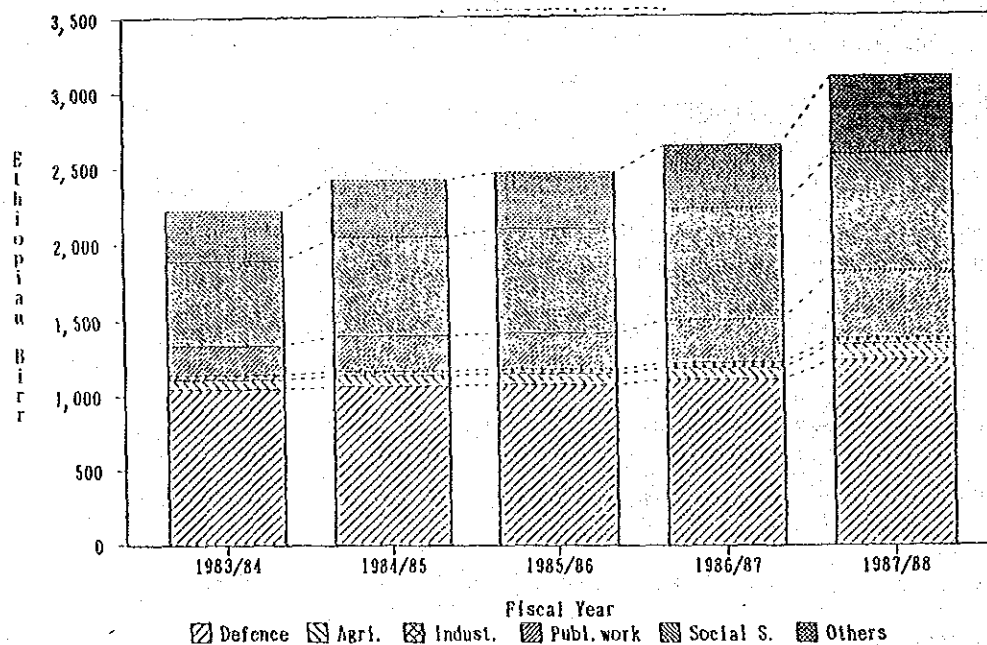
Category	1982	1983	1984	1985	1986	1987	1988
1. Merchandise : Export FOB	402.8	402.6	416.8	332.9	477.1	355.2	429.3
2. Merchandise : Import FOB	-675.2	-740.0	-798.4	-840.5	-932.6	-932.7	-956.0
3. Other goods, ser. & income: Cred.	176.5	169.6	210.3	313.6	277.9	318.7	275.7
4. Other goods, ser. & income: Deb.	-239.8	-252.9	-290.1	-310.6	-332.9	-366.4	-415.8
5. Private unrequired transfers	38.1	92.1	144.9	212.9	69.4	129.6	180.5
6. Official unrequired Trans.nie	102.4	158.1	186.1	397.7	113.7	278.0	261.6
7. Direct investment	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8. Direct investment, nie	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9. Other long-term capital, nie	69.5	207.4	194.6	175.2	240.6	292.8	292.9
10. Other short-term capital, nie	39.5	-35.9	29.6	49.8	-1.0	0.0	6.8
11. Net errors and omissions	10.8	-54.1	-150.6	-168.8	201.6	-182.8	-97.2
12. C' part to mon. deno. of gold	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13. Counterpart to SDR allocation	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14. Counterpart to valuation change	1.0	8.7	5.7	-11.6	-9.4	-32.7	3.9
15. Exceptional financing	0.0	0.1	1.2	0.0	0.0	0.4	0.0
16. Liab. const. fgn author. reserves	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total change in reserves	74.4	44.3	49.9	-150.6	-104.4	139.9	18.3

Source : UN, "Statistical yearbook 1987"

D-4 : Government Expenditure

Fiscal Year	in million Ethiopian Birr					in percentage				
	1983/84	1984/85	1985/86	1986/87	1987/88	1983/84	1984/85	1985/86	1986/87	1987/88
A. GENERAL SERVICE	1,205.3	1,239.0	1,255.0	1,294.6	1,426.0	54.18%	51.21%	50.87%	49.06%	46.04%
General government	84.2	94.4	96.7	104.1	107.8	3.78%	3.90%	3.92%	3.94%	3.48%
National defence	869.6	881.7	896.8	922.1	1,051.1	39.09%	36.44%	36.35%	34.94%	33.94%
Internal order & justice	174.1	178.8	176.9	182.3	181.5	7.83%	7.39%	7.17%	6.91%	5.86%
Foreign relations	19.7	21.1	21.6	22.7	22.7	0.89%	0.87%	0.88%	0.86%	0.73%
Finance & planning	57.7	63.0	63.0	63.4	62.9	2.59%	2.60%	2.55%	2.40%	2.03%
B. ECONOMIC SERVICES	161.4	167.4	169.1	178.4	205.2	7.25%	6.92%	6.85%	6.76%	6.63%
Agriculture	63.4	71.1	71.9	77.9	106.5	2.85%	2.94%	2.91%	2.95%	3.44%
Industry, commerce and mining	33.5	34.2	33.8	36.5	40.6	1.51%	1.41%	1.37%	1.38%	1.31%
Public works & communication	64.5	62.1	63.4	64.0	58.1	2.90%	2.57%	2.57%	2.43%	1.88%
C. SOCIAL SERVICES	555.2	643.0	679.5	719.8	763.2	24.96%	26.58%	27.54%	27.28%	24.64%
Education and culture	318.9	348.5	366.7	397.3	421.7	14.33%	14.40%	14.86%	15.06%	13.62%
Public health	100.1	109.5	115.7	125.8	133.4	4.50%	4.53%	4.69%	4.77%	4.31%
Social affairs	36.2	78.1	88.5	79.8	82.0	1.63%	3.23%	3.59%	3.02%	2.65%
D. PENSION EXPENDITURES	100.0	106.9	108.6	116.9	126.1	4.49%	4.42%	4.40%	4.43%	4.07%
E. PUBLIC DEBT	195.4	235.6	239.5	282.7	436.5	8.78%	9.74%	9.71%	10.71%	14.09%
Internal debt	132.0	143.5	136.1	133.2	209.6	5.93%	5.93%	5.52%	5.05%	6.77%
External debt	60.6	89.1	100.4	146.5	223.9	2.72%	3.68%	4.07%	5.55%	7.23%
Bank charges	2.8	3.0	3.0	3.0	3.0	0.13%	0.12%	0.12%	0.11%	0.10%
F. OTHERS	110.4	134.4	123.7	163.2	266.1	4.96%	5.56%	5.01%	6.18%	8.59%
TOTAL	2,224.8	2,419.3	2,466.9	2,638.8	3,097.1	100.00%	100.00%	100.00%	100.00%	100.00%
ANNUAL GROWTH		8.7%	2.0%	7.0%	17.4%					

SOURCE : CSA, Statistical abstract 1988



D-5 : Consumer Price Index (1980 = 100)

Year	All Items 全項目	Annual increment	Food 食料	Annual increment
1979	96		95	
1980	100	4.17%	100	5.26%
1981	106	6.00%	105	5.00%
1982	111	4.72%	111	5.71%
1983	112	0.90%	112	0.90%
1984	121	8.04%	124	10.71%
1985	144	19.01%	155	25.00%
1986	130	-9.72%	132	-14.84%
1987	127	-2.31%	124	-6.06%
1988	136	7.09%	133	7.26%

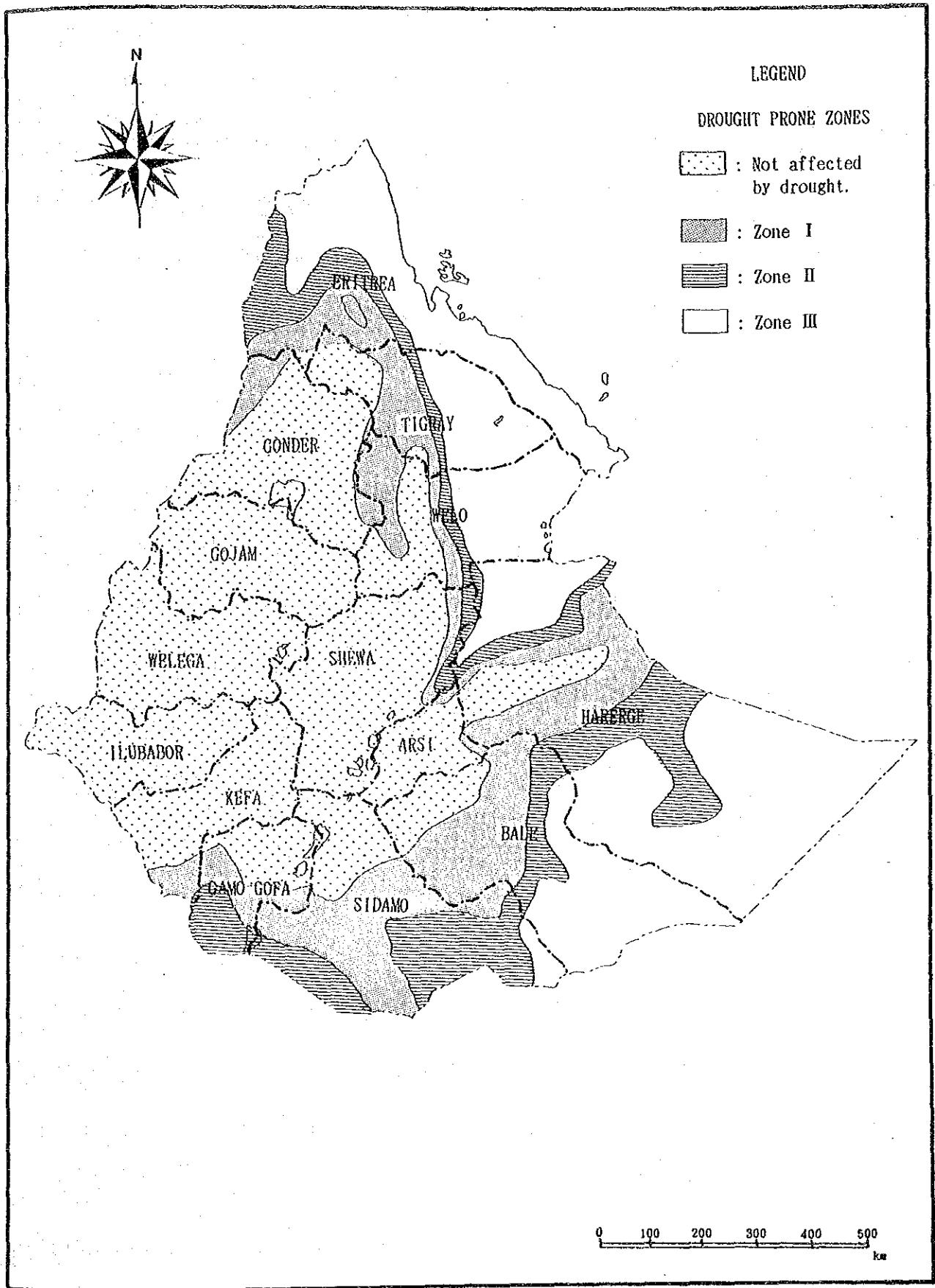
Source : United Nations, Statistical Yearbook 1987

D-6 Foreign Assistances for Ethiopia

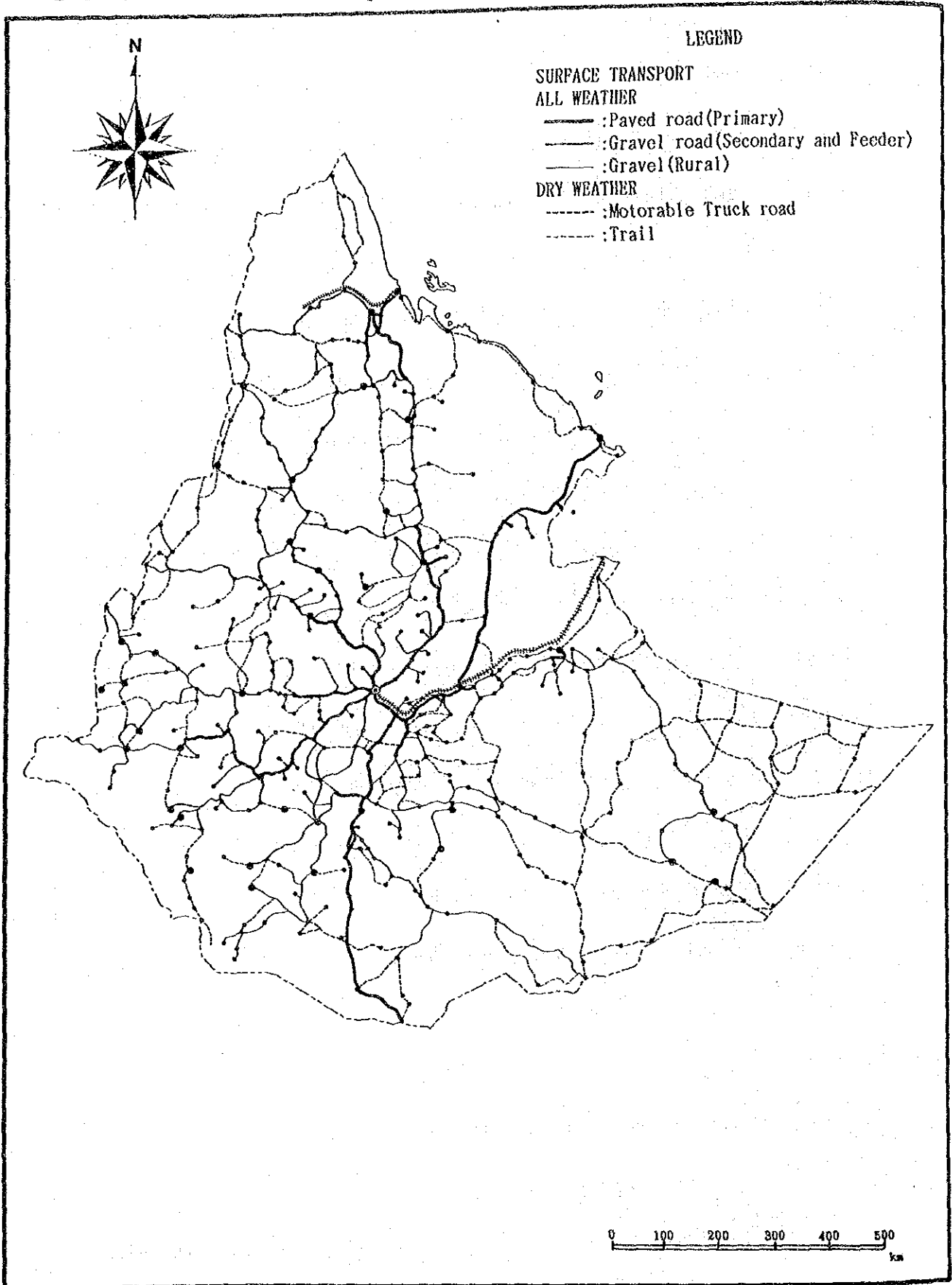
Country/Organization	1986		1987		1988		1989		1990	
	Amount US\$million	Share %	Amount US\$million	Share %	Amount US\$million	Share %	Amount US\$million	Share %	Amount US\$million	Share %
ODA Bilateral	401.5	62.59%	312.4	49.19%	555.9	57.48%	377.8	50.93%	503.1	56.64%
Italy	151.6	23.68%	127.8	20.12%	232.0	23.98%	138.4	18.66%	169.1	19.04%
USA	91.0	14.18%	5.0	0.79%	66.0	6.82%	23.0	3.10%	50.0	5.63%
W. German	25.1	3.91%	26.7	4.20%	n.a.	-	49.6	6.69%	46.7	5.26%
Sweden	35.2	5.49%	35.1	5.53%	53.2	5.50%	32.3	4.35%	48.9	5.51%
Japan	5.3	0.83%	13.7	2.15%	12.3	1.27%	11.2	1.50%	10.3	1.16%
Others	93.3	14.54%	104.1	16.40%	192.4	19.89%	123.3	16.63%	178.1	20.05%
ODA Multilateral	240.0	37.41%	322.7	50.81%	411.3	42.52%	364.0	49.07%	385.1	43.36%
EDF (EEC)	85.7	13.36%	95.9	15.10%	153.4	15.86%	57.1	7.70%	53.8	6.06%
UNDP/UNAFD/UNCDF	23.2	3.61%	28.8	4.53%	n.a.	-	n.a.	-	n.a.	-
AfDF	n.a.	-	23.4	3.68%	15.7	1.62%	27.5	3.71%	42.5	4.78%
UNHCR	21.8	3.39%	27.9	4.40%	73.7	7.62%	88.2	11.90%	74.3	8.36%
IFAD	n.a.	-	n.a.	-	n.a.	-	n.a.	-	n.a.	-
IDA	35.3	5.50%	81.8	12.88%	72.0	7.44%	66.0	8.90%	69.0	7.77%
WFP	30.3	4.72%	31.1	4.89%	40.1	4.15%	66.8	9.01%	88.5	9.96%
UNICEF	n.a.	-	15.1	2.37%	n.a.	-	n.a.	-	n.a.	-
Others	43.8	6.83%	18.8	2.96%	56.5	5.84%	58.2	7.85%	57.1	6.42%
Total	641.5	100.00%	635.1	100.00%	967.2	100.00%	741.8	100.00%	888.2	100.00%

Sources : APIC of Japan, "ODA Japan" (Japanese), 1986-1992

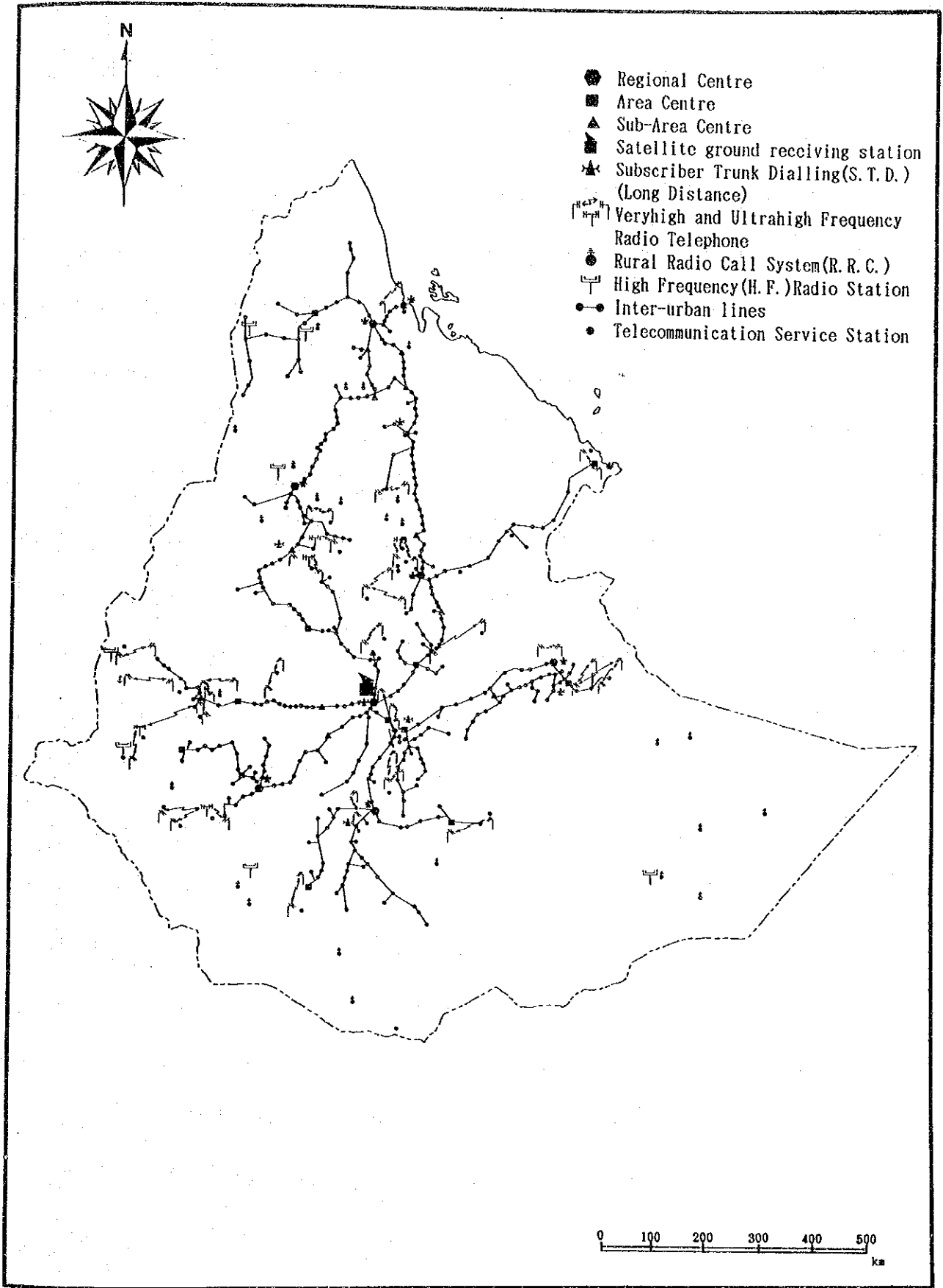
D-7 : Drought and Food Shortage Map



D-8 : Road Network Map



D-9 : Telecommunication Map



E : Agriculture

- E-1 : Main Crop Production and Cultivation Area 1986-1992
- E-2 : Forecast of Crop Production and cultivation Area in 1991/92
Private Holdings in Mcher Season
- E-3 : Distribution of Cultivated Land
- E-4 : Food Crop Production Map in 1983
- E-5 : Coffee Production
- E-6 : Marketing System of Agricultural Products
- E-7 : Price of Agricultural Products in the Project Area, February 1988

