

Supplemental Materials

S. M. Table 1. Presence of tree, sapling and seedling species by percentage of plots, as well as average tree DBH (in cm) and average tree basal area (in m²) calculated by summing the basal area for each tree of the species and dividing by the number of stems, for fuelwood harvesting sites (50 plots) and reference sites (36 plots). Note that two tree species present in one fuelwood harvesting plot each (*Macaranga capensis* (Baill.) Benth. ex Sim and *Newtonia buchananii* (Baker) G.C.C.Gilbert and Boutique) do not have DBH or basal area averages due to the inability to measure these trees in the field. Exotic species indicated with an (E).

Species	Presence in Fuelwood Harvesting Sites (Percent of Plots)					Presence in Reference Sites (Percent of Plots)				
	Trees	DBH (cm)	Basal Area (m ²)	Saplings	Seedlings	Trees	DBH (cm)	Basal Area (m ²)	Saplings	Seedlings
<i>Aeschynomene</i> sp.	0	n/a	n/a	0	0	0	n/a	n/a	2.78	2.78
<i>Azela quanzensis</i> Welw.	0	n/a	n/a	2	0	0	n/a	n/a	0	0
<i>Albizia harveyi</i> E.Fourn.	2	6.82	0.004	0	0	0	n/a	n/a	0	0
(E) <i>Albizia lebbeck</i> (Linnaeus) Benth.	2	7.50	0.005	0	2	0	n/a	n/a	0	0
<i>Albizia versicolor</i> Welw. ex Oliv.	2	9.80	0.008	0	0	0	n/a	n/a	0	0
<i>Allophylus africanus</i> P.Beauv.	0	n/a	n/a	0	2	0	n/a	n/a	0	2.78
<i>Annona senegalensis</i> Pers.	24	5.00	0.002	16	6	2.78	7.00	0.004	0	2.78
<i>Anthocleista grandiflora</i> Gilg	2	6.50	0.003	0	0	0	n/a	n/a	0	0
<i>Antidesma venosum</i> E.Mey. ex Tul.	0	n/a	n/a	2	4	0	n/a	n/a	0	0
<i>Azanza garckeana</i> (F.Hoff.) Exell and J.Hillc.	4	5.10	0.002	2	4	0	n/a	n/a	0	0
<i>Bauhinia petersiana</i> Bolle	4	5.94	0.003	6	8	0	n/a	n/a	0	0
<i>Bauhinia thonningii</i> Schumach.	2	5.00	0.002	0	0	0	n/a	n/a	0	0
<i>Bersama abyssinica</i> Fresen.	2	9.80	0.008	0	2	0	n/a	n/a	0	0
<i>Bobgunnia madagascariensis</i> (Desv.) J.H.Kirkbr. and Wiersama	0	n/a	n/a	2	0	5.56	5.71	0.003	0	0
<i>Brachystegia boehmii</i> Harms	0	n/a	n/a	2	2	8.33	41.97	0.139	0	5.56
<i>Brachystegia bussei</i> Harms	6	4.62	0.002	14	28	63.89	27.60	0.071	8.33	36.11
<i>Brachystegia longifolia</i> Benth.	0	n/a	n/a	2	8	0	n/a	n/a	0	0
