

	Country	Table WEIS 1 : Fuelwood Consumption in Africa																		
		1000 CUM																		
		1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1997
1	Burkina Faso	5,203	5,450	5,709	5,980	6,264	6,562	6,874	7,200	7,542	7,901	8,276	8,680	9,106	9,551	10,017	10,504	11,014	0	
2	Cape Verde	37	38	40	46	53	61	70	81	93	94	97	99	101	104	107	109	113	0	
3	Chad	2,026	2,032	2,037	2,042	2,047	2,053	2,058	2,064	2,069	2,078	2,091	2,107	2,128	2,151	2,176	2,202	2,229	0	
4	Gambia	530	593	610	628	647	666	685	705	726	747	769	792	815	839	860	880	895	0	
5	Guinea-Bissau	759	675	595	524	462	407	358	316	322	328	334	341	348	354	361	368	375	0	
6	Mali	4,118	4,288	4,465	4,649	4,841	5,041	5,249	5,466	5,630	5,800	5,974	6,154	6,340	6,537	6,738	6,943	7,150	0	
7	Mauritania	933	963	953	873	800	733	672	616	564	510	471	435	402	371	343	317	292	0	
8	Niger	2,926	2,897	2,869	2,853	2,837	2,821	2,805	2,790	2,774	2,759	2,882	3,011	3,146	3,287	3,437	3,593	3,756	0	
9	Senegal	5,851	3,006	5,241	4,293	3,515	2,879	2,358	1,931	1,939	2,069	2,179	2,076	2,388	2,138	2,443	2,525	2,611	0	
	West Sahelian Af	22,383	19,941	22,520	21,889	21,467	21,222	21,130	21,168	21,660	22,286	23,074	23,696	24,773	25,332	26,482	27,441	28,436	0	
10	Djibouti	30	32	34	36	39	41	44	47	50	52	55	57	59	60	62	64	65	0	
11	Eritrea	0	0	0	0	0	0	0	0	0	0	0	0	0	2,939	3,081	3,249	3,446	0	
12	Ethiopia	27,200	28,730	30,346	32,053	33,856	35,761	37,773	39,898	42,142	44,513	47,017	49,227	51,541	51,568	54,585	57,791	61,199	0	
13	Kenya	20,120	24,837	30,735	20,207	21,692	19,305	18,005	18,545	17,551	17,159	17,283	17,422	17,575	17,745	17,935	18,146	19,382	0	
14	Somalia	4,206	4,537	4,894	4,201	3,608	3,627	3,636	3,633	3,622	3,606	3,589	3,569	3,550	3,537	3,542	3,568	3,617	0	
15	Sudan	12,105	11,858	11,478	11,111	10,755	10,412	10,079	9,758	9,447	9,146	8,855	8,573	8,301	8,038	7,783	7,537	8,036	0	
	East Sahelian Af	63,661	69,994	77,487	67,609	69,951	69,146	69,536	71,880	72,811	74,475	76,798	78,848	81,025	83,888	86,988	90,354	95,746	0	
16	Benin	2,333	2,396	2,443	2,503	2,565	2,628	2,693	2,759	2,827	2,897	2,965	3,034	3,104	3,174	3,245	3,317	3,390	0	
17	Côte D'Ivoire	5,080	4,893	4,714	4,537	4,368	4,207	4,372	5,356	6,149	7,321	6,691	6,986	7,295	7,611	7,920	8,213	8,485	0	
18	Ghana	6,277	6,482	6,694	6,912	7,138	7,371	7,735	8,119	8,523	8,949	9,397	9,285	9,175	9,067	8,960	8,855	9,008	0	
19	Guinea	7,751	7,483	7,228	6,986	6,754	6,993	7,241	7,497	7,762	8,037	7,849	7,669	7,496	7,331	7,172	7,417	7,572	0	
20	Liberia	2,879	2,793	2,700	2,308	2,525	2,652	2,807	2,985	3,146	3,237	3,011	2,694	2,331	2,001	1,768	1,771	1,873	0	
21	Nigeria	133,669	132,623	131,640	130,714	129,842	129,023	128,251	127,522	126,850	126,246	125,716	122,852	120,140	117,573	113,443	109,458	121,909	0	
22	Sierra Leone	2,873	2,895	2,916	2,938	2,963	2,965	2,977	3,013	3,049	3,074	3,085	3,080	3,062	3,041	3,031	3,043	3,079	0	
23	Togo	1,831	1,887	1,946	2,006	2,069	2,134	2,201	2,273	2,348	2,426	2,505	2,586	2,668	2,754	2,840	2,926	3,013	0	
	West Moist Africa	162,694	161,441	160,280	158,904	158,224	157,973	158,277	159,523	160,654	162,187	161,220	158,186	155,272	152,553	148,380	145,001	158,330	0	
24	Burundi	2,190	2,249	2,311	2,376	2,444	2,517	2,595	2,677	2,759	3,018	3,291	3,576	3,877	4,198	4,552	4,951	5,403	0	
