

# Supplementary Information

## Secondary vegetation provides a reservoir of non-timber forest products and agroforestry service options for forestry plantation systems, Maputaland, South Africa

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**Table S1:** Matrix of species-by-use-class

<sup>a</sup> Source: abundance data summarised from vegetation sampling conducted in Starke et al. 2019

<sup>b</sup> Underlined species are those with stem DBH < 5cm

Species	Relative abundance of species in each vegetation types <sup>a</sup>				Classes of non-timber forest products (NTFPs)										Classes of agroforestry services (AFS)					References			
	Mature forest	Regrowth forest	Naturalised forest	Woodland	Use Value (number of uses)	Fuel	Building	Craft	Food	Beverage	Gums/oils/resins	Fibre	Medicinal	Spiritual	N-Fixation	Browse	Microclimate manipulation	Intercropping	Boundary		Integrated Pest Management	Restoration	
<i>Adenia gummifera</i>	0.2	0.0	0.3	0.0	4								x	x							x	x	Minja 1994; Corrigan et al. 2011; Weiermans and van Aarde 2003
<i>Adenopodia spicata</i>	0.1	0.0	0.0	0.0	1								x										Hutchings et al. 1996
<i>Albizia adianthifolia</i>	5.6	9.3	21.5	8.8	10		x	x	x				x	x	x	x	x					x	Pooley 1980; Cunningham 1986 Cobbina et al. 1990; Hutchings et al. 1996; Swaine et al. 2005; Orwa et al. 2009; Mugwedi et al. 2017
<i>Allophylus africana</i>	0.0	0.1	0.0	0.0	2								x						x				Deweese 1995; Hutchings et al. 1996
<u><i>Ancylobothrys petersiana</i></u> <sup>b</sup>	0.1	0.1	0.0	0.0	2				x	x													Pooley 1980; Rampedi 2010
<i>Annona senegalensis</i>	0.0	0.0	0.2	0.3	6				x	x	x		x	x								x	Cunningham 1988; Hutchings et al. 1996; Corrigan et al. 2011; Van Wyk 2011; Okhale et al. 2016

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<i>Antidesma venosum</i>	1.2	1.3	0.2	2.1	6		x	x					x			x						x	Pooley 1980; Cunningham 1986; Msangi and Hardesty 1993; Hutchings et al. 1996; Lemmens et al. 2012; Rolo et al. 2018
<i>Apodytes dimidiata</i>	5.7	2.9	3.0	2.8	7	x	x	x					x	x						x		x	Cunningham 1986; Hutchings et al. 1996; Lubke et al. 1996; Clark and Appleton 1997; Jacobsen 2004; Berry et al. 2005; Corrigan et al. 2011
<i>Blighia unijugata</i>	0.2	0.2	0.9	0.0	4		x				x						x	x					Oderinde et al. 2008; Lemmens et al. 2012; Negawo and Beyene 2017
<i>Brachylaena discolor</i>	4.8	7.1	6.4	1.8	7	x	x	x					x			x						x	Cunningham 1986; Cunningham 1987; Haschick and Kerley 1997; Boon 2010; Vasicek and Gaugris 2014; Rolo et al. 2016
<i>Bridelia cathartica</i>	0.0	0.4	0.1	0.4	3				x				x			x							Corrigan et al. 2011; de Wet and Ngubane 2014; Desalegn et al. 2016
<i>Bridelia micrantha</i>	0.1	0.0	0.0	0.0	5		x						x			x						x	Cunningham and Gwala 1986; Hutchings et al. 1996; Bunderson et al. 2002; Grainger and Van Aarde 2012; Omoniyi et al. 2014;
<i>Canthium inerme</i>	2.6	3.8	0.4	0.8	2								x									x	Cunningham 1988; Goodall 2000
<i>Canthium setiflorum</i>	0.2	0.0	0.9	0.0	2				x	x													Pooley 1980
<i>Carissa bispinosa</i>	0.3	0.1	1.4	0.0	6	x			x				x			x						x	Henderson 1983; Cunningham 1988; Hutchings et al. 1996; Pote et al. 2006; Penderis 2012; Roy 2015
<i>Casearia gladiiformis</i>	0.2	0.2	0.1	0.0	2	x							x										Hutchings et al. 1996; Vasicek and Gaugris 2014