<i>Brachystegia manga</i> De Wild.	4	4.60	0.002	8	12	16.67	27.48	0.064	0	2.78
<i>Brachystegia microphylla</i> Harms	0	n/a	n/a	0	0	11.11	34.15	0.106	0	2.78
<i>Brachystegia spiciformis</i> Benth.	6	2.31	0.001	8	10	8.33	23.53	0.052	0	5.56
<i>Brachystegia utilis</i> Burt Davy and Hutch.	0	n/a	n/a	0	0	19.44	14.42	0.023	5.56	13.89
<i>Brackenridgea zanguebarica</i> Oliv.	0	n/a	n/a	0	0	2.78	4.10	0.001	0	0
<i>Bridelia cathartica</i> Bertol.	4	4.57	0.002	0	0	13.89	8.40	0.009	0	11.11
<i>Bridelia micrantha</i> (Hochst.) Baill.	2	10.35	0.009	2	0	0	n/a	n/a	0	0
<i>Burkea africana</i> Hook.	2	4.25	0.001	0	4	19.44	10.44	0.013	5.56	8.33
<i>Catunaregam</i> sp.	0	n/a	n/a	0	0	0	n/a	n/a	0	2.78
<i>Combretum apiculatum</i> Sond.	2	4.50	0.002	0	2	0	n/a	n/a	0	0
<i>Combretum imberbe</i> Wawra	0	n/a	n/a	0	2	0	n/a	n/a	0	0
<i>Combretum molle</i> R.Br. ex G.Don	0	n/a	n/a	0	4	2.78	8.70	0.006	0	8.33
<i>Combretum mossambicense</i> (Klotzsch) Engl.	0	n/a	n/a	0	2	0	n/a	n/a	0	0
<i>Combretum zeyheri</i> Sond.	2	4.50	0.002	4	2	8.33	9.93	0.009	0	2.78
<i>Crossopteryx febrifuga</i> (Afzel. ex G.Don) Benth.	0	n/a	n/a	2	2	5.56	13.60	0.015	0	0
<i>Cussonia arborea</i> Hochst. ex A.Rich.	14	8.85	0.009	0	0	2.78	8.60	0.006	0	0
<i>Dalbergia boehmii</i> Taub.	2	5.33	0.002	0	4	0	n/a	n/a	0	2.78
<i>Dalbergia nitidula</i> Welw. ex Baker	2	5.35	0.002	0	2	25	6.77	0.004	8.33	19.44
<i>Dalbergiella nyasae</i> Baker f.	0	n/a	n/a	0	0	5.56	6.03	0.003	0	5.56
<i>Dichrostachys cinerea</i> (L.) Wight and Arn.	0	n/a	n/a	0	4	0	n/a	n/a	0	2.78
<i>Diospyros kirkii</i> Hiern	4	4.95	0.002	2	6	2.78	30.35	0.104	0	2.78
<i>Diospyros zombensis</i> (B.L.Burt) F.White	0	n/a	n/a	0	2	0	n/a	n/a	0	0
<i>Diplorhynchus condylocarpon</i> (Müll.Arg.) Pichon	12	4.67	0.002	2	14	55.56	8.09	0.006	11.11	36.11
<i>Dombeya burgessiae</i> Gerrard ex Harv.	2	4.50	0.002	2	4	0	n/a	n/a	0	2.78
<i>Dombeya rotundifolia</i> (Hochst.) Planch.	2	4.95	0.002	4	4	0	n/a	n/a	0	0

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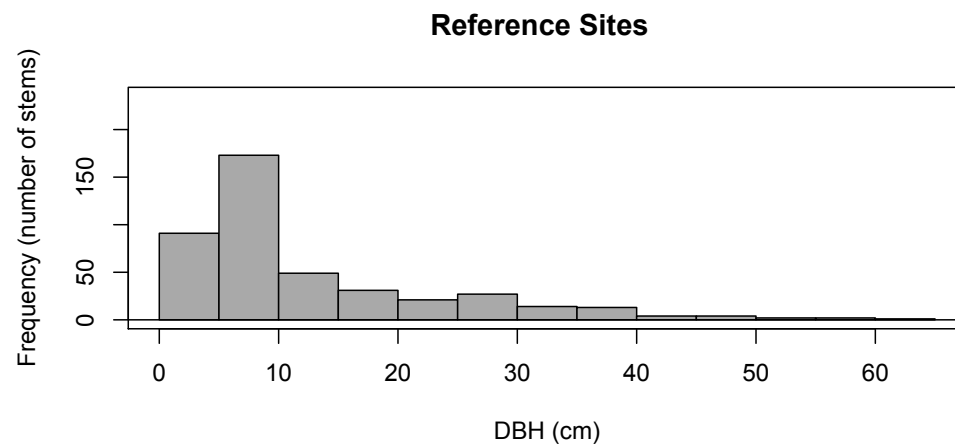
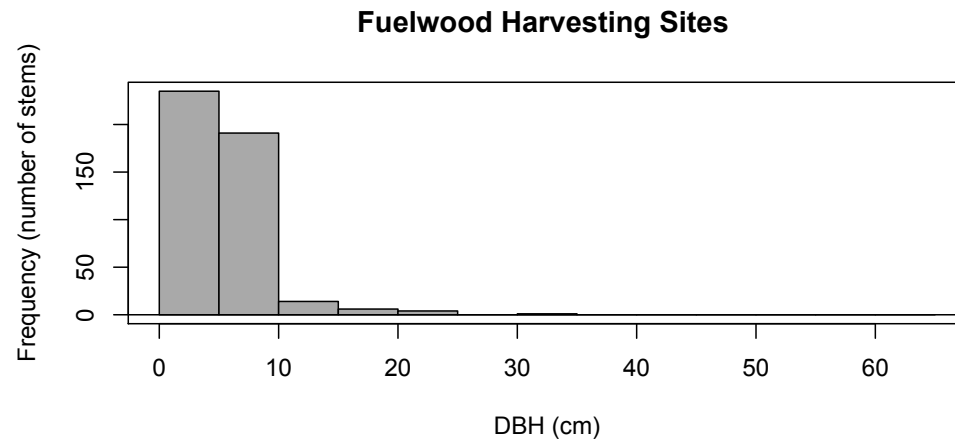
<i>Dombeya torrida</i> (J.F.Gmel.) Bamps	2	6.45	0.003	0	0	0	n/a	n/a	0	0