25	Cameroon	9,094	9,335	9,582	9,837	10,097	10,365	10,638	10,916	11,203	11,496	11,605	11,716	11,828	11,941	12,055	12,170	13,557	0	
26	Central African R	2,147	2,198	2,249	2,301	2,355	2,411	2,469	2,531	2,592	2,655	2,719	2,782	2,845	2,910	2,974	3,039	3,105	0	
27	Congo, Dem. Rep.	24,470	24,972	25,497	26,041	26,570	24,547	23,882	23,290	22,791	22,416	22,208	24,647	27,542	31,045	35,370	40,614	46,055	0	
28	Congo, Rep.	1,476	1,518	1,561	1,606	1,652	1,701	1,751	1,804	1,858	1,915	1,973	2,034	2,096	2,161	2,226	2,292	2,527	0	
29	Equatorial Guinea	211	222	239	256	260	258	252	243	232	221	210	224	239	256	274	295	334	0	
30	Gabon	572	586	601	615	619	623	627	633	639	645	647	669	691	716	741	770	865	0	
31	Rwanda	2,953	3,047	3,139	3,233	3,340	3,461	3,611	3,781	3,931	4,140	4,359	4,590	4,538	4,421	4,386	4,566	5,056	0	
32	Sao Tome and Pr	106	109	111	115	116	119	123	125	127	130	134	137	139	143	147	150	164	0	
33	Uganda	14,891	16,083	17,369	18,758	20,258	21,879	22,690	23,548	24,453	25,417	26,439	27,526	28,681	27,329	26,212	25,179	24,352	23,724	0
	Central Africa	58,110	60,320	62,660	65,140	66,411	67,882	68,637	69,548	70,586	72,051	73,887	77,903	82,477	85,119	88,937	94,026	101,419	23,724	
34	Angola	4,403	4,477	4,553	4,632	4,714	4,800	4,890	4,983	5,082	5,185	5,301	5,399	5,502	5,611	5,724	5,844	5,971	0	
35	Botswana	1,203	1,242	1,281	1,322	1,364	1,407	1,452	1,498	1,545	1,594	1,644	1,696	1,750	1,805	1,848	1,890	1,934	0	
36	Malawi	14,913	14,011	13,179	12,421	11,743	11,149	10,959	10,871	10,867	10,934	11,062	11,091	11,109	11,120	11,134	11,154	11,183	0	
37	Mozambique	15,234	15,551	15,866	16,151	16,371	16,509	16,542	16,498	16,450	16,506	16,735	17,266	17,814	18,379	18,961	19,563	19,988	0	
38	Namibia	1,341	1,371	1,402	1,432	1,465	1,499	1,533	1,567	1,604	1,644	1,684	1,730	1,771	1,811	1,847	1,887	1,933	0	
39	Saint Helena	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
40	Tanzania, United	28,557	31,008	39,204	38,245	37,335	36,474	35,662	34,899	34,187	33,524	32,913	34,005	35,166	36,403	37,723	39,339	43,629	0	
41	Zambia	7,098	7,993	7,929	7,970	8,066	8,193	8,249	8,317	8,406	8,527	8,701	8,734	8,768	8,804	8,842	8,882	9,831	0	
42	Zimbabwe	9,807	10,499	11,314	11,208	11,106	11,011	10,925	10,850	10,789	10,749	10,735	11,203	11,696	12,214	14,072	12,553	13,462	0	
	Tropical Southern	82,557	86,152	94,727	93,380	92,164	91,042	90,211	89,483	88,930	88,664	88,775	91,124	93,575	96,147	100,152	101,111	107,930	0	
43	Comoros	177	183	189	195	201	207	213	220	227	234	242	249	257	266	274	283	291	0	
44	Madagascar	4,593	4,810	5,038	5,277	5,536	5,808	6,093	6,392	6,705	7,034	7,379	7,736	8,109	8,497	8,900	9,321	9,760	0	
45	Mauritius	29	29	29	30	30	30	31	31	31	31	32	32	33	33	33	34	34	0	
46	Reunion	48	42	37	33	29	26	23	20	18	16	15	13	12	11	10	9	9	0	
47	Seychelles	11	10	8	7	6	5	5	4	3	3	3	2	2	2	1	1	1	0	
	Insular East Afri	4,857	5,073	5,301	5,542	5,803	6,076	6,364	6,667	6,985	7,319	7,669	8,033	8,412	8,808	9,219	9,648	10,094	0	
	Total Tropical Af	394,262	402,921	422,975	412,463	414,019	413,341	414,156	418,268	421,625	426,981	431,122	437,789	445,534	451,846	460,158	467,581	501,956	23,724	
48	Algeria**	916	988	1,065	1,149	1,239	1,336	1,441	1,554	1,676	1,721	1,768	1,816	1,866	1,916	1,969	2,022	2,086	0	
