

**Appendix 1: List of tree species recorded in KNP**

<b>S. No</b>	<b>Botanical name</b>	<b>Family</b>
1	<i>Acacia lenticularis</i>	Leguminosae
2	<i>Acacia catechu</i>	"
3	<i>Acacia leucophloea</i>	"
4	<i>Acacia arabica</i>	"
5	<i>Adina cordifolia</i>	Rubiaceae
6	<i>Aegle marmelos</i>	Rutaceae
7	<i>Ailanthus excelsa</i>	Simaroubaceae
8	<i>Albizia chinensis</i>	Leguminosae
9	<i>Albizia lebbek</i>	"
10	<i>Albizia odoratissima</i>	"
11	<i>Albizia procera</i>	"
12	<i>Anogeissus latifolia</i>	Combretaceae
13	<i>Azadirachta indica</i>	Meliaceae
14	<i>Anona squamosa</i>	Anonaceae
15	<i>Anacardium occidentale</i>	Anacardiaceae
16	<i>Bauhinia malabarica</i>	Leguminosae
17	<i>Bauhinia purpurea</i>	"
18	<i>Bauhinia racemosa</i>	Caesalpiniaceae
19	<i>Bauhinia retusa</i>	Leguminosae
20	<i>Bauhinia variegata</i>	"
21	<i>Boswellia serrata</i>	Burseraceae
22	<i>Bridelia retusa</i>	Euphorbiaceae
23	<i>Buchanania lanzan</i>	Anacardiaceae
24	<i>Butea monosperma</i>	Leguminosae
25	<i>Careya arborea</i>	Myrtaceae
26	<i>Casearia elliptica</i>	Samydaceae
27	<i>Casearia graveolens</i>	Samydaceae
28	<i>Cassia fistula</i>	Leguminosae
29	<i>Chloroxylon swietenia</i>	Caesalpiniaceae
30	<i>Holarrhena antidysenterica</i>	Apocynaceae
31	<i>Cleistanthus collinus</i>	Euphorbiaceae
32	<i>Cochlospermum religiosum</i>	Bixaceae
33	<i>Cordia dichotoma</i>	"
34	<i>Cordia latifolia</i>	Boraginaceae
35	<i>Cordia macleodii</i>	"
36	<i>Dalbergia latifolia</i>	Leguminosae
37	<i>Dalbergia paniculata</i>	"
38	<i>Dalbergia sissoo</i>	"
39	<i>Dillenia aurea</i>	Dilleniaceae
40	<i>Delonix regia</i>	Leguminosae
41	<i>Dillenia pentagyna</i>	Dilleniaceae
42	<i>Diospyros melanoxylon</i>	Ebenaceae
43	<i>Diospyros montana</i>	"
44	<i>Ehretia laevis</i>	Boraginaceae
45	<i>Elaeodendron glaucum</i>	Celastraceae

46	<i>Emblica officinalis</i>	Euphorbiaceae
47	<i>Eriolaena hookeriana</i>	Sterculiaceae
48	<i>Erythrina suberosa</i>	Leguminosae
49	<i>Eucalyptus spp.</i>	Myrtaceae
50	<i>Euphorbia nivulia</i>	Euphorbiaceae
51	<i>Euphorbia tiruculli</i>	"
52	<i>Ficus bengalensis</i>	Moraceae
53	<i>Ficus semicordata</i>	"
54	<i>Ficus hispida</i>	"
55	<i>Ficus glomerata</i>	"
56	<i>Ficus religiosa</i>	"
57	<i>Ficus lacor</i>	"
58	<i>Ficus tomentosa</i>	"
59	<i>Flacourtia indica</i>	Bixaceae
60	<i>Gardenia gummifera</i>	Rubiaceae
61	<i>Gardenia latifolia</i>	"
62	<i>Gardenia turgida</i>	"
63	<i>Garuga pinnata</i>	Burseraceae
64	<i>Gmelina arborea</i>	Verbenaceae
65	<i>Grewia disperma</i>	"
66	<i>Grewia tiliefolia</i>	Tiliaceae
67	<i>Hardwickia binata</i>	Caesalpiniaceae
68	<i>Holoptelea integrifolia</i>	Ulmaceae
69	<i>Hymenodictyon excelsum</i>	Rubiaceae
70	<i>Ixora arborea</i>	"
71	<i>Jacaranda mimosaeifolia</i>	Bignoniaceae
72	<i>Kydia calycina</i>	Malvaceae
73	<i>Lagerstroemia parviflora</i>	Lythraceae
74	<i>Lannea coromandelica</i>	Anacardiaceae
75	<i>Litsea chinensis</i>	Lauraceae
76	<i>Madhuca indica</i>	Sapotaceae
77	<i>Mallotus philippensis</i>	Euphorbiaceae
78	<i>Mangifera indica</i>	Anacardiaceae
79	<i>Miliusa tomentosa</i>	Annonaceae
80	<i>Mitragyna parvifolia</i>	Rubiaceae
81	<i>Moringa tinctoria</i>	"
82	<i>Ougeinia oojeinensis</i>	Leguminosae
83	<i>Olex scandens</i>	Oleaceae
84	<i>Pongamia pinnata</i>	Leguminosae
85	<i>Psidium guava</i>	Myrtaceae
86	<i>Pterocarpus marsupium</i>	Leguminosae
87	<i>Randia dumetorum</i>	Rubiaceae
88	<i>Randia uliginosa</i>	"
89	<i>Bombax ceiba</i>	Malvaceae
90	<i>Sapindus emarginatus</i>	Sapindaceae
91	<i>Schleichera oleosa</i>	"
92	<i>Schrebera swietenoides</i>	Oleaceae
93	<i>Semecarpus anacardium</i>	Anacardiaceae

94	<i>Shorea robusta</i>	Depterocarpaceae
95	<i>Soymida febrifuga</i>	Meliaceae
96	<i>Spondias pinnata</i>	Anacardiaceae
97	<i>Sterculia urens</i>	Sterculiaceae
98	<i>Sterculia villosa</i>	Anacardiaceae
99	<i>Stereospermum personatum</i>	Bignoniaceae
100	<i>Stereospermum suaveolens</i>	"
101	<i>Stereospermum xylocarpum</i>	"
102	<i>Strychnos potatorum</i>	Loganiaceae
103	<i>Syzygium cumini</i>	Myrtaceae
104	<i>Syzygium heyneanum</i>	"
105	<i>Tamarindus indica</i>	Leguminosae
106	<i>Tectona grandis</i>	Verbenaceae
107	<i>Terminalia arjuna</i>	Combretaceae
108	<i>Terminalia bellerica</i>	"
109	<i>Terminalia chebula</i>	"
110	<i>Terminalia tomentosa</i>	"
111	<i>Wendlandia exserta</i>	Rubiaceae
112	<i>Wrightia tinctoria</i>	Apocynaceae
113	<i>Wrightia tomentosa</i>	"
114	<i>Xylia xylocarpa</i>	Mimosaceae
115	<i>Ziziphus mauritiana</i>	Rhamnaceae
116	<i>Ziziphus rugosa</i>	"
117	<i>Ziziphus xylopyra</i>	"