<i>Ehretia amoena</i> Klotzsch	0	n/a	n/a	2	0	0	n/a	n/a	0	0
<i>Elephantorrhiza goetzei</i> (Harms) Harms	0	n/a	n/a	0	0	2.78	12.67	0.013	0	0
<i>Erythrina</i> sp.	0	n/a	n/a	0	2	0	n/a	n/a	0	0
<i>Erythrophleum suaveolens</i> (Guill. and Perr.) Brenan	2	5.10	0.002	2	0	0	n/a	n/a	0	0
(E) <i>Eucalyptus camaldulensis</i> Dehnh.	14	8.33	0.008	6	6	0	n/a	n/a	0	0
(E) <i>Eucalyptus tereticornis</i> Sm.	16	5.57	0.003	4	4	0	n/a	n/a	0	0
<i>Faurea rochetiana</i> (A.Rich.) Pic.Serm.	0	n/a	n/a	0	0	2.78	6.90	0.004	0	5.56
<i>Faurea saligna</i> Harv.	2	31.10	0.076	0	2	2.78	4.50	0.002	0	5.56
<i>Faurea speciosa</i> Welw.	0	n/a	n/a	2	0	0	n/a	n/a	0	0
<i>Ficus sycomorus</i> L.	0	n/a	n/a	0	2	0	n/a	n/a	0	0
<i>Flacourtia indica</i> (Burm.f.) Merr.	0	n/a	n/a	0	18	5.56	5.53	0.003	5.56	8.33
<i>Gardenia ternifolia</i> Schumach. and Thonn.	0	n/a	n/a	0	0	2.78	7.60	0.005	0	0
<i>Gmelina arborea</i> Roxb.	0	n/a	n/a	0	0	0	n/a	n/a	0	0
<i>Heteropyxis dehniae</i> Suess.	2	5.00	0.002	0	0	0	n/a	n/a	0	0
<i>Hippocratea parviflora</i> N.E.Br.	0	n/a	n/a	0	0	0	n/a	n/a	0	0
<i>Holarrhena pubescens</i> (Buch.-Ham.) Wall. ex G.Don	0	n/a	n/a	0	0	2.78	4.00	0.001	0	0
<i>Hymenocardia acida</i> Tul.	0	n/a	n/a	0	2	0	n/a	n/a	0	0
<i>Julbernardia globiflora</i> (Benth.) Troupin	0	n/a	n/a	2	4	5.56	17.10	0.027	0	13.89
<i>Lanea discolor</i> (Sond.) Engl.	16	5.36	0.002	2	2	25	7.65	0.007	0	2.78
(E) <i>Leucaena leucocephala</i> (Lam.) de Wit	0	n/a	n/a	0	2	0	n/a	n/a	0	0
<i>Macaranga capensis</i> (Baill.) Benth. ex Sim	2	n/a	n/a	0	0	0	n/a	n/a	0	0
<i>Margaritaria discoidea</i> (Baill.) G.L.Webster	0	n/a	n/a	0	2	0	n/a	n/a	0	2.78
<i>Multidentia crassa</i> (Hiern) Bridson	4	4.65	0.002	2	4	0	n/a	n/a	0	8.33
<i>Mundulea sericea</i> (Willd.) A.Chev.	0	n/a	n/a	0	0	2.78	6.60	0.003	0	0
<i>Newtonia buchananii</i> (Baker) G.C.C.Gilbert and Boutique	2	n/a	n/a	0	0	0	n/a	n/a	0	0
<i>Ochna schweinfurthiana</i> F.Hoffm.	4	4.30	0.001	2	8	30.56	5.40	0.002	8.33	5.56
<i>Olax dissitiflora</i> Oliv.	0	n/a	n/a	0	0	5.56	7.80	0.005	0	0
<i>Olax obtusifolia</i> De Wild.	0	n/a	n/a	2	0	13.89	6.40	0.003	0	5.56