E-1 : Main Crop Production and Cultivation Area 1986-1992

No.	Crop	1986/87			1987/88			1988/89**			1989/90			1990/91*			1991/92 (Estimate)*		
		Cultivation Area ('000ha)	Production '000 quintal	Yield ton/ha	Cultivation Area ('000ha)	Production '000 quintal	Yield ton/ha	Cultivation Area ('000ha)	Production '000 quintal	Yield ton/ha	Cultivation Area ('000ha)	Production '000 quintal	Yield ton/ha	Cultivation Area ('000ha)	Production '000 quintal	Yield ton/ha	Cultivation Area ('000ha)	Production '000 quintal	Yield ton/ha
1-1	Teff	1,272.50	10,332.00	0.81	1,253.40	10,000.00	0.80	1,461.24	12,177.24	0.83	N.A.	N.A.	N.A.	1,252.58	18,044.65	1.43	1,885.12	13,644.87	0.72
1-2	Barley	898.00	9,932.00	1.11	1,056.70	12,689.00	1.20	958.47	10,181.62	1.06	N.A.	N.A.	N.A.	850.66	7,113.79	1.29	607.45	6,150.02	1.01
1-3	Rheat	681.90	7,753.00	1.17	657.80	7,788.00	1.13	647.63	7,959.35	1.24	N.A.	N.A.	N.A.	487.40	6,995.37	1.44	581.21	5,786.41	1.00
1-4	Maize	1,012.50	17,154.00	1.69	1,095.50	19,640.00	1.79	1,021.10	16,886.86	1.65	N.A.	N.A.	N.A.	908.67	11,589.34	1.28	809.15	10,033.86	1.24
1-5	Sorghus	962.70	9,632.00	1.00	782.80	9,099.00	1.19	637.07	8,492.12	1.35	N.A.	N.A.	N.A.	489.05	6,706.15	1.37	438.38	4,793.55	1.09
1-6	Millet	137.60	1,198.00	0.87	156.50	1,659.00	1.06	122.96	1,121.90	0.84	N.A.	N.A.	N.A.	163.41	2,209.63	1.35	156.31	1,186.78	0.76
1-7	Oats	N.A.	N.A.	-	N.A.	N.A.	-	42.32	476.63	1.13	N.A.	N.A.	N.A.	36.78	542.78	1.48	33.42	350.73	1.05
Sub-total of Cereals		4,945.30	56,001.06	1.13	5,002.60	60,875.00	1.22	4,890.79	57,335.73	1.17	N.A.	N.A.	N.A.	3,898.63	53,201.71	1.36	4,511.14	41,946.23	0.93
2-1	Horse Beans	259.90	2,835.00	1.13	282.00	2,500.00	0.89	227.29	2,579.11	1.13	N.A.	N.A.	N.A.	243.31	3,665.58	1.51	431.80	2,981.36	0.69
2-2	Chick Peas	95.30	722.00	0.76	135.60	1,056.00	0.78	126.00	851.19	0.68	N.A.	N.A.	N.A.	116.69	1,501.58	1.29	182.82	845.71	0.63
2-3	Haricot Beans	52.60	333.00	0.63	82.50	472.00	0.57	93.36	709.62	0.76	N.A.	N.A.	N.A.	91.60	1,271.34	1.39	55.91	514.88	0.92
2-4	Field Peas	106.10	835.00	0.79	108.40	88.00	0.06	88.90	784.06	0.88	N.A.	N.A.	N.A.	116.97	1,719.45	1.47	163.51	1,190.97	0.73
2-5	Lentils	46.50	289.00	0.58	64.40	316.00	0.49	37.80	278.56	0.74	N.A.	N.A.	N.A.	40.65	623.79	1.53	40.96	187.51	0.45
2-6	Vetch	N.A.	N.A.	-	N.A.	N.A.	-	58.64	419.15	0.70	N.A.	N.A.	N.A.	64.88	804.55	1.24	67.17	406.91	0.51
2-7	Soy Beans	N.A.	N.A.	-	N.A.	N.A.	-	4.15	24.66	0.59	N.A.	N.A.	N.A.	N.A.	N.A.	-	N.A.	N.A.	-
Sub-total of Pulses		560.40	5,084.00	0.91	672.90	4,412.00	0.66	636.14	5,637.37	0.89	N.A.	N.A.	N.A.	974.10	9,536.30	1.42	852.17	5,927.34	0.69
3-1	Neug'	132.30	455.00	0.34	115.50	424.00	0.37	129.54	407.71	0.31	N.A.	N.A.	N.A.	158.79	2,036.25	1.28	281.72	788.36	0.27
3-2	Linseed	65.90	311.00	0.47	84.50	230.00	0.42	50.34	189.20	0.38	N.A.	N.A.	N.A.	62.69	804.41	1.28	65.62	214.50	0.33
3-3	Fenugreek	N.A.	N.A.	-	N.A.	N.A.	-	12.19	59.93	0.49	N.A.	N.A.	N.A.	9.98	116.89	1.17	5.38	17.40	0.32
3-4	Rapeseed	N.A.	N.A.	-	N.A.	N.A.	-	9.39	74.03	0.79	N.A.	N.A.	N.A.	11.68	139.67	1.20	9.78	18.55	0.19
3-5	Sunflower	N.A.	N.A.	-	N.A.	N.A.	-	0.17	1.07	0.81	N.A.	N.A.	N.A.	N.A.	N.A.	-	N.A.	N.A.	-
3-6	Groundnuts	N.A.	N.A.	-	N.A.	N.A.	-	2.58	12.03	0.47	N.A.	N.A.	N.A.	N.A.	N.A.	-	N.A.	N.A.	-
3-7	Sesame	0.20	1.00	0.50	1.20	6.00	0.50	11.28	40.74	0.36	N.A.	N.A.	N.A.	N.A.	N.A.	-	N.A.	N.A.	-
Sub-total of Others		198.30	767.00	0.39	171.20	660.00	0.39	215.49	785.01	0.36	N.A.	N.A.	N.A.	243.14	3,097.22	1.27	362.50	1,019.23	0.28
All Crop Total		5,794.00	61,862.00	1.08	5,846.70	65,947.00	1.13	5,742.42	63,768.11	1.11	N.A.	N.A.	N.A.	4,815.87	65,885.23	1.11	5,735.81	48,852.80	0.85

Sources : CSA, Agricultural Sample survey 1986/88 (1981 EC.), Sep. 1990

* CSA, Statistical Abstract 1988

Note : Total Ethiopia excluding Asseb, Eritria, Ogaden and Tigray Autonomous Regions

**including secondary cropping (Berg season)

E-2 : Forecast of Crop Production and Cultivation Area in 1991/92
Private Holdings in Meher Season (1/3)

Adm. Region No.	Crop	1. Arssi			2. Baile			3. North Omo			4. South Omo			5. East Gojjam		
		Cultivation Area ('000ha)	Yield ton/ha	Production '000 quintal	Cultivation Area ('000ha)	Yield ton/ha	Production '000 quintal	Cultivation Area ('000ha)	Yield ton/ha	Production '000 quintal	Cultivation Area ('000ha)	Yield ton/ha	Production '000 quintal	Cultivation Area ('000ha)	Yield ton/ha	Production '000 quintal
1-1	Teff	35.62	0.70	278.45	5.22	19.81	36.93	213.90	0.53	13.39	2.19	13.39	166.12	0.81	1,333.63	
1-2	Barley	125.79	1.61	2,030.02	32.56	348.94	22.08	221.67	1.00	8.88	0.70	8.88	50.79	1.27	306.81	
1-3	Wheat	111.66	1.28	1,426.83	38.60	355.19	6.82	46.43	0.59	2.15	0.20	2.15	60.87	1.08	453.38	
1-4	Maize	35.24	1.29	455.48	1.78	24.34	5.44	39.93	0.82	22.06	2.19	22.06	24.14	1.04	241.74	
1-5	Sorghum	3.18	2.14	68.12	0.26	0.43	30.50	208.81	0.68	36.24	2.71	36.24	12.50	1.34	171.48	
1-6	Millet	0.00	-	0.00	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.82	-	12.72	
1-7	Oats	5.85	1.11	75.99	8.38	68.72	0.47	4.24	0.30	1.78	0.00	1.78	0.00	-	0.00	
Sub-total of Cereals		322.94	-	4,334.89	83.90	317.43	104.30	734.98	-	82.72	7.93	82.72	317.70	-	2,519.46	
2-1	Horse Beans	27.78	0.64	309.64	3.43	33.10	8.63	51.27	0.59	23.41	0.60	23.41	20.58	0.77	158.63	
2-2	Field Peas	18.15	0.52	95.27	3.68	30.97	23.86	97.07	0.41	12.08	1.12	12.08	9.70	0.43	40.43	
2-3	Haricot Beans	5.16	0.78	43.27	0.06	0.01	6.03	27.67	0.48	2.17	0.16	2.17	1.82	0.59	3.16	
2-4	Chick Peas	0.17	0.16	0.28	0.19	0.17	2.61	18.48	0.71	0.00	0.00	0.00	15.82	0.52	98.22	
2-5	Lentils	2.67	0.38	10.22	0.48	1.60	0.08	0.17	0.21	0.00	0.00	0.00	2.12	0.14	2.93	
2-6	Vetch	2.39	0.49	11.81	0.27	0.19	0.00	0.00	-	0.00	0.00	0.00	17.76	0.51	90.57	
Sub-total of Pulses		57.32	-	475.49	8.09	66.04	41.21	194.66	-	31.56	1.80	31.56	67.35	-	398.94	
3-1	Neug	0.02	0.02	0.02	0.23	0.27	0.00	0.00	0.00	0.00	0.01	0.00	20.13	0.00	52.79	
3-2	Linseed	24.89	0.43	105.80	4.44	22.22	0.04	0.10	0.25	0.00	0.00	0.00	5.60	0.00	19.08	
3-3	Fenugreek	0.09	0.45	0.39	0.49	0.25	0.01	0.00	0.00	0.00	0.00	0.00	0.57	0.31	1.79	
3-4	Rapeseed	1.01	0.27	2.73	0.00	0.00	0.00	0.00	-	0.00	0.00	0.00	0.75	0.18	4.18	
Sub-total of Others		26.01	-	108.98	5.16	22.74	0.05	0.10	-	0.00	0.01	0.00	21.05	-	77.84	
All Crop Total		405.67	-	4,919.34	100.05	906.21	145.56	923.74	-	120.38	9.84	120.38	412.11	-	2,995.24	

Adm. Region No.	Crop	6. West Gojjam			7. Metekel			8. North Gondar			9. South Gondar			10. Dire Dawa		
		Cultivation Area ('000ha)	Yield ton/ha	Production '000 quintal	Cultivation Area ('000ha)	Yield ton/ha	Production '000 quintal	Cultivation Area ('000ha)	Yield ton/ha	Production '000 quintal	Cultivation Area ('000ha)	Yield ton/ha	Production '000 quintal	Cultivation Area ('000ha)	Yield ton/ha	Production '000 quintal
1-1	Teff	138.89	0.67	1,268.90	16.01	63.55	51.60	468.45	0.91	77.10	31.61	401.23	0.52	0.00	0.00	
1-2	Barley	62.57	0.43	268.82	0.33	0.00	21.96	248.28	1.13	31.61	222.63	0.70	0.00	-	-	
1-3	Wheat	8.94	1.36	121.55	0.52	3.84	7.44	48.20	0.65	24.20	152.82	0.63	0.00	-	-	
1-4	Maize	80.14	1.15	917.97	9.94	61.37	10.25	65.08	0.53	18.96	130.46	0.69	0.31	2.41	0.72	
1-5	Sorghum	2.50	0.46	11.38	11.05	67.90	60.60	537.97	0.89	5.12	19.56	0.38	4.80	70.82	1.47	
1-6	Millet	69.11	0.86	593.25	18.77	86.17	12.78	120.17	0.94	21.18	128.97	0.61	0.00	-	-	
1-7	Oats	0.30	0.72	2.18	0.00	0.00	1.34	5.89	0.44	0.35	0.00	0.00	-	-	-	
Sub-total of Cereals		412.45	-	3,184.03	55.63	232.83	155.97	1,494.04	-	178.52	1,053.99	-	5.11	-	73.03	
2-1	Horse Beans	15.10	0.66	99.79	0.70	4.57	14.08	81.50	0.58	17.31	120.20	0.69	0.01	0.06	0.60	
2-2	Field Peas	6.99	0.56	40.47	0.00	0.00	6.01	27.51	0.46	2.15	10.76	0.50	0.01	0.24	2.40	
2-3	Haricot Beans	0.86	1.07	9.16	0.37	1.99	0.02	0.16	0.00	0.00	0.00	-	0.01	-	-	
2-4	Chick Peas	8.01	0.80	64.22	1.98	12.43	14.62	63.32	0.43	9.33	42.54	0.46	0.01	0.91	0.10	
2-5	Lentils	0.05	0.70	0.35	0.00	0.00	0.35	3.03	0.87	0.31	0.68	0.22	-	-	-	
2-6	Vetch	6.28	1.01	63.66	0.00	0.00	1.88	10.13	0.54	12.19	75.20	0.82	-	-	-	
Sub-total of Pulses		37.29	-	277.65	3.05	18.99	36.96	193.65	-	41.30	249.38	-	0.93	-	0.31	
3-1	Neug	38.87	0.23	92.54	8.45	18.93	6.26	25.61	0.41	21.63	47.05	0.22	-	-	-	
3-2	Linseed	12.79	0.15	19.53	0.02	0.01	1.30	4.80	0.37	5.56	14.47	0.26	-	-	-	
3-3	Fenugreek	0.10	0.30	0.30	0.00	0.00	0.40	1.38	0.35	0.15	0.05	0.03	-	-	-	
3-4	Rapeseed	0.08	0.30	1.47	0.11	1.47	0.05	0.29	0.58	0.00	0.00	-	-	-	-	
Sub-total of Others		52.84	-	112.97	8.59	20.41	8.01	32.08	-	27.34	61.61	-	0.00	-	0.00	
All Crop Total		502.58	0.71	3,574.35	68.27	322.23	210.94	1,771.77	-	247.16	1,366.68	-	5.14	-	73.84	

E-2 : Forecast of Crop Production and Cultivation Area in 1991/92
Private Holdings in Meher Season (2/3)

11. East Hararghe			12. West Hararghe			13. Gambella			14. Illubabor			15. Keffa			
No.	Crop	Cultivation Area ('00ha)	Yield ton/ha	Production '000 quintal	Yield ton/ha	Production '000 quintal	Yield ton/ha	Production '000 quintal	Yield ton/ha	Production '000 quintal	Yield ton/ha	Production '000 quintal	Yield ton/ha	Production '000 quintal	
1-1	Teff	0.59	0.95	5.51	26.93	97.27	0.37	0.32	1.97	0.82	0.73	894.90	0.73	84.07	
1-2	Barley	4.37	1.01	44.04	3.93	29.38	0.75	0.18	1.49	0.78	146.19	0.90	55.57	0.93	
1-3	Wheat	8.01	1.17	93.58	2.22	12.76	0.57	0.04	0.32	0.80	89.07	0.82	19.71	1.02	
1-4	Maize	18.40	0.93	170.22	23.91	314.31	1.31	1.37	16.04	1.02	102.04	1.35	642.02	2.55	
1-5	Sorghum	73.37	0.95	697.39	57.66	790.74	1.37	0.40	4.48	1.12	33.72	0.91	194.53	1.44	
1-6	Millet	0.00	-	0.00	0.00	0.00	0.00	0.00	0.00	-	4.07	0.92	86.18	1.27	
1-7	Oats	0.39	0.84	3.23	1.25	7.58	0.59	0.00	0.60	-	0.60	0.90	0.00	-	
Sub-total of Cereal		103.13	-	1,016.12	115.54	1,231.99	-	2.52	24.30	-	263.26	2,656.17	-	1,082.18	-
2-1	Horse Beans	5.05	1.17	58.84	3.35	35.83	1.07	0.03	0.25	0.83	15.29	141.31	0.92	53.37	0.84
2-2	Field Peas	1.61	1.11	17.81	0.38	3.66	0.56	0.00	0.00	-	19.76	319.02	1.61	25.04	0.82
2-3	Haricot Beans	5.31	1.11	59.19	11.84	184.50	1.59	0.00	0.00	-	2.41	14.12	0.59	19.07	1.12
2-4	Chick Peas	0.00	-	0.00	2.84	12.50	0.44	0.00	0.00	-	1.40	23.70	1.59	0.00	-
2-5	Lentils	0.00	-	0.00	0.51	2.90	0.57	0.00	0.00	-	1.09	4.11	0.38	0.00	-
2-6	Vetch	0.00	-	0.00	0.33	0.47	0.14	0.00	0.00	-	0.00	0.00	0.00	0.00	-
Sub-total of Pulses		11.97	-	135.84	19.06	239.86	-	0.03	0.25	-	39.95	502.27	-	97.48	-
3-1	Neug	0.00	-	0.00	0.00	0.00	-	0.00	0.00	-	1.85	4.25	0.23	0.56	0.16
3-2	Linseed	0.00	-	0.00	0.18	0.54	0.30	0.00	0.00	-	0.60	2.28	0.38	0.14	0.47
3-3	Fenugreek	0.11	0.56	0.62	0.01	0.04	0.40	0.00	0.00	-	0.04	0.00	0.00	0.00	-
3-4	Rapeseed	0.00	-	0.00	0.00	0.00	-	0.00	0.00	-	0.00	0.00	0.00	0.00	-
Sub-total of Others		0.11	-	0.62	0.19	0.58	-	0.00	0.00	-	2.49	6.53	-	0.37	0.70
All Crop Total		117.21	-	1,150.58	134.73	1,492.48	-	2.55	24.55	-	305.70	3,164.97	-	1,180.96	-
16. Addis Ababa			17. East Shoa			18. North Shoa			19. South Shoa			20. West Shoa			
No.	Crop	Cultivation Area ('00ha)	Yield ton/ha	Production '000 quintal	Yield ton/ha	Production '000 quintal	Yield ton/ha	Production '000 quintal	Yield ton/ha	Production '000 quintal	Yield ton/ha	Production '000 quintal	Yield ton/ha	Production '000 quintal	
1-1	Teff	35.96	0.83	299.38	90.38	684.55	0.75	87.71	846.48	0.97	95.78	619.67	0.65	1,170.14	
1-1	Barley	17.47	1.15	201.31	5.90	58.90	1.00	45.13	463.35	1.03	14.06	201.85	1.44	462.72	
1-3	Wheat	17.43	1.03	178.99	21.79	220.74	1.01	73.47	640.90	0.87	55.92	792.06	1.42	287.31	
1-4	Maize	0.46	1.00	4.63	18.42	168.20	0.91	1.97	9.88	0.50	125.85	2,197.28	1.75	416.40	
1-5	Sorghum	0.17	0.82	1.39	1.38	10.46	0.76	3.72	37.29	1.00	13.16	100.83	0.77	162.98	
1-6	Millet	0.00	-	0.00	0.00	0.00	-	0.00	0.00	-	0.84	3.77	0.45	1.81	
1-7	Oats	0.33	1.10	0.33	0.09	0.04	-	0.90	5.44	0.72	2.34	41.74	1.47	10.45	
Sub-total of Cereal		71.32	-	685.99	137.87	1,142.89	-	212.90	2,004.29	-	308.25	3,957.20	-	2,511.81	
2-1	Horse Beans	8.52	0.88	75.21	4.53	47.76	1.05	54.87	457.20	0.83	14.17	100.06	0.71	185.02	
2-2	Field Peas	1.45	0.73	10.63	7.97	70.30	0.88	8.00	81.94	1.02	8.43	57.77	0.59	16.58	
2-3	Haricot Beans	0.08	0.45	0.37	6.31	41.78	0.66	0.77	6.38	0.83	3.88	15.59	0.46	0.00	
2-4	Chick Peas	8.39	0.85	79.70	5.63	35.63	0.63	4.45	38.81	0.87	4.37	18.20	0.42	116.59	
2-5	Lentils	4.76	0.80	38.04	2.98	14.14	0.47	4.80	21.77	0.48	0.77	2.58	0.34	13.43	
2-6	Vetch	2.65	0.88	23.37	1.80	9.73	0.61	4.97	10.32	0.22	1.28	9.81	0.77	51.96	
Sub-total of Pulses		25.65	-	227.32	29.02	219.34	-	77.56	616.92	-	32.60	205.01	-	403.60	
3-1	Neug	0.24	0.44	0.44	0.00	0.00	-	15.92	47.12	0.30	0.00	0.00	-	49.76	
3-2	Linseed	0.64	0.30	1.90	0.02	0.04	0.20	4.82	10.53	0.22	0.05	0.24	0.48	10.86	
3-3	Fenugreek	0.13	0.25	0.33	0.33	1.21	0.37	2.11	8.84	0.42	0.20	0.13	0.15	0.69	
3-4	Rapeseed	0.05	0.32	0.41	0.00	0.00	-	0.00	6.00	-	0.00	0.00	-	9.14	
Sub-total of Others		1.06	-	3.08	0.36	1.25	-	22.83	56.57	-	0.18	0.44	-	70.45	
All Crop Total		98.43	-	916.39	157.24	1,363.48	-	313.31	2,657.78	-	341.93	4,152.65	-	2,983.95	