49	Egypt	316	360	409	464	528	600	682	775	881	1,001	1,137	1,293	1,469	1,670	1,898	2,157	2,451	0	
50	Libyan Arab Jama	296	309	324	338	353	368	383	397	412	426	442	458	474	491	508	526	544	0	
51	Morocco	10,819	10,863	10,897	10,931	10,965	10,999	11,032	11,066	11,099	11,132	11,165	11,197	11,038	10,882	10,728	10,696	10,661	0	
52	Tunisia	2,116	1,992	1,884	1,789	1,705	1,741	1,785	1,836	1,894	1,958	2,026	2,100	2,178	2,261	2,348	2,440	2,535	2,635	
	North Africa	14,463	14,511	14,578	14,672	14,790	15,044	15,323	15,628	15,961	16,338	16,538	16,864	17,025	17,220	17,450	17,840	18,276	2,635	
53	Lesotho	985	1,013	1,041	1,070	1,099	1,130</													

	Country	Table WEIS 2 : Charcoal Consumption in Africa																	
		1000 Tons																	
		1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
1	Burkina Faso	6.9	7.6	8.4	9.3	10.3	11.4	12.6	13.9	15.4	17.0	18.9	20.9	23.1	25.6	28.4	31.4	34.8	0
2	Cape Verde	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0
3	Chad	26.7	29.4	32.4	35.8	39.4	43.3	47.5	52.0	57.0	62.6	68.8	75.9	83.8	92.6	102.4	113.3	125.4	0
4	Gambia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
5	Guinea-Bissau	10.2	11.6	13.2	15.0	17.0	19.4	22.0	25.1	28.7	32.8	37.5	42.9	49.2	56.4	64.6	74.0	84.8	0
6	Mali	37.9	39.9	42.1	44.5	47.0	49.7	52.6	55.6	58.9	62.3	65.9	69.8	73.9	78.3	83.0	87.8	93.0	0
7	Mauritania	98.1	101.7	105.5	109.3	113.4	117.6	121.9	126.4	131.0	135.9	141.0	146.2	151.7	157.4	163.4	169.6	176.2	0
8	Niger	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
9	Senegal	0.0	157.0	166.1	175.7	185.8	196.6	208.0	220.0	241.6	265.3	291.4	320.0	326.4	333.0	340.0	346.8	353.8	0
	West Sahelian Af	180	347	368	390	413	438	465	493	533	576	624	676	708	743	782	823	868	0
10	Djibouti	0.9	1.0	1.1	1.1	1.2	1.3	1.4	1.5	1.6	1.6	1.7	1.8	1.8	1.9	2.0	2.1	2.1	0
11	Eritrea	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.6	13.9	14.3	14.8	0
12	Ethiopia	174.3	178.4	182.7	187.1	191.9	197.1	202.8	209.0	215.6	222.4	229.4	236.6	244.0	238.1	245.7	253.7	261.9	0
13	Kenya	821.0	855.7	894.1	937.0	865.5	885.0	981.4	1,152.4	1,230.1	1,284.0	1,284.7	1,285.3	1,286.0	1,286.7	1,287.3	1,288.0	1,369.0	0
14	Somalia	64.1	69.2	74.6	80.5	86.9	91.9	96.9	101.9	106.9	112.1	117.4	122.9	128.6	134.9	142.1	150.7	160.8	0
15	Sudan	2,611.5	2,596.4	2,566.6	2,537.2	2,508.3	2,479.6	2,451.4	2,423.5	2,396.0	2,368.9	2,342.2	2,315.9	2,289.9	2,264.5	2,239.5	2,215.0	2,362.0	0
	East Sahelian Af	3,672	3,701	3,719	3,743	3,654	3,655	3,734	3,888	3,950	3,989	3,975	3,962	3,950	3,940	3,930	3,924	4,171	0
16	Benin	16.7	16.3	16.0	15.7	15.4	15.1	14.8	14.5	14.3	14.0	13.7	13.4	13.2	12.9	12.6	12.4	12.1	0
17	Côte D'Ivoire	162.6	186.6	215.5	250.2	292.1	343.0	380.0	426.5	479.6	540.1	609.3	689.0	780.4	884.2	1,000.4	1,129.2	1,271.1	0
18	Ghana	399.6	410.9	422.7	434.8	447.2	460.0	454.2	448.4	442.8	437.2	431.7	426.3	421.0	415.7	410.6	405.5	399.8	0
19	Guinea	64.2	67.5	71.1	75.1	79.3	80.7	82.1	83.6	85.1	86.7	87.9	89.3	90.8	92.3	93.8	95.3	96.8	0
20	Liberia	82.2	87.8	93.7	100.0	107.1	110.3	114.5	119.4	123.5	124.6	129.1	129.9	127.2	123.6	122.5	127.2	139.4	0
21	Nigeria	276.8	295.0	315.3	338.0	363.6	384.4	396.3	411.2	427.7	445.1	476.3	511.4	550.9	595.2	644.7	700.0	782.0	0