<i>Ozoroa insignis</i> Delile	2	5.66	0.003	0	0	0	n/a	n/a	0	0
<i>Ozoroa reticulata</i> (Baker f.) R. and A.Fern.	2	5.35	0.002	0	0	2.78	12.70	0.013	0	0
<i>Parinari curatellifolia</i> Planch. ex Benth.	6	3.45	0.002	2	4	22.22	9.93	0.013	0	8.33
<i>Pericopsis angolensis</i> (Baker) Meeuwen	6	4.81	0.002	0	0	25	7.49	0.007	5.56	5.56
<i>Philenoptera bussei</i> (Harms) Schrire	0	n/a	n/a	0	0	2.78	21.00	0.035	0	2.78
<i>Piliostigma thonningii</i> (Schumach.) Milne-Redh.	2	4.00	0.001	0	0	0	n/a	n/a	0	0
<i>Pseudolachnostylis maprouneifolia</i> Pax	2	4.20	0.001	6	8	33.33	9.65	0.011	8.33	2.78
<i>Psorospermum febrifugum</i> Spach	0	n/a	n/a	0	4	0	n/a	n/a	0	5.56
<i>Psydraz</i> sp.	0	n/a	n/a	0	0	2.78	6.00	0.003	0	0
<i>Pterocarpus angolensis</i> DC.	24	5.48	0.003	1	8	13.89	6.40	0.004	5.56	2.78
<i>Pterocarpus rotundifolius</i> (Sond.) Druce	0	n/a	n/a	4	0	2.78	11.80	0.011	2.78	0
<i>Rourea orientalis</i> Baill.	2	4.20	0.001	2	6	22.22	11.43	0.015	2.78	13.89
<i>Senegalia galpinii</i> (Burt Davy) Seigler and Ebinger	2	5.70	0.003	0	0	0	n/a	n/a	0	0
<i>Senegalia nigrescens</i> (Oliv.) P.J.H.Hurter	0	n/a	n/a	0	0	2.78	11.00	0.011	0	0
(E) <i>Senna petersiana</i> (Bolle) Lock	2	4.60	0.002	0	0	0	n/a	n/a	0	0
<i>Steganotaenia araliacea</i> Hochst.	0	n/a	n/a	2	0	0	n/a	n/a	0	0

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<i>Stereospermum kunthianum</i> Cham.	4	5.05	0.002	4	2	2.78	8.00	0.005	0	8.33
<i>Strychnos innocua</i> Delile	0	n/a	n/a	0	0	2.78	11.00	0.011	0	2.78
<i>Strychnos pungens</i> Soler.	0	n/a	n/a	0	0	2.78	15.50	0.019	0	0
<i>Syzygium guineense</i> (Willd.) DC.	2	7.95	0.005	0	0	5.56	8.40	0.006	0	0
<i>Terminalia sericea</i> Burch. ex DC.	0	n/a	n/a	2	2	0	n/a	n/a	0	0
<i>Terminalia stenostachya</i> Engl. and Diels	2	5.45	0.002	2	0	2.78	10.00	0.008	0	0
(E) <i>Toona ciliata</i> M.Roem.	8	5.76	0.003	6	6	0	n/a	n/a	0	0
<i>Trema orientalis</i> (L.) Blume	2	20.30	0.032	0	0	0	n/a	n/a	0	0
<i>Turraea nilotica</i> Kotschy and Peyr.	0	n/a	n/a	0	4	0	n/a	n/a	0	11.11
<i>Uapaca kirkiana</i> Müll.Arg.	20	6.14	0.003	8	14	33.33	10.38	0.012	2.78	13.89
<i>Uapaca nitida</i> Müll.Arg.	6	5.07	0.002	2	4	5.56	11.38	0.015	2.78	5.56