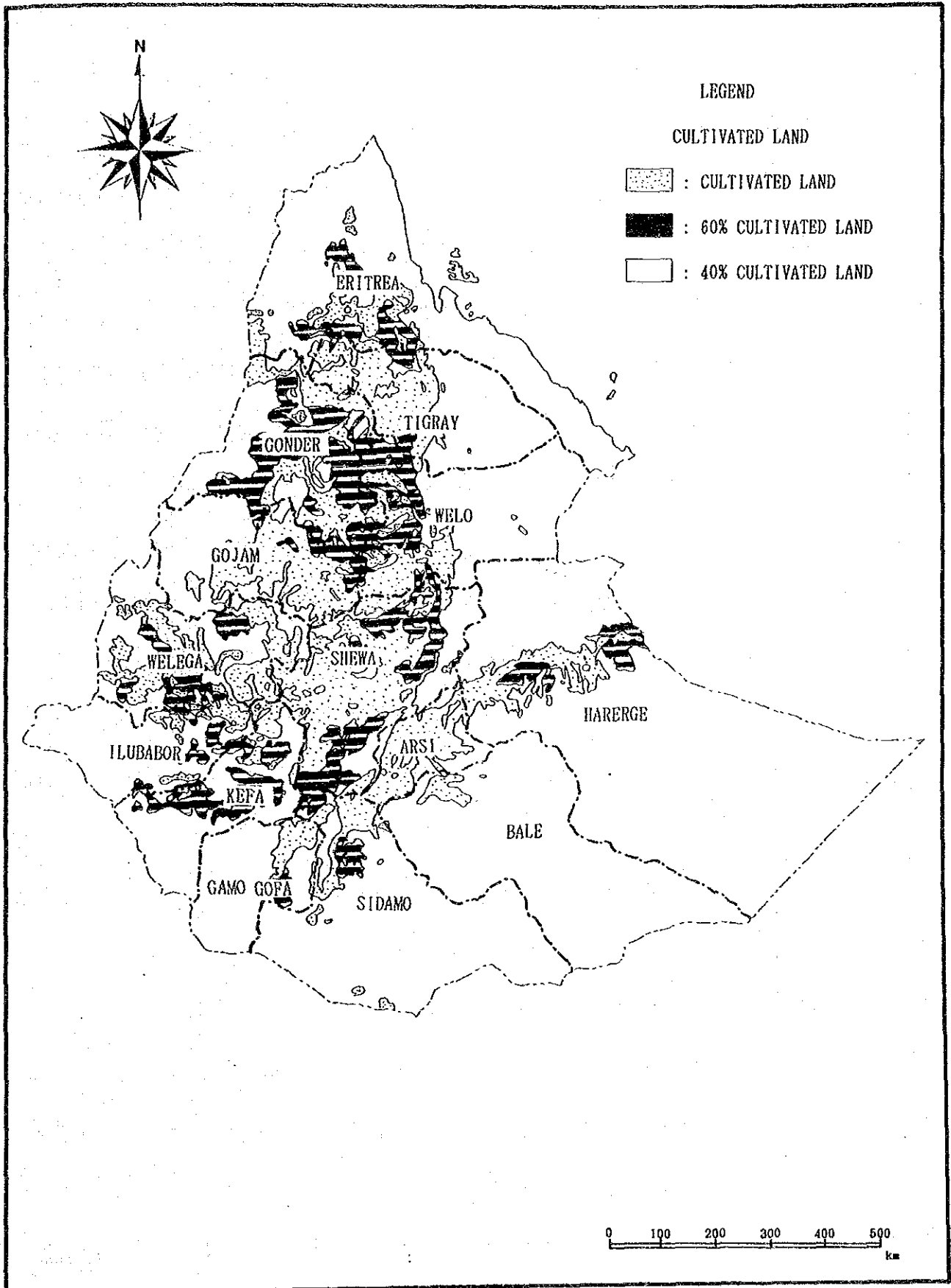
E-2 : Forecast of Crop Production and Cultivation Area in 1991/92
Private Holdings in Meher Season (3/3)

Admi. Region	Borena			Sidamo			Assosa			Wollega			25.				
	No.	Crop	Cultivation Area (000ha)	Production (000 quintal)	Yield (ton/ha)	Cultivation Area (000ha)	Production (000 quintal)	Yield (ton/ha)	Cultivation Area (000ha)	Production (000 quintal)	Yield (ton/ha)	Cultivation Area (000ha)	Production (000 quintal)	Yield (ton/ha)	Cultivation Area (000ha)	Production (000 quintal)	Yield (ton/ha)
1-1	Teff	0.17	0.25	0.15	69.22	0.51	17.96	1.00	608.82	4.445.11	0.74	20.61	168.39	0.82	20.61	168.39	0.82
1-2	Barley	2.64	30.39	1.15	189.59	1.32	0.09	0.37	16.43	121.32	0.74	22.15	187.80	0.85	22.15	187.80	0.85
1-3	Wheat	0.51	13.93	2.73	33.47	0.81	0.10	0.46	12.45	54.39	0.52	17.57	162.06	0.92	17.57	162.06	0.92
1-4	Maize	10.70	186.34	1.74	47.41	1.69	4.07	1.62	172.12	1,327.98	0.77	3.07	48.23	1.57	3.07	48.23	1.57
1-5	Sorghum	0.21	2.57	1.22	21.84	1.14	2.25	1.05	32.38	350.43	1.08	11.86	183.68	1.55	11.86	183.68	1.55
1-6	Millet	0.00	0.00	-	0.00	-	3.50	0.43	17.64	58.95	0.56	0.11	2.33	2.12	0.11	2.33	2.12
1-7	Oats	0.00	0.00	-	0.04	0.23	0.00	-	0.07	0.58	0.75	0.42	5.51	1.31	0.42	5.51	1.31
	Sub-total of Cereals	14.23	233.48	-	80.01	1,095.43	11.80	123.11	854.91	6,412.71	-	75.80	758.00	-	75.80	758.00	-
2-1	Horse Beans	1.58	16.35	1.04	25.83	1.15	0.02	0.40	156.99	615.85	0.39	6.93	57.73	0.83	6.93	57.73	0.83
2-2	Field Peas	0.36	3.07	0.85	19.48	0.69	0.00	-	17.67	136.79	0.72	2.75	15.24	0.55	2.75	15.24	0.55
2-3	Haricot Beans	0.72	4.88	0.68	11.00	0.37	0.04	0.73	5.16	57.33	1.11	0.08	1.55	1.94	0.08	1.55	1.94
2-4	Chick Peas	0.05	0.09	0.18	0.04	0.00	0.00	0.00	0.49	1.88	0.38	1.86	9.12	0.49	1.86	9.12	0.49
2-5	Lentils	0.00	0.00	-	0.05	0.16	0.00	0.00	0.13	0.08	0.05	5.68	32.01	0.58	5.68	32.01	0.58
2-6	Vetch	0.00	0.00	-	0.00	0.00	0.00	0.00	0.08	0.17	0.21	0.27	1.19	0.32	0.27	1.19	0.32
	Sub-total of Pulses	2.71	24.40	-	8.13	56.37	0.05	0.37	180.52	802.10	-	17.68	116.84	-	17.68	116.84	-
3-1	Neug	0.00	0.00	-	0.00	0.00	0.73	1.61	139.93	426.20	0.30	0.03	0.03	0.10	0.03	0.03	0.10
3-2	Linseed	0.00	0.00	-	0.02	0.00	0.00	0.00	0.12	0.18	0.15	0.19	0.77	0.41	0.19	0.77	0.41
3-3	Fenugreek	0.00	0.00	-	0.00	0.00	0.00	0.00	0.13	0.34	0.26	0.05	0.03	0.06	0.05	0.03	0.06
3-4	Rapeseed	0.00	0.00	-	0.00	0.00	0.00	0.00	7.23	0.00	0.00	0.00	0.00	-	0.00	0.00	-
	Sub-total of Others	0.00	0.00	-	0.02	0.00	0.73	1.61	147.41	426.72	-	0.27	0.83	-	0.27	0.83	-
	All Crop Total	16.34	257.88	-	88.16	1,151.80	12.59	125.09	1,192.84	7,641.53	-	98.75	875.57	-	98.75	875.57	-

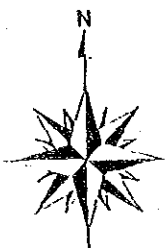
Admi. Region	South Wollo			Ethiopia Total*				
	No.	Crop	Cultivation Area (000ha)	Production (000 quintal)	Yield (ton/ha)	Cultivation Area (000ha)	Production (000 quintal)	Yield (ton/ha)
1-1	Teff	47.49	373.72	0.80	1,885.12	12,644.87	0.72	1,885.12
1-1	Barley	33.73	318.83	0.95	607.45	6,150.02	1.01	607.45
1-3	Wheat	55.60	566.38	1.02	581.31	5,786.41	1.00	581.31
1-4	Maize	20.05	231.90	1.16	809.15	10,033.86	1.24	809.15
1-5	Sorghum	44.66	712.41	1.60	438.38	4,793.59	1.09	438.38
1-6	Millet	8.00	108.20	1.35	156.31	1,186.78	0.75	156.31
1-7	Oats	0.00	0.00	-	32.42	350.73	1.05	32.42
	Sub-total of Cereals	209.53	2,318.44	-	4,511.14	41,945.26	-	4,511.14
2-1	Horse Beans	24.60	238.55	0.97	431.80	2,981.36	0.69	431.80
2-2	Field Peas	13.38	69.06	0.52	162.51	1,180.97	0.73	162.51
2-3	Haricot Beans	0.00	0.00	-	55.91	514.88	0.92	55.91
2-4	Chick Peas	1.13	5.83	0.87	102.82	645.71	0.63	102.82
2-5	Lentils	10.35	39.36	0.38	40.96	187.51	0.46	40.96
2-6	Vetch	1.01	7.81	0.77	57.17	405.91	0.61	57.17
	Sub-total of Pulses	50.47	364.61	-	862.17	5,927.34	-	862.17
3-1	Neug	0.63	1.15	0.18	281.72	768.38	0.27	281.72
3-2	Linseed	0.28	1.33	0.46	65.62	214.90	0.33	65.62
3-3	Fenugreek	0.15	0.94	0.63	5.38	17.40	0.32	5.38
3-4	Rapeseed	0.00	0.00	-	9.78	28.55	0.19	9.78
	Sub-total of Others	1.06	3.42	-	382.50	1,019.23	-	382.50
	All Crop Total	261.06	2,686.47	-	5,735.81	48,892.83	-	5,735.81
					1,414.40	8,464.08		1,414.40
					32.37%			32.37%
					46.97%			46.97%
					0.55			0.55

Source : Central Statistical Authority, Statistic Bulletin 99 : Crop production forecast 1991/92
Note : * Eritrea, Tigray, Aseba and Ogaden autonomous regions are excluded

E-3 : Distribution of Cultivated Land



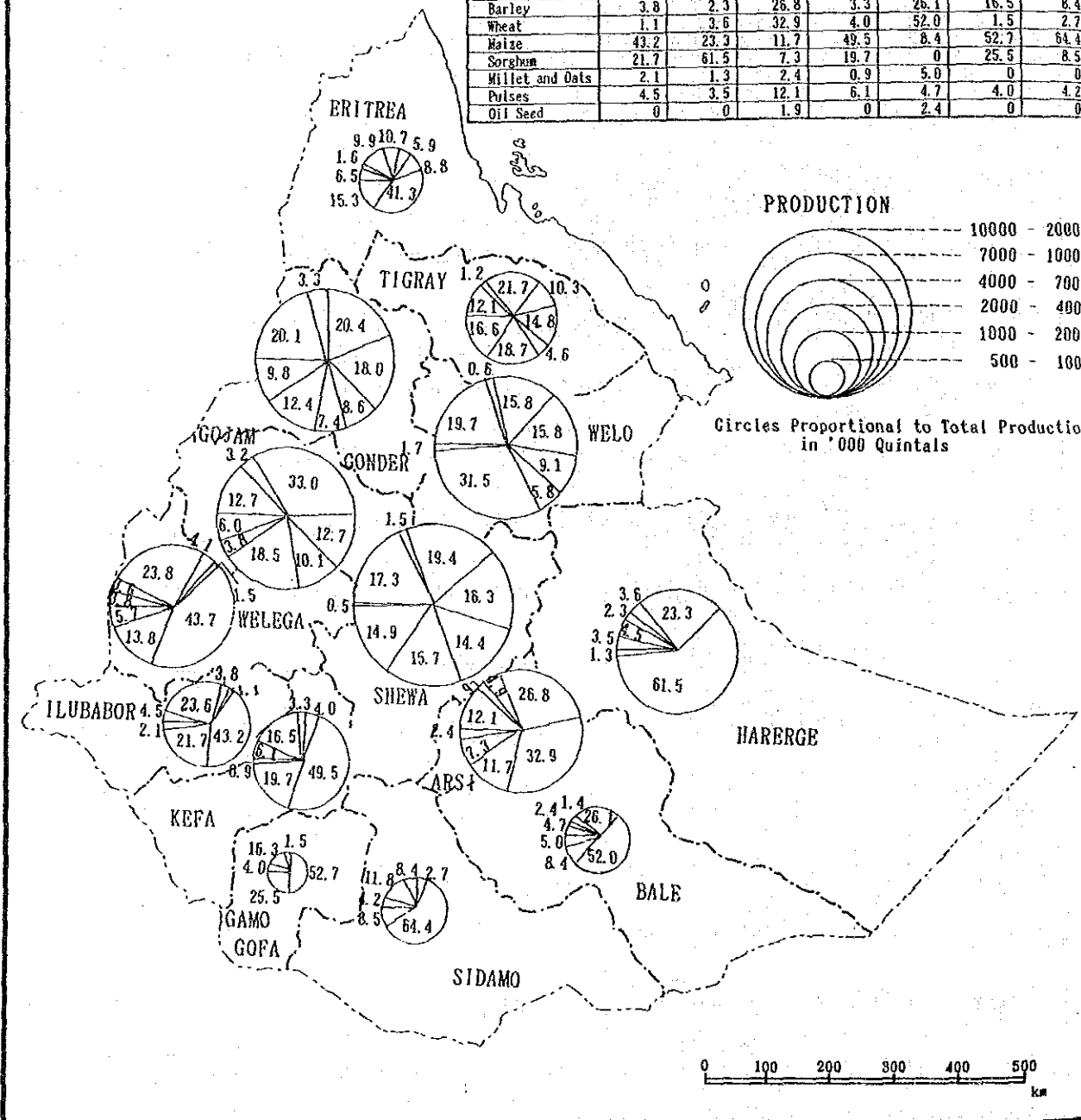
E-4 : Food Crop Production Map in 1983



PRODUCTION BY ADMINISTRATIVE REGION in % 1983

Type of Crop	ERITREA	TIGRAY	WELO	GONDER	GOJAM	WELEGA	SHEWA
Teff	9.9	21.7	15.8	20.4	33.0	23.8	19.4
Barley	10.7	10.3	15.8	18.0	12.7	4.1	16.3
Wheat	5.9	14.8	9.1	8.6	10.1	1.5	14.4
Maize	8.8	4.6	5.8	7.4	18.5	43.7	15.7
Sorghum	41.3	18.7	31.5	12.4	3.8	13.8	14.9
Millet and Oats	15.3	16.6	1.7	9.8	6.0	5.7	0.5
Pulses	6.5	12.1	19.7	20.1	12.7	3.8	17.3
Oil Seed	1.6	1.2	0.6	3.3	3.2	3.6	1.5

Type of Crop	ILUBABOR	HARERGE	ARSI	KEFA	BALE	GAMO GOFA	SIDAMO
Teff	23.6	4.5	4.9	16.5	1.4	0	11.8
Barley	3.8	2.3	26.8	3.3	26.1	16.5	8.4
Wheat	1.1	3.6	32.9	4.0	52.0	1.5	2.7
Maize	43.2	23.3	11.7	49.5	6.4	52.7	64.4
Sorghum	21.7	61.5	7.3	19.7	0	25.5	8.5
Millet and Oats	2.1	1.3	2.4	0.9	5.0	0	0
Pulses	4.5	3.5	12.1	6.1	4.7	4.0	4.2
Oil Seed	0	0	1.9	0	2.4	0	0



E-5 : Coffee Production

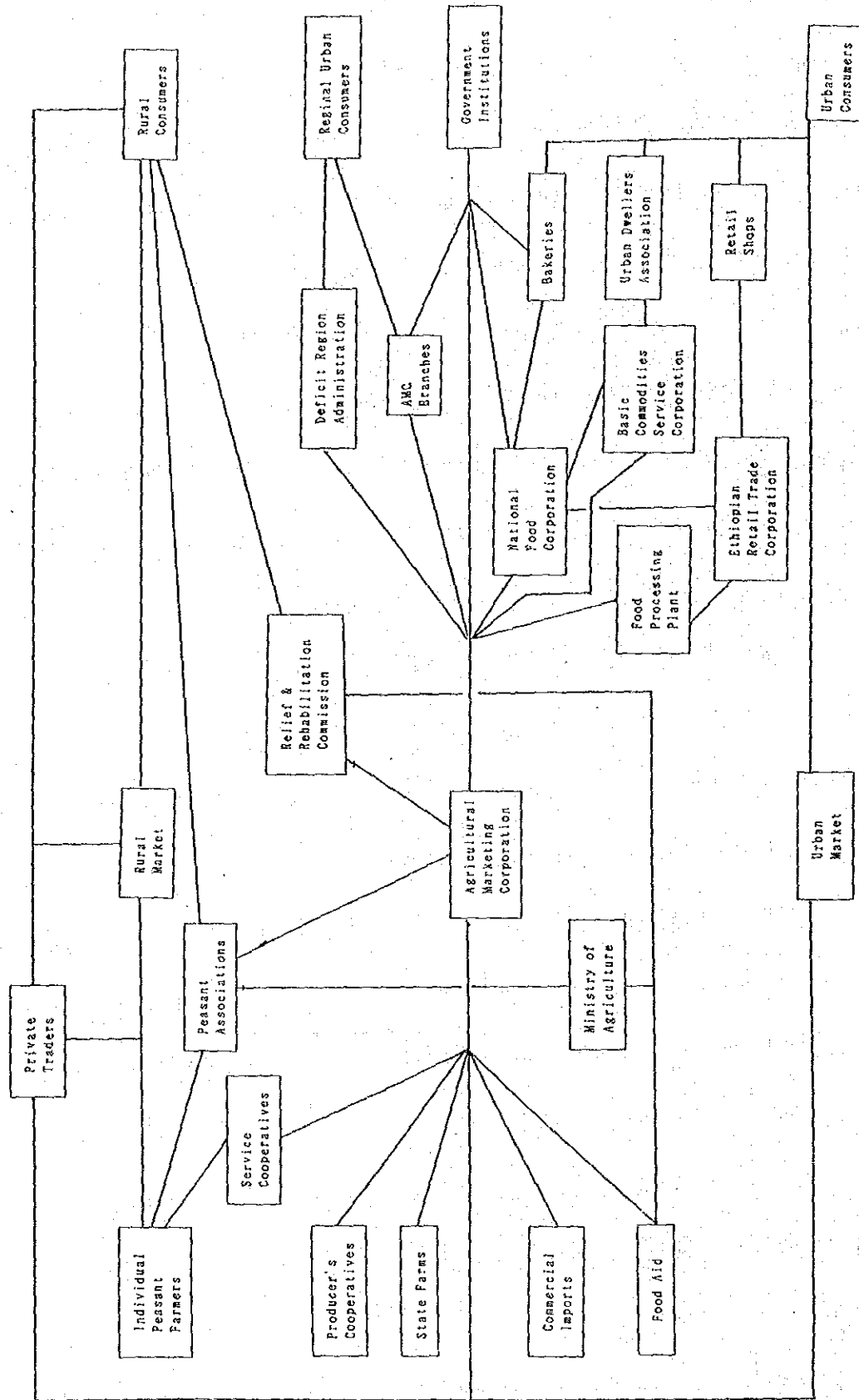
unit in ton

Year	Ethiopia							Total*	World*	Weight*		
	Gamu	Hararge	Illubabor	Keffa	Sheva	Sidamo	Wellega				Ethiopia	Domestic Consumption
1976 / 77	1.705	4.742	5.256	17.735	2.757	22.302	11.782	66.279	n.a	n.a	n.a	n.a
1977 / 78	2.171	12.569	8.290	28.248	3.020	26.816	9.180	90.297	n.a	n.a	n.a	n.a
1978 / 79	1.959	9.399	7.885	31.147	2.176	30.059	15.487	98.112	n.a	192,400	5,268,000	3.65%
1979 / 80	2.895	9.829	7.187	27.148	3.665	31.701	12.511	94.936	n.a	188,000	4,943,000	3.80%
1980 / 81	1.584	4.152	11.805	28.863	2.163	31.084	17.693	97.244	n.a	187,200	4,821,200	3.88%
1981 / 82	2.033	3.047	7.517	31.238	2.098	31.742	16.579	94.254	n.a	202,000	6,039,900	3.34%
1982 / 83	3.216	3.019	7.360	30.161	2.041	29.836	14.731	90.364	n.a	202,000	4,998,300	4.04%
1983 / 84	2.191	7.462	11.086	31.618	436	30.498	11.500	94.791	95,700	233,000	5,641,600	4.13%
1984 / 85	2.123	3.719	6.109	23.413	38	27.371	8.256	71.029	98,880	139,000	5,136,800	2.71%
1985 / 86	4.133	2.547	8.787	24.261	283	31.572	17.706	89.289	112,800	170,000	5,789,900	2.94%
1986 / 87	1.301	4.426	9.807	30.923	340	32.261	9.077	88.135	118,500	178,000	5,153,600	3.45%
1987 / 88	3.637	6.331	5.698	17.468	339	39.295	10.439	83.257	108,000	178,800	6,283,000	2.85%
1988 / 89	1.991	4.993	14.896	36.387	126	34.861	15.918	109.172	108,000	n.a	n.a	n.a
Weight 1988	1.82%	4.57%	13.64%	33.33%	0.12%	31.93%	14.58%	100.00%				

Sources :CSA, Statistical Abstract 1988 (inspected by Ministry of Coffee and Tea Development)

* United Nations, Statistical Yearbook 1987

E-6 : Marketing System of Agricultural Products



: FAO/AIDB Report AUG. 1983

E-7 : Price of Agricultural Products in the Project Area, February 1988 (1/4)