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<i>Celtis africana</i>	1.0	0.5	0.0	0.0	5	x								x		x	x					x	Hutchings et al. 1996; van Aarde et al. 1996; Ts'ehlana 2005
<i>Chaetachme aristata</i>	0.1	0.2	0.0	0.0	3	x							x									x	West 1999; Pote et al. 2006; Corrigan et al. 2011
<i>Clausena anisata</i>	1.6	1.5	0.0	0.0	5		x						x	x							x	x	Hutchings et al. 1996; Macpherson 2000; Gaugris and van Rooyen 2009; Govindarajan 2010; York et al. 2011
<i>Clerodendrum glabrum</i>	0.6	0.5	0.4	0.4	4		x	x													x	x	Pooley 1980; Boon 2010; Matlebyane et al. 2010; Grainger and Van Aarde 2012
<i>Combretum molle</i>	0.5	0.2	0.0	0.0	5	x	x	x					x			x							Cunningham 1987; Cunningham 1988; Boon 2010; York et al. 2011; Nampanzira et al. 2015
<i>Commiphora neglecta</i>	0.3	0.0	0.0	0.0	2								x								x		Boon 2010; de Wet and Ngubane 2014
<i>Commiphora zanzibarica</i>	0.2	1.1	0.2	1.7	3						x		x								x		Van der Walt 1973; Hutchings et al. 1996, Nichols 2005
<i>Coptosperma littorale</i>	0.0	0.2	0.0	0.0	2		x			x													Cunningham and Gwala 1986; Boon 2010
<i>Croton gratissimus</i>	0.0	0.2	0.0	0.0	4		x						x			x							Cunningham 1986; Hutchings et al. 1996; Schneiderat 2011; Bahadur et al. 2014
<i>Dalbergia armata</i>	0.2	0.0	0.0	0.0	2								x									x	Macpherson 2000; Corrigan et al. 2011
<i>Dalbergia obovata</i>	2.9	7.6	4.1	0.2	8	x	x	x					x	x	x	x						x	Grobbelaar and Clarke 1975; Cunningham 1986; Cunningham

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																						1987; Hutchings et al. 1996; Mukolwe 1999; Akingbade et al. 2001 Roy 2015
<i>Deinbollia oblongifolia</i>	0.0	0.3	0.0	0.0	3				x				x	x								Cunningham 1988; Hutchings et al. 1996
<i>Dialium schlechteri</i>	1.1	2.1	0.0	3.0	5	x	x		x				x		x							Corby 1974; Cunningham 1986; Cunningham 1988; Pooley 1980; Nciki et al. 2016
<i>Dichrostachys cinerea</i>	0.2	1.0	0.8	0.8	9	x	x	x					x	x	x	x		x	x			Corby 1974; Pooley 1980; Vasicek and Gaugris 2014; Corrigan et al. 2011; Bunderson et al. 2002; Kunene et al. 2003
<i>Diospyros natalensis</i>	0.1	0.0	0.0	0.0	1		x															Cunningham and Gwala 1986
<i>Ekebergia capensis</i>	0.0	0.0	0.0	0.6	5		x						x			x	x					Mabogo 1990; Orwa et al. 2009; York et al. 2011; Lemmens et al. 2012; Grainger and van Aarde 2012
<i>Embelia ruminata</i>	0.0	0.1	0.0	0.0	1								x									Hutchings et al. 1996
<i>Englerophytum natalense</i>	0.2	0.0	0.0	0.3	2		x															West 1999; Boudreau et al. 2005
<i>Euclea natalensis</i>	0.2	0.0	0.0	0.1	6		x	x		x						x						Cunningham 1987; Kunene et al. 2003; Gaugris and van Rooyen 2009; Rampedi 2010; de Wet and Ngubane 2014; Roy 2015
<i>Euclea racemosa</i>	0.0	0.1	0.0	0.0	2											x						Skowno et al. 1999; Mengistu et al. 2017

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<i>Ficus burkei</i>	1.3	0.1	0.0	0.0	4								x			x		x			x	Deweese 1995; Hutchings et al. 1996 Bunderson et al. 2002; Roy 2015
<i>Flueggea virosa</i>	0.6	0.0	0.1	0.0	4								x	x		x					x	Dube 1992; York et al. 2011; Koné and Atindehou 2008; Mafongoya and Ajayi 2017
<i>Grewia caffra</i>	0.6	0.0	0.1	0.0	4		x	x	x				x									Pooley 1980; Cunningham 1986; Hutchings et al. 1996; Corrigan et al. 2011
<i>Grewia occidentalis</i>	0.6	0.0	0.0	0.0	5				x				x			x						Pooley 1980; Hutchings et al. 1996; Grainger and Aarde 2012; Mkhize et al. 2014
<i>Hippocratea delagoensis</i>	0.1	0.1	0.0	0.0	1	x																Cunningham 1986
<i>Hymenocardia ulmoides</i>	11.9	14.7	28.4	13.9	5	x	x	x								x						Pooley 1980; Cunningham 1988; Moutsambote et al. 2000; Gaugris et al. 2006; Andzouana and Mombouli 2011
<i>Hyperacanthus amoenus</i>	0.1	0.1	1.5	5.4	3	x				x			x									Hutchings et al. 1996; Rampedi 2010; Vasicek and Gaugris 2014
<i>Hyphaene coriacea</i>	0.0	0.1	0.0	2.4	7		x	x		x	x	x	x					x				Cunningham 1987; Cunningham and Wehmeyer 1988; McKean 2004; Lokuruka 2008; de Wet and Ngubane 2014
<i>Kraussia floribunda</i>	2.0	0.3	1.5	0.0	4	x	x		x													Pooley 1980; Cunningham and Gwala 1986; Von Maltitz et al. 1996; Vasicek and Gaugris 2014
<i>Lagynias lasiantha</i>	0.0	0.1	0.0	0.0	2				x				x									Corrigan et al. 2011