Source: Management Plan for Kanha National Park  
(2007-08 to 2016-17)

**Appendix 2: List of mammals recorded in KNP**

<b>S. No</b>	<b>Zoological name</b>	<b>Common name</b>	<b>Family</b>
1	<i>Presbytis entellus</i>	Common Langur	Colobidae
2	<i>Macaca mulatta</i>	Rhesus macaque	Circopthecidae
3	<i>Hemiechinus auritus collaris</i>	Long eared hedgehog	Erinaceidae
4	<i>Suncus</i>	Grey muskshrew	Tupaidae
5	<i>Cynopterus sphinx</i>	Short nosed fruit bat	Pteropodidae
6	<i>Pteropus gingantens</i>	Flying fox	Pteropodidae
7	<i>Manis crassocamdata</i>	Indian/Pangolin Scaly anteater	Manidae
8	<i>Melursus ursinus</i>	Sloth bear	Ursidae
9	<i>Panthera tigris</i>	Tiger	Felidae
10	<i>Panthera pardus</i>	Panther or leopard	"
11	<i>Felis chaus</i>	Common jungle cat	"
12	<i>Hyaena hyaena</i>	Striped hyaena	Hyaenidae
13	<i>Herpestes edwardsi</i>	Common mongoose	Herpestidae
14	<i>Melivora capensis</i>	Indian Retel/ honey Badger	"
15	<i>Lutera parspicillata</i>	Indian otter	Mustelidae
16	<i>Canis aureus</i>	Jackal	Canidae
17	<i>Vulpes bengalensis</i>	Indian Fox	"
18	<i>Cuon alpinus</i>	Indian wild dog	"
19	<i>Canis lupus</i>	Wolf	"
20	<i>Bandicota bengalensis</i>	Indian mole-rat	Muridae
21	<i>Bandicota indica</i>	Bandicoot rat	"
22	<i>Rattus rattus frugivorus</i>	Common house rat	"
23	<i>Golunda ellioti</i>	The Indian bush rat	"
24	<i>Hystrix indica</i>	Indian porcupine	Hystriidae
25	<i>Leposnigricollis</i>	Indian hare	Leporidae
26	<i>Sus scrofa</i>	Indian Wild Boar	Suidae
27	<i>Tragulus meminna</i>	Mouse deer	Tragulidae
28	<i>Bos gaurus</i>	Indian Bison	Bovidae
29	<i>Antilope cervicapra</i>	Black buck Indian antelope	Antilopinae
30	<i>Boselaphus tragocamelus</i>	Blue bull	"
31	<i>Tetracerus quadricornis</i>	Four horned antelope	"
32	<i>Muntiacus muntjak</i>	Indian Muntjac Barking deer	Cervidae
33	<i>Cervus unicolor</i>	Sambher	"
34	<i>Axis axis</i>	Spotted deer	"
35	<i>Gazella benettii</i>	Indain gazelle	"

Source: Management Plan for Kanha National Park (2007-08 to 2016-17)

*Appendix 3: Percent contribution of different tree species recorded at biomass sample plots in KNP*

Sample plot	*K1	K2	K3	K4	K5	K6	K7	K8	K9	K10	K11	K12	K13	K14	K15	K16	K17	K18	K19	K20
Mukki	25	1	1	6	1	1	1	1	1	1	1	1	1							
Supkhar	74												14	1	3	1				
Supkhar	47						4			4			7		4	1	1	1	1	1
Bhaisanghat				4						4		3			2		4			
Bhaisanghat	37			1		1							2		1		3			3
Kisli	7			8									2		1					
Kisli	47			6									2		17		1			
Kanha	16		1										1							
Kanha	128			1								8	8	1			3			
Sarhi				29			1			8		3			15		1			
<b>Total trees</b>	<b>381</b>	<b>1</b>	<b>2</b>	<b>55</b>	<b>1</b>	<b>2</b>	<b>6</b>	<b>1</b>	<b>1</b>	<b>17</b>	<b>1</b>	<b>15</b>	<b>37</b>	<b>2</b>	<b>43</b>	<b>2</b>	<b>13</b>	<b>1</b>	<b>1</b>	<b>4</b>
<b>%Contribution</b>	<b>49.67</b>	<b>0.13</b>	<b>0.26</b>	<b>7.17</b>	<b>0.13</b>	<b>0.26</b>	<b>0.78</b>	<b>0.13</b>	<b>0.13</b>	<b>2.22</b>	<b>0.13</b>	<b>1.96</b>	<b>4.82</b>	<b>0.26</b>	<b>5.61</b>	<b>0.26</b>	<b>1.69</b>	<b>0.13</b>	<b>0.13</b>	<b>0.52</b>

Sample plot	K21	K22	K23	K24	K25	K26	K27	K28	K29	K30	K31	K32	K33	K34	K35	K36	K37	K38	K39	K40
Mukki																				
Supkhar																				
Supkhar	1	8	1	1	1	1	1	1	1	2	1									
Bhaisanghat			4									1	3	2	2	9	11	3	1	4
Bhaisanghat							3			1					1	4				
Kisli																				3
Kisli			1							4							3	8		1
Kanha																				
Kanha	1						1			5						1				
Sarhi			11							10		1				4		1		1
<b>Total trees</b>	<b>2</b>	<b>8</b>	<b>17</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>5</b>	<b>1</b>	<b>1</b>	<b>22</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>2</b>	<b>3</b>	<b>18</b>	<b>14</b>	<b>12</b>	<b>1</b>	<b>9</b>
<b>%Contribution</b>	<b>0.26</b>	<b>1.04</b>	<b>2.22</b>	<b>0.13</b>	<b>0.13</b>	<b>0.13</b>	<b>0.65</b>	<b>0.13</b>	<b>0.13</b>	<b>2.87</b>	<b>0.13</b>	<b>0.26</b>	<b>0.39</b>	<b>0.26</b>	<b>0.39</b>	<b>2.35</b>	<b>1.83</b>	<b>1.56</b>	<b>0.13</b>	<b>1.17</b>