Unit: Birr

Items	Units	R E G I O N												Avegage
		Gamo					Hlu-							
		Arssi	Bale	Goffa	Gojjam	Conder	Hararge	habor	Keffa	Shewa	Sidamo	Welega	Wello	
Cereals														
Teff Mixed	Kg.	0.56	0.45	0.62	0.50	0.82	0.85	0.42	0.53	0.71	0.46	0.47	0.92	0.60
Wheat Mixed	Kg.	0.36	0.41	0.52	0.45	0.64	0.58	0.39	0.39	0.57	0.26	0.44	0.61	0.48
Barley White	Kg.	0.27	0.39	0.35	0.36	0.54	0.40	0.36	0.47	0.47	0.41	0.39	0.58	0.42
Barley Mixed	Kg.	0.27	0.40	0.36	0.37	0.53	0.40	0.37	0.37	0.43	0.35	0.42	0.55	0.40
Maize	Kg.	0.33	0.47	0.30	0.34	0.48	0.42	0.31	0.46	0.36	0.34	0.43	0.49	0.38
Durrah	Kg.	0.32	0.28	0.29	0.40	0.45	NA	0.30	0.31	0.43	NA	0.29	0.57	0.39
African Millet	Kg.	NA	NA	0.37	0.38	0.54	0.37	0.40	0.30	0.37	NA	0.32	NA	0.39
Sorghum Mixed	Kg.	0.34	NA	0.31	0.38	0.51	0.58	0.29	0.40	0.46	0.32	0.41	0.55	0.43
Oats	Kg.	0.29	0.35	NA	0.60	0.60	0.63	NA	0.23	0.49	NA	0.61	0.51	0.39
Pulses														
Horse Beans	Kg.	0.50	0.52	0.53	0.50	0.54	0.63	0.80	0.56	0.67	0.60	0.69	0.56	0.61
Chick Peas	Kg.	0.86	0.62	0.50	0.45	0.57	0.95	0.81	0.74	0.67	0.66	0.68	0.72	0.62
Peas White	Kg.	0.73	0.60	0.65	0.73	0.89	0.56	0.51	0.44	0.99	0.58	0.87	0.65	0.73
Soya Beans	Kg.	NA	0.49	NA	NA	NA	NA	0.82	NA	NA	NA	0.41	0.90	0.65
Peas Mixed	Kg.	0.68	0.63	0.66	0.65	0.62	0.67	0.82	0.51	0.72	0.69	0.78	0.73	0.69
Lentils	Kg.	1.40	1.13	0.98	0.64	0.82	1.00	NA	9.30	1.00	1.28	0.72	0.82	0.94
Vetch	Kg.	0.44	0.40	NA	0.34	0.40	NA	0.71	NA	0.51	NA	0.42	0.49	0.43
Vegetables														
Ethiopian Kale	Kg.	1.90	0.08	0.14	0.31	NA	NA	0.33	0.32	0.34	0.23	0.50	0.28	0.29
Cabbage	Kg.	0.29	NA	NA	NA	NA	NA	NA	NA	0.19	NA	NA	0.34	0.28
Lettuce	Kg.	NA	NA	NA	NA	0.40	NA	NA	NA	NA	NA	NA	0.16	0.22
Carrot	Kg.	NA	0.35	NA	NA	0.68	NA	NA	NA	0.40	NA	NA	0.64	0.54
Potatoes	Kg.	NA	NA	0.23	0.37	0.33	0.48	0.62	0.35	0.28	0.20	0.25	0.83	0.39
Sweet Potatoes	Kg.	0.46	NA	0.18	0.33	NA	0.52	0.29	0.39	0.23	0.15	0.27	NA	0.28
Tomates	Kg.	0.60	0.25	0.37	0.16	0.46	0.57	0.52	0.52	0.67	NA	0.53	0.98	0.55
Onions	Kg.	1.00	0.96	0.92	0.57	1.20	0.72	2.21	1.19	1.01	1.11	1.34	0.86	1.13
Garlics	Kg.	1.75	1.40	1.25	1.10	1.33	2.06	2.28	1.12	1.70	1.75	1.56	1.33	1.57
Pepper Green	Kg.	0.67	1.12	0.74	0.50	1.31	0.85	0.95	0.40	1.01	0.43	0.93	1.13	8.40
Beet Root	Kg.	NA	0.22	NA	0.21	NA	0.50	NA	NA	0.71	NA	NA	0.75	0.61
Cauliflower	Kg.	NA	0.13	NA	0.07	NA	NA	NA	0.32	0.12	NA	0.15	NA	0.16
Pumpkin	Kg.	0.16	0.23	0.10	0.12	0.05	0.24	0.19	0.29	0.23	NA	0.23	NA	0.22
Sugar Cane	Kg.	0.40	0.37	0.20	0.34	NA	0.39	0.36	0.47	0.53	0.28	0.20	0.83	0.38
(Cont.)														

E-7 : Price of Agricultural Products in the Project Area, February 1988 (2/4)

Unit: Birr

Items	Units	R E G I O N												Average
		Gamo						Illu-						
		Arssi	Bale	Goffa	Gojjam	Gonder	Hararge	habor	Keffa	Shewa	Sidamo	Welega	Wello	
Fruits														
Bananas	Kg.	0.39	0.50	0.32	0.60	0.75	0.49	0.53	0.28	0.61	0.27	0.53	0.61	0.47
Orange/Sweet/	Kg.	0.13	NA	NA	0.50	NA	NA	0.52	0.19	0.52	0.29	0.39	NA	0.37
Lemons	Kg.	NA	0.36	0.27	0.67	0.44	NA	0.35	0.30	0.66	NA	0.54	0.68	0.53
Papayas	Kg.	NA	0.45	0.13	0.35	NA	NA	0.41	0.52	0.38	0.53	0.29	0.67	0.38
Grapes	Kg.	NA	NA	NA	NA	NA	NA	NA	NA	0.48	NA	NA	NA	0.48
Mangoes	Kg.	NA	NA	NA	NA	NA	NA	0.55	NA	NA	NA	0.43	NA	0.48
Guava	Kg.	NA	NA	NA	NA	NA	0.24	0.38	NA	NA	0.19	NA	NA	0.27
Citron	Kg.	NA	NA	NA	NA	NA	NA	0.64	0.16	0.48	NA	0.31	0.76	0.47
Spices														
Pepper Whole	Kg.	1.76	1.00	1.84	1.46	1.01	2.53	1.29	1.00	2.17	1.17	2.18	3.55	1.78
Ginger/dry	Kg.	NA	NA	0.75	1.20	NA	1.27	1.33	NA	1.23	0.99	0.48	NA	1.06
Ginger/Hot dry	Kg.	NA	1.77	1.45	2.74	NA	NA	1.52	3.07	0.85	1.02	1.59	NA	1.64
Cumin/White	Kg.	NA	3.15	NA	1.88	0.74	NA	2.93	NA	1.77	NA	1.24	0.96	1.89
Cumin/Black	Kg.	1.44	3.24	NA	3.28	1.11	3.08	2.89	2.21	3.37	NA	3.82	2.73	3.02
Tumeric	Kg.	NA	NA	NA	NA	NA	NA	2.64	3.11	3.26	NA	2.87	3.33	2.83
Chillies	Kg.	NA	NA	1.55	NA	NA	NA	3.11	2.32	2.54	2.68	3.06	2.77	2.55
Coriander	Kg.	NA	1.93	2.22	NA	NA	NA	3.26	NA	1.88	1.79	1.78	2.22	2.00
Mustard	Kg.	NA	NA	NA	NA	NA	NA	1.18	NA	0.89	NA	NA	3.01	1.37
Sacred Basil	Kg.	2.25	1.89	NA	1.49	0.85	NA	2.08	1.59	3.75	1.21	2.04	3.05	2.17
Savory	Kg.	NA	1.30	1.15	1.07	NA	NA	NA	NA	NA	NA	NA	NA	1.14
Rue	Kg.	1.07	1.29	0.87	1.12	2.33	NA	0.95	0.26	1.95	NA	3.01	NA	1.71
Livestock														
Sheep	No	80.00	80.17	51.22	70.91	77.44	69.45	60.95	52.39	73.10	58.06	79.46	80.78	70.64
Lamb	No	33.84	26.92	20.50	30.22	29.47	38.77	27.59	25.25	34.82	26.70	31.95	28.86	30.44
Goat/Castrated	No	98.74	82.78	52.04	64.60	78.20	82.66	48.65	43.37	76.18	52.22	60.18	88.21	69.67
Calf	No	84.56	93.50	62.21	96.04	96.42	93.77	51.34	60.40	69.71	68.00	58.29	100.97	75.92
Heifer	No	139.38	149.42	129.59	186.86	191.35	142.50	141.55	155.19	138.72	159.47	118.81	189.08	148.41
Cow	No	212.33	196.01	185.05	249.07	230.77	251.25	184.98	238.17	237.60	212.26	189.57	218.63	216.22
Bull	No	197.36	165.20	130.77	206.64	214.30	174.65	134.57	139.08	175.17	183.33	125.81	179.44	168.24
Ox	No	359.15	320.64	240.11	279.46	346.85	313.58	254.68	265.80	350.40	308.13	258.83	295.79	309.29
Hen/Local	No	3.04	2.13	2.00	3.30	2.74	3.38	3.95	3.00	3.25	2.70	4.05	2.63	3.19
Donkey	No	104.23	89.83	122.50	74.06	108.41	100.42	121.60	NA	74.85	95.56	107.00	86.09	90.04
Horse	No	185.28	144.11	NA	146.25	234.00	NA	231.43	180.00	156.28	214.55	163.47	146.64	168.42
Mule	No	444.29	326.68	448.33	348.56	NA	NA	422.00	376.67	361.60	396.67	NA	500.00	382.63
Camel	No	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	976.67	976.67
Dairy Products														
Milk/Unpasteurized	Lit	1.05	0.72	0.69	1.01	1.00	0.94	0.60	0.66	0.62	0.57	NA	NA	0.75
Butter/Unpasteurized	Kg.	11.45	8.89	7.15	7.87	9.14	8.16	6.84	6.79	8.54	7.94	7.32	7.75	8.37
Cheese/Cottage/	Kg.	1.00	1.21	0.61	NA	0.50	NA	0.93	1.08	1.65	1.59	0.83	NA	1.33
Eggs/Local/	Doz.	1.33	1.14	0.89	1.15	1.15	1.78	1.47	1.21	1.37	1.29	1.46	1.03	1.29
Others														
Kotcho	Kg.	NA	0.32	0.62	1.87	NA	NA	0.55	0.51	1.70	0.53	0.71	NA	1.02
Coffee/Beans	Kg.	NA	3.70	2.07	8.57	5.82	8.79	3.02	2.58	4.74	2.76	3.83	5.42	4.16
Coffee/Whole	Kg.	3.57	3.11	2.99	5.19	5.91	NA	2.00	3.53	3.48	1.30	1.47	5.89	2.56

E-7 : Price of Agricultural Products in the Project Area, February 1988 (3/4)

Unit: Birr

Items	Units	R E G I O N												Average
		Arssi	Gamo			Hlu-								
			Bale	Goffa	Cojjam	Gonder	Hararge	babor	Keffa	Shewa	Sidamo	Welega	Wello	
Cereals														
Teff Mixed	Kg.	0.93	0.65	0.92	0.97	NA	1.03	0.78	0.75	0.90	0.80	0.61	1.05	0.70
Wheat Mixed	Kg.	0.59	0.47	0.78	0.59	NA	0.80	0.68	0.61	0.93	0.74	0.60	0.85	0.73
Barley White	Kg.	0.48	0.41	0.60	0.51	NA	0.57	0.48	0.69	0.83	0.91	0.73	0.81	0.67
Barley Mixed	Kg.	0.42	0.38	0.56	0.49	NA	0.65	0.69	1.07	0.93	1.31	0.75	0.64	0.68
Maize	Kg.	0.55	0.43	0.64	0.42	NA	0.62	0.46	0.45	0.70	0.87	0.40	0.59	0.52
Durrah	Kg.	0.52	0.42	0.67	0.47	NA	NA	0.40	1.46	0.64	NA	0.38	1.87	0.65
African Millet	Kg.	NA	NA	0.94	0.48	NA	NA	0.56	0.91	0.48	0.71	0.42	NA	0.54
Sorghum Red	Kg.	0.64	NA	0.45	0.57	NA	0.68	0.36	0.69	0.66	0.45	0.54	0.72	0.54
Sorghum Mixed	Kg.	0.70	NA	0.45	0.56	NA	0.72	0.36	0.72	0.70	NA	0.37	0.81	0.60
Oats	Kg.	0.30	0.89	NA	0.36	NA	0.94	NA	NA	NA	NA	NA	0.52	0.70
Pulses														
Horse Beans	Kg.	0.69	0.67	1.12	0.74	NA	0.82	1.69	0.86	1.02	2.01	1.55	0.73	1.06
Chick Peas	Kg.	1.29	0.76	1.12	2.13	NA	0.93	0.95	1.92	3.06	1.21	0.96	2.61	2.24
Peas White	Kg.	1.19	0.57	0.99	NA	NA	1.00	1.34	1.00	0.96	0.95	0.84	NA	1.01
Soya Beans	Kg.	NA	0.58	0.91	NA	NA	NA	1.24	NA	0.65	NA	0.38	NA	0.86
Peas Mixed	Kg.	1.37	0.76	1.07	0.82	NA	0.88	1.25	2.76	0.97	1.71	0.99	0.97	1.06
Lentils	Kg.	1.98	1.30	1.16	2.22	NA	1.92	NA	NA	1.77	NA	NA	1.78	1.73
Vetch	Kg.	NA	0.48	NA	0.80	NA	NA	NA	NA	0.74	NA	NA	2.04	0.85
Vegetables														
Ethiopian Kale	Kg.	0.26	0.16	0.28	0.35	NA	0.72	0.28	0.87	0.30	0.58	0.14	0.49	0.37
Cabbage	Kg.	NA	0.44	NA	NA	NA	NA	0.42	0.06	0.22	NA	NA	0.37	0.30
Lettuce	Kg.	NA	NA	0.10	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.10
Carrot	Kg.	0.59	0.54	NA	NA	NA	NA	1.10	NA	0.25	NA	NA	0.51	0.51
Potatoes	Kg.	0.45	0.41	0.40	0.79	NA	0.80	1.09	NA	0.66	0.40	0.61	0.35	0.66
Sweet Potatoes	Kg.	0.27	0.58	0.33	NA	NA	0.56	0.51	1.67	0.18	0.17	NA	0.28	0.35
Tomatoes	Kg.	0.54	NA	0.75	NA	NA	NA	0.60	0.48	0.80	NA	0.30	0.30	0.59
Onions	Kg.	1.06	0.89	1.02	1.50	NA	2.03	2.57	3.57	1.26	1.12	1.30	2.43	1.66
Garlics	Kg.	1.78	2.78	1.18	1.81	NA	2.76	3.44	2.01	2.93	1.27	3.83	3.54	2.63
Pepper Green	Kg.	0.53	0.55	0.50	1.22	NA	1.82	1.02	0.63	1.31	0.67	1.02	2.20	0.97

(Cont.)

E-7 : Price of Agricultural Products in the Project Area, February 1988 (4/4)

Unit: Birr

Items	Units	R E G I O N												
		Gamo					Illu-							
		Arssi	Bale	Goffa	Gojjam	Gonder	Hararge	babor	Keffa	Shewa	Sidamo	Welega	Wello	Avegage
Vegetables														
Beet Root	Kg.	0.14	0.3	NA	NA	NA	0.25	0.33	NA	0.18	0.14	0.38	NA	0.24
Cauliflower	Kg.	NA	NA	0.15	NA	NA	NA	NA	0.25	0.17	NA	0.11	NA	0.19
Pumpkin	Kg.	0.52	0.19	0.07	NA	NA	0.15	0.6	0.25	0.20	0.11	0.28	NA	0.31
Sugar Cane	Kg.	0.20	0.23	0.29	0.20	NA	NA	0.38	0.34	0.44	0.17	0.43	0.49	0.35
Fruits														
Bananas	Kg.	0.37	0.61	0.30	0.51	NA	0.59	0.50	0.49	0.61	0.55	0.42	NA	0.49
Orange/Sweet/	Kg.	0.20	0.29	NA	0.73	NA	NA	0.66	0.15	0.24	0.25	0.45	1.00	0.41
Lemons	Kg.	0.20	0.32	0.36	0.46	NA	0.71	0.60	0.31	0.35	0.47	0.40	0.60	0.42
Mandarines	Kg.	NA	NA	0.43	NA	NA	NA	0.72	0.42	0.47	0.38	NA	NA	0.55
Papayas	Kg.	NA	0.42	0.17	0.55	NA	NA	0.35	0.51	0.32	0.41	NA	NA	0.35
Mangoes	Kg.	NA	NA	NA	NA	NA	NA	0.72	NA	NA	NA	0.46	NA	0.59
Guava	Kg.	0.14	0.21	NA	NA	NA	0.34	0.12	NA	0.18	0.18	NA	NA	0.21
Citron	Kg.	NA	NA	NA	NA	NA	NA	0.29	0.15	0.33	NA	NA	NA	0.28
Pine Apples	Kg.	NA	NA	NA	NA	NA	NA	0.39	NA	NA	0.46	NA	NA	0.41
Spices														
Pepper	Kg.	NA	1.06	1.13	1.55	NA	1.93	2.42	3.62	1.99	3.44	3.50	3.38	2.16
Ginger/dry	Kg.	NA	NA	NA	NA	NA	3.22	1.20	NA	1.42	1.43	1.51	NA	1.69
Ginger/Hot dry	Kg.	NA	NA	0.47	4.42	NA	NA	1.21	0.87	1.00	0.72	1.25	NA	1.16
Cumin/White	Kg.	NA	2.52	NA	2.89	NA	NA	2.05	2.12	3.17	NA	NA	NA	2.45
Cumin/Black	Kg.	NA	2.20	NA	2.00	NA	2.06	1.96	NA	2.31	NA	NA	NA	2.08
Tumeric	Kg.	NA	NA	NA	NA	NA	NA	2.34	1.44	3.33	NA	1.93	NA	2.19
Fenugrech	Kg.	1.73	1.07	1.13	1.34	na	1.99	1.56	2.53	1.97	NA	2.46	3.15	1.91
Chillies	Kg.	NA	NA	1.65	NA	NA	NA	2.41	4.57	3.33	NA	2.46	NA	2.32
Coriander	Kg.	2.92	3.60	2.91	1.25	NA	NA	NA	NA	2.00	NA	2.16	NA	2.58
Mustard	Kg.	NA	NA	NA	NA	NA	NA	1.93	NA	1.39	1.67	NA	NA	1.66
Sacred Basil	Kg.	1.05	2.48	1.89	1.96	NA	NA	1.15	NA	2.99	NA	3.23	2.10	2.22
Savory	Kg.	NA	1.42	0.60	0.97	NA	NA	NA	NA	1.26	1.12	NA	NA	1.09
Rue	Kg.	0.46	1.99	0.66	0.60	NA	NA	0.98	NA	2.01	2.18	3.14	NA	1.48
Livestock														
Sheep	No	93.31	64.21	48.84	70.56	NA	117.93	59.12	51.93	85.47	45.03	85.53	78.01	72.84
Lamb	No	37.50	31.77	18.62	35.21	NA	40.45	34.55	40.52	37.33	26.17	35.55	34.83	35.38
Goat/Castrated	No	97.20	52.44	57.48	72.75	NA	106.20	99.97	NA	85.34	54.97	72.00	106.40	82.26
Calf	No	87.61	95.67	56.83	69.75	NA	71.50	47.57	57.56	80.63	54.84	85.63	67.17	73.15
Heifer	No	162.29	168.20	124.88	191.98	NA	158.41	94.13	182.37	151.63	137.15	107.26	176.35	144.57
Cow	No	245.50	252.35	179.77	300.07	NA	232.90	193.19	219.20	248.24	231.01	205.26	301.06	235.68
Bull	No	206.76	179.77	111.13	218.71	NA	257.86	127.47	139.43	175.50	172.67	123.15	234.93	167.64
Ox	No	405.10	334.81	220.12	284.98	NA	595.39	225.95	230.92	356.67	269.59	264.49	409.35	316.71
Hen	No	2.76	2.22	2.19	2.97	NA	3.80	3.55	3.04	3.31	2.47	3.41	3.34	3.09
Donkey	No	80.45	106.42	90.17	74.24	NA	106.25	NA	NA	76.82	78.96	110.00	84.64	83.88
Horse	No	166.67	164.44	181.55	148.27	NA	NA	143.33	NA	139.71	195.90	NA	141.38	159.13
Mule	No	350.00	288.94	244.89	268.00	NA	NA	NA	NA	NA	326.00	NA	455.00	322.81
Dairy Products														
Milk/Unpasteurized	Lit	0.91	0.80	1.03	NA	NA	2.08	1.09	NA	0.79	0.58	NA	NA	1.16
Butter	Kg.	10.66	10.05	8.47	7.96	NA	9.96	8.40	10.87	10.28	9.94	8.44	9.81	9.47
Cheese/Cottage/	Kg.	0.85	NA	0.82	NA	NA	NA	1.07	2.33	1.76	2.82	2.13	NA	1.80
Eggs	Doz.	1.69	1.36	1.51	1.90	NA	1.72	2.03	1.44	2.13	1.20	1.66	1.03	1.78
Others														
Kotcho	Kg.	NA	0.64	0.18	NA	NA	NA	0.98	0.51	0.31	0.58	NA	0.91	0.46
Coffee/Beans	Kg.	NA	NA	2.26	7.99	NA	7.66	4.37	4.08	7.58	5.11	6.07	NA	4.92
Coffee/Whole	Kg.	3.53	3.51	2.75	2.61	NA	NA	2.25	2.54	2.29	1.05	2.05	2.07	2.28

F : Small Scale Irrigation Development Project

- F-1 : Proposed Cropping Pattern for SSID Project**
- F-2 : Crop Water Requirement in Project Area**
- F-3 : Summary of SSID Schemes in Northern Zone**
- F-4 : Summary of SSID Schemes in Northeastern Zone**
- F-5 : Inventory of SSID Schemes in Northeastern Zone**
- F-6 : Summary of SSID Project in Northwestern Zone**
- F-7 : Inventory of SSID Schemes in Northwestern Zone**
- F-8 : Summary of SSID Schemes in Western Zone**
- F-9 : Inventory of SSID Schemes in Western Zone**
- F-10 : Summary of SSID Schemes in Southwestern Zone**
- F-11 : Inventory of SSID Schemes in Southwestern Zone**
- F-12 : Summary of SSID Schemes in Eastern Zone**
- F-13 : Inventory of SSID Schemes in Eastern Zone**
- F-14 : Summary of SSID Schemes in Southern Zone**
- F-15 : Inventory of SSID Schemes in Southern Zone**
- F-16 : Summary of SSID Schemes in Southeastern Zone**
- F-17 : Inventory of SSID Schemes in Southeastern Zone**
- F-18 : Summary of SSID Schemes in Central Zone**
- F-19 : Inventory of SSID Schemes in Central Zone**
- F-20 : Summary of SSID Schemes in Central-south Zone**
- F-21 : Inventory of SSID Schemes in Central-south Zone**

F-1 : Proposed Cropping Pattern for SSID Project (1/3; Elevation 2000 - 2200 m)

ETRICFIA
SMALL SCALE IRRIGATION PROJECT

Para Model I - 100 ha Producers Cooperative - Crop Rotation for the Irrigated Area (40 ha)

Months:	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Rotation and Cropping Pattern	
Rainfall (mm) Av. Min. Temp.	3 4.2	24 5.2	35 6.4	22 5.0	85 6.0	227 6.5	345 6.9	327 10.2	237 10.7	94 8.8	62 7.7	12 5.2		
<u>Year 1</u> 10 ha													<u>Rotation No. 1</u> (60% Area) - Barley - Maize + Onions - Field Peas - Maize + Onions	
														<u>Rotation No. 2</u> 100% Area - Maize + Chilli Pepper + Veget. + Potatoes - Chilli Pepper + Maize + Potatoes + Vegetables
														<u>Shaded Areas</u> = Dry Season Cropping

Note: Cropping intensity on the irrigated area = 160%.