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<i>Landolphia kirkii</i>	0.3	0.6	0.6	0.0	3		x		x		x												Cunningham and Gwala 1986; Cunningham 1988; Boon 2010
<i>Manilkara concolor</i>	0.0	0.4	0.0	0.0	3		x		x				x										Pooley 1980; Hutchings et al. 1996; Gaugris and van Rooyen 2009
<i>Manilkara discolor</i>	1.0	0.1	0.0	0.0	6		x		x		x		x				x	x					Cunningham 1986; Cunningham 1988; Hutchings et al. 1996; Van Wyk 2011
<i>Maytenus undata</i>	0.2	0.0	0.0	0.0	3	x		x					x										Mabogo 1990; Hutchings et al. 1996; Boon 2010
<i>Mimusops caffra</i>	0.0	0.0	0.0	0.1	4		x				x		x								x		Cunningham and Gwala 1986; De Wet et al. 2012; Grainger and Aarde 2012; Chivandi et al. 2016
<i>Mimusops obovata</i>	0.7	0.4	0.0	0.0	3		x		x				x										Cunningham 1986; Cunningham 1988; Hutchings et al. 1996
<i>Monanthotaxis caffra</i>	1.0	0.3	0.0	0.0	1									x									Hutchings et al. 1996
<i>Mystroxylon aethiopicum</i>	0.2	0.1	0.0	0.0	5			x		x	x		x				x						Mabogo 1990; Hutchings et al. 1996; Nussinovitch 2009; Lemmens et al. 2012
<i>Ochna natalitia</i>	0.2	1.8	0.2	0.5	3					x			x								x		Hutchings et al. 1996; Von Maltitz et al. 1996; Tewari 2012
<i>Ozoroa obovata</i>	0.0	0.4	0.0	0.1	1								x										York et al. 2011
<i>Pancovia golungensis</i>	0.0	0.1	0.0	0.0	1	x																	Lemmens et al. 2012
<i>Pappea capensis</i>	0.0	0.1	0.1	0.0	7	x			x	x	x		x				x				x		Pooley 1980; Kloos et al. 1987; Mabogo 1990; Hutchings et al. 1996; Van Wyk 2011; Karau et al. 2012

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<i>Peddiea africana</i>	0.0	0.3	0.0	0.0	3							x	x								x		Hutchings et al. 1996; Orwa et al. 2009
<i>Phoenix reclinata</i>	0.0	0.0	0.8	2.5	7		x	x	x	x		x	x									x	Pooley 1980; Cunningham 1990; Hutchings et al. 1996; Maghembe et al. 1994; McKean 2004; Ssekuubwa et al. 2017
<i>Psychotria capensis</i>	0.9	0.2	0.2	0.0	2								x									x	Hutchings et al. 1996; Von Maltitz et al. 1996
<i>Psydrax locuples</i>	1.5	1.8	1.4	1.6	1		x																Gaugris and van Rooyen 2009
<i>Psydrax obovata</i>	1.0	0.0	0.2	6.1	3	x	x															x	Cunningham 1986; Dyer 1996; Von Maltitz et al. 1996
<i>Rhoicissus schlechteri</i>	1.2	0.6	2.6	1.4	1								x										Hutchings et al. 1996
<i>Sarcostemma viminalis</i>	0.2	0.0	0.0	0.0	3				x				x		x								Cunningham 1988; Hutchings et al. 1996; Kunene et al. 2003
<i>Schrebera alata</i>	2.2	1.4	0.0	0.0	1	x																	Lemmens et al. 2012
<i>Sclerocarya birrea</i>	0.0	0.3	0.0	4.7	10	x	x	x	x	x	x		x			x	x	x					Cunningham 1988; Bunderson et al. 2002; Kunene et al. 2003; Emanuel et al. 2005; Leakey et al. 2005; Shackleton et al. 2005; Gaugris and van Rooyen 2009; de Wet et al. 2010; Vermaak et al. 2011
<i>Sclerocroton integerrimus</i>	3.2	10.2	10.6	23.5	3		x						x									x	Cleminson 1993; de Wet and Ngubane 2014; Mugwedi et al. 2017
<i>Scolopia zeyheri</i>	0.4	0.0	0.0	0.0	3		x	x														x	Lemmens et al. 2012; Roy 2015

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<i>Scutia myrtina</i>	0.3	0.3	0.0	0.0	4	x							x				x					x	Pote et al. 2006; Geldenhuys 2004; Mkhize et al. 2014; O'Connor et al. 2014
<i>Searsia pyroides</i>	0.2	0.4	3.6	0.7	3		x						x									x	Skowno et al. 1999, Moffett 1994; Marchetti et al. 2011
<i>Sideroxylon inerme</i>	0.2	0.2	0.0	0.0	3		x						x									x	Scheepers 2004; Hutchings et al. 1996; Van Aarde et al. 1996
<i>Strelitzia nicolai</i>	0.2	1.2	0.0	0.0	5		x		x		x								x			x	Cunningham 1986; Foard et al. 1994; Nichols 2005; Van Wyk 2008; Chalannavar et al. 2014
<i>Strychnos gerrardii</i>	0.7	0.1	0.0	0.0	1				x														Boon 2010
<i>Strychnos madagascariensis</i>	1.5	0.6	0.0	0.4	7		x	x	x	x			x			x						x	Cunningham 1988; Maghembe et al. 1994; Graugris et al. 2007; Tewari 2012; York et al. 2011
<i>Strychnos spinosa</i>	1.9	3.5	0.1	9.0	5			x	x	x			x									x	Sitrit et al. 2003; Orwa et al. 2009; Nhukarume et al. 2010; Madzimure et al. 2013; Krog et al. 2015
<i>Suregada zanzibariensis</i>	0.9	0.1	0.0	0.0	1																	x	Innocent et al. 2010
<i>Syzygium cordatum</i>	0.4	3.4	0.3	0.1	7	x	x		x		x		x				x					x	Cunningham 1986; Cunningham 1988; Orwa et al. 2009; Hutchings et al. 1996; Chalannavar et al. 2011
<i>Tabernaemontana elegans</i>	0.9	1.8	2.4	0.4	2				x				x										Cunningham 1988; de Wet and Ngubane 2014
<i>Teclea gerrardii</i>	0.4	0.1	0.0	0.0	1								x										Hutchings et al. 1996