Sample plot	K41	K42	K43	K44	K45	K46	K47	K48	K49	K50	K51	K52	K53	K54	Total
Mukki															42
Supkhar															93
Supkhar															90
Bhaisanghat	6	1	2	1											67
Bhaisanghat					3	1	1								62
Kisli			1					1							23
Kisli	1		1						3	1	4				100
Kanha															18
Kanha															157
Sarhi			1		5							22	1	1	115
<b>Total trees</b>	<b>7</b>	<b>1</b>	<b>5</b>	<b>1</b>	<b>8</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>1</b>	<b>4</b>	<b>22</b>	<b>1</b>	<b>1</b>	<b>767</b>
<b>%Contribution</b>	<b>0.91</b>	<b>0.13</b>	<b>0.65</b>	<b>0.13</b>	<b>1.04</b>	<b>0.13</b>	<b>0.13</b>	<b>0.13</b>	<b>0.39</b>	<b>0.13</b>	<b>0.52</b>	<b>2.87</b>	<b>0.13</b>	<b>0.13</b>	<b>100</b>

\*Tree species recorded at biomass sample plots in KNP

Code	Species	Code	Species	Code	Species	Code	Species	Code	Species
K1	Sal	K12	Tinsa	K23	Ghonta	K34	Datarangi	K45	Harra
K2	Mundi	K13	Jamun	K24	Kharar	K35	Dhamin	K46	Kusum
K3	Bija	K14	baheda	K25	Kirangi	K36	Dhavda	K47	Todri
K4	Lendia	K15	Saja	K26	Kirgi	K37	Girchi	K48	Bargad
K5	Lasoda	K16	Sindoor	K27	Mahua	K38	Gunja	K49	Kekad
K6	Bansa	K17	Achar	K28	Semal	K39	Hadwa	K50	Mundi
K7	Baranga	K18	Astha	K29	Surey	K40	Kari	K51	Palas
K8	Mahua	K19	Barga	K30	Tendu	K41	Khassi	K52	Bamboo
K9	Sendhur	K20	Bhilwa	K31	Tenuda	K42	Khati	K53	Dohan
K10	Aonla	K21	Bija	K32	Amaltash	K43	Kumbhi	K54	Kalle
K11	Surya bells	K22	Ghari	K33	Amli	K44	Patohna		

**Appendix 4:** Percentage of trees showed increment in DBH, and values in parenthesis indicate an average annual increment in DBH ( $\text{cm year}^{-1}$ )

Location	Plot	2011	2012	2013	2014	Mean
Mukki	1	100 (0.56)	100 (0.54)	93 (0.34)	100 (0.30)	98.2 (0.43)
Supkhar	2	98 (0.33)	100 (0.29)	87 (0.20)	95 (0.19)	94.9 (0.25)
Supkhar	3	82 (0.42)	100 (0.34)	92 (0.24)	92 (0.21)	91.7 (0.30)
Bhaisanghat	4	100 (0.68)	100 (0.57)	100 (0.33)	100 (0.38)	100 (0.49)
Bhaisanghat	5	92 (0.37)	100 (0.36)	98 (0.23)	97 (0.24)	96.8 (0.30)
Kisli	6	100 (0.78)	100 (0.56)	100 (0.47)	95 (0.32)	98.9 (0.53)
Kisli	7	58 (0.27)	100 (0.25)	88 (0.16)	97 (0.16)	85.8 (0.21)
Kanha	8	100 (0.45)	100 (0.47)	94 (0.28)	100 (0.23)	98.6 (0.36)
Kanha	9	85 (0.37)	100 (0.36)	100 (0.23)	99 (0.26)	96.0 (0.31)
Sarhi	10	100 (0.58)	100 (0.62)	98 (0.37)	100 (0.34)	99.6 (0.48)

**Appendix 5:** Relative deviation (%) in AGB as compared to AGB in the initial year of the study (i.e. 2010)

Location	Plot	2011	2012	2013	2014	Mean±SD
Mukki	1	3.67	7.49	6.52	8.34	6.51±2.03
Supkhar	2	2.48	4.77	4.77	5.96	4.49±1.45
Supkhar	3	2.94	5.38	5.48	7.05	5.21±1.70
Bhaisanghat	4	6.72	11.54	10.42	16.36	11.26±3.97
Bhaisanghat	5	1.96	4.32	3.78	5.42	3.87±1.44
Kisli	6	3.46	4.95	6.44	6.07	5.23±1.34
Kisli	7	2.13	6.13	5.30	7.83	5.35±2.39
Kanha	8	1.97	4.06	3.51	4.02	3.39±0.98
Kanha	9	3.42	8.62	8.28	12.91	8.31±3.88
Sarhi	10	7.14	15.10	13.40	17.79	13.36±4.52

**Appendix 6: List of tree species recorded in BNP**

<b>S. No</b>	<b>Botanical name</b>	<b>Family</b>
1	<i>Adhatoda vasica</i>	Acanthaceae
2	<i>Andrographis achioides</i>	"
3	<i>A. Paniculata</i>	"
4	<i>Barleria cristata</i>	"
5	<i>B. montana</i>	"
6	<i>B. prionitis</i>	"
7	<i>B. prattensis</i>	"
8	<i>Blepharis maderaspatensis</i>	"
9	<i>Eranthemum purpurascens</i>	"
10	<i>Hemigraphis latebuosa</i>	"
11	<i>H. phlomoides</i>	"
12	<i>Hygrophila salicifolia</i>	"
13	<i>Justicia betonica</i>	"
14	<i>F. diffusa</i>	"
15	<i>F. quinuuueangularis</i>	"
16	<i>Fusticia simplex</i>	"
17	<i>Lepidagothis hamiltonia</i>	"
18	<i>L. Trinervis</i>	"
19	<i>Nelsonia campestris</i>	"
20	<i>Peristrophe bicalyculata</i>	"
21	<i>Petalidium barleuioides</i>	"
22	<i>Rungea parniflora</i>	"
23	<i>Strobilanthe auriculatus</i>	"
24	<i>Thumbergia fraguans</i>	Alismanceae
25	<i>Sagithria sagittifolia</i>	Amarantaceae
26	<i>Achyranthes bidentata</i>	"
27	<i>Aerva sanguinolenta</i>	"
28	<i>Allamania nodiflora</i>	"
29	<i>Alternanthera sessilis</i>	"
30	<i>Amarantus chelonoides</i>	"
31	<i>A.gracilis</i>	"
32	<i>Celosia argentia</i>	"
33	<i>Gomkhrena celosioides</i>	"
34	<i>Pupalia lappacea</i>	Amaryllidaceae
35	<i>Curculigo orchioides</i>	"
36	<i>Curcuma angustifolia</i>	Ampelidaceae
37	<i>Leea bobusta</i>	"
38	<i>Vitis latifolia</i>	"
39	<i>Cissus uepanda</i>	"
40	<i>Ampelocissus tomentosa</i>	Anacardiaceae
41	<i>Buchanania lanzan</i>	"
42	<i>Lannea grandis</i>	"
43	<i>Mangifera indica</i>	"
44	<i>Sepecarpus anacardium</i>	"
45	<i>Annona squamosal</i>	Annonaceae