SOURCE : FAO/AFDB Report Aug. 1983

F-1 : Proposed Cropping Pattern for SSID Project (2/3; Elevation 1500 - 2000 m)

ETHIOPIA
SMALL SCALE IRRIGATION PROJECT

Para Model II - 100 ha Producers Cooperative - Crop Rotation for the Irrigated Area (40 ha)

Months:	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Rotation and Cropping Pattern	
Rainfall (mm) Av. Min. Temp.	23 16.8	45 12.1	72 12.3	75 12.9	84 12.0	101 12.3	222 12.8	170 12.6	112 12.5	45 10.5	15 9.2	4 7.0		
Year 1 10 ha													<p>Rotation No. 1 (60% Area)</p> <ul style="list-style-type: none"> - Wheat - Maize + Onions - Field Peas - Maize + Onions 	
														<p>Rotation No. 2 (60% Area)</p> <ul style="list-style-type: none"> - Maize + Chilli Pepper + Vegetables + Potatoes - Chilli Pepper + Maize + Potatoes + Vegetables
														<p>Shaded Areas</p> <ul style="list-style-type: none"> - Dry Season Cropping

Note: Cropping intensity on the irrigated area = 160%.

SOURCE : FAO/afDB Report Aug. 1983

F-1 : Proposed Cropping Pattern for SSID Project (3/3; Elevation 1000 - 1500 m)

ETHIOPIA

SMALL SCALE IRRIGATION PROJECT

Park Model III - 100 ha Producers Cooperative - Crop Rotation for the Irrigated Area (40 ha)

Months:	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Rotation and Cropping Pattern
Rainfall (mm) Av. Min. Temp.	30 11.7	70 11.0	130 12.5	170 12.4	120 12.6	95 12.2	75 12.5	104 12.4	90 13.1	165 12.3	75 11.0	25 10.1	
Year 1 10 ha													Rotation 1. Harioot Beans 2. Maize + Onions + Vegetables 3. Cotton + Chilli Pepper 4. Maize 5. Maize + Onions 6. Cotton + Chilli Pepper 7. Harioot Beans
Year 2 10 ha													
Year 3 10 ha													Cropping Pattern Areas (ha) - Harioot Beans 10 - Maize 20 - Cotton 16 - Chilli Pepper 2 - Onions 5 - Vegetables 1 TOTAL: 56
Year 4 10 ha													Shaded Areas = Dry Season Cropping Note: Cropping intensity on the irrigated area = 140%.

SOURCE : FAO/AfDB Report Aug. 1983

F-2 : Crop Water Requirement in Project Area (1/5)

Station : Kombolcha L = 11° 05' A = 1,930m													No. 90
	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
ETO (mm/day)	3.38	3.85	4.19	4.31	4.80	4.75	3.88	3.82	3.64	3.75	3.41	3.26	47.0
ETcrop(mm/per)	104.8	107.8	129.9	129.3	148.8	142.5	129.3	118.4	109.2	116.3	102.3	101.1	1,430.6
E.R.* (mm/per)	21.4	19.5	33.6	38.8	30.5	25.4	120.1	110.9	58.6	16.8	7.7	7.6	490.9
I.N.* (mm/per)	83.4	88.4	96.4	90.5	118.4	117.0	0.0	7.6	50.6	99.3	94.7	93.4	939.7
W.D.* (l/s/ha)	1.20	1.41	1.39	1.35	1.71	1.74	0.00	0.11	0.75	1.43	1.41	1.35	13.9

Station : Gorgora L = 12° 15' A = 1,840m													No. 74
	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
ETO (mm/day)	4.44	5.24	5.56	5.41	4.98	4.28	2.75	2.75	4.40	4.69	4.57	4.27	53.3
ETcrop(mm/per)	137.6	146.7	172.4	162.3	154.4	128.4	85.3	85.3	132.0	145.4	137.1	132.4	1,619.2
E.R.* (mm/per)	0.0	2.5	0.0	10.7	38.0	101.8	85.3	85.2	62.0	19.0	3.1	0.0	407.6
I.N.* (mm/per)	137.6	144.1	172.5	151.6	116.5	26.6	0.0	0.0	69.9	126.5	133.9	132.3	1,211.5
W.D.* (l/s/ha)	1.98	2.30	2.49	2.26	1.68	0.40	0.00	0.00	1.04	1.82	2.00	1.91	17.9

Station : Abiy Adi L = 13° 32' A = 1,870m													No. 1
	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
ETO (mm/day)	4.58	5.33	5.90	6.30	6.14	5.71	4.05	3.67	5.17	5.47	4.60	4.22	61.1
ETcrop(mm/per)	142.0	149.2	182.9	189.0	190.3	171.3	125.6	113.8	155.1	169.6	138.0	130.8	1,857.6
E.R.* (mm/per)	0.0	0.0	11.2	3.5	25.2	52.2	106.2	113.8	11.1	4.1	0.0	3.1	330.4
I.N.* (mm/per)	141.9	149.2	171.6	185.4	165.2	119.2	19.4	0.0	143.8	165.6	138.0	127.8	1,527.1
W.D.* (l/s/ha)	2.05	2.38	2.47	2.76	2.38	1.78	0.28	0.00	2.14	2.39	2.06	1.84	22.5

Station : Adigrat L = 14° 16' A = 2,457m													No. 6
	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
ETO (mm/day)	3.64	4.04	4.73	5.29	5.55	5.15	4.44	4.22	4.57	4.37	3.47	3.19	52.7
ETcrop(mm/per)	112.8	113.1	146.6	158.7	172.1	154.5	137.6	130.8	137.1	135.5	104.1	98.9	1,601.9
E.R.* (mm/per)	0.2	0.0	22.4	29.5	23.7	20.5	67.6	72.9	7.7	5.7	14.8	2.8	267.8
I.N.* (mm/per)	112.5	113.3	124.1	129.1	148.5	134.0	70.0	57.8	129.5	129.6	89.2	96.2	1,333.8
W.D.* (l/s/ha)	1.62	1.81	1.79	1.92	2.14	2.00	1.01	0.83	1.93	1.87	1.33	1.39	19.6

Station : Maichew L = 12° 46' A = 2,380m													No. 95
	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
ETO (mm/day)	3.23	3.79	4.30	4.53	4.56	4.33	3.79	3.64	3.87	3.98	3.54	3.25	46.8
ETcrop(mm/per)	100.1	106.1	133.3	135.9	141.4	129.9	117.5	112.8	116.1	123.4	106.2	100.8	1,423.5
E.R.* (mm/per)	4.7	10.6	29.9	46.4	25.3	6.9	90.2	92.3	39.1	19.7	16.9	5.9	387.9
I.N.* (mm/per)	95.3	95.6	103.4	89.4	116.2	123.1	27.2	20.4	77.1	103.7	89.4	94.3	1,035.1
W.D.* (l/s/ha)	1.37	1.53	1.49	1.33	1.67	1.83	0.39	0.29	1.15	1.49	1.33	1.36	15.2

Station : Mckele L = 13° 30' A = 2,212m													No. 97
	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
ETO (mm/day)	3.80	4.37	4.96	5.27	5.60	5.24	4.15	3.92	4.83	4.73	3.78	3.51	54.2
ETcrop(mm/per)	117.8	122.4	153.8	158.1	173.6	157.2	128.7	121.5	144.9	146.6	113.4	108.8	1,646.7
E.R.* (mm/per)	0.0	2.3	11.1	18.4	15.4	19.5	84.4	91.8	17.3	0.0	0.0	0.0	260.2
I.N.* (mm/per)	117.8	120.0	142.8	139.6	158.3	137.6	44.1	29.7	127.7	146.5	113.5	108.9	1,386.5
W.D.* (l/s/ha)	1.70	1.92	2.06	2.08	2.28	2.05	0.64	0.43	1.90	2.11	1.69	1.57	20.4

Station : Adwa L = 14° 10' A = 1,980m													No. 10
	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
ETO (mm/day)	3.97	4.59	5.38	5.86	6.14	5.55	4.02	3.59	4.96	5.01	4.18	3.56	56.8
ETcrop(mm/per)	123.1	128.5	166.8	175.8	190.3	166.5	124.6	111.3	148.8	155.3	125.4	110.4	1,726.8
E.R.* (mm/per)	0.0	0.0	5.4	13.6	16.6	45.2	96.3	96.9	59.4	14.2	0.0	0.0	347.6
I.N.* (mm/per)	123.2	128.4	161.4	162.3	173.8	121.2	28.2	14.4	89.4	141.1	125.3	110.5	1,379.2
W.D.* (l/s/ha)	1.78	2.05	2.33	2.42	2.51	1.81	0.41	0.21	1.33	2.03	1.87	1.59	20.3

* E.R. = Effective Rain I.N. = Irrigation Net Field W.D. = Water Duty

SOURCE : IPAD SPECIAL COUNTRY PROGRAMME/Manual on Small Scale Irrigation

F-2 : Crop Water Requirement in Project Area (2/5)

Station : Indasclasio L = 14° 06' A = 1,913m No. 82

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
ETO (mm/day)	4.22	4.70	5.44	5.98	5.91	5.50	3.81	3.28	4.57	5.01	4.28	3.78	56.5
ETcrop (mm/per)	130.8	131.6	168.6	179.4	183.2	165.0	118.1	101.7	137.1	155.3	128.4	117.2	1,716.5
E.R.* (mm/per)	0.0	0.0	0.0	11.8	28.9	69.0	118.1	101.6	63.2	7.3	6.3	0.0	406.2
I.N.* (mm/per)	130.9	131.7	168.7	167.8	154.5	96.0	0.0	0.0	73.9	148.1	122.1	117.1	1,310.8
W.D.* (l/s/ha)	1.89	2.10	2.43	2.50	2.23	1.43	0.00	0.00	1.10	2.14	1.82	1.69	19.3

Station : Addis Zemen L = 12° 07' A = 2,020m No. 5

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
ETO (mm/day)	4.00	4.72	5.05	4.85	4.50	3.79	2.43	2.46	3.76	4.25	4.08	3.75	47.6
ETcrop (mm/per)	124.0	132.2	156.6	145.5	139.5	113.7	75.3	76.3	112.8	131.8	122.4	116.3	1,446.2
E.R.* (mm/per)	0.2	0.0	0.0	3.8	16.6	52.0	75.4	76.4	59.9	26.3	4.9	0.0	315.5
I.N.* (mm/per)	123.6	132.1	156.4	141.6	123.0	61.6	0.0	0.0	53.0	105.4	117.3	116.4	1,130.4
W.D.* (l/s/ha)	1.78	2.11	2.26	2.11	1.77	0.92	0.00	0.00	0.79	1.52	1.75	1.68	16.7

Station : Alamata L = 12° 31' A = 2,200m No. 15

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
ETO (mm/day)	3.68	4.51	4.90	5.12	5.17	4.93	4.26	4.17	4.19	4.74	4.10	3.74	53.5
ETcrop (mm/per)	114.1	126.3	151.9	153.6	160.3	147.9	132.1	129.3	125.7	146.9	123.0	115.9	1,626.9
E.R.* (mm/per)	15.6	21.4	93.9	44.9	20.2	1.7	75.2	83.3	18.7	7.8	8.0	15.2	405.9
I.N.* (mm/per)	98.3	104.9	58.0	108.8	140.1	146.1	56.8	45.9	107.1	139.0	115.0	100.7	1,220.7
W.D.* (l/s/ha)	1.42	1.67	0.84	1.62	2.02	2.18	0.82	0.66	1.59	2.00	1.71	1.45	18.0

Station : Mendi L = 9° 47' A = 1,650m No. 99

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
ETO (mm/day)	4.22	4.74	4.52	5.16	3.82	3.20	3.04	2.69	3.67	3.98	3.81	3.95	46.8
ETcrop (mm/per)	130.8	132.7	140.1	154.8	118.4	96.0	94.2	83.4	110.1	123.4	114.3	122.5	1,420.7
E.R.* (mm/per)	0.0	6.2	13.1	36.0	75.0	96.0	94.1	83.3	110.1	61.3	14.1	0.2	583.4
I.N.* (mm/per)	130.7	132.5	127.1	118.7	43.4	0.0	0.0	0.0	0.0	62.0	100.3	122.1	836.8
W.D.* (l/s/ha)	1.88	2.11	1.83	1.77	0.63	0.00	0.00	0.00	0.00	0.89	1.47	1.76	12.3

Station : Nejo L = 9° 30' A = 1,800m No. 111

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
ETO (mm/day)	3.93	4.47	3.42	4.75	2.76	2.89	2.70	2.42	3.38	3.71	3.59	3.69	41.7
ETcrop (mm/per)	121.8	125.2	106.0	142.5	85.6	86.7	83.7	75.0	101.4	115.0	107.7	114.4	1,265.0
E.R.* (mm/per)	0.0	5.0	14.9	36.5	77.2	86.7	83.6	74.9	101.4	54.7	16.0	0.0	550.9
I.N.* (mm/per)	121.7	120.1	91.3	105.9	8.4	0.0	0.0	0.0	0.0	60.3	91.8	114.5	714.0
W.D.* (l/s/ha)	1.76	1.92	1.32	1.58	0.12	0.00	0.00	0.00	0.00	0.87	1.37	1.65	10.6

Station : Bati L = 11° 13' A = 1,660m No. 32

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
ETO (mm/day)	3.74	4.30	4.51	4.64	5.21	5.14	4.15	4.02	4.05	4.31	3.97	3.80	51.8
ETcrop (mm/per)	115.9	120.4	139.8	139.2	161.5	154.2	128.7	124.6	121.5	133.6	119.1	117.8	1,576.3
E.R.* (mm/per)	18.8	9.7	31.4	46.8	20.8	17.1	84.9	83.7	46.3	7.6	10.3	13.6	391.0
I.N.* (mm/per)	97.0	110.7	108.5	92.6	140.6	137.1	43.9	40.8	75.1	125.9	108.8	104.0	1,185.0
W.D.* (l/s/ha)	1.40	1.77	1.56	1.38	2.03	2.04	0.63	0.59	1.12	1.82	1.62	1.50	17.5

Station : Walidia L = 11° 49' A = 1,960m No. 120

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
ETO (mm/day)	3.27	3.91	4.45	4.51	4.79	4.70	3.84	3.93	3.64	3.90	3.44	3.40	47.8
ETcrop (mm/per)	101.4	109.5	138.0	135.3	148.5	141.0	119.0	121.8	109.2	120.9	103.2	105.4	1,453.2
E.R.* (mm/per)	19.3	20.6	40.5	53.7	50.1	14.3	97.0	111.3	40.7	23.7	22.8	11.1	505.1
I.N.* (mm/per)	82.0	88.9	97.4	81.7	98.3	126.7	21.9	10.6	68.5	97.4	80.5	94.3	948.2
W.D.* (l/s/ha)	1.18	1.42	1.40	1.22	1.42	1.89	0.32	0.15	1.02	1.40	1.20	1.36	14.0

* E.R. = Effective Rain I.N. = Irrigation Net Field W.D. = Water Duty

F-2 : Crop Water Requirement in Project Area (3/5)

Station : Degehabur L = 8° 09' A = 1,000m No. 50

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
ETO (mm/day)	5.19	5.27	5.75	4.80	4.94	4.93	4.52	5.01	5.34	4.67	4.89	5.12	60.4
ETcrop(mm/per)	160.9	147.6	178.3	144.0	153.1	147.9	140.1	155.3	160.2	144.8	146.7	158.7	1,837.6
E.R.* (mm/per)	0.3	0.0	9.2	41.1	36.4	14.5	0.0	4.6	23.6	32.2	4.5	0.0	166.4
I.N.* (mm/per)	160.6	147.4	159.0	103.1	116.8	133.4	140.0	150.8	136.5	112.6	142.1	158.7	1,661.0
W.D.* (l/s/ha)	2.31	2.35	2.29	1.54	1.68	1.99	2.02	2.17	2.03	1.62	2.12	2.29	24.4

Station : Dabat L = 13° 00' A = 2,685m No. 44

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
ETO (mm/day)	3.68	4.06	4.47	4.43	4.17	3.84	2.32	2.21	3.42	3.91	3.47	3.27	43.3
ETcrop(mm/per)	114.1	113.7	138.6	132.9	129.3	115.2	71.9	68.5	102.6	121.2	104.1	101.4	1,313.4
E.R.* (mm/per)	1.6	0.0	0.2	5.7	67.2	88.2	72.0	68.5	72.1	30.6	9.4	0.0	415.5
I.N.* (mm/per)	112.5	113.7	138.3	127.3	62.0	26.9	0.0	0.0	30.6	90.7	94.6	101.3	897.9
W.D.* (l/s/ha)	1.62	1.81	1.99	1.90	0.89	0.40	0.00	0.00	0.46	1.31	1.41	1.46	13.3

Station : Changni (Metekel) L = 10° 55' A = 1,720m No. 41

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
ETO (mm/day)	3.90	4.35	4.55	5.16	4.13	3.44	2.61	2.59	3.60	3.82	3.64	3.34	45.1
ETcrop(mm/per)	120.9	121.8	141.1	154.8	128.0	103.2	80.9	80.3	108.0	118.4	109.2	103.5	1,370.1
E.R.* (mm/per)	3.6	22.2	0.0	11.7	71.2	103.2	80.8	80.2	108.0	82.9	4.8	0.2	568.8
I.N.* (mm/per)	117.3	99.6	141.0	143.1	56.9	0.0	0.0	0.0	0.0	35.4	104.3	103.3	800.9
W.D.* (l/s/ha)	1.69	1.59	2.03	2.13	0.82	0.00	0.00	0.00	0.00	0.51	1.55	1.49	11.8

Station : Dembi Dolo L = 8° 30' A = 1,850m No. 51

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
ETO (mm/day)	4.39	4.75	4.64	4.83	3.77	3.36	3.15	2.69	3.79	4.06	4.01	4.11	47.6
ETcrop(mm/per)	136.1	133.0	143.8	144.9	116.9	100.8	97.7	83.4	113.7	125.9	120.3	127.4	1,443.8
E.R.* (mm/per)	1.0	14.1	36.6	64.3	87.7	74.5	72.0	52.6	73.8	47.2	15.3	8.7	547.8
I.N.* (mm/per)	135.1	118.9	107.0	80.6	29.1	26.4	25.5	30.9	39.8	78.7	104.9	118.7	895.6
W.D.* (l/s/ha)	1.95	1.90	1.54	1.20	0.42	0.39	0.37	0.44	0.59	1.13	1.56	1.71	13.2

Station : Begi L = 9° 21' A = 1,722m No. 34

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
ETO (mm/day)	4.49	4.77	4.51	5.11	3.88	3.29	3.10	2.79	3.77	3.99	3.85	4.10	47.7
ETcrop(mm/per)	139.2	133.6	139.8	153.3	120.3	98.7	96.1	86.5	113.1	123.7	115.5	127.1	1,446.8
E.R.* (mm/per)	0.0	5.1	22.6	36.4	101.9	98.8	71.8	77.7	94.3	59.6	30.7	0.0	598.9
I.N.* (mm/per)	139.1	128.4	117.2	117.0	18.5	0.0	24.2	8.7	18.9	63.9	84.8	127.0	847.7
W.D.* (l/s/ha)	2.01	2.05	1.69	1.74	0.27	0.00	0.35	0.13	0.28	0.92	1.26	1.83	12.5

Station : Debre Zeit (Bishoft) L = 8° 44' A = 1,900m No. 49

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
ETO (mm/day)	3.59	4.19	4.58	4.64	4.40	3.76	3.27	3.27	3.53	4.08	4.01	3.63	47.0
ETcrop(mm/per)	111.3	117.3	142.0	139.2	136.4	112.8	101.4	101.4	105.9	126.5	120.3	112.5	1,426.9
E.R.* (mm/per)	3.6	11.9	21.6	30.3	23.5	42.4	97.4	96.6	51.1	8.1	0.2	0.0	386.7
I.N.* (mm/per)	107.6	105.3	120.4	109.0	113.1	70.4	3.9	4.6	54.7	118.5	120.0	112.7	1,040.2
W.D.* (l/s/ha)	1.55	1.68	1.74	1.62	1.63	1.05	0.06	0.07	0.81	1.71	1.79	1.62	15.3