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<i>Tecoma capensis</i>	4.7	1.6	0.1	0.4	3								x				x		x			Teague et al. 1981; Lubbe et al. 2010; Madikizela et al. 2012
<i>Terminalia sericea</i>	0.0	0.1	0.0	0.0	6		x	x					x				x	x				Gaugris et al. 2006; Schneiderat 2011; York et al. 2011; O'Connor et al. 2014; Tewari 2012
<i>Trema orientalis</i>	0.0	0.0	0.8	0.1	7	x	x					x	x			x		x				Pammenter et al. 1985; Shangali et al. 2000; Hutchings et al. 1996; Roothaert 2000; Lin 2012; Jahan et al. 2010; Jahan 2013
<i>Tricalysia delagoensis</i>	0.0	1.1	0.5	0.0	1				x													Bruschi et al. 2014
<i>Trichilia emetica</i>	2.7	2.1	0.0	0.4	8	x	x	x	x		x		x				x					Liengme 1983; Cunningham 1986; Cunningham 1987; Cunningham 1988; Vermaak et al. 2011; Cooke and Johnson 2002; Naidoo et al. 2013
<i>Uvaria caffra</i>	1.2	0.9	0.0	0.0	1		x															Cunningham and Gwala 1986
<i>Uvaria lucida</i>	0.5	0.1	0.0	0.1	2		x						x									Corrigan et al. 2011; Tewari 2012
<i>Vangueria infausta</i>	0.5	0.7	0.4	1.3	4				x				x		x							Kunene et al. 2003; Jordaan 2010; de Wet et al. 2010; Van Wyk 2011
<i>Vepris lanceolata</i>	0.2	1.0	1.5	0.2	4	x		x					x									Pooley 1980; Geldenhuys 2004; Macpherson 2000; Vasicek and Gaugris 2014
<i>Vitex ferruginea</i>	0.2	0.4	0.0	0.1	4	x											x	x				Cabral et al. 2008; Orwa et al. 2009
<i>Vitellariopsis marginata</i>	0.9	0.2	0.0	0.0	4				x				x	x	x							Hutchings et al. 1996; Van Wyk and Gericke 2000; Sobieki 2002; Kunene et al. 2003

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<i>Ximena caffra</i>	0.0	0.9	0.0	0.0	5				x		x		x			x						x	Cunningham 1988; Jordaan 2010; Chivandi et al. 2008; Nciki et al. 2016; Chivandi et al. 2012
<i>Xylothea kraussiana</i>	0.2	0.1	0.5	0.1	2									x								x	Nemudzudzanyi et al. 2010; Roy 2015
<i>Zanthoxylum capense</i>	1.0	2.1	0.1	0.4	4		x	x					x									x	Pooley 1980; Gaugris and van Rooyen 2009; Steyn et al. 1998; Shackleton et al. 2013

**Table S2:** Pearson and Kendall correlations with PCA ordination axis

PCA Axis:	1			2			3		
	<i>r</i>	<i>r</i> <sup>2</sup>	Tau	<i>r</i>	<i>r</i> <sup>2</sup>	Tau	<i>r</i>	<i>r</i> <sup>2</sup>	Tau
Fuel	0.664	0.441	0.487	0.461	0.212	0.303	0.052	0.003	0.05
Building	0.478	0.229	0.357	0.572	0.328	0.429	-0.19	0.036	-0.106
Craft	0.551	0.304	0.33	0.689	0.475	0.501	0.145	0.021	0.044
Food	-0.606	0.367	-0.406	0.207	0.043	0.106	0.194	0.038	0.135
<b>Non Timber Forest Products (NTFPs)</b> Beverage	-0.442	0.195	-0.361	-0.062	0.004	-0.127	0.679	0.461	0.317
Gum	0.528	0.278	0.187	0.232	0.054	0.143	0.512	0.262	0.252
Fibre	-0.077	0.006	-0.147	0.003	0	-0.137	0.495	0.245	0.158
Medicinal	-0.743	0.552	-0.542	0.024	0.001	0.01	0.049	0.002	0.014
Spiritual	-0.447	0.2	-0.308	0.405	0.164	0.278	0.275	0.076	0.149
N-fixation	-0.333	0.111	-0.223	0.59	0.348	0.427	-0.225	0.05	-0.168
Browse	-0.332	0.11	-0.222	0.403	0.162	0.238	-0.28	0.078	-0.247
Microclimate	-0.466	0.217	-0.358	0.439	0.192	0.265	-0.264	0.07	-0.171
<b>Agroforestry system (AFS) services</b> Intercrop	-0.368	0.135	-0.278	0.74	0.548	0.484	0.269	0.072	-0.001
Boundary	-0.366	0.134	-0.344	0.117	0.014	0.03	-0.208	0.043	-0.17
Integrated P	-0.389	0.151	-0.259	-0.136	0.018	-0.211	0.509	0.259	0.275
Restoration	-0.587	0.344	-0.325	-0.021	0	-0.003	-0.428	0.183	-0.349