22	Sierra Leone	57.8	57.3	57.2	57.5	58.2	59.2	60.5	62.1	63.9	65.7	67.3	68.7	69.8	71.0	72.6	74.7	77.6	0
23	Togo	47.9	50.5	53.3	56.2	59.4	62.6	66.1	69.9	74.0	78.3	82.8	87.5	92.4	97.6	103.0	108.7	114.6	0
	West Moist Africa	1,108	1,172	1,245	1,327	1,422	1,515	1,569	1,636	1,711	1,792	1,904	2,028	2,165	2,320	2,496	2,697	2,943	0
24	Burundi	33.4	34.6	35.9	37.2	38.6	40.1	41.6	43.3	45.0	45.3	46.7	49.7	51.1	52.4	53.9	55.6	57.5	0
25	Cameroon	37.4	39.4	41.5	43.8	46.1	48.6	51.3	54.0	56.9	60.0	63.2	66.6	70.1	73.9	77.8	82.0	87.0	0
26	Central African R	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
27	Congo, Dem. Rep.	433.1	481.2	535.0	595.0	662.2	737.0	820.4	913.2	1,016.6	1,131.8	1,260.1	890.3	630.3	447.3	318.7	228.2	256.6	0
28	Congo, Rep.	8.0	8.3	8.6	8.9	9.2	9.6	9.9	10.3	10.7	11.1	11.6	12.0	12.5	13.0	13.5	14.0	15.0	0
29	Equatorial Guinea	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
30	Gabon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
31	Rwanda	28.1	29.2	30.4	31.6	32.9	34.4	36.1	38.2	40.0	39.9	39.9	39.8	37.3	34.4	32.4	32.0	33.6	0
32	Sao Tome and Pr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
33	Uganda	230.0	241.5	253.6	266.5	280.2	294.8	310.3	326.7	344.2	362.8	382.5	385.3	388.2	391.1	394.0	429.8	469.6	400
	Central Africa	770	834	905	983	1,069	1,164	1,270	1,386	1,513	1,651	1,804	1,444	1,189	1,012	890	842	919	400
34	Angola	157.2	180.3	206.8	237.3	272.3	312.6	358.8	411.9	472.9	543.1	623.6	663.5	705.9	751.0	799.9	852.6	909.2	0
35	Botswana	22.5	23.3	24.2	25.0	25.9	26.8	27.7	28.7	29.7	30.7	31.6	32.6	33.5	34.4	35.2	36.1	36.9	0
36	Malawi	204.8	210.6	216.1	222.2	229.9	240.0	253.1	268.6	284.6	298.7	309.0	314.8	316.9	317.0	317.5	320.4	326.1	0
37	Mozambique	342.3	343.2	343.9	343.8	342.3	339.0	333.6	326.8	320.0	315.3	314.0	318.7	323.4	328.2	333.1	338.0	334.0	0
38	Namibia	5.3	5.5	5.6	5.8	5.9	6.1	6.3	6.4	6.6	6.8	7.0	7.2	7.4	7.6	7.8	8.0	8.1	0
39	Saint Helena	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
40	Tanzania, United	279.6	288.1	296.9	306.0	315.3	325.0	335.1	345.5	356.3	367.4	379.0	385.3	391.8	398.3	404.9	411.5	509.5	0
41	Zambia	767.0	749.9	731.0	711.2	692.0	674.1	656.9	640.2	624.1	608.3	593.0	579.4	566.2	553.3	540.7	528.5	586.1	0
42	Zimbabwe	6.3	6.5	6.7	6.9	7.2	7.4	7.7	7.9	8.2	8.5	8.7	9.0	9.2	9.4	9.7	9.9	10.1	0
	Tropical Southern	1,785	1,807	1,831	1,858	1,891	1,931	1,979	2,036	2,102	2,179	2,266	2,310	2,354	2,399	2,449	2,505	2,720	0
43	Comoros	42.7	44.2	45.6	47.1	48.5	50.0	51.6	53.2	54.8	56.6	58.4	60.2	62.2	64.2	66.2	68.3	70.4	0
44	Madagascar	126.5	139.6	154.0	170.0	187.9	207.7	229.6	253.7	280.5	310.0	342.6	378.5	418.0	461.4	509.3	561.9	619.9	0
45	Mauritius	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.4	1.4	0
46	Reunion	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
47	Seychelles	11.1	11.3	11.3	11.3	11.3	11.5	11.6	11.8	12.0	12.2	12.4	12.5	12.5	12.7	12.7	12.9	13.1	0
	Insular East Afri	182	196	212	230	249	270	294	320	349	380	415	452	494	540	589	644	705	0
	Total Tropical Af	7,696	8,058	8,280	8,531	8,698	8,974	9,310	9,759	10,158	10,566	10,988	10,873	10,862	10,954	11,137	11,435	12,326	400
48	Algeria**	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