Station : Didesa L = 9° 00' A = 1,200m No. 53

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
ETO (mm/day)	3.96	4.93	5.00	5.29	4.00	3.58	3.06	2.84	3.66	4.32	4.22	4.44	49.3
ETcrop(mm/per)	122.8	138.0	155.0	158.7	124.0	107.4	94.9	88.0	109.8	133.9	126.6	137.6	1,496.8
E.R.* (mm/per)	0.0	0.2	0.0	30.1	88.4	107.3	94.9	88.2	95.8	79.2	32.9	1.7	618.7
I.N.* (mm/per)	122.7	137.7	155.1	128.6	35.7	0.0	0.0	0.0	14.0	54.5	93.7	136.0	878.0
W.D.* (l/s/ha)	1.77	2.20	2.24	1.92	0.51	0.00	0.00	0.00	0.21	0.79	1.40	1.96	13.0

* E.R. = Effective Rain I.N. = Irrigation Net Field W.D. = Water Duty

F-2 : Crop Water Requirement in Project Area (4/5)

1 Station : Dangila L = 11° 17' A = 2,180m No. 45

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
ETO (mm/day)	3.75	4.33	4.65	5.06	4.20	3.46	2.50	2.51	3.67	3.82	3.61	3.37	44.9
ETcrop(mm/per)	116.3	121.2	144.2	151.8	130.2	103.8	77.5	77.8	110.1	118.4	108.3	104.5	1,364.0
E.R.* (mm/per)	0.0	11.5	18.4	17.6	42.6	96.4	77.6	77.9	101.5	44.2	30.7	4.1	522.5
I.N.* (mm/per)	116.3	109.6	125.7	134.1	87.6	7.4	0.0	0.0	8.6	74.2	77.8	100.2	841.5
W.D.* (l/s/ha)	1.68	1.75	1.81	2.00	1.26	0.11	0.00	0.00	0.13	1.07	1.16	1.44	12.4

2 Station : Filiklik L = 10° 03' A = 1,800m No. 61

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
ETO (mm/day)	4.30	4.80	4.86	4.93	5.09	4.07	2.98	3.01	3.62	4.68	4.93	4.35	51.6
ETcrop(mm/per)	133.3	134.4	150.7	147.9	157.8	122.1	92.4	93.3	108.6	145.1	147.9	134.9	1,568.3
E.R.* (mm/per)	0.0	1.0	18.7	18.0	53.1	61.6	92.5	93.3	51.4	7.8	7.8	0.0	405.2
I.N.* (mm/per)	133.4	133.5	132.1	129.9	104.8	60.6	0.0	0.0	57.1	137.2	140.0	134.8	1,163.4
W.D.* (l/s/ha)	1.92	2.13	1.90	1.94	1.51	0.90	0.00	0.00	0.85	1.98	2.09	1.94	17.2

3 Station : Chefa L = 10° 54' A = 1,600m No. 2

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
ETO (mm/day)	3.63	4.09	4.56	4.66	4.85	4.92	4.00	3.95	3.99	4.27	3.92	3.47	50.3
ETcrop(mm/per)	112.5	114.5	141.4	139.8	150.4	147.6	124.0	122.5	119.7	132.4	117.6	107.6	1,529.9
E.R.* (mm/per)	12.4	28.2	32.0	52.8	37.7	22.4	98.9	111.8	48.4	12.3	14.2	6.0	477.1
I.N.* (mm/per)	100.2	86.2	109.5	87.1	112.6	125.2	25.1	10.5	71.4	119.9	103.5	101.5	1,052.7
W.D.* (l/s/ha)	1.44	1.38	1.58	1.30	1.62	1.86	0.36	0.15	1.06	1.73	1.54	1.46	15.5

4 Station : Gimbi L = 9° 05' A = 1,870m No. 67

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
ETO (mm/day)	3.92	4.46	4.31	4.69	3.49	2.89	2.62	2.41	3.28	3.79	3.64	3.79	43.3
ETcrop(mm/per)	121.5	124.9	133.6	140.7	108.2	86.7	81.2	74.7	98.4	117.5	109.2	117.5	1,314.1
E.R.* (mm/per)	0.0	1.7	17.4	30.9	100.0	86.6	81.1	74.9	98.3	59.7	18.6	0.0	569.2
I.N.* (mm/per)	121.4	123.3	116.2	109.8	8.3	0.0	0.0	0.0	0.0	57.9	90.5	117.6	745.0
W.D.* (l/s/ha)	1.75	1.97	1.67	1.64	0.12	0.00	0.00	0.00	0.00	0.83	1.35	1.70	11.0

5 Station : Dese L = 11° 10' A = 2,540m No. 52

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
ETO (mm/day)	3.14	3.58	3.73	3.95	4.29	4.18	3.55	3.49	3.33	3.50	3.14	2.99	42.9
ETcrop(mm/per)	97.3	100.2	115.6	118.5	133.0	125.4	110.1	108.2	99.9	108.5	94.2	92.7	1,303.6
E.R.* (mm/per)	12.0	15.2	32.6	49.1	38.2	23.4	110.2	108.2	68.1	26.9	11.3	5.8	501.0
I.N.* (mm/per)	85.2	85.0	83.2	69.3	94.9	102.0	0.0	0.0	31.7	81.6	82.8	87.0	802.7
W.D.* (l/s/ha)	1.23	1.36	1.20	1.03	1.37	1.52	0.00	0.00	0.47	1.18	1.23	1.25	11.8

6 Station : Bako Shewa L = 9° 07' A = 1,590m No. 29

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
ETO (mm/day)	4.22	4.70	4.91	5.15	4.30	3.61	2.94	3.13	3.52	4.38	4.37	4.19	49.4
ETcrop(mm/per)	130.8	131.6	152.2	154.5	133.3	108.3	91.1	97.0	105.6	135.8	131.1	129.9	1,501.3
E.R.* (mm/per)	6.9	14.6	32.7	37.0	63.1	86.9	91.2	84.4	67.8	28.6	17.3	6.9	537.4
I.N.* (mm/per)	124.0	117.0	119.4	117.5	70.3	21.4	0.0	12.6	37.8	107.2	113.7	122.8	963.7
W.D.* (l/s/ha)	1.79	1.87	1.72	1.75	1.01	0.32	0.00	0.18	0.56	1.55	1.69	1.77	14.2

7 Station : Fincha L = 9° 32' A = 2,320m No. 62

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
ETO (mm/day)	3.74	3.88	4.03	4.41	3.74	3.09	2.45	2.42	3.17	3.77	3.75	3.45	41.9
ETcrop(mm/per)	115.9	108.6	124.9	132.3	115.9	92.7	76.0	75.0	95.1	116.9	112.5	107.0	1,272.8
E.R.* (mm/per)	7.9	16.0	25.9	35.7	58.2	92.7	75.9	74.9	86.6	46.3	24.7	2.9	547.7
I.N.* (mm/per)	107.9	92.6	98.9	96.6	57.8	0.0	0.0	0.0	8.6	70.7	87.8	104.0	724.9
W.D.* (l/s/ha)	1.56	1.48	1.43	1.44	0.83	0.00	0.00	0.00	0.13	1.02	1.31	1.50	10.7

* E.R. = Effective Rain I.N. = Irrigation Net Field W.D. = Water Duty

F-2 : Crop Water Requirement in Project Area (5/5)

1 Station : Arjo L = 8° 45' A = 2,565m No. 19

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
ETO (mm/day)	3.64	3.95	4.00	4.20	3.26	2.74	2.53	2.43	3.03	3.58	3.53	3.51	40.4
ETcrop (mm/per)	112.8	110.6	124.0	126.0	101.1	82.2	78.4	75.3	90.9	111.0	105.9	108.8	1,227.1
E.R.* (mm/per)	10.1	6.6	53.7	61.2	82.5	82.2	78.5	75.2	90.8	55.9	9.4	17.5	623.6
I.N.* (mm/per)	102.8	104.0	70.5	64.8	18.4	0.0	0.0	0.0	0.0	55.1	96.6	91.2	603.4
W.D.* (l/s/ha)	1.48	1.66	1.02	0.97	0.27	0.00	0.00	0.00	0.00	0.79	1.44	1.32	9.0

2 Station : Gidami L = 8° 58' A = 2,040m No. 65

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
ETO (mm/day)	3.09	3.32	3.24	4.44	3.55	3.16	2.89	2.58	3.37	3.74	3.67	3.84	40.9
ETcrop (mm/per)	95.8	93.0	100.4	133.2	110.1	94.8	89.6	80.0	101.1	115.9	110.1	119.0	1,243.0
E.R.* (mm/per)	38.2	2.2	35.1	28.9	83.7	94.9	89.6	60.7	98.4	88.0	20.1	0.0	639.8
I.N.* (mm/per)	57.6	90.7	65.4	104.3	26.2	0.0	0.0	19.3	2.8	28.0	90.0	118.9	603.2
W.D.* (l/s/ha)	0.83	1.45	0.94	1.55	0.38	0.00	0.00	0.28	0.04	0.40	1.34	1.71	8.9

3 Station : Bahirdar L = 11° 35' A = 1,890m No. 27

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
ETO (mm/day)	3.46	4.14	4.75	4.98	4.25	3.50	2.47	2.56	3.59	3.93	3.67	3.28	44.6
ETcrop (mm/per)	107.3	115.9	147.3	149.4	131.8	105.0	76.6	79.4	107.7	121.8	110.1	101.7	1,353.8
E.R.* (mm/per)	0.0	0.0	1.0	11.6	45.1	81.3	76.7	79.4	91.3	45.9	13.9	0.2	446.4
I.N.* (mm/per)	107.2	116.0	146.3	137.7	86.6	23.6	0.0	0.0	16.3	75.8	96.2	101.4	907.1
W.D.* (l/s/ha)	1.55	1.85	2.11	2.05	1.25	0.35	0.00	0.00	0.24	1.09	1.43	1.46	13.4

4 Station : Gonder L = 12° 32' A = 2,270m No. 72

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
ETO (mm/day)	4.15	4.76	5.17	5.06	4.63	4.14	2.55	2.49	3.84	4.43	4.15	3.78	49.2
ETcrop (mm/per)	128.7	133.3	160.3	151.8	143.5	124.2	79.1	77.2	115.2	137.3	124.5	117.2	1,492.2
E.R.* (mm/per)	0.0	1.0	8.7	23.2	45.3	75.2	78.9	77.1	56.5	26.6	13.8	4.9	411.2
I.N.* (mm/per)	128.8	132.4	151.4	128.6	98.1	49.1	0.0	0.0	58.9	110.8	110.7	112.4	1,081.2
W.D.* (l/s/ha)	1.86	2.11	2.18	1.92	1.41	0.73	0.00	0.00	0.88	1.60	1.65	1.62	16.0

5 Station : Asosa L = 10° 04' A = 1,750m No. 23

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
ETO (mm/day)	4.73	5.06	4.65	5.62	4.30	3.48	3.28	2.86	3.97	4.16	4.08	4.34	50.5
ETcrop (mm/per)	146.6	141.7	144.2	168.6	133.3	104.4	101.7	88.7	119.1	129.0	122.4	134.5	1,534.1
E.R.* (mm/per)	0.0	0.0	16.2	17.6	57.9	82.4	88.6	86.5	92.1	50.7	9.8	0.0	501.8
I.N.* (mm/per)	145.7	141.7	128.1	150.8	75.4	22.2	13.1	2.2	27.1	78.1	112.6	134.6	1,031.6
W.D.* (l/s/ha)	2.11	2.26	1.85	2.25	1.09	0.33	0.19	0.03	0.40	1.13	1.68	1.94	15.3

6 Station : Rambesi L = 9° 45' A = 1,450m No. 30

	1	2	3	4	5	6	7	8	9	10	11	12	SUM/AVG
ETO (mm/day)	5.22	5.95	6.80	7.59	7.97	7.34	6.20	5.75	6.38	6.88	5.61	4.97	76.7
ETcrop (mm/per)	161.8	166.6	210.8	227.7	247.1	220.2	192.2	178.3	191.4	213.3	168.3	154.1	2,331.7
E.R.* (mm/per)	0.0	0.0	0.0	3.8	13.6	45.7	77.7	91.9	45.0	2.0	0.0	0.0	279.7
I.N.* (mm/per)	161.8	166.6	210.7	224.0	233.4	174.4	114.6	86.4	146.5	211.2	168.4	154.0	2,052.0
W.D.* (l/s/ha)	2.33	2.66	3.04	3.34	3.37	2.60	1.65	1.25	2.18	3.04	2.51	2.22	30.2

* E.R. = Effective Rain I.N. = Irrigation Net Field W.D. = Water Duty

F-3 : Summary of SSID Schemes in Northern Zone

No	Project's Name	Region	Awraja	Latitude (N)	Longitude (E)	Potential Irrigable Area (ha)	Status of the project	Source of fund	Type of Headwork	Beneficiaries	Construction cost (Birr)
1	Genfel	Tigray	Wukro	13°-48'	39°-36'	100	Head work const.	Gov.	Weir	200	7,000,000
2	Seneafti	"	Adwa	14°-9'	39°-26'	100	"	"	"	200	7,000,000
3	Gufgufe	"	Mekele	12°-48'	39°-37'	100	"	"	"	200	7,000,000
4	Ashago	"	"	13°-28'	39°-30'	100	Design Comp.	"	Dam	200	15,000,000
						Total					400

F-4 : Summary of SSID Schemes in Northeastern Zone

No	Project's Name	Region	Awrāja	Latitude (N)	Longitude (E)	Potential Irrigable Area (ha)	Status of the Project	Source of fund	Type of Headwork	Beneficiaries	Construction cost (Birr)
1	Hardibo	S.Wello	Ambassel	11°-15'	39°-46'	150	On farm Cons.	R. Cross (Don.)	Weir	436	654,900
2	Borkenna	"	Kallu	11°-1'	39°-44'	150	"	"	"	409	10,500,000
3	Mersa	N.Wello	Yeju	11°-43'	39°-35'	40	"	Gov.	"	80	86,700
4	Baty	S.Wello	Kallu	11°-16'	40°-2'	100	"	R. Cross (Don.)	Dam	200	2,500,000
5	Bulbulo	S.Wello	Ambassel	11°-21'	39°-44'	20	"	SIDA (Don.)	Pump	346	99,900
6	Kekewa	"	"	11°-20'	39°-40'	72	"	R. Cross (Don.)	"	106	961,500
7	Kombolcha Peasant's Training Center	"	Dese-Zuria	11°-9'	39°-36'	3	"	SIDA (Don.)	"	6	-
8	Alewaha	N.Wello	Kobo	12°	40°	360	Headwork Cons.	Ethio-Italy (Don.)	Weir	610	25,200,000
9	Gimbora	"	Yeju	11°-47'	39°-23'	310	"	Africare (Don.)	"	1032	2,105,100
10	Dirma	S.Wello	Kallu	10°-53'	39°-43'	200	Design Comp.	Gov.	"	400	14,000,000
11	Gotu	N.Wello	Yeju	10°-38'	39°-40'	185	"	"	"	370	189,100
12	Golina	N.Wello	Kobo	12°-07'	39°-40'	400	"	Ethio-Italy	"	800	2,400,000
Total											1190

F-5 : Inventory of SSID Schemes in Northeastern Zone (1/2)

Proj't Name		1	2	4	5	6	7
Type		Hardibo	Morsa	Gotu	Gimbora	Bulbulo	Kekewa
Zone		W	W	W	W	P	P
Province		N/E	N/E	N/E	N/E	N/E	N/E
I-Area	ha	S/Welo	N/Welo	N/Welo	N/Welo	S/Welo	S/Welo
Base flow	m ³ /s	150	40	185	310	20	72
Bene. (House)	No.	0.3	0.08	0.24	0.699	0.04	0.14
Bene. (Popu.)		436	80	300	1032	346	106
** Intake **							
B. leng.	m	-	20.8	129	26	-	-
B. hight	m	-	1.3	4.25	4.5	-	-
L. Sway	m	-	-	-	21	-	-
H. Sway	m	-	-	2.25	1.2	-	-
** M-Canal **							
Number	No.	1	1	-	-	1	1
T-Leng.	m	3206	750	-	7783	1600	1535
Width	m	0.8	0.8	-	0.6	0.25	0.35
Dep.	m	0.7	0.45	-	0.9	0.5	0.65
Capa.	m	-	-	-	-	0.04	-
** S-Canal **							
Number	No.	-	-	-	54	-	-
T-Leng.	m	-	-	-	15000	-	-
Width	m	-	-	-	-	-	-
Dep.	m	-	-	-	-	-	-
** T-Canal **							
Number	No.	23	-	-	-	7	19
T-Leng.	m	9093	-	-	-	1913	3381
Width	m	-	-	-	-	-	-
Dep.	m	-	-	-	-	-	-
** Q-Canal **	m	-	-	-	-	-	-
** Drainage **	m	8500	1500	-	8000	2500	2500
Structures							
No. Flume	No.	-	1	-	1	1	4
Culvert	No.	16	3	-	14	3	9
Div. -Box	No.	1	-	-	29	3	19
Drop	No.	101	-	-	540	135	50
C-gate	No.	-	-	-	-	-	-
T-out	No.	17	-	-	9	5	12
No. F-road	No.	7	-	-	2	-	7
L. F-road	m	6530	-	-	8000	-	3475
T. C. C	Bir	654,948	86,694	189,121	2105099	99,953	961,479
** Status **		Under-C	Under-C	D-Comp.	Under-C	Under-C	Under-C
Design	%	50	100	100	80	20	36
Const.	%	80	60	0	0	70	80
On-Farm	%	40	25	0	30	70	-

F-5 : Inventory of SSID Schemes in Northeastern Zone (2/2)

Project		3
Type		Earth Dam
Zone		N/W
Province		S/Welo
I-Area	ha	100
No. of B.		39
Pop.		
C Area	Km2	9.8
An. R-fall	mm/y	816
An. Dis.	MCM	1.35
Subm'd area	Km2	20ha
Stor. Capa.	MCM	1.17
Facil.		
Hight	m	15.7
Length	m	332
V. Earth	m3	172,143
Spillway		
Type		?
Leng.	m	228.8
Wid.	m	
Hight	m	1.1
Disc. capa.	m3/s	6
Intake		
Type		?
Leng.	m	84
Disc. capa.		0.736
** M-C **		
No.		-
Leng.	m	4633
Bed Width	m	0.5
Water Dep.	m	0.8
S-C		
No.		12
Leng.	m	1,510
Bed Width	m	-
Water Dep.	m	-
T-C		
No.		-
Leng.	m	-
Bed Width	m	-
Water Dep.	m	-
Drain		
Leng.	m	5000
R-S		
No. Flume	No.	1
Culvert	No.	16
Shute	No.	7
Div. -Box	No.	2
Drop	No.	6
T-out	No.	-
C-gate	No.	-
No. F-road	No.	-
L. F-road	m	4633
T. C. C	Birr	2500000
Status		Under-C.
Design	%	80
Const.	%	15
On-Farm	%	-

F-6 : Summary of SSID Project in Northwestam Zone

No	Project's Name	Region	Awraja	Latitude (N)	Longitude (E)	Potential Irrigable Area (ha)	Status of the project	Source of fund	Type of Headwork	Beneficiaries	Construction cost (\$irr)
1	Geray	W.Gojja	Jabi-Kuarit	10°-38'	37°-22'	770	On farm const.	ADF (Loan) EEC, UN (Don.)	Weir	535	3,051,800
2	Tikur Wuha	"	"	10°-37'	37°-25'	162	"	"	"	198	744,000
3	Kilty	"	Achefer	11°-25'	36°-56'	131	"	"	"	479	860,000
4	Fetam	"	Guagusa-Wenberna	10°-41'	36°-58'	400	"	"	"	413	1,600,000
5	Zingins	"	Agew-Midir	10°-52'	36°-55'	250	Headwork (cons.)	Gov.	"	168	618,600
6	Mandel	"	Bahir-Dar	11°-26'	37°-34'	100	"	"	"	20	442,200
7	Buchiksi	"	Metekel	11°-2'	36°-38°	400	"	"	"	800	423,100
8	Azuari	E.Gojjam	Mota	11°-1'	37°-56'	75	"	"	"	150	410,000
9	Jedeb	"	Damot	10°-25'	37°-34'	250	Design of Headwork comp.	"	"	500	1,750,000
10	Muga	"	Bichena	10°-26'	38°-05'	200	"	"	"	400	1,400,000
11	Abagenen	N.Gonder	Dembia	12°-23'	37°-18'	50	Design comp.	"	Dam	100	668,900
12	Tikurit	W.Gojjam	Bahir-Dar	11°-28'	37°-28'	100	On farm const.	"	Weir	-	-
13	Markuma	E.Gojjam	Finoteselam	10°-58'	36°-55'	32	On farm const.	"	Pump	64	104,800
14	Sebshergo No 1	"	Dejen	10°-15'	38°-17'	60	comp.	"	"	120	28,500
15	Sebshergo No 2	"	"	10°-15'	38°-17'	75	"	"	"	150	65,100
16	Yesir	W.Gojjam	Damot	10°-44'	37°-5'	50	Design Comp.	IDA (Don.)	Weir	100	3,500,000
Total											

F-7 : Inventory of SSID Schemes in Northwestern Zone (1/3)