**Table S3:** Pearson and Kendall species abundance correlations with PCA ordination axis (Figure 4 in article)

Species	1			2			3		
	<i>r</i>	<i>r</i> <sup>2</sup>	Tau	<i>r</i>	<i>r</i> <sup>2</sup>	Tau	<i>r</i>	<i>r</i> <sup>2</sup>	Tau
<i>Acacia kraussiana</i>	0.028	0.001	-0.006	0.024	0.001	-0.015	-0.093	0.009	-0.061
<i>Adenia gummifera</i>	0.057	0.003	0.07	-0.109	0.012	-0.096	-0.131	0.017	-0.138
<i>Adenopodia spicata</i>	-0.064	0.004	-0.219	-0.093	0.009	-0.085	0.028	0.001	0.074
<i>Albizia adianthifolia</i>	0.031	0.001	0.023	0.026	0.001	0.019	-0.484	0.234	-0.248
<i>Allophylus africana</i>	-0.119	0.014	-0.036	-0.133	0.018	-0.092	-0.241	0.058	-0.209
<i>Ancylobothrys capensis</i>	-0.133	0.018	-0.157	-0.195	0.038	-0.203	0.071	0.005	0.102
<i>Annona senegalensis</i>	-0.192	0.037	-0.091	0.123	0.015	0.128	0.437	0.191	0.234
<i>Antidesma venosum</i>	-0.278	0.077	-0.189	-0.182	0.033	-0.108	-0.072	0.005	-0.025
<i>Apodytes dimidiata</i>	-0.324	0.105	-0.198	-0.026	0.001	-0.098	0.319	0.102	0.185
<i>Blighia undulata</i>	-0.024	0.001	-0.045	-0.11	0.012	0.029	-0.063	0.004	-0.09
<i>Brachylaena discolor</i>	-0.355	0.126	-0.168	-0.026	0.001	-0.061	-0.235	0.055	-0.154
<i>Bridelia carthartica</i>	0.039	0.002	0.124	-0.019	0	0.019	-0.11	0.012	0.004
<i>Bridelia micrantha</i>	0.062	0.004	0.06	-0.105	0.011	-0.06	0.13	0.017	0.213
<i>Canthium inerme</i>	-0.266	0.071	-0.143	0.058	0.003	0.01	-0.087	0.008	-0.147
<i>Canthium setifolium</i>	0.272	0.074	0.143	-0.072	0.005	-0.013	0.172	0.03	0.141
<i>Carissa bispinosa</i>	-0.046	0.002	-0.146	0.136	0.019	0.132	-0.051	0.003	-0.089
<i>Casearia gladiiformis</i>	0.048	0.002	0.049	-0.169	0.028	-0.122	-0.072	0.005	0.031

Species	1			2			3		
	<i>r</i>	<i>r</i> <sup>2</sup>	Tau	<i>r</i>	<i>r</i> <sup>2</sup>	Tau	<i>r</i>	<i>r</i> <sup>2</sup>	Tau
<i>Celtis africana</i>	-0.174	0.03	-0.104	-0.173	0.03	-0.18	-0.056	0.003	-0.101
<i>Chaetachme aristata</i>	-0.119	0.014	-0.036	-0.133	0.018	-0.092	-0.241	0.058	-0.209
<i>Clausena anisata</i>	-0.12	0.014	-0.053	-0.197	0.039	-0.177	-0.207	0.043	-0.149
<i>Clerodendrum glabrum</i>	-0.122	0.015	-0.127	-0.085	0.007	-0.149	-0.245	0.06	-0.202
<i>Combretum molle</i>	-0.219	0.048	-0.168	-0.166	0.028	-0.18	0.113	0.013	0.042
<i>Commiphora neglecta</i>	-0.113	0.013	-0.241	-0.176	0.031	-0.103	0.104	0.011	0.075
<i>Commiphora zanzibarica</i>	0.027	0.001	0.07	-0.207	0.043	-0.057	-0.324	0.105	-0.276
<i>Coptosperma littoralis</i>	-0.051	0.003	-0.134	0.019	0	-0.01	-0.057	0.003	-0.004
<i>Croton gratissimus</i>	-0.057	0.003	-0.104	0.035	0.001	0.126	-0.009	0	-0.132
<i>Cussonia arenicola</i>	-0.067	0.005	-0.062	-0.272	0.074	-0.209	0.065	0.004	0.046
<i>Dalbergia armata</i>	0.004	0	-0.087	-0.143	0.02	-0.022	0.025	0.001	0.106
<i>Dalbergia obovata</i>	-0.16	0.025	-0.051	-0.268	0.072	-0.22	0.036	0.001	0.01
<i>Deinbollia oblongifolia</i>	-0.132	0.018	-0.229	-0.162	0.026	-0.092	-0.05	0.002	-0.048
<i>Dialium schlechteri</i>	0.049	0.002	0.067	-0.147	0.022	-0.123	-0.118	0.014	-0.04
<i>Dichrostachys cinerea</i>	-0.214	0.046	-0.114	0.301	0.091	0.169	0.358	0.128	0.144
<i>Diospyros natalensis</i>	0.105	0.011	0.077	-0.168	0.028	-0.082	-0.117	0.014	-0.038
<i>Ekebergia capensis</i>	-0.063	0.004	0.029	-0.013	0	0.072	-0.241	0.058	-0.02
<i>Embelia ruminata</i>	-0.075	0.006	-0.056	-0.091	0.008	-0.04	-0.018	0	0.075