49	Egypt	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	61.0	46.0	19.0	9.0	0.0	0
50	Libyan Arab Jama	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	2.3	1.0	0.5	0.0	0
51	Morocco	108.8	117.7	127.3	137.7	148.9	161.2	174.5	188.9	204.5	221.5	240.0	259.8	281.1	304.2	329.1	356.0	384.9	0
52	Tunisia	176.7	170.5	164.6	158.9	153.4	152.9	152.5	152.1	151.6	151.2	150.7	150.3	149.9	149.5	149.0	148.6	148.2	148
	North Africa	285	288	292	297	302	314	327	341	356	373	391	410	495	502	498	514	533	148
53	Lesotho	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
54	South Africa	631.4	647.6	664.2	681.1	698.1	715.2	732.3	749.5	766.8	784.3	802.3	820.6	839.3	858.3	877.7	897.5	917.6	938
55	Swaziland	7.4	7.6	7.9	8.1	8.3	8.6	8.8	9.1	9.3	9.6	9.8	10.1	10.4	20.0	20.6	21.2	21.8	0
	Non tropical Sou	639	655	672	689	706	724	741	759	776	794	81							

Country	Woodfuels Production, 1995 (BEST ESTIMATES as equivalent removals)										
	Direct woodfuels			Indirect woodfuels				Recovered woodfuels		Total	
	Fuelwood	Charcoal	Other	Fuelwood	Black liquor	Charcoal	Other	Fuelwood	Other	as removals	as user energy
	1000 CUM			1000 CUM				1000 CUM		1000 CUM	PJ
1 Burkina Faso	10,504	260			0					10,764	107.7
2 Cape Verde	109	1			0					111	1.1
3 Chad	2,202	938			0					3,140	31.4
4 Gambia	880	0			0					880	8.8
5 Guinea-Bissau	368	612			0					981	9.8
6 Mali	6,943	848			0					7,791	77.9
7 Mauritania	317	1,404			0					1,720	17.2
8 Niger	3,593	0			0					3,593	36.0
9 Senegal	2,525	2,631			0					5,156	51.6
West Sahelian Africa	27,441	6,694	0	0	0	0	0	0	0	34,135	341.5
10 Djibouti	64	17			0					80	0.8
11 Eritrea	3,249	118			0					3,367	33.7
12 Ethiopia	57,791	2,099			0					59,890	599.2
13 Kenya	18,146	10,659			150					28,955	289.7
14 Somalia	3,568	1,247			0					4,815	48.2
15 Sudan	7,537	18,331			0					25,868	258.8
East Sahelian Africa	90,354	32,471	0	0	150	0	0	0	0	122,975	1,230.4
16 Benin	3,317	102			0					3,419	34.2
17 Côte D'Ivoire	8,213	12,460			0					20,674	206.8
18 Ghana	8,855	3,356			0					12,211	122.2
19 Guinea	7,417	1,151			0					8,568	85.7
20 Liberia	1,771	1,053			0					2,824	28.3
21 Nigeria	109,458	5,793			9					115,260	1,153.2
22 Sierra Leone	3,043	618			0					3,661	36.6
23 Togo	2,926	899			0					3,826	38.3
West Moist Africa	145,001	25,433	0	0	9	0	0	0	0	170,443	1,705.3
24 Burundi	4,951	460			0					5,411	54.1
25 Cameroon	12,170	679			0					12,848	128.5
26 Central African Rep.	3,039	0			0					3,039	30.4
27 Congo, Dem. Rep.	40,614	1,889			0					42,503	425.2
28 Congo, Rep.	2,292	116			0					2,408	24.1
29 Equatorial Guinea	295	0			0					295	3.0
30 Gabon	770	0			0					770	7.7
31 Rwanda	4,566	265			0					4,831	48.3
32 Sao Tome and Principe	150	0			0					150	1.5
33 Uganda	25,179	3,913			0					29,091	291.1
Central Africa	94,026	7,321	0	0	0	0	0	0	0	101,346	1,014.0
34 Angola	5,844	7,056			34					12,934	129.4
35 Botswana	1,890	299			0					2,189	21.9
36 Malawi	11,154	2,652			0					13,805	138.1
37 Mozambique	19,563	2,797			0					22,360	223.7
38 Namibia	1,887	66			0					1,952	19.5
39 Saint Helena	0	0			0					0	0.0
40 Tanzania, United Rep.	39,339	3,406			100					42,845	428.7
41 Zambia	8,882	4,374			0					13,256	132.6
42 Zimbabwe	12,553	82			0					12,635	126.4