46	<i>Milinsa tomentosa</i>	Apocynaceae
47	<i>Carissa congesta</i>	"
48	<i>Catharanthus pusillus</i>	"
49	<i>Hollarhena antidysenterica</i>	"
50	<i>Ichnocarpus frutescens</i>	"
51	<i>Plumeria rubua</i>	"
52	<i>Tabernaemontana coronaria</i>	"
53	<i>Wrightia tomentosa</i>	Araceae
54	<i>Colocasia indica</i>	"
55	<i>Lasia spinose</i>	"
56	<i>Pistia straiotes</i>	Araliaceae
57	<i>Heptapleurum venulosum</i>	Asclepiadaceae
58	<i>Calatropis procera</i>	"
59	<i>Cryptolepis buchanani</i>	"
60	<i>Gymnema sylvnestre</i>	"
61	<i>Hemidesmus indicus</i>	Balsaminaceae
62	<i>Impatiens balsamia</i>	Begoniaceae
63	<i>Begonia piota</i>	"
64	<i>Dolichandrone falcate</i>	"
65	<i>Radermachera kylocarpa</i>	"
66	<i>Stereospermum personatus</i>	Bixaceae
67	<i>Cochlospermum personatum</i>	Bombacaceae
68	<i>Salmalia malabarica</i>	Boraginaceae
69	<i>Cynaglossum denticulatum</i>	"
70	<i>C. furcatum</i>	"
71	<i>Trichodesma indicum</i>	Burmanniaceae
72	<i>Burmannia coolestis</i>	Burseraceae
73	<i>Boswellia serrata</i>	Caesalpiniaceae
74	<i>Barhinia racemose</i>	"
75	<i>B. retusa</i>	"
76	<i>B. vahlii</i>	"
77	<i>Cassia absus</i>	"
78	<i>C. fistuda</i>	"
79	<i>C. kleinii</i>	"
80	<i>C. mimosoides</i>	"
81	<i>C. pumila</i>	"
82	<i>C. tora</i>	"
83	<i>Tamarindus indica</i>	Campanulaceae
84	<i>Labelia trialata</i>	
85	<i>Wahlenbergia cernua</i>	Capparidaceae
86	<i>Capparis xeylanica</i>	"
87	<i>Deome viscose</i>	"
88	<i>C. monophylla</i>	"
89	<i>Crataena religiosa</i>	Caryophyllaceae
90	<i>Polycarpaea corymbosa</i>	
91	<i>Polycarpum indicum</i>	Celastraceae
92	<i>Celastrus paniculatus</i>	
93	<i>Elarodendron glaucum</i>	Combretaceae

94	<i>Anogeissus latifolia</i>	"
95	<i>Combretum avalifolium</i>	"
96	<i>Terminalia arzuna</i>	"
97	<i>T. balerica</i>	"
98	<i>T. Chebula</i>	"
99	<i>T. tomentosa</i>	Commelinaceae
100	<i>Commelina kurzii</i>	"
101	<i>C. oblique</i>	"
102	<i>Cyanotis faciculata</i>	"
103	<i>Flascope scandens</i>	"
104	<i>Mardammia malabarica</i>	"
105	<i>M. spirata</i>	"
106	<i>Acanthospeumum hispidum</i>	Compositae
107	<i>Adenostemma lavenea</i>	"
108	<i>Ageratum conyzoides</i>	"
109	<i>Bidens pilosa</i>	"
110	<i>Blainvillea latifolia</i>	"
111	<i>Blumea ampledens</i>	"
112	<i>Blumea menobranacea</i>	"
113	<i>Blumea mollis</i>	"
114	<i>Cosmos caudatus</i>	"
115	<i>Cythocline purpurea</i>	"
116	<i>Edipta prostrate</i>	"
117	<i>Elephantopus seabeu</i>	"
118	<i>Emilia sanchifolia</i>	"
119	<i>Gnaphalium indicum</i>	"
120	<i>Lannaea nudicaulis</i>	"
121	<i>Pulucaria angustifolia</i>	"
122	<i>Seigesbeckia orientalis</i>	"
123	<i>Sonchus asper</i>	"
124	<i>Sphaeranthus indicus</i>	"
125	<i>Tageta patula</i>	"
126	<i>Vernonia cineria</i>	"
127	<i>V. roxburghii</i>	"
128	<i>Vicoa indica</i>	"
129	<i>Xanthirm strumarium</i>	Convolvulaceae
130	<i>Cuscuta reflexa</i>	"
131	<i>Ericibe paniculata</i>	"
132	<i>Enolvulus alsinoides</i>	"
133	<i>Ipomoea corrinea</i>	"
134	<i>Ipomoea criocallpa</i>	"
135	<i>I. muricata</i>	"
136	<i>I. pestigridis</i>	"
137	<i>I. pilosa</i>	"
138	<i>I. sinensis</i>	"
139	<i>I. quamoclit</i>	"
140	<i>I. reptans</i>	"
141	<i>Merremia umbellate</i>	"