Species	1			2			3		
	<i>r</i>	<i>r</i> <sup>2</sup>	Tau	<i>r</i>	<i>r</i> <sup>2</sup>	Tau	<i>r</i>	<i>r</i> <sup>2</sup>	Tau
<i>Englerophytum natalense</i>	0.023	0.001	0.02	-0.178	0.032	-0.046	-0.014	0	0.11
<i>Erythroxylum emarginatum</i>	0.055	0.003	0.04	-0.153	0.023	-0.088	-0.112	0.013	-0.08
<i>Eucalyptus grandis</i>	0.221	0.049	0.121	0.141	0.02	0.128	-0.146	0.021	-0.131
<i>Eugenia natalitia</i>	-0.07	0.005	-0.078	-0.124	0.015	-0.166	-0.009	0	-0.055
<i>Euclea racemosa</i>	0.026	0.001	-0.111	-0.118	0.014	0.043	-0.02	0	-0.044
<i>Ficus burkei</i>	0.067	0.004	0.066	-0.146	0.021	-0.126	-0.155	0.024	-0.148
<i>Flueggea virosa</i>	-0.129	0.017	-0.071	-0.15	0.023	-0.102	0.111	0.012	-0.022
<i>Grewia caffra</i>	0.006	0	-0.086	-0.102	0.01	-0.038	-0.054	0.003	-0.104
<i>Grewia occidentalis</i>	0.037	0.001	0.052	-0.192	0.037	-0.197	-0.023	0.001	0.015
<i>Hippocratea delagoensis</i>	0.038	0.001	-0.058	-0.125	0.016	-0.039	-0.025	0.001	-0.058
<i>Hymenocardia ulmoides</i>	0.005	0	0.057	-0.113	0.013	-0.014	-0.336	0.113	-0.299
<i>Hyperacanthus amoenus</i>	-0.139	0.019	-0.135	0.047	0.002	0.11	-0.089	0.008	-0.14
<i>Hyphaene coriacea</i>	0.064	0.004	0.053	0.187	0.035	0.276	0.384	0.147	-0.105
<i>Isoglossa woodii</i>	-0.009	0	0	-0.231	0.054	-0.128	-0.013	0	0.026
<i>Kraussia floribunda</i>	-0.117	0.014	-0.065	-0.131	0.017	-0.135	-0.06	0.004	-0.043
<i>Lagynias lasiantha</i>	-0.075	0.006	-0.056	-0.091	0.008	-0.04	-0.018	0	0.075
<i>Lagynias monteroi</i>	0.095	0.009	0.087	-0.131	0.017	-0.047	0.148	0.022	0.074
<i>Landolphia kirkii</i>	0.355	0.126	0.235	0.167	0.028	0.173	-0.084	0.007	-0.163

Species	1			2			3		
	<i>r</i>	<i>r</i> <sup>2</sup>	Tau	<i>r</i>	<i>r</i> <sup>2</sup>	Tau	<i>r</i>	<i>r</i> <sup>2</sup>	Tau
<i>Manilkara concolor</i>	-0.263	0.069	-0.225	-0.063	0.004	-0.145	0.04	0.002	0.02
<i>Manilkara discolor</i>	-0.006	0	-0.069	-0.12	0.014	-0.081	-0.04	0.002	-0.044
<i>Maytenus undata</i>	-0.166	0.027	-0.199	-0.173	0.03	-0.151	0.106	0.011	0.062
<i>Mimusops caffra</i>	-0.139	0.019	-0.133	-0.285	0.081	-0.13	0.056	0.003	-0.054
<i>Mimusops obovata</i>	0.016	0	-0.007	-0.041	0.002	-0.013	-0.09	0.008	-0.087
<i>Monanthes caffra</i>	-0.151	0.023	-0.087	-0.17	0.029	-0.169	-0.075	0.006	-0.044
<i>Mystroxydon aethiopicum</i>	-0.136	0.018	-0.132	-0.158	0.025	-0.163	0.015	0	0.01
<i>Ochna natalensis</i>	0.003	0	-0.02	-0.258	0.067	-0.077	0.074	0.005	-0.032
<i>Ozoroa obovata</i>	0.007	0	0.048	-0.115	0.013	-0.06	-0.214	0.046	-0.242
<i>Pancovia golungensis</i>	0.094	0.009	0.111	-0.134	0.018	-0.144	-0.102	0.01	-0.067
<i>Pappea capensis</i>	-0.119	0.014	-0.036	-0.133	0.018	-0.092	-0.241	0.058	-0.209
<i>Peddiea africana</i>	-0.251	0.063	-0.208	-0.276	0.076	-0.203	0.138	0.019	0.049
<i>Phoenix reclinata</i>	-0.04	0.002	-0.009	-0.056	0.003	0.012	-0.081	0.007	-0.05
<i>Pinus elliotii</i>	0.513	0.264	0.163	0.168	0.028	0.14	0.169	0.028	0.046
<i>Psychotria capensis</i>	-0.145	0.021	-0.106	-0.155	0.024	-0.144	-0.128	0.016	-0.047
<i>Psyrax locuples</i>	-0.006	0	0.015	0.076	0.006	0.115	-0.128	0.016	-0.125
<i>Psyrax obovata</i>	-0.058	0.003	-0.014	-0.174	0.03	-0.155	0.054	0.003	0.103
<i>Rhoicissus schlechteri</i>	-0.151	0.023	-0.201	-0.235	0.055	-0.179	-0.001	0	-0.025