Tropical Southern Africa	101,111	20,730	0	0	134	0	0	0	0	121,976	1,220.4
43 Comoros	283	565			0					848	8.5
44 Madagascar	9,321	4,650			0					13,972	139.8
45 Mauritius	33	11			0					44	0.4
46 Reunion	9	0			0					9	0.1
47 Seychelles	1	107			0					108	1.1
Insular East Africa	9,648	5,334	0	0	0	0	0	0	0	14,981	149.9
Total Tropical Africa	467,581	97,983	0	0	293	0	0	0	0	565,856	5,661.4
48 Algeria	2,022	0			0					2,022	20.2
49 Egypt	2,157	74			0					2,231	22.3
50 Libyan Arab Jamahiriya	526	4			0					529	5.3
51 Morocco	10,696	2,946			225					13,867	138.7
52 Tunisia	2,440	1,025			0					3,465	34.7
North Africa	17,840	4,049	0	0	225	0	0	0	0	22,114	221.3
53 Lesotho	1,478	0			0					1,478	14.8
54 South Africa	22,775	14,112			2,075					38,962	389.8
55 Swaziland	841	175			454					1,471	14.7
Non tropical Southern Africa	25,095	14,288	0	0	2,529	0	0	0	0	41,911	419.3
Total Non-tropical Africa	42,935	18,337	0	0	2,754	0	0	0	0	64,025	640.6
Total Africa	510,515	116,320	0	0	3,046	0	0	0	0	629,882	6,302.0

Country	Woodfuels consumption, 1995 (as user energy)															
	Fuelwood						Charcoal					Black Liquor	Other	Subtotal Final	Losses	Total Primary
	Resid. urba	Resid. rura	Residential	Commercial	Industrial	Total	Residential	Commercial	Industrial	Total	Industrial	-	-	charcoal making	-	
	PJ	PJ	PJ	PJ	PJ	PJ	PJ	PJ	PJ	PJ	PJ	PJ	PJ	PJ	PJ	
1 Burkina Faso			105.1	0.0	0.0	105.1	1.0	0.0	0.0	1.0	0.0			106.1	1.6	107.7
2 Cape Verde			1.1	0.0	0.0	1.1	0.0	0.0	0.0	0.0	0.0			1.1	0.0	1.1
3 Chad			22.0	0.0	0.0	22.0	3.5	0.0	0.0	3.5	0.0			25.5	5.9	31.4
4 Gambia			8.8	0.0	0.0	8.8	0.0	0.0	0.0	0.0	0.0			8.8	0.0	8.8
5 Guinea-Bissau			3.6	0.0	0.1	3.7	2.2	0.0	0.0	2.3	0.0			6.0	3.8	9.8
6 Mali			69.1	0.3	0.1	69.5	2.6	0.1	0.0	2.7	0.0			72.2	5.8	77.9
7 Mauritania			3.2	0.0	0.0	3.2	2.5	0.0	2.7	5.2	0.0			8.4	8.8	17.2
8 Niger			36.0	0.0	0.0	36.0	0.0	0.0	0.0	0.0	0.0			36.0	0.0	36.0
9 Senegal			25.3	0.0	0.0	25.3	10.7	0.0	0.0	10.7	0.0			35.9	15.6	51.6
West Sahelian Africa	0.0	0.0	274.1	0.3	0.2	274.5	22.5	0.1	2.8	25.4	0.0	0.0		299.9	41.6	341.5
10 Djibouti			0.6	0.0	0.0	0.6	0.1	0.0	0.0	0.1	0.0			0.7	0.1	0.8
11 Eritrea			32.5	0.0	0.0	32.5	0.4	0.0	0.0	0.4	0.0			32.9	0.7	33.7
12 Ethiopia			578.2	0.0	0.0	578.2	7.8	0.0	0.0	7.8	0.0			586.0	13.2	599.2
13 Kenya			136.2	27.2	18.1	181.6	36.4	0.8	2.5	39.7	1.5			222.7	67.0	289.7
14 Somalia			35.3	0.2	0.3	35.7	4.3	0.1	0.2	4.6	0.0			40.3	7.8	48.2
15 Sudan			70.4	2.0	3.0	75.4	63.2	2.0	3.0	68.2	0.0			143.6	115.2	258.8
East Sahelian Africa	0.0	0.0	853.2	29.4	21.4	904.0	112.3	2.9	5.7	120.8	1.5	0.0		1,026.3	204.0	1,230.4
16 Benin			33.2	0.0	0.0	33.2	0.4	0.0	0.0	0.4	0.0			33.6	0.6	34.2
17 Côte D'Ivoire			76.1	6.1	0.0	82.2	30.0	4.8	0.0	34.8	0.0			117.0	89.9	206.8
18 Ghana			79.8	6.2	2.6	88.6	12.1	0.4	0.0	12.5	0.0			101.1	21.1	122.2
19 Guinea			60.9	13.3	0.0	74.2	3.8	0.5	0.0	4.3	0.0			78.5	7.2	85.7
20 Liberia			17.6	0.0	0.1	17.7	3.9	0.0	0.0	3.9	0.0			21.6	6.6	28.3
21 Nigeria			854.0	0.0	241.1	1,095.1	21.6	0.0	0.0	21.6	0.1			1,116.8	36.4	1,153.2
22 Sierra Leone			29.9	0.1	0.4	30.4	2.3	0.0	0.0	2.3	0.0			32.7	3.9	36.6
23 Togo			29.3	0.0	0.0	29.3	3.3	0.0	0.0	3.3	0.0			32.6	5.7	38.3
West Moist Africa	0.0	0.0	1,180.7	25.7	244.3	1,450.7	77.4	5.7	0.0	83.1	0.1	0.0		1,533.9	171.4	1,705.3