<i>Vangueria infausta</i> Burch.	2	4.90	0.002	0	0	8.33	6.55	0.004	0	2.78
<i>Vernonia amygdalina</i> Delile	0	n/a	n/a	0	0	2.78	5.95	0.003	0	2.78
<i>Vernonia colorata</i> (Willd.) Drake	2	4.60	0.002	0	0	0	n/a	n/a	0	0
<i>Vitex doniana</i> Sweet	4	5.78	0.003	0	0	0	n/a	n/a	0	0
<i>Vitex payos</i> (Lour.) Merr.	2	4.30	0.001	0	0	5.56	5.90	0.003	2.78	2.78
<i>Ximenia caffra</i> Sond.	0	n/a	n/a	2	6	11.11	7.88	0.005	0	2.78
<i>Zanha africana</i> (Radlk.) Exell	0	n/a	n/a	0	0	0	n/a	n/a	0	2.78
(E) <i>Ziziphus mauritiana</i> Lam.	0	n/a	n/a	0	4	0	n/a	n/a	0	0
<i>Xeromphis spinosa</i> (Thunb.) Keay	0	n/a	n/a	0	0	2.78	5.20	0.002	2.78	19.44

S. M. Table 2. Minimum, mean and maximum aboveground biomass (AGB) values for fuelwood harvesting sites (n=14) and reference sites (n=9), for five mixed-species allometric equations designed for the miombo woodlands. AGB values of trees per plot were summed per site and converted to Mg per hectare. Differences between means for fuelwood harvesting sites and reference sites were significant for each equation (Chidumayo, $p=0.0002$; Kachamba, $p=0.0001$; Kuyah, $p=0.0001$; Mugasha, $p=0.0002$; Ryan, $p=0.0002$).

	Chidumayo (Mg per ha)				
	Minimum	Mean	SE	Maximum	SD
Fuelwood Harvesting Sites	0.20	5.34	1.55	19.72	5.82
Reference Sites	27.54	91.34	13.52	158.13	40.56
	Kachamba (Mg per ha)				
	Minimum	Mean	SE	Maximum	SD
Fuelwood Harvesting Sites	0.38	8.49	2.42	33.56	9.05
Reference Sites	37.28	109.47	14.97	180.58	44.91
	Kuyah (Mg per ha)				
	Minimum	Mean	SE	Maximum	SD
Fuelwood Harvesting Sites	0.23	5.04	1.43	20.14	5.36
Reference Sites	21.40	61.31	8.25	100.14	24.75
	Mugasha (Mg per ha)				
	Minimum	Mean	SE	Maximum	SD
Fuelwood Harvesting Sites	0.23	5.78	1.66	21.82	6.23
Reference Sites	28.28	90.30	13.04	153.99	39.12
	Ryan (Mg per ha)				
	Minimum	Mean	SE	Maximum	SD
Fuelwood Harvesting Sites	0.16	4.42	1.30	16.07	4.85
Reference Sites	23.50	79.75	11.98	139.30	35.94



S. M. Figure 1. Distribution of tree diameter at breast height (DBH) for all trees (>4 cm DBH) in all forest plots, in fuelwood harvesting sites ($n=14$) and reference sites ($n=9$).