142	<i>Porana paniculata</i>	"
143	<i>Alangium salvifolium</i>	Cornaceae
144	<i>Buyonopsis lacimiosa</i>	Cucurbitaceae
145	<i>Luffa cylindrical</i>	"
146	<i>Melothria heterophylla</i>	Cyperaceae
147	<i>Carex sp.</i>	"
148	<i>Cyperus sp.</i>	"
149	<i>Cyperus corymbosus</i>	"
150	<i>Cyperus diffuses</i>	"
151	<i>Cyperus distans</i>	"
152	<i>Cyperus flavidus</i>	"
153	<i>Cyperus haspan</i>	"
154	<i>Cyperus eleusinoides</i>	"
155	<i>Cyperus rotundus</i>	"
156	<i>Eriophorum comosum</i>	"
157	<i>Fimbristylis sp.</i>	"
158	<i>Fimbristylis dichotoma</i>	"
159	<i>Fimbristylis diphylla</i>	"
160	<i>Fimbristylis glomerata</i>	"
161	<i>Fuirena sp.</i>	"
162	<i>Lipocarpha argentea</i>	"
163	<i>Scirpus mucronatus</i>	Dioscoreaceae
164	<i>Dioscored anguina</i>	"
165	<i>Dioscored sp.</i>	Dipterocarpaceae
166	<i>Shorea robusta</i>	Droseraceae
167	<i>Dorsera burmanni</i>	Ebenaceae
168	<i>Diospyros melanoxylon</i>	"
169	<i>Diospyros montana</i>	"
170	<i>Diospyros peregrine</i>	Euphorbiaceae
171	<i>Acalypha ciliate</i>	"
172	<i>Antidesma ghaesembilla</i>	"
173	<i>Bridelia squamosal</i>	"
174	<i>Emblica officinalis</i>	"
175	<i>Euphoriba elegans</i>	"
176	<i>Euphoriba geniculata</i>	"
177	<i>Euphoriba hirta</i>	"
178	<i>Ehretia laevis</i>	"
179	<i>Euphoriba thymifolia</i>	"
180	<i>Euphorbia nivulia</i>	"
181	<i>Flueggea obovate</i>	"
182	<i>Glochidion assamicum</i>	"
183	<i>Kirganelia reticulate</i>	"
184	<i>Mallotus philippinensis</i>	"
185	<i>Phyllanthus simplex</i>	"
186	<i>Phyllanthus urinaria</i>	"
187	<i>Recinus communis</i>	"
188	<i>Sebastiana chamaelea</i>	Flacourtiaceae
189	<i>Flacourtia indica</i>	Gentianaceae

190	<i>Canscora diffusa</i>	"
191	<i>Nymphoides cristatum</i>	"
192	<i>Nymphoides indicum</i>	Gesneraceae
193	<i>Platystemma violides</i>	Gramineae
194	<i>Aristida setacea</i> Grmineae	"
195	<i>Aristida depressa</i>	"
196	<i>Aristida redacta</i>	"
197	<i>Arthraxon lancifolium</i>	"
198	<i>Arthraxon lanceolatus</i>	"
199	<i>Arundinella pumila</i>	"
200	<i>Arundinella setosa</i>	"
201	<i>Arundinella sp.</i>	"
202	<i>Bambusa arundinaces</i>	"
203	<i>Bothriochloa pertusa</i>	"
204	<i>Capillipedium parviflorum</i>	"
205	<i>Chionachne koenigii</i>	"
206	<i>Chloris barbata</i>	"
207	<i>Chloris dolichostachya</i>	"
208	<i>Chloris virgate</i>	"
209	<i>Chrysopogona montanus</i>	"
210	<i>Coix lachrymal</i>	"
211	<i>Cymbopogon martini</i>	"
212	<i>Cynodon dactylon</i>	"
213	<i>Dendrocalamus strictus</i>	"
214	<i>Dischanthium annulatum</i>	"
215	<i>Digitaria adscendens</i>	"
216	<i>Digitaria marginata</i>	"
217	<i>Diogitaria stricta</i>	"
218	<i>Dimeria connivens</i>	"
219	<i>Eleusine indica</i>	"
220	<i>Eleusine species</i>	"
221	<i>Eragrostis uniloides</i>	"
222	<i>Eragrostis ciliate</i>	"
223	<i>Eragrostis coarctata</i>	"
224	<i>Eragrostis gangetica</i>	"
225	<i>Eragrostis interrupta</i>	"
226	<i>Eragrostis poaeoides</i>	"
227	<i>Eragrostis sp.</i>	"
228	<i>Eragrostis tremula</i>	"
229	<i>Eragrostis ze</i>	"
230	<i>Eriathus sp.</i>	"
231	<i>Eulalia trispicta</i>	"
232	<i>Garnotia stricta</i>	"
233	<i>Hackelochloa granularis</i>	"
234	<i>Heteropogon contortus</i>	"
235	<i>Heteropogon contortus</i>	"
236	<i>Heteropogon melanocarpus</i>	"
237	<i>Heteropogon aristata</i>	"

238	<i>Hymenachne myurus</i>	"
239	<i>Imperata cylindrical</i>	"
240	<i>Isachne miliacea</i>	"
241	<i>Ischaemum ciliare</i>	"
242	<i>Ischaemum indicum</i>	"
243	<i>Ischaemum rugosum</i>	"
244	<i>Ischaemum semisagittatum</i>	"
245	<i>Ischaemum species</i>	"
246	<i>Ischilema laxum</i>	"
247	<i>Leersia hexandra</i>	"
248	<i>Melano cenchrus jacquemontii</i>	"
249	<i>Microchloa indica</i>	"
250	<i>Optismenus burmanni</i>	"
251	<i>Optismenus compositus</i>	"
252	<i>Optismenus thomaeum</i>	"
253	<i>Oryza sativa</i>	"
254	<i>Panicum miliaceum</i>	"
255	<i>Panicum montanum</i>	"
256	<i>Panicum paludosum</i>	"
257	<i>Panicum repens</i>	"
258	<i>Paspalidium flaidum</i>	"
259	<i>Paspalum scrobiculatum</i>	"
260	<i>Pennisetum hohenacheri</i>	"
261	<i>Pennisetum pedicletum</i>	"
262	<i>Perotis indica</i>	"
263	<i>Phragmites karka</i>	"
264	<i>Pogonatherum paniceum</i>	"
265	<i>Rottboellia compressa</i>	"
266	<i>Rottboellia exaltata</i>	"
267	<i>Sacciolepis interrupta</i>	"
268	<i>Sacciolepis myosuroides</i>	"
269	<i>Saccharum spontaneum</i>	"
270	<i>Schizachyrium brevifolium</i>	"
271	<i>Schizachyrium brevifolium</i>	"
272	<i>Schizachyrium exile</i>	"
273	<i>Setaria tomentosa</i>	"
274	<i>Setaria verticillata</i>	"
275	<i>Sorghum halepense</i>	"
276	<i>Spodiopogon albidus</i>	"
277	<i>Sporobous diander</i>	"
278	<i>Themeda imberbis</i>	"
279	<i>Themeda triandra</i>	"
280	<i>Themeda quadrivalvis</i>	"
281	<i>Thysanolaena maxima</i>	"
282	<i>Tripogon jacquemontii</i>	"
283	<i>Tripogon lisboae</i>	"
284	<i>Verticaria zizanioides</i>	Hydrocharitaceae
285	<i>Vallisneria spiralis</i>	Labiatae