Proj. t Name		1	2	3	4	5	6	7
Type		Geray	Tikur Wuha	Kilty	Fetam	Zingini	Mendel	Buchiksi
Zone		W	W	W	W	W	W	W
Province		N/W	N/W	N/W	N/W	N/W	N/W	N/W
I-Area	ha	W/Gojam	W/Gojam	W/Gojam	W/Gojam	W/Gojam	W/Gojam	Metekel
Base flow	m ³ /s	770	162	131	400	250	100	400
Bene. (House)	No.	1.7	0.352	0.286	0.88	0.54	0.19	0.4
Bene. (Popu.)	No.	404	291	963	434	3600	390	862
** Intake **								
B. leng.	m	105	-	-	-	32.7	16	90
B. hight	m	4	-	-	-	1.5	3.7	2.5
L. Sway	m	-	-	-	-	5.1	11	17
H. Sway	m	-	-	-	-	0.9	-	1.5
** M-Canal **								
Number	No.	1	-	-	-	-	-	-
T-Leng.	m	9800	2800	4000	4800	4885	2060	3050
Width	m	3.8	-	-	-	0.6	0.7	0.5
Dep.	m	1.5	-	-	-	0.5	0.45	0.4
Capa.	m	-	-	-	-	-	-	-
** S-Canal **								
Number	No.	-	-	-	-	3	12	2
T-Leng.	m	12500	7000	3000	7200	2450	4450	2750
Width	m	-	-	-	-	-	-	-
Dep.	m	-	-	-	-	-	-	-
** T-Canal **								
Number	No.	-	-	-	-	70	111	-
T-Leng.	m	52400	10500	7800	27200	3115	19270	-
Width	m	-	-	-	-	-	-	-
Dep.	m	-	-	-	-	-	-	-
** Q-Canal **	m	-	12000	5000	-	-	7000	-
** Drainage**	m	35000	-	5000	20000	6000	-	5500
Structures								
No. Flume	No.	-	-	-	-	5	-	42
Culvert	No.	-	-	-	-	24	8	4
Div. -Box	No.	-	-	-	-	3	9	12
Drop	No.	-	-	-	-	49	9	46
C-gate	No.	-	-	-	-	3	-	-
T-out	No.	-	-	-	-	22	-	-
No. F-road	No.	-	-	-	-	-	-	-
L. F-road	m	5000	-	4000	12000	3840	3160	-
T. C. C	Bir	3,051,800	744,000	860,000	1,600,000	618,607	442,226	423,065
** Status **		Under-C	Comp.	Comp.	Under-C	Under-C	Under-C	Under-C
Design	%	40	30	25	30	-	100	100
Const.	%	40	60	25	30	80	60	60
On-Farm	%	-	-	-	-	-	-	-

F-7 : Inventory of SSID Schemes in Northwestern Zone (2/3)

#Proj. t Name#		8	9	10	12	13	14
Type		Azuari	Jedeb	Muga	Markoma	Shebshengo1	Shebshengo2
Zone		W	W	W	P	P	P
Province		N/W	N/W	N/W	N/W	N/W	N/W
I-Area	ha	E/Gojam	E/Gojam	E/Gojam	W/Gojam	E/Gojam	E/Gojam
I-Area	ha	75	250	200	32	60	75
Base flow	m ³ /s	0.297	0.5	0.4	0.064	0.12	0.15
Bene. (House)	No.	200	3686	465	1408	2380	2380
Bene. (Popu.)	No.	-	-	-	-	-	-
** Intake **							
B. leng.	m	39	-	-	-	-	-
B. hight	m	3.8	4.95	4.8	-	-	-
L. Sway	m	30	30	38	-	-	-
H. Sway	m	1.8	4.5	-	-	-	-
** M-Canal **							
Number	No.	-	-	-	-	-	-
T-Leng.	m	3450	-	-	657	1800	2100
Width	m	1.6	-	-	0.4	0.4	0.6
Dep.	m	1	-	-	0.3	0.3	0.4
Capa.	M ³ /S	-	-	-	-	-	-
** S-Canal **							
Number	No.	3	-	-	-	-	18
T-Leng.	m	832	-	-	-	-	2900
Width	m	-	-	-	-	-	-
Dep.	m	-	-	-	-	-	-
** T-Canal **							
Number	No.	-	-	-	-	4	-
T-Leng.	m	-	-	-	-	2330	3500
Width	m	-	-	-	-	-	-
Dep.	m	-	-	-	-	-	-
** Q-Canal **	m	-	-	-	-	-	-
** Drainage**	m	4500	-	-	800	3500	-
Structures							
No. Flume	No.	-	-	-	-	7	9
Culvert	No.	1	-	-	2	3	1
Div. -Box	No.	5	-	-	10	-	-
Drop	No.	-	-	-	1	-	-
C-gate	No.	-	-	-	-	-	-
T-out	No.	6	-	-	-	-	-
No. F-road	No.	-	-	-	-	-	-
L. F-road	m	112	-	-	-	-	-
T. C. C	Bir	677,860	668,938	487,086	104,815	28,452	65,087
** Status **		D-Comp.	D-Comp.	D-Comp.	Under-C	Comp.	Comp.
Design	%	100	100%-Headwork	100%-Headwork	100	100	100
Const.	%	0	-	-	100	100	100
On-Farm	%	0	-	-	62	-	-

F-7 : Inventory of SSID Schemes in Northwestern Zone (3/3)

Project		11
Type		Aba Genan
Zone		D
Province		W
I-Area	ha	N/Gondar
No. of B.		50
Pop.		1650
C Area	Km2	24
An. R-fall	mm/y	1,000
An. Dis.	MCM	2.3
Subm'd area	Km2	-
Stor. Capa.	MCM	0.76
Facil.		Earth Dam
Height	m	18
Length	m	423
V. Earth	m3	151,800
Spillway		Concrete
Type		Concrete
Leng.	m	200
Wid.	m	-
Height	m	15
Disc. capa.	m3/s	94
Intake		Steel Pipe
Type		Steel Pipe
Leng.	m	61.5
Disc. capa.		0.15
** M-C **		-
No.		-
Leng.	m	-
Bed Width	m	-
Water Dep.	m	-
S-C		-
No.		-
Leng.	m	-
Bed Width	m	-
Water Dep.	m	-
T-C		-
No.		-
Leng.	m	-
Bed Width	m	-
Water Dep.	m	-
Drain		-
R-S		-
No. Flume	No.	-
Culvert	No.	-
Shute	No.	-
Div. -Box	No.	-
Drop	No.	-
T-out	No.	-
C-gate	No.	-
No. F-road	No.	-
L. F-road	m	-
T. C. C	Birr	668,938
Status		D-Comp.
Design	%	100
Const.	%	0
On-Farm	%	0

F-8 : Summary of SSID Schemes in Western Zone

No	Project's Name	Region	Awraja	Latitude (N)	Longitude (E)	Potential Irrigable Area (ha)	Status of the project	Source of fund	Type of Headwork	Beneficiaries	Construction cost (Birr)
1	Gambela Tere	Wellega	Nekemit	7°-33'	36°-43'	80	Head work & M.C. Construc.	Gov.	Weir	160	723,500
2	Gibelimu	"	"	9°-81'	37°-14'	50	Design Comp.	"	"	100	250,000
3	Keto	"	"	10°-6'	34°-33'	50	On farm const.	"	Pump	100	-
4	Tato	"	Asosa	10°-6'	34°-33'	60	Comp. Design Comp.	"	Weir	120	4,200,000
Total											240

F-9 : Inventory of SSID Schemes in Western Zone

Proj't Name		1 Gambelatero	2 Gibe	3 Tato
Type		W	W	W
Zone		W	W	W
Province		Wolloga	Wolloga	Wolloga
I-Area	ha	80	50	50
Base flow	m ³ /s	0.36	0.1	0.15
Bene. (House)	No.	235	105	300
Bene. (Popu.)		-	-	-
** Intake **				
B. leng.	m	17	30	20
B. hight	m	3	0.5	2.5
L. Sway	m	-	-	-
H. Sway	m	-	-	-
** M-Canal **				
Number	No.	1	-	-
T-Leng.	m	7300	3500	-
Width	m	0.7	0.45	-
Dep.	m	0.35	0.65	-
Capa.	m	-	-	-
** S-Canal **				
Number	No.	-	-	-
T-Leng.	m	1500	500	-
Width	m	-	-	-
Dep.	m	-	-	-
** T-Canal **				
Number	No.	-	-	-
T-Leng.	m	-	10400	-
Width	m	-	-	-
Dep.	m	-	-	-
** Q-Canal **	m	-	-	-
** Drainage**	m	5500	5000	-
Structures				
No. Flume	No.	2	1	-
Culvert	No.	5	8	-
Div. -Box	No.	-	20	-
Drop	No.	14	34	-
C-gate	No.	14	-	-
T-out	No.	-	12	-
No. F-road	No.	1	-	-
L. F-road	m	550	-	-
T. C. C.	Bir	723,548	250,000	-
** Status **		Under-C	D-Comp.	D-Comp.
Design	%	100	100	100
Const.	%	50	0	-
On-Farm	%	0	0	-

F-10 : Summary of SSID Schemes in Southeastern Zone

No	Project's Name	Region	Awraja	Latitude (N)	Longitude (E)	Potential Irrigable Area (ha)	Status of the project	Source of fund	Type of Headwork	Beneficiaries	Construction cost (Birr)
1	Waro	Ilubabor	Jima	7°-36'	36°-51'	150	Onfarm const. Comp.	Gov.	Weir	300	311,400
2	Abono	"	"	7°-33'	36°-42'	160	"	"	"	320	367,800
3	Kishe	"	"	7°-25'	36°-33'	25	"	"	"	50	125,000
4	Kolombo	"	Limu	7°-51'	36°-42'	53	Head work const. Comp.	"	"	106	-
Total						388					

F-11 : Inventory of SSID Schemes in Southwestern Zone

Proj. Name		1	2	3	4
Type		W	W	W	W
Zone		S/W	S/W	S/W	S/W
Province		Ilubabor	Ilubabor	Ilubabor	Ilubabor
I-Area	ha	150	160	25	53
Base flow	m ³ /s	0.3	0.24	0.075	0.2
Bene. (House)	No.	1,200	800	130	64
Bene. (Popu.)	No.	-	-	-	-
** Intake **					
B. leng.	m	20	30	10	15
B. hight	m	3.6	3	1.8	2
L. Sway	m	-	13.2	-	-
H. Sway	m	-	3	-	-
** M-Canal **					
Number	No.	-	-	-	-
T-Leng.	m	2,950	3,252	1,550	-
Width	m	0.6	0.8 & 0.5	0.4	-
Dep.	m	0.4	0.3 & 0.3	0.3	-
Capa.	M ³ /S	-	-	-	-
** S-Canal **					
Number	No.	-	-	-	-
T-Leng.	m	-	4,760	-	-
Width	m	-	-	-	-
Dep.	m	-	-	-	-
** T-Canal **					
Number	No.	55	149	-	-
T-Leng.	m	1,655	3,762	-	-
Width	m	-	-	-	-
Dep.	m	-	-	-	-
** Q-Canal **	m	-	-	-	-
** Drainage**	m	4,000	7,000	2,000	-
Structures					
No. Flume	No.	-	-	2	-
Culvert	No.	1	36	-	-
Div. -Box	No.	-	4	4	-
Drop	No.	15	-	5	-
C-gate	No.	-	-	-	-
T-out	No.	15	5	-	-
No. F-road	No.	-	-	-	-
L. F-road	m	1,000	-	-	-
T. C. C	Bir	311,395	367,762	125,000	-
** Status **		Under-c	Comp.	Comp.	Under-c
Design	%	100	100	100	50
Const.	%	60	100	100	-
On-Farm	%	-	50	100	-

F-12 : Summary of SSID Schemes in Eastern Zone

No	Project's Name	Region	Awraja	Latitude (N)	Longitude (E)	Potential Irrigable Area (ha)	Status of the project	Source of fund	Type of Headwork	Beneficiaries	Construction cost (Birr)
1	Burka	W.Harerge	Habru	8°-58'	40°-46'	165	On farm const. comp.	Gov.	Weir	330	100,000
2	Hirna	"	Webera	9°-13'	41°-9'	50	"	"	"	240	-
3	Boko	E.Harerge	Fedis	9°-14'	42°-9'	105	"	"	"	137	280,000
4	Awusherif	"	Harer-Zuria	9°-22'	42°-20'	10	"	"	"	20	6,500
5	Homecho	"	Chercher	8°-55'	41°	250	"	"	"	450	304,100
6	Kasheja	"	"	8°-55'	40°-50'	250	"	"	"	500	286,700
7	Kubsa	"	Harer-Zuria	9°-27'	42°-7'	30	"	"	Pump	60	26,400
8	Gabisa	"	"	9°-24'	42°-4'	30	"	"	"	60	21,800
9	Kuroharo	"	"	9°-24'	42°-7'	30	"	"	"	60	22,800
10	Biyo	"	Jijiga	9°-25'	42°-41'	86	"	Eth. Italy (Don.)	Dam	172	4,841,800
11	Chinaksen	"	"	9°-27'	42°-39'	45	Head work const.	"	"	90	2,612,800
12	Asseliso	"	Diredawa	9°-38'	41°-49'	100	"	Gov.	Weir	200	357,600
13	Hario	"	Jijiga	9°-15'	42°-10'	100	Design comp.	Eth. Italy (Don)	Dam	2000	28,000,000
14	Sofi	"	Harer-Zuria	9°-15'	42°-10'	10	"	IFAD (Loan)	Weir	20	14,700
15	Burkahundene	"	"	9°-15'	42°-10'	20	"	"	"	40	39,400
16	Woter	E.Harerge	Harer-Zuria	9°-20'	41°-48'	60	Design comp.	IFAD (Loan)	"	120	171,400
17	Jawis	W.Harerge	Habru	8°-49'	40°-52'	50	"	"	"	100	171,300
18	Rarechilalo	E.Harerge	Gara Moleta	9°-25'	42°	30	"	"	"	60	60,000
19	Gendarige	Dire Dawa	Dire Dawa	9°-36'	41°-47'	20	"	"	"	40	40,000
20	Erer Woldeia	"	"	10°-35'	42°-54'	52	"	"	"	104	104,000
21	Arata	"	"	9°-22'	41°-38'	20	under Design	"	"	40	40,000
22	Hirna	E.Harerge	-	-	-	30	-	-	-	-	-
23	Jijiga	"	Jijiga	9°-25'	42°-55'	500	On farm cont.	Eth-Italy (Don)	Dam	1000	12,000,000
24	Kobo	"	Jijiga	9°-27'	42°-35'	250	"	"	"	500	74,000,000
Total						3042					

F-13 : Inventory of SSID Schemes in Eastern Zone (1/4)

		1	2	3	4
Proj. t. Name		Burka	Boko	Hasseliso	Ilomecho
Type		W	W	W	W
Zone		E	E	E	E
Province		W. Harerige	W. Harerige	W. Harerige	W. Harerige
I-Area	ha	165	105	100	250
Base flow	m ³ /s	0.268	0.2	0.12	0.55
Bene. (House)	No.	330			600
Bene. (Popu.)	No.	-	630	3,000	-
** Intake **					
B. leng.	m	3.5	18	20	12.5
B. high	m	1.35	4	4.3	2.7
L. Sway	m	-	-	-	-
H. Sway	m	-	-	-	-
** M-Canal **					
Number	No.	-	-	-	-
T-Leng.	m	6,300	1,750	6,575	4,500
Width	m	0.6	0.4	0.5	1.2
Dep.	m	0.6	0.4	0.5	1.2
Capa.	M ³ /S	-	-	-	-
** S-Canal **					
Number	No.	2	1	3	-
T-Leng.	m	800	350	5,485	-
Width	m	-	-	-	-
Dep.	m	-	-	-	-
** T-Canal **					
Number	No.	13	5	15	-
T-Leng.	m	18,000	2,080	12,140	8,750
Width	m	-	-	-	-
Dep.	m	-	-	-	-
** Q-Canal **					
Number	No.	7,000	4,500	1,500	12,000
** Drainage**					
Structures					
No. Flume	No.	-	2	-	-
Culvert	No.	4	3	14	7
Div. -Box	No.	1	-	-	-
Drop	No.	3	-	5	-
C-gate	No.	0	-	-	-
T-out	No.	9	2	-	10
No. F-road	No.	-	-	-	-
L. F-road	m	-	-	4,600	1,050
T. C. C	Bir	100,123	280,089	357,582	304,122
** Status **		Comp.	Under-C.	D-Comp.	D-Comp.
Design	%	100	100	100	100
Const.	%	100	100	70	95
On-Farm	%	60	10	-	65

F-13 : Inventory of SSID Schemes in Eastern Zone (2/4)

Proj't Name		5	6	7	8	12
Type		Kascheja	Kubssa	Gabissa	Kuroharo	Soffe
Zone		W	P	P	P	Spring Dev.
Province		E	E	E	E	E
l-Area	ha	W. Harerige	W. Harerige	W. Harerige	W. Harerige	E. Harerge
Base flow	m ³ /s	250	30	30	30	10
Bene. (House)	No.	1.2	0.06	0.025	0.06	0.015
Bene. (Popu.)	No.	2,100	150	125	150	80
** Intake **						
B. leng.	m	15				50
B. hight	m	5				1.5
L. Sway	m					W. ; 20m
H. Sway	m					St. 1350m ³
** M-Canal **						
Number	No.					
T-Leng.	m	3,710	2,500	107	1,125	230
Width	m	1	0.35	0.3	0.35	0.2
Dep.	m	1.05	0.3	0.25	0.3	0.15
Capa.	M ³ /S					
** S-Canal **						
Number	No.					
T-Leng.	m	2,179		108		
Width	m					
Dep.	m					
** T-Canal **						
Number	No.		12			
T-Leng.	m	2,250	2,290			
Width	m					
Dep.	m					
** Q-Canal **	m					
** Drainage**	m	4,500	2,500	600	1,500	
Structures						
No. Flume	No.		4			
Culvert	No.	7			2	3
Div. -Box	No.		2	2		2
Drop	No.	26				
C-gate	No.					
T-out	No.	5				
No. F-road	No.					
L. F-road	m	6,511				
T.C.C	Bir	286,784	86,400	21,810	22,819	14,730
** Status **		D-Comp.	Comp.	D-Comp.	Comp.	D-Comp.
Design	%	100	100	100	100	100
Const.	%	95	100	100	100	
On-Farm	%	65	100	100	100	

F-13 : Inventory of SSID Schemes in Eastern Zone (3/4)

Project Name		13 Burka Hundene	14 Wetel	16 Jawisso	17 Rarre
Type		Spring Dev.	W	W	P
Zone		E	E	E	E
Province			Harar Zuria		
I-Area	ha	20	60	45	30
Base flow	m ³ /s	0.0118	0.12	0.08	0.583
Bene. (House)	No.	-	-	-	-
Bene. (Popu.)	No.	80	1,975	100	2,716
** Intake **					
B. leng.	m	50	29	12	-
B. hight	m	1.25	2	2	-
L. Sway	m	W.; 20m?	-	-	-
H. Sway	m	St. 1125m3?	-	-	-
** M-Canal **				Not Y. Des.	
Number	No.	-	-	-	-
T-Leng.	m	250	4,000	-	1,840
Width	m	-	0.5	-	0.5
Dep.	m	-	0.8	-	0.6
Capa.	M ³ /S	-	-	-	-
** S-Canal **					
Number	No.	-	160	-	1
T-Leng.	m	850	3,000	-	666
Width	m	-	-	-	-
Dep.	m	-	-	-	-
** T-Canal **					
Number	No.	-	160	-	-
T-Leng.	m	-	3,000	-	2,500
Width	m	-	-	-	-
Dep.	m	-	-	-	-
** Q-Canal **	m	-	-	-	-
** Drainage**	m	850	8,000	-	2,500
Structures					
No. Flume	No.	-	-	-	-
Culvert	No.	1	2	-	2
Div. -Box	No.	2	160	-	-
Drop	No.	-	-	-	-
C-gate	No.	-	-	-	-
T-out	No.	-	-	-	10
No. F-road	No.	-	-	-	-
L. F-road	m	-	-	-	160
T. C. C	Bir	39,404	171,358	171,315	192,012
** Status **		D-Comp.	D-Comp.	(Pof HW only)	
Design	%	100	100	100	100
Const.	%	-	-	-	-
On-Farm	%	-	-	-	-

F-13 : Inventory of SSID Schemes in Eastern Zone (4/4)

	9	10	11	15	18
Project	Biyo	Chinahassen	Harero	Jijiga	Kobo
Type	Earth Dam	Earth Dam	Earth Dam	Earth Dam	Earth dam
Zone	E	E	E	E	E
Province	E. Harerige	E. Harerige	E. Harerige	E. Harerige	E. Harerige
1-Area	ha 86	45	1000	500	250
No. of B.	172	90	-	-	-
Pop.	-	-	2000	1000	500
C Area	Km2 26	12	280	18.4	120
An. R-fall	mm/y 612	500	21MCM?	620	700
An. Dis.	MCM 1.6	0.74	-	-	9
Subm d area	Km2 -	-	1.1	1.6	-
Stor. Capa.	MCM 1.325	0.4	6	7	2.14
Facil.	Earth Dam	Earth Dam	Earth Dam	-	-
Hight	m 14.5	12	16.5	18.4	22
Length	m 680	380	940	1250	104
V. Earth	m3 180,058	107,000	520,000	550,000	200,000
Spillway					
Type	conc. & gabion	Concrete	-	Concrete	Concrete
Leng.	m 300	105	615	40	210
Wid.	m -	20	40	-	66
Hight	m -	-	-	-	-
Disc. capa.	m3/s 82	25	800	360	360
Intake					
Type	steel pipe	R. C. Pipe	R. C. Pipe	R. C. Pipe	R. C. Pipe
Leng.	m 72.4	-	140	-	110
Disc. capa.	0.69	0.0805	11.35	1.54	4.9
** M-C **					
No.	-	-	-	-	-
Leng.	m -	-	-	-	-
Bed Width	m -	-	-	-	-
Water Dep.	m -	-	-	-	-
S-C					
No.	-	-	-	-	-
Leng.	m -	-	-	-	-
Bed Width	m -	-	-	-	-
Water Dep.	m -	-	-	-	-
T-C					
No.	-	-	-	-	-
Leng.	m -	-	-	-	-
Bed Width	m -	-	-	-	-
Water Dep.	m -	-	-	-	-
Drain					
R-S					
No. Flume	No.	-	-	-	-
Culvert	No.	-	-	-	-
Shute	No.	-	-	-	-
Div. -Box	No.	-	-	-	-
Drop	No.	-	-	-	-
T-out	No.	-	-	-	-
C-gate	No.	-	-	-	-
No. F-road	No.	-	-	-	-
L. F-road	m -	-	-	-	-
T. C. C	Birr 4,841,800	2,612,824	28,000,000	12,000,000	7,400,000
Status	Under-C.	Under-C.	D-Comp.	-	D-Comp.
Design	% 100	100	100	100	100
Const.	% 100	95	-	-	-
On-Farm	% -	-	-	-	-