Species	1			2			3		
	<i>r</i>	<i>r</i> <sup>2</sup>	Tau	<i>r</i>	<i>r</i> <sup>2</sup>	Tau	<i>r</i>	<i>r</i> <sup>2</sup>	Tau
<i>Rothmannia globosa</i>	-0.133	0.018	-0.157	-0.195	0.038	-0.203	0.071	0.005	0.102
<i>Sarcostemma viminalis</i>	-0.07	0.005	-0.072	-0.163	0.027	-0.146	0.134	0.018	0.195
<i>Schrebera alata</i>	-0.15	0.022	-0.111	-0.225	0.051	-0.176	-0.05	0.002	-0.04
<i>Sclerocarya birrea</i>	-0.249	0.062	-0.205	0.207	0.043	0.081	0.283	0.08	0.088
<i>Sclerocroton integerrima</i>	-0.214	0.046	-0.156	0.105	0.011	0.038	-0.063	0.004	-0.113
<i>Scolopia zeyheri</i>	-0.098	0.01	-0.157	-0.112	0.012	-0.053	-0.049	0.002	-0.082
<i>Scutia myrtina</i>	-0.128	0.016	-0.086	-0.077	0.006	-0.046	-0.107	0.012	-0.115
<i>Searsia pyroides</i>	-0.088	0.008	-0.054	-0.109	0.012	-0.136	-0.087	0.008	-0.073
<i>Sideroxylon inerme</i>	-0.08	0.006	-0.108	-0.064	0.004	-0.069	-0.012	0	-0.104
<i>Strychnos gerrardii</i>	0.035	0.001	-0.023	-0.063	0.004	-0.052	-0.074	0.006	-0.025
<i>Strychnos madagascariensis</i>	-0.272	0.074	-0.211	-0.305	0.093	-0.224	0.027	0.001	-0.045
<i>Strelitzia nicolai</i>	-0.134	0.018	-0.084	0.042	0.002	0.126	-0.134	0.018	-0.094
<i>Strychnos spinosa</i>	-0.437	0.191	-0.288	-0.269	0.072	-0.184	0.124	0.015	0.115
<i>Suregada zanzibariensis</i>	0.039	0.002	0.055	-0.107	0.011	-0.083	-0.094	0.009	-0.055
<i>Syzygium cordatum</i>	-0.075	0.006	-0.02	-0.013	0	0.06	-0.062	0.004	-0.097
<i>Tabernaemontana elegans</i>	0	0	0.055	-0.222	0.049	-0.167	-0.255	0.065	-0.153
<i>Tecoma capensis</i>	-0.176	0.031	-0.095	-0.045	0.002	-0.069	-0.178	0.032	-0.113
<i>Teclea gerrardii</i>	-0.101	0.01	-0.058	-0.118	0.014	-0.095	-0.175	0.031	-0.151

Species	1			2			3		
	<i>r</i>	<i>r</i> <sup>2</sup>	Tau	<i>r</i>	<i>r</i> <sup>2</sup>	Tau	<i>r</i>	<i>r</i> <sup>2</sup>	Tau
<i>Terminalia sericea</i>	-0.119	0.014	-0.036	-0.133	0.018	-0.092	-0.241	0.058	-0.209
<i>Trema orientalis</i>	-0.044	0.002	-0.075	0.129	0.017	0.116	-0.053	0.003	-0.09
<i>Tricalysia delagoensis</i>	0.006	0	-0.031	-0.024	0.001	0.029	-0.108	0.012	-0.086
<i>Trichilia emetica</i>	-0.206	0.042	-0.132	-0.268	0.072	-0.201	-0.068	0.005	-0.028
<i>Uvaria caffra</i>	0.062	0.004	0.032	-0.298	0.089	-0.223	-0.107	0.011	-0.061
<i>Uvaria lucida</i>	-0.059	0.003	-0.078	0.05	0.002	0.017	-0.142	0.02	-0.107
<i>Vangueria infausta</i>	-0.236	0.056	-0.206	-0.056	0.003	-0.082	0.141	0.02	0.159
<i>Vepris lanceolata</i>	-0.207	0.043	-0.152	-0.131	0.017	-0.134	-0.132	0.017	-0.132
<i>Vitellariopsis marginata</i>	0.077	0.006	0.019	-0.177	0.031	-0.087	-0.068	0.005	-0.012
<i>Vitex ferruginea</i>	0.073	0.005	0.123	-0.075	0.006	0.002	-0.046	0.002	-0.107
<i>Xylothea kraussiana</i>	-0.076	0.006	-0.047	-0.021	0	0.018	-0.142	0.02	-0.152
<i>Ximena caffra</i>	-0.006	0	0.005	-0.017	0	0.039	-0.042	0.002	-0.03
<i>Zanthoxylum capense</i>	-0.155	0.024	-0.095	-0.172	0.03	-0.169	-0.163	0.026	-0.07