286	<i>Acrocephalus indicus</i>	"
287	<i>Anisochilus carnosus</i>	"
288	<i>Anisomeles indica</i>	"
289	<i>Colebrookea oppositifolia</i>	"
290	<i>Lavandula bipinnata</i>	"
291	<i>Leonotis nepetaefolia</i>	"
292	<i>Leucas mollissima</i>	"
293	<i>Leucas cephalotes</i>	"
294	<i>Micromeria biflora</i>	"
295	<i>Nepeta hindostana</i>	"
296	<i>Ocimum sanctum</i>	"
297	<i>Plectranthus cordifolus</i>	"
298	<i>Pogostemon plectranthoides</i>	Lauraceae
299	<i>Litsea glutinosa</i>	"
300	<i>Litsea sebifera</i>	Lecythidaceae
301	<i>Barringtonia acutangula</i>	"
302	<i>Careya arborea</i>	Lemnaceae
303	<i>Lemna paucicostata</i>	Lentibulariaceae
304	<i>Utricularia bifida</i>	"
305	<i>Utricularia coerulea</i>	Liliaceae
306	<i>Asparagus racemosus</i>	"
307	<i>Smilax macrophylla</i>	"
308	<i>Yucca aloefolia</i>	Linaceae
309	<i>Linum mysorense</i>	"
310	<i>Reinwardtia trigyna</i>	Loganiaceae
311	<i>Strychnos potatorum</i>	Loranthaceae
312	<i>Loranthus longiflorus</i>	"
313	<i>Viscum album</i>	Lythraceae
314	<i>Lagestroemia parviflora</i>	"
315	<i>Rotala rotundifolia</i>	"
316	<i>Rotala tenuis</i>	"
317	<i>Woodfordia fruticosa</i>	Malpighiaceae
318	<i>Hiptage madablota</i>	Malvaceae
319	<i>Abutilon sp.</i>	"
320	<i>Abutilon indicum</i>	"
321	<i>Gossypium sp.</i>	"
322	<i>Hibiscus furcatus</i>	"
323	<i>Hibiscus furcatus</i>	"
324	<i>Hibiscus lamps</i>	"
325	<i>Hibiscus labatus</i>	"
326	<i>Hibiscus vitifolius</i>	"
327	<i>Kydia calycina</i>	"
328	<i>Malachra capitata</i>	"
329	<i>Sida cordifolia</i>	"
330	<i>Sida veronicaefolia</i>	"
331	<i>Urena lobate</i>	"
332	<i>Urena sinuate</i>	Meliaceae
333	<i>Chloroxylon swietenia</i>	"

334	<i>Azadiracta indica</i>	Menispermaceae
335	<i>Cissampelos pareira</i>	Mimaceae
336	<i>Acacia canescens</i>	"
337	<i>Acacia catechu</i>	"
338	<i>Acacia sp.</i>	"
339	<i>Albizia procera</i>	"
340	<i>Albizia odoratissima</i>	Molluginaceae
341	<i>Mollugo disticha</i>	"
342	<i>Mollugo stricta</i>	Moraceae
343	<i>Ficus arnottiana</i>	"
344	<i>Ficus bengalensis</i>	"
345	<i>Ficus comosa</i>	"
346	<i>Ficus gibbosa</i>	"
347	<i>Ficus globosa</i>	"
348	<i>Ficus glomerata</i>	"
349	<i>Ficus hispida</i>	"
350	<i>Ficus infectoria</i>	"
351	<i>Ficus mysorensis</i>	"
352	<i>Ficus religiosa</i>	"
353	<i>Ficus retusa</i>	"
354	<i>Ficus tomentosa</i>	"
355	<i>Ficus sp</i>	Musaceae
356	<i>Musa sapientum</i>	Myrtaceae
357	<i>Psidium guajava</i>	"
358	<i>Syzygium cumini</i>	Nycyagiaceae
359	<i>Boerhaavia chinensis</i>	"
360	<i>Mirabilis jalapa</i>	Nymphaeaceae
361	<i>Nelumbium speciosum</i>	"
362	<i>Nemphaea esculenta</i>	Oleaceae
363	<i>Fasminum sambac</i>	"
364	<i>Nyctanthes arbor-tristis</i>	"
365	<i>Schrebera swietenoides</i>	Ongraceae
366	<i>Fussiaea suffruticosa</i>	"
367	<i>Trapa bispinosa</i>	Orchidaceae
368	<i>Pogonia flabelliformis</i>	"
369	<i>Vanda sp.</i>	"
370	<i>Vanda tessellate</i>	"
371	<i>Zeuxine stratumatica</i>	Oxalidaceae
372	<i>Biophytum sensitivum</i>	"
373	<i>Oxalis corniculata</i>	Palmae
374	<i>Phoenix acaulis</i>	"
375	<i>Phoenix sylvestris</i>	Papaveraceae
376	<i>Argemone mexicana</i>	Papillionaceae
377	<i>Abrus precatorius</i>	"
378	<i>Aeschynomene indica</i>	"
379	<i>Alysicarpus bupleurifolius</i>	"
380	<i>Alysicarpus hamosus</i>	"
381	<i>Alysicarpus monolifer</i>	"

382	<i>Alysicarpus vaginalis</i>	"
383	<i>Atylosia platycarpa</i>	"
384	<i>Atylosia scarabaeoides</i>	"
385	<i>Betuea monosperma</i>	"
386	<i>Butea parviflora</i>	"
387	<i>Butea superba</i>	"
388	<i>Clitoria biflora</i>	"
389	<i>Crotalaria acicularis</i>	"
390	<i>Crotalaria albida</i>	"
391	<i>Crotalaria hirsute</i>	"
392	<i>Crotalaria mysorensis</i>	"
393	<i>Crotalaria prostrate</i>	"
394	<i>Crotalaria sp.</i>	"
395	<i>Delbergia lanceolaria</i>	"
396	<i>Delbergia latifolia</i>	"
397	<i>Delbergia paniculata</i>	"
398	<i>Delbergia volubilis</i>	"
399	<i>Desmodium gangeticum</i>	"
400	<i>Desmodium latifolium</i>	"
401	<i>Desmodium laxiflorum</i>	"
402	<i>Desmodium motorium</i>	"
403	<i>Desmodium polycarpum</i>	"
404	<i>Desmodium pulchellum</i>	"
405	<i>Eliotis sororia</i>	"
406	<i>Erythrina suberosa</i>	"
407	<i>Galactia tenuiflora</i>	"
408	<i>Heylandia latebrosa</i>	"
409	<i>Indigofera cassioides</i>	"
410	<i>Indigofera glabra</i>	"
411	<i>Indigofera hirsute</i>	"
412	<i>Indigofera linifolia</i>	"
413	<i>Milletia auriculata</i>	"
414	<i>Milletia ovalifolia</i>	"
415	<i>Moghania semialata</i>	"
416	<i>Moghania strobilifera</i>	"
417	<i>Mucuna pruriens</i>	"
418	<i>Ougenia oojeinensis</i>	"
419	<i>Phaseolus radiates</i>	"
420	<i>Pterocarpus marsupium</i>	"
421	<i>Pueraria tuberosa</i>	"
422	<i>Pongamia pinnata</i>	"
423	<i>Rhynchosia aurea</i>	"
424	<i>Sesbania bispinosa</i>	"
425	<i>Smithia conferta</i>	"
426	<i>Tephrosia hookeriana</i>	"
427	<i>Tephrosia purpurea</i>	"
428	<i>Tephrosia sp.</i>	"
429	<i>Teramnus labialis</i>	"