24 Burundi			49.5	0.0	0.0	49.5	1.7	0.0	0.0	1.7	0.0			51.2	2.9	54.1
25 Cameroon			95.0	0.0	26.8	121.8	2.5	0.0	0.0	2.5	0.0			124.3	4.3	128.5
26 Central African Rep.			30.4	0.0	0.0	30.4	0.0	0.0	0.0	0.0	0.0			30.4	0.0	30.4
27 Congo, Dem. Rep.			311.1	7.4	87.8	406.3	6.7	0.4	0.0	7.0	0.0			413.4	11.9	425.2
28 Congo, Rep.			17.9	0.0	5.1	22.9	0.4	0.0	0.0	0.4	0.0			23.4	0.7	24.1
29 Equatorial Guinea			3.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0			3.0	0.0	3.0
30 Gabon			7.7	0.0	0.0	7.7	0.0	0.0	0.0	0.0	0.0			7.7	0.0	7.7
31 Rwanda			45.7	0.0	0.0	45.7	1.0	0.0	0.0	1.0	0.0			46.7	1.7	48.3
32 Sao Tome and Principe			1.0	0.0	0.5	1.5	0.0	0.0	0.0	0.0	0.0			1.5	0.0	1.5
33 Uganda			166.5	67.5	17.9	251.9	9.9	3.4	0.0	13.2	0.0			265.2	25.9	291.1
Central Africa	0.0	0.0	727.8	74.9	138.1	940.7	22.2	3.8	0.0	25.9	0.0	0.0		966.6	47.3	1,014.0
34 Angola			54.2	1.4	2.8	58.5	26.1	0.0	0.1	26.3	0.3			85.1	44.3	129.4
35 Botswana			18.3	0.6	0.0	18.9	1.1	0.0	0.0	1.1	0.0			20.0	1.9	21.9
36 Malawi			94.5	9.5	7.5	111.6	9.9	0.0	0.0	9.9	0.0			121.5	16.7	138.1
37 Mozambique			174.2	1.9	19.6	195.7	10.4	0.0	0.0	10.4	0.0			206.1	17.6	223.7
38 Namibia			18.2	0.2	0.5	18.9	0.0	0.0	0.2	0.2	0.0			19.1	0.4	19.5
39 Saint Helena			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	0.0	0.0
40 Tanzania, United Rep.			319.4	24.4	49.9	393.6	11.6	1.1	0.0	12.7	1.0			407.3	21.4	428.7
41 Zambia			66.9	3.0	18.9	88.9	15.6	0.6	0.1	16.3	0.0			105.1	27.5	132.6
42 Zimbabwe			111.8	10.1	3.8	125.6	0.1	0.0	0.3	0.3	0.0			125.9	0.5	126.4
Tropical Southern Africa	0.0	0.0	857.5	51.2	102.9	1,011.6	74.7	1.7	0.7	77.2	1.3	0.0		1,090.1	130.3	1,220.4
43 Comoros			2.8	0.0	0.0	2.8	1.1	0.0	1.1	2.1	0.0			4.9	3.6	8.5
44 Madagascar			93.3	0.0	0.0	93.3	17.3	0.0	0.0	17.3	0.0			110.6	29.2	139.8
45 Mauritius			0.1	0.1	0.1	0.3	0.0	0.0	0.0	0.0	0.0			0.4	0.1	0.4
46 Reunion			0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0			0.1	0.0	0.1
47 Seychelles			0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.4	0.0			0.4	0.7	1.1
Insular East Africa	0.0	0.0	96.3	0.1	0.1	96.5	18.8	0.0	1.1	19.8	0.0	0.0		116.4	33.5	149.9
Total Tropical Africa	0.0	0.0	3,989.5	181.6	507.0	4,678.1	327.7	14.2	10.3	352.2	2.9	0.0		5,033.3	628.1	5,661.4
48 Algeria			20.2	0.0	0.0	20.2	0.0	0.0	0.0	0.0	0.0			20.2	0.0	20.2
49 Egypt			21.6	0.0	0.0	21.6	0.3	0.0	0.0	0.3	0.0			21.9	0.5	22.3
50 Libyan Arab Jamahiriya			5.3	0.0	0.0	5.3	0.0	0.0	0.0	0.0	0.0			5.3	0.0	5.3
51 Morocco			94.3	12.7	0.0	107.0	10.5	0.4	0.0	11.0	2.2			120.2	18.5	138.7
52 Tunisia			24.3	0.1	0.0	24.4	4.3	0.3	0.0	4.6	0.0			29.0	5.7	34.7
North Africa	0.0	0.0	165.7	12.8	0.0	178.5	15.1	0.7	0.0	15.8	2.2	0.0		196.6	24.7	221.3
53 Lesotho			14.5	0.0	0.3	14.8	0.0	0.0	0.0	0.0	0.0			14.8	0.0	14.8
54 South Africa			227.9	0.0	0.0	227.9	8.6	6.6	12.4	27.6	20.8			276.3	113.6	389.8
55 Swaziland			8.0	0.1	0.3	8.4	0.6	0.1	0.0	0.7	4.5			13.6	1.1	14.7
Non tropical Southern Africa	0.0	0.0	250.4	0.1	0.6	251.1	9.2	6.7	12.4	28.3	25.3	0.0		304.7	114.7	419.3
Total Non-tropical Africa	0.0	0.0	416.1	12.9	0.6	429.6	24.3	7.4	12.4	44.1	27.5	0.0		501.2	139.3	640.6
Total Africa	0.0	0.0	4,405.7	194.5	507.5	5,107.7	351.9	21.7	22.7	396.3	30.5	0.0		5,534.5	767.5	6,302.0