**Table S4:** Species analysed in Figure 5a and b, showing summaries of ecological and use value indices, including individual NTFP and AFS classes

Species information		Environmental attributes					UV summaries			NTFP classes									Agroforestry classes						
Species name	Growth Form	Secondary Woodland	Naturalised Forest	Shade tolerant	Fire tolerant	Shade and Fire tolerant	UV	NTFP value	Agroforestry value	Fuel	Building	Craft	Food	Beverage	Gum/Oil/Resin	Fibre	Medicinal	Spiritual	N-Fixation	Browse	Microclimate	Intercropping	Boundary	IPM	Restoration
<i>Albizia adianthifolia</i>	Tree	3	3	0	0	1	10	5	5	0	1	1	1	0	0	0	1	1	1	1	1	1	0	0	1
<i>Antidesma venosum</i>	Tree	1	2b	0	0	1	6	3	3	0	1	1	0	0	0	0	1	0	0	1	0	0	1	0	1
<i>Apodytes dimidiata</i>	Tree	3	3	0	0	1	7	5	2	1	1	1	0	0	0	0	1	1	0	0	0	0	0	1	1
<i>Blighia unijugata</i>	Tree	0	1	1	0	0	4	2	2	0	1	0	0	0	1	0	0	0	0	0	1	1	0	0	0
<i>Brachylaena discolor</i>	Tree	3	3	0	0	1	7	4	3	1	1	1	0	0	0	0	1	0	0	1	0	0	1	0	1
<i>Canthium inerme</i>	Tree	0	1	0	0	1	2	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
<i>Canthium setiflorum</i>	Shrub	0	1	1	0	0	2	2	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
<i>Carissa bispinosa</i>	Shrub	0	2b	1	0	0	6	3	3	1	0	0	1	0	0	0	1	0	0	1	0	0	1	0	1
<i>Dalbergia obovata</i>	Liana	2b	3	0	0	1	8	5	3	1	1	1	0	0	0	0	1	1	1	1	0	0	0	0	1
<i>Dialium schlechteri</i>	Tree	2a	0	0	1	0	5	4	1	1	1	0	1	0	0	0	1	0	1	0	0	0	0	0	0
<i>Dichrostachys cinerea</i>	Shrub	2b	2b	0	0	1	9	5	4	1	1	1	0	0	0	0	1	1	1	1	0	1	1	0	0
<i>Hymenocardia ulmoides</i>	Tree	2a	2a	0	0	1	5	3	2	1	1	1	0	0	0	0	0	0	0	1	0	0	0	0	1
<i>Hyperacanthus amoenus</i>	Shrub	2a	2a	0	0	1	3	3	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0
<i>Hyphaene coriacea</i>	Palm	3	0	0	1	0	7	6	1	0	1	1	0	1	1	1	1	0	0	0	0	1	0	0	0
<i>Kraussia floribunda</i>	Shrub	0	2a	1	0	0	4	3	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1
<i>Phoenix reclinata</i>	Palm	3	2b	0	0	1	7	6	1	0	1	1	1	1	0	1	1	0	0	0	0	0	0	0	1
<i>Psyrax locuples</i>	Tree	1	1	0	0	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<i>Psyrax obovata</i>	Tree	0	1	1	0	0	3	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1
<i>Rhoicissus schlechteri</i>	Liana	1	2a	0	0	1	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
<i>Sclerocarya birrea</i>	Tree	3	0	0	1	0	10	7	3	1	1	1	1	1	1	0	1	0	0	1	1	1	0	0	0
<i>Sclerocroton integerrimus</i>	Tree	2a	2a	0	0	1	3	2	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
<i>Searsia pyroides</i>	Shrub	1	2a	0	0	1	3	2	1	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
<i>Strychnos spinosa</i>	Shrub	2a	1	0	0	1	6	3	3	0	0	0	1	1	0	0	1	0	0	1	0	0	0	1	1
<i>Tabernaemontana elegans</i>	Tree	1	2a	0	0	1	2	2	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0
<i>Trema orientalis</i>	Tree	2b	2b	1	0	0	7	4	3	1	1	0	0	0	0	1	1	0	0	1	0	1	0	0	1
<i>Vangueria infausta</i>	Shrub	1	1	0	0	1	4	2	2	0	0	0	1	0	0	0	1	0	0	1	0	0	0	0	1
<i>Vepris lanceolata</i>	Tree	1	1	0	0	1	4	3	1	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1