430	<i>Uraria picta</i>	"
431	<i>Zornia diaphylla</i>	Pedaliaceae
432	<i>Martynia annua</i>	Plumbaginaceae
433	<i>Plumbago zeylanica</i>	Polygalaceae
434	<i>Polygala abyssinica</i>	"
435	<i>Polygala plebijum</i>	"
436	<i>Polygala stagninum</i>	"
437	<i>Polygala sp.</i>	Pontederiaceae
438	<i>Monocharia hastate</i>	Portulacaceae
439	<i>Portulaca oleracea</i>	Potamogetonaceae
440	<i>Pontamogenton crisp us</i>	Potamogetonnaceae
441	<i>Clematis smilacifolia</i>	Rhamnaceae
442	<i>Ventilago calyculata</i>	"
443	<i>Zizyphus mauritiana</i>	"
444	<i>Zizyphus oenoplia</i>	"
445	<i>Zizyphus rugosus</i>	"
446	<i>Zizyphus xylopyra</i>	Rubiaceae
447	<i>Adina cordifolia</i>	"
448	<i>Anotis calycina</i>	"
449	<i>Borreria articularis</i>	"
450	<i>Borreria stricta</i>	"
451	<i>Ixora parviflora</i>	"
452	<i>Gardenia turgida</i>	"
453	<i>Hymenodictylon excelsum</i>	"
454	<i>Mitragyna parvifolia</i>	"
455	<i>Oldenlandia corymbosa</i>	"
456	<i>Oldenlandia crystalline</i>	"
457	<i>Oldenlandia dichotoma</i>	"
458	<i>Oldenlandia sp.</i>	"
459	<i>Randia dumetorum</i>	"
460	<i>Spermadictylon suaveolens</i>	Rutaceae
461	<i>Aegle marmelos</i>	"
462	<i>Citrus sp.</i>	"
463	<i>Limonia acidissima</i>	"
464	<i>Murraya koenigii</i>	Samydaceae
465	<i>Casearia graveolens</i>	Samydaceae
466	<i>Madhuca indica</i>	Scrophulariaceae
467	<i>Dendrophthoe falcate</i>	"
468	<i>Lindenbergia polyantha</i>	"
469	<i>Lindernia crustacean</i>	"
470	<i>Lindernia sp.</i>	"
471	<i>Scoparia dulcis</i>	"
472	<i>Sopubia delphinifolia</i>	"
473	<i>Striga lutea</i>	"
474	<i>Striga orobanchoides</i>	"
475	<i>Vandellia scabra</i>	"
476	<i>Verbascum chinense</i>	Solanaceae
477	<i>Capsicum frutescens</i>	"

478	<i>Lycopersicum esculentum</i>	"
479	<i>Solanum nigrum</i>	"
480	<i>Buettneria herbacea</i>	"
481	<i>Eriolaena hookeriana</i>	"
482	<i>Melochia corchorifolia</i>	"
483	<i>Sterculia urens</i>	"
484	<i>Waltheria indica</i>	Tiliaceae
485	<i>Corchorus aestuans</i>	"
486	<i>Corchorus olitorius</i>	"
487	<i>Crewia abutilifolia</i>	"
488	<i>Grewia hirsute</i>	"
489	<i>Grewia tiliaefolia</i>	"
490	<i>Grewia rothii</i>	"
491	<i>Tridiumfetta annua</i>	"
492	<i>Tridiumfetta pentranda</i>	"
493	<i>Tridiumfetta pilosa</i>	"
494	<i>Triumfetta rhomboidea</i>	Umbelliferae
495	<i>Centella asiatica</i>	"
496	<i>Hydrocotyle rotundifolia</i>	Ulmaceae
497	<i>Holoptelia integrifolia</i>	Urticaceae
498	<i>Boehmoeria sp.</i>	"
499	<i>Boehmoeria platyphylla</i>	"
500	<i>Girardinia palmate</i>	"
501	<i>Pouzolzia pentandra</i>	"
502	<i>Trema orientalis</i>	"
503	<i>Urtica sp.</i>	"
504	<i>Clerdodendrom indicum</i>	Verbenaceae
505	<i>Holmskioldia sanguinea</i>	"
506	<i>Premna integrifolia</i>	"
507	<i>Vintex negundo</i>	Violaceae
508	<i>Hybanthus enneaspermus</i>	Zingiberaceae
509	<i>Costus speciosus</i>	Equisitales
510	<i>Equisetum debile</i>	Polypodiaceae
511	<i>Adiantum lunulatum</i>	"
512	<i>Adiantum sp.</i>	"
513	<i>Aleuritopteris grisea</i>	"
514	<i>Asplenium esculentum</i>	"
515	<i>Asplenium sp.</i>	"
516	<i>Cheilanthus tenuifolia</i>	"
517	<i>Cyclosorus parasiticus</i>	"
518	<i>Cyclosorus sp.</i>	"
519	<i>Lepisorus sp.</i>	"
520	<i>Nephrodium molle</i>	"
521	<i>Paraleptochillus decurrens</i>	"

Source: Management Plan for Bandhavgad National Park (2007-08 to 2016-17)

**Appendix 7: List of mammals recorded in BNP**

S. No	Zoological name	Hindi name	English name
1	<i>Anathana ellioti</i>	-	Indian tree shrew
2	<i>Axis axis</i>	Chital	Spotted Deer
3	<i>Bandicota Bengalensis</i>	Chuha	Indian Mole Rat
4	<i>Boselaphus tragocamelus</i>	Nilgai	Blue Bull
5	<i>Canis lupus</i>	Bhediya	Wolf
6	<i>Canis aureus</i>	Gidar, Siyar	Jackal
7	<i>Cervus unicolor nigra</i>	Sambhar	Sambar
8	<i>Cuon alpinus</i>	Dhole, Sone kutta	Indian wild dog
9	<i>Felis chaus</i>	Jangli Billi	Jungle cat
10	<i>Funambulus palmarum</i>	Gilhari	Three striped palm squirrel
11	<i>Gazella gazelle bennetti</i>	Chinkara	India gazelle
12	<i>Herpsetes aurop unctatus</i>	Neola	Small India Mongoose
13	<i>Herpsetes smithii</i>	Neola	Ruddy Mongoose
14	<i>Hyaena hyaena</i>	Lakkar Bagga	Striped Hyaena
15	<i>Hystrix leucura</i>	Sehi	Indian porcupine
16	<i>Lepus nigricoolis</i>	Kharhosh	Common hare
17	<i>Ruficudatus</i>	Kharha	Hare
18	<i>Macaca radiate</i>	Bandar	Red faced monkey
19	<i>Manis crassicaudata</i>	Silloo	Indian pangolin
20	<i>Megaderma lyra</i>	Chimkadar	Greater false vampire
21	<i>Metivora capensis</i>	Bijoo	Ratel
22	<i>Metursus ursinus</i>	Bhalu, Reechh	Sloth Bear
23	<i>Muntiacus muntjak</i>	Bherki, Bhansa	Barking deer
24	<i>Panthera pardus</i>	Gulbagh, Tendua	Panther
25	<i>Panthera tigris</i>	Bagh, Tiger	Tiger
26	<i>Paradoxurus hermaphroditus</i>	Kasturi	Toddy cat, common palm civet
27	<i>Pipistrellus coromandra</i>	Chimkadar	Indian pipistrelle
28	<i>Presbytis entellus</i>	Langur	Common langur
29	<i>Pteropus giganteus</i>	Chimkadar	Flying fox
30	<i>Rousetteus leschenaultia</i>	Chimkadar	Fulvous fruit bat
31	<i>Suncus murinus</i>	Chhuchunder	Grey musk shrew
32	<i>Sus scrofa</i>	Suar	Wild pig
33	<i>Tetracerus quadricornis</i>	Chousingha	Four-horned antelope
34	<i>Viverricula indica</i>	Udbilao	Small Indian civet
35	<i>Vulpes bengalensis</i>	Lomadi	Indian fox

Source: Management Plan for Bandhavgad National Park (2007-08 to 2016-17)

*Appendix 8: Percent contribution of different tree species recorded at biomass sample plots in BNP*

Sample plot	*B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	B13	B14	B15
Tala	1	3	24	2	1	1	1	1	1						
Tala		2	10					1	6	4	2	1	1	1	1
Tala															
Tala											8			1	
Tala															
Pataur															
Pataur															
Kallwah			1			1							1		
Kallwah						1									
Magdhi														1	
<b>Total tree</b>	<b>1</b>	<b>5</b>	<b>35</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>7</b>	<b>4</b>	<b>10</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>1</b>
<b>%Contribution</b>	<b>0.21</b>	<b>1.07</b>	<b>7.51</b>	<b>0.43</b>	<b>0.21</b>	<b>0.64</b>	<b>0.21</b>	<b>0.43</b>	<b>1.50</b>	<b>0.86</b>	<b>2.15</b>	<b>0.21</b>	<b>0.43</b>	<b>0.64</b>	<b>0.21</b>

Sample plot	B16	B17	B18	B19	B20	B21	B22	B23	B24	B25	B26	B27	B28	B29	B30
Tala															
Tala	2														
Tala	6	10	2	5	1	9	1								
Tala	5	4	1		2	9		3	1	1	1				
Tala						14						1			
Pataur				15									5	2	36
Pataur	2	9				12		3							
Kallwah	9	2			1	1		1		2			14		
Kallwah	12	48				28				1				2	1
Magdhi	3			1	2	23		5	1	2	1	1			
<b>Total tree</b>	<b>39</b>	<b>73</b>	<b>3</b>	<b>21</b>	<b>6</b>	<b>96</b>	<b>1</b>	<b>12</b>	<b>2</b>	<b>6</b>	<b>2</b>	<b>2</b>	<b>19</b>	<b>4</b>	<b>37</b>
<b>%Contribution</b>	<b>8.37</b>	<b>15.67</b>	<b>0.64</b>	<b>4.51</b>	<b>1.29</b>	<b>20.60</b>	<b>0.21</b>	<b>2.58</b>	<b>0.43</b>	<b>1.29</b>	<b>0.43</b>	<b>0.43</b>	<b>4.08</b>	<b>0.86</b>	<b>7.94</b>

Sample plot	B31	B32	B33	B34	B35	B36	B37	B38	B39	B40	B41	B42	B43	B44	B45	Total
Tala																35
Tala																31
Tala																34
Tala																36
Tala																15
Pataur																58
Pataur	1															27
Kallwah		3	5	27	9	4										81
Kallwah				1	1		4	1	1							101
Magdhi							1			1	1	1	1	2	1	48
<b>Total tree</b>	<b>1</b>	<b>3</b>	<b>5</b>	<b>28</b>	<b>10</b>	<b>4</b>	<b>5</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>466</b>
<b>%Contribution</b>	<b>0.21</b>	<b>0.64</b>	<b>1.07</b>	<b>6.01</b>	<b>2.15</b>	<b>0.86</b>	<b>1.07</b>	<b>0.21</b>	<b>0.21</b>	<b>0.21</b>	<b>0.21</b>	<b>0.21</b>	<b>0.21</b>	<b>0.43</b>	<b>0.21</b>	<b>100</b>

\*Tree species recorded at biomass sample plots in BNP

Code	Species	Code	Species	Code	Species
<b>B1</b>	Patvan	<b>B16</b>	Tendu	<b>B31</b>	Karai
<b>B2</b>	Amaltas	<b>B17</b>	Bamboo	<b>B32</b>	Harshiyuar
<b>B3</b>	Lendia	<b>B18</b>	Harra	<b>B33</b>	Amla
<b>B4</b>	Sitaphal	<b>B19</b>	Lendia	<b>B34</b>	Birra
<b>B5</b>	Palas	<b>B20</b>	Mahua	<b>B35</b>	Dhavra
<b>B6</b>	Saja	<b>B21</b>	Sal	<b>B36</b>	Salai
<b>B7</b>	Bel	<b>B22</b>	kumhi	<b>B37</b>	Aonla
<b>B8</b>	Mundi	<b>B23</b>	Achar	<b>B38</b>	Barnga
<b>B9</b>	Moyan	<b>B24</b>	Dhavra	<b>B39</b>	Cassiafistula