Country	Woodfuels balance, 1995							
	Total							
	Supply				Demand			
	Production			Imports	Final	Transf. losses	Exports	Total
	Direct	Indirect	Recovered	-	-	charcoal making	-	-
PJ	PJ	PJ	PJ	PJ	PJ	PJ	PJ	
1 Burkina Faso	109	0.0	0		106		2	108
2 Cape Verde	1	0.0	0		1		0	1
3 Chad	35	0.0	0		26		6	31
4 Gambia	9	0.0	0		9		0	9
5 Guinea-Bissau	12	0.0	0		6		4	10
6 Mali	81	0.0	0		72		6	78
7 Mauritania	22	0.0	0		8		9	17
8 Niger	36	0.0	0		36		0	36
9 Senegal	62	0.0	0		36		16	52
West Sahelian Africa	367	0.0	0	0	300	42	0	342
10 Djibouti	1	0.0	0		1		0	1
11 Eritrea	34	0.0	0		33		1	34
12 Ethiopia	607	0.0	0		586		13	599
13 Kenya	328	1.5	0		223		67	290
14 Somalia	53	0.0	0		40		8	48
15 Sudan	327	0.0	0		144		115	259
East Sahelian Africa	1,350	1.5	0	0	1,026	204	0	1,230
16 Benin	35	0.0	0		34		1	34
17 Côte D'Ivoire	242	0.0	0		117		90	207
18 Ghana	135	0.0	0		101		21	122
19 Guinea	90	0.0	0		78		7	86
20 Liberia	32	0.0	0		22		7	28
21 Nigeria	1,175	0.1	0		1,117		36	1,153
22 Sierra Leone	39	0.0	0		33		4	37
23 Togo	42	0.0	0		33		6	38
West Moist Africa	1,788	0.1	0	0	1,534	171	0	1,705
24 Burundi	56	0.0	0		51		3	54
25 Cameroon	131	0.0	0		124		4	129
26 Central African Rep.	30	0.0	0		30		0	30
27 Congo, Dem. Rep.	432	0.0	0		413		12	425
28 Congo, Rep.	25	0.0	0		23		1	24
29 Equatorial Guinea	3	0.0	0		3		0	3
30 Gabon	8	0.0	0		8		0	8
31 Rwanda	49	0.0	0		47		2	48
32 Sao Tome and Principe	1	0.0	0		1		0	1
33 Uganda	304	0.0	0		265		26	291
Central Africa	1,040	0.0	0	0	967	47	0	1,014
34 Angola	155	0.3	0		85		44	129
35 Botswana	23	0.0	0		20		2	22
36 Malawi	148	0.0	0		121		17	138
37 Mozambique	234	0.0	0		206		18	224
38 Namibia	20	0.0	0		19		0	20
39 Saint Helena	0	0.0	0		0		0	0
40 Tanzania, United Rep.	440	1.0	0		407		21	429
41 Zambia	149	0.0	0		105		27	133
42 Zimbabwe	127	0.0	0		126		1	126
Tropical Southern Africa	1,296	1.3	0	0	1,090	130	0	1,220
43 Comoros	11	0.0	0		5		4	8
44 Madagascar	157	0.0	0		111		29	140
45 Mauritius	0	0.0	0		0		0	0
46 Reunion	0	0.0	0		0		0	0
47 Seychelles	1	0.0	0		0		1	1
Insular East Africa	170	0.0	0	0	116	34	0	150
Total Tropical Africa	6,011	2.9	0	0	5,033	628	0	5,661
48 Algeria	20	0.0	0		20		0	20
49 Egypt	23	0.0	0		22		0	22
50 Libyan Arab Jamahiriya	5	0.0	0		5		0	5
51 Morocco	147	2.2	0		120		19	139
52 Tunisia	39	0.0	0		29		6	35
North Africa	235	2.2	0	0	197	25	0	222
53 Lesotho	15	0.0	0		15		0	15
54 South Africa	397	20.8	0		276		114	390
55 Swaziland	11	4.5	0		14		1	15
Non tropical Southern Africa	422	25.3	0	0	305	115	0	419
Total Non-tropical Africa	657	27.5	0	0	501	139	0	641
Total Africa	6,668	30.5	0	0	5,534	767	0	6,302

Basic parameters and conversion factors		
PCI wood	13.8	MJ/ kg
PCI charcoal	30.8	MJ/ kg
charcoal/fuelwood	165	kg charcoal/ CUM
wood density	725	kg/ CUM
black liquor availability	2.27	CUM/ ton chemical pulp

10 GJ	CUM
100 CUM	1 TJ

Auxiliary assumptions		
fraction of wood residues used as fuel:	50	%
fraction of black liquor used as fuel:	100	%
the commercial fuelwood demand has been assumed as: (total demand - (residential plus industrial) demand)		

FAO CONVERSION FACTORS			
PCI wood		0.0138	PJ/ 1000 Tons
PCI wood		0.010005	PJ/ 1000 CUM
		Or (13,8 x 725)/ 1 000 000	
Wood density		0.725	T/ CUM
Wood density		725	T/ 1000 CUM