F-14 : Summary of SSID Schemes in Southern Zone

No	Project's Name	Region	Awraja	Latitude (N)	Longitude (E)	Potential Irrigable Area (ha)	Status of the project	Source of fund	Type of Headwork	Beneficiaries	Construction cost (Birr)
1	Lesho	N.Omo	Damot	6°-36'	37°-36'	168	On farm cons.	Gov.	Weir	336	117,200
2	Gewada	N.Omo	Konso	5°-6'	37°-44'	80	"	ADF (Loan)	"	160	400,000
3	Argoba	N.Omo	Gardula	5°-34'	37°-26'	150	"	"	"	300	245,300
4	Kedoboga	Sidamo	Awasa-Zuria	7°-3'	38°-34'	234	"	Gov.	"	468	1,100,000
5	Wamole	"	Sidamo	7°	38°-34'	68.5	"	"	"	137	172,300
6	Weyto	N.Omo	Konso	5°-12'	37°	254	Headwork Cons.	FAO (Don.)	"	508	217,800
7	Harre	N.Omo	Arba Minch	6°-9'	37°-20'	1000	"	UNCDF (Don.)	"	2000	46,000,000
8	Ela	N.Omo	Welayita	6°-46'	37°-50'	80	"	IFAD (Loan)	"	160	216,900
9	Wajja	N.Omo	Welayita	6°-48'	37°-48'	20	Design comp.	"	"	40	53,200
10	Weybo	N.Omo	Yeleso-Sere	7°-9'	37°-39'	150	"	"	"	300	1,023,000
11	Wajifo	N.Omo	Chencha	6°-31'	37°-44'	400	"	UNCDF (Don.)	"	800	1,600,000
Total						2604.5					

F-15 : Inventory of SSID Schemes in Southern Zone (1/2)

Proj t Name		1	2	3	4	5
Type		Lesho	Gewada	Arogoba	Kedoboga	Wamole
Zone		W	W	W	W	W
Province		S	S	S	S	S
I-Area	ha	N/OMO	N/OMO	N/OMO	Sidamo	Sidamo
Base flow	m ³ /s	168	80	150	234	68.5
Bene. (House)	No.	0.3	0.11	0.33	0.435	0.15
Bene. (Popu.)	No.	68	146	-	-	204
** Intake **		Gabion Weir	Diver. Weir	Diver. Weir	Diver. Weir	Diver. Weir
B. leng.	m	-	-	-	41	10
B. hight	m	-	-	-	2	4.86
L. Sway	m	-	-	-	26	5
H. Sway	m	-	-	-	1	1
** M-Canal **						
Number	No.	-	-	-	-	-
T-Leng.	m	4,400	1,900	1,600	4,000	2,240
Width	m	-	-	-	-	0.6
Dep.	m	-	-	-	-	0.7
Capa.	M ³ /S	-	-	-	0.435	-
** S-Canal **						
Number	No.	-	-	-	9	-
T-Leng.	m	3,200	5,400	4,800	7,900	-
Width	m	-	-	-	-	-
Dep.	m	-	-	-	-	-
** T-Canal **						
Number	No.	-	-	-	-	18
T-Leng.	m	-	5,400	1,900	25,250	5,225
Width	m	-	-	-	-	-
Dep.	m	-	-	-	-	-
** Q-Canal **						
** Drainage**	m	7,000	3,000	14,000	6,500	6,000
Structures						
No. Flume	No.	-	-	-	-	-
Culvert	No.	1	-	-	11	2
Div. -Box	No.	-	-	-	1	-
Drop	No.	7	-	-	938	18
C-gate	No.	-	-	-	-	-
T-out	No.	14	-	-	179	18
No. F-road	No.	-	-	-	-	-
L. F-road	m	-	4,000	2,600	8,000	-
T. C. C	Bir	117,225	500,000	545,000	1,100,000	172,300
** Status **		Comp.	D-Comp.	D-Comp.	Under-C	D-Comp.
Design	%	100	100	100	100	100
Const.	%	-	40	-	60	100
On-Farm	%	-	40	-	-	-

F-15 : Inventory of SSID Schemes in Southern Zone (2/2)

Proj't Name		6	7	8	9	10	11
Type		Wayto	Hare	Waja	Wajifo	Gewada	Weyibo
Zone		W	W	W	W	W	W
Province		S	S	S	S	S	S
I-Area	ha	N/OMO	N/OMO	N/OMO	N/OMO	N/OMO	N/OMO
Base flow	m ³ /s	254	1000	20	401	80	150
Bene. (House)	No.	0.61	2	0.044	0.94	0.2	0.33
Bene. (Popu.)	No.	134	-	100	735	100	1,000
** Intake **		Diver. Weir	Diver. Weir	Diver. Weir	Diver. Weir	Diver. Weir	Diver. Weir
B. leng.	m	-	-	40	85	-	50
B. hight	m	-	-	2.8	4	4	3.1
L. Sway	m	-	-	35	38	-	32.4
H. Sway	m	-	-	1	-	1	-
** M-Canal **		-	-	-	-	-	-
Number	No.	-	-	-	-	-	-
T-Leng.	m	4,875	-	2,150	4,534	1,500	3,070
Width	m	-	-	0.5	1.65	-	-
Dep.	m	-	-	0.25	1.1	-	-
Capa.	M ³ /S	-	-	-	-	0.2	0.33
** S-Canal **		-	-	-	-	-	-
Number	No.	-	-	-	2	2	11
T-Leng.	m	-	-	-	1,680	1,200	8,040
Width	m	-	-	-	-	-	-
Dep.	m	-	-	-	-	-	-
** T-Canal **		-	-	-	-	-	-
Number	No.	-	24	-	29	5	10
T-Leng.	m	8,320	21,600	-	12,413	3,910	4,440
Width	m	-	-	-	-	-	-
Dep.	m	-	-	-	-	-	-
** Q-Canal **		-	-	-	-	3,910	-
** Drainage**	m	13,000	9,500	3,000	8,000	4,000	10,000
Structures		-	-	-	-	-	-
No. Flume	No.	-	1	4	-	-	3
Culvert	No.	-	5	-	16	-	12
Diy. -Box	No.	-	6	-	5	20	-
Drop	No.	-	83	-	91	16	111
C-gate	No.	-	-	-	-	-	46
T-out	No.	6	24	-	21	32	-
No. F-road	No.	-	-	-	-	-	46
L. F-road	m	16,975	-	-	18,627	1,600	10,000
T. C. C	Bir	217,815	46,000,000	53,227	1,600,000	216,956	893,000
** Status **		D-Comp.	D-Comp.	D-Comp.	D-Comp.	Comp.	Comp.
Design	%	100	100	100	-	100	100
Const.	%	-	-	-	-	-	-
On-Farm	%	-	-	-	-	-	-

F-16 : Summary of SSID Schemes in Southeastern Zone

No	Project's Name	Region	Awraja	Latitude (N)	Longitude (E)	Potential Irrigable Area (ha)	Status of the project	Source of fund	Type of Headwork	Beneficiaries	Construction cost (Birr)
1	Homba	Arsi	Arbagugu	8°-35'	40°-4'	95	Constr. comp.	Gov.	Weir	190	462,200
2	Assasa/Kawa	"	Chilalo	7°-9'	39°-16'	100	"	"	"	200	380,000
3	Gongoma	Bale	Delomena	6°-25'	39°-51'	70	"	"	"	140	372,800
4	Kulumsa	Arsi	Chilalo	8°	39°-12'	30	"	"	"	50	-
5	Hora boka	Bale	Mendeyu	7°-2'	40°-4'	30	"	"	"	60	27,200
6	Menna	"	Guro	7°-27'	40°-20'	100	"	"	"	200	257,000
7	Shaya	"	Mendeyu	7°-11'	40°	270	"	"	"	540	307,400
8	Sheled	Arsi	Chilalo	7°-55'	38°-59'	50	"	IFAD (Loan)	"	100	677,800
9	Hassen Usman	Arsi	Ticho	7°-46'	39°-30'	150	"	"	"	300	521,000
10	Ketar	"	Chilalo	7°-48'	39°-5'	1200	On-farm const.	ADF (Loan)	"	2400	2,900,000
11.	Dalele-Sembero	"	"	7°-30'	38°-55'	60	Head work Cons.	IFAD (Loan)	"	120	429,000
12	Metana-Meti	"	"	7°-35'	38°-54'	50	"	"	"	100	396,000
13	Legeden-Shoba	"	"	7°-30'	38°-55'	80	"	"	"	160	627,000
14	Arata Chufo	"	"	7°-50'	39°-05'	100	"	"	"	200	589,000
15	Bush-Mesno	Arsi	Chilalo	7°-40'	38°-50'	50	"	"	"	100	400,000
16	Meribo-Chata	Bale	Genale	6°-57'	39°-23'	60	"	"	"	120	250,000
17	Cheri	Bale	Delo	6°-27'	40°-15'	50	Design Comp.	"	"	100	300,000
Total						2545					

F-17 : Inventory of SSID Schemes in Southeastern Zone (1/3)

Proj' t Name		1	2	3	4	5
Type		Homba	KAWA	Ketar	Ilora-boka	Menna
Zone		W	W&P (9.9HEAD)	W	W	W
Province		S/E	S/E	S/E	S/E	S/E
I-Area	ha	95	100	1200	30	100
Base flow	m ³ /s	0.15	0.15	2.64	0.06	0.2
Bene. (House)	No.	191	250	100	45	168
Bene. (Popu.)	No.	-	-	1,816	-	-
** Intake **						
B. leng.	m	22.5	29	-	-	18
B. hight	m	5.5	2	-	-	3.9
L. Sway	m	-	-	-	-	-
H. Sway	m	-	-	-	-	-
** M-Canal **						
Number	No.	-	-	-	-	-
T-Leng.	m	9,000	1,750	18,700	1,800	5,077
Width	m	0.5	0.3	-	0.2	0.2 & 0.5
Dep.	m	0.5	0.3	-	0.5	.22 & .45
Capa.	M ³ /S	-	-	-	0.06	-
** S-Canal **						
Number	No.	1	-	-	1	23
T-Leng.	m	1,600	-	18,000	420	2,044
Width	m	-	-	-	-	-
Dep.	m	-	-	-	-	-
** T-Canal **						
Number	No.	38	-	-	-	59
T-Leng.	m	14,440	-	56,500	-	7,440
Width	m	-	-	-	-	-
Dep.	m	-	-	-	-	-
** Q-Canal **	m	-	-	-	-	-
** Drainage**	m	3,000	2,000	42,000	1,000	8,000
Structures						
No. Flume	No.	-	-	-	-	-
Culvert	No.	8	1	-	2	1
Div. -Box	No.	1	1	-	1	16
Drop	No.	36	-	-	20	50
C-gate	No.	-	-	-	-	-
T-out	No.	3	-	-	7	19
No. F-road	No.	-	-	-	1	22
L. F-road	m	-	-	10,000	1,100	2,270
T. C. C	Bir	462,131	380,000	5,300,000	27,182	257,000
** Status **		Under-C	D-Comp	Under-C	D-Comp	Comp
Design	%	100	100	20	100	100
Const.	%	70	-	20	-	100
On-Farm	%	20	-	-	100	100

F-17 : Inventory of SSID Schemes in Southeastern Zone (2/3)

Proj't Name		6	7	8	9	10
Type		Shaya	Gongoma	Sheled	Hassen-Usman	DeleleSembero
Zone		W	W	W	W	W
Province		S/E	S/E	S/E	S/E	S/E
I-Area	ha	270	70	50	100	60
Base flow	m ³ /s	0.3	0.23	0.135	0.35	0.11
Bene. (House)	No.	-	150	80	190	47
Bene. (Popu.)	No.	1,000	-	-	-	-
** Intake **						
B. leng.	m	38	35	90	13	14.5
B. hight	m	3.5	4	2	3.5	3
L. Sway	m	-	9	-	-	-
H. Sway	m	-	1	-	-	-
** M-Canal **						
Number	No.	-	-	-	-	-
T-Leng.	m	8,679	3,220	505	1,675	675
Width	m	1.6	1.45	-	-	1.1
Dep.	m	0.8	0.7	0.8	-	0.7
Capa.	M ³ /S	-	-	-	-	-
** S-Canal **						
Number	No.	12	2	3	1	-
T-Leng.	m	3,234	1,205	1,280	2,940	-
Width	m	-	-	-	-	-
Dep.	m	-	-	-	-	-
** T-Canal **						
Number	No.	12	6	13	1	4
T-Leng.	m	3,234	3,080	5,000	1,740	1,750
Width	m	-	-	-	-	-
Dep.	m	-	-	-	-	-
** Q-Canal **	m	-	-	-	-	-
** Drainage**	m	6,000	4,000	8,000	5,000	2,000
Structures						
No. Flume	No.	1	-	-	-	-
Culvert	No.	6	5	-	2	-
Div. -Box	No.	12	1	5	-	2
Drop	No.	7	17	-	83	13
C-gate	No.	-	shtute-1	-	-	-
T-out	No.	-	-	13	19	-
No. F-road	No.	-	7	-	-	4
L. F-road	m	-	6,230	2,000	5,000	5,700
T. G. C	Bir	307,311	410,000	120,000	521,000	429,000
** Status **		Comp	Under-C			
Design	%	100	100	100	100	100
Const.	%	100	4	90	-	-
On-Farm	%	10	-	-	-	-

F-17 : Inventory of SSID Schemes in Southeastern Zone (3/3)

#Proj t Name#		11 Metana-Meti	12 Legeden	13 ArataChufa
Type		W	W	W
Zone		S/E	S/E	S/E
Province				
I-Area	ha	50	80	100
Base flow	m ³ /s	0.11	0.3	0.1
Bene. (House)	No.	35	172	130
Bene. (Popu.)	No.	-	-	-
** Intake **				
B. leng.	m	8.2 & 6.0	11	111
B. hight	m	0.5 & 0.3	2.5	4.2
L. Sway	m	7 & 5	-	42
H. Sway	m	-	-	1.6
** M-Canal **				
Number	No.	-	-	-
T-Leng.	m	2,235	3,090	1,010
Width	m	1.1	0.38	0.25
Dep.	m	0.6	0.4	0.32
Capa.	M ³ /S	-	-	-
** S-Canal **				
Number	No.	-	-	2
T-Leng.	m	-	-	584
Width	m	-	-	-
Dep.	m	-	-	-
** T-Canal **				
Number	No.	3	5	10
T-Leng.	m	1,000	5,220	4,032
Width	m	-	-	-
Dep.	m	-	-	-
** Q-Canal **				
** Drainage**	m	3,500	8,000	6,000
Structures				
No. Flume	No.	-	-	-
Culvert	No.	2	11	5
Diy. -Box	No.	-	2	5
Drop	No.	25	68	336
C-gate	No.	-	-	-
T-out	No.	-	2	1
No. F-road	No.	2	-	-
L. F-road	m	6,760	7,050	9,000
T. C. C	Bir	396,000	627,000	588,997
** Status **			D-Comp.	
Design	%	100	100	100
Const.	%	-	-	-
On-Farm	%	-	-	-

F-18 : Summary of SSID Schemes in Central Zone

No	Project's Name	Region	Awraja	Latitude (N)	Longitude (E)	Potential Irrigable Area (ha)	Status of the project	Source of fund	Type of Headwork	Beneficiaries	Construction cost (Birr)
1	Walga	W.Shewa	Becho	8°-28'	37°-55'	245	On-farm const.	Gov.	Weir	490	444,500
2	Jiguserdu	"	"	8°-35'	38°-11'	90	"	"	"	180	292,900
3	Endris	"	Ambo	8°-56'	37°-48'	200	"	"	"	400	800,000
4	Gibe	"	Bako	9°-5'	37°-5'	50	"	"	"	100	294,300
5	Ataye	N.Shewa	Yifat	9°-5'	39°-37'	200	Head work const. Comp.	"	Dam	400	3,000,000
6	Senbete	"	"	10°-18'	39°-58'	600	Design of Head work comp.	"	"	1200	13,000,000
7	Leku	W.Shewa	Bako	9°-05'	37°-10'	70	Design comp.	EEC (Don)	Weir	140	4,900,000
8	Ijaji	"	"	9°-07'	37°-19'	60	"	"	"	120	4,200,000
9	Sewer	"	Yifat	10°-6'	39°-55'	300	"	"	"	600	2,100,000
Total						1815					

F-19 : Inventory of SSID Schemes in Central Zone (1/2)

小規模灌溉開發計畫事業概要一覽表

Proj't Name		1	2	3
		Walga	Jigduserdo	Endris
Type		W	W	W
Zone		C	C	C
Province		W/Shewa	W/Shewa	W/Shewa
I-Area	ha	245	90	200
Base flow	m ³ /s	-	0.3	0.75
Bene. (House)	No.	240	157	500
Bene. (Popu.)		-	685	-
** Intake **				
B. leng.	m	33.15	41	24.93
B. hight	m	3.5	0.8	1.5
L. Sway	m	-	-	8.1
H. Sway	m	-	-	1.3
** M-Canal **				
Number	No.	1	1	-
T-Leng.	m	6850	4400	6140
Width	m	231	1.3	2.5
Dep.	m	1.05	0.7	0.55
Capa.	m	-	-	-
** S-Canal **				
Number	No.	1	1	-
T-Leng.	m	800	640	-
Width	m	-	-	-
Dep.	m	-	-	-
** T-Canal **				
Number	No.	12	10	-
T-Leng.	m	2994	1496	-
Width	m	-	-	-
Dep.	m	-	-	-
** Q-Canal **				
** Drainage**	m	2000	5000	-
Structures				
No. Flume	No.	1	-	7
Culvert	No.	3	-	-
Div. -Box	No.	13	9	-
Drop	No.	3	-	-
C-gate	No.	-	-	-
T-out	No.	-	-	-
No. F-road	No.	-	-	-
L. F-road	m	2224	5400	-
T. C. C	Bir	444,456	292,950	800,000
** Status **		Comp.	Comp.	Comp.
Design	%	100	100	60
Const.	%	Comp.	75	40
On-Farm	%	50	75	30

F-19 : Inventory of SSID Schemes in Central Zone (2/2)

Project		4 Ataya	5 Senbete
Type		Earth Dam	Earth Dam
Zone		C	C
Province		N/Shewa	N/Shewa
J-Area	ha	200	600
No. of B.		400	7237
Pop.			
C Area	Km2	9000	62
An. R-fall	m/y	1,200	-
An. Dis.	MCM	1300	4.68
Subm'd area	Km2	1.29	330ha
Stor. Capa.	MCM	5	6.32
Facil.			
Hight	m	8.1	9.7
Length	m	165.7	532
V. Earth	m3	27,000	103,656
Spillway			
Type		Natural	Concrete
Leng.	m	-	-
Wid.	m	-	-
Hight	m	-	1.7
Disc. capa.	m3/s	-	45
Intake			
Type		Steel pipe	Steel pipe
Leng.	m	48.6	98
Disc. capa.		1.32	24
** M-C **			
No.		1	-
Leng.	m	8,162	-
Bed Width	m	1.25	-
Water Dep.	m	0.5	-
S-C			
No.		13	-
Leng.	m	5,965	-
Bed Width	m	-	-
Water Dep.	m	-	-
T-C			
No.		-	-
Leng.	m	-	-
Bed Width	m	-	-
Water Dep.	m	-	-
Drain			
Leng.	m	6,000	-
R-S			
No. Flume	No.	2	-
Culvert	No.	3	-
Shute	No.	3	-
Div. -Box	No.	10	-
Drop	No.	1	-
T-out	No.	1	-
C-gate	No.	-	-
No. F-road	No.	-	-
L. F-road	m	-	-
T. C. C	Birr	3,000,000	13,080,000
Status			
Design	%	100	100
Const.	%	100	0
On-Farm	%	0	0

F-20 : Summary of SSID Schemes in Central-south Zone

No	Project's Name	Region	Awsaja	Latitude (N)	Longitude (E)	Potential Irrigable Area (ha)	Status of the project	Source of fund	Type of Headwork	Beneficiaries	Construction cost (Birr)
1	Kety	S. Shewa	Hadiya	7°-16'	37°-47'	63	On-farm const. comp.	ADF (Loan)	Weir	126	300,000
2	Lentala	"	"	7°-22'	37°-43'	27	"	"	"	54	150,000
3	Mekizeway	"	Hikotch	8°-7'	38°-50'	540	On-farm const.	Gov.	"	1080	-
4	Elalaber	E. Shewa	Arerti	8°-50'	39°-25'	50	Design comp.	"	Dam	100	900,000
5	Huluka	S. Shewa	Hikoch	7°-29'	38°-47'	40	On-farm const. comp.	"	Weir	80	160,000
6	Amaka	"	Chebo	7°-50'	37°-41'	300	Design comp.	"	"	600	21,000,000
7	Horuwa	"	Hadiya	7°-39'	37°-37'	60	"	"	"	120	4,200,000
8	Tilku-Deba	"	Chilalo	7°-19'	38°-44'	100	"	"	"	200	7,000,000
9	Hidi	E. Shewa	Adea	8°-47'	39°-8'	1050	On-farm const.	ADF (Loan)	Weir	-	7,600,000
Total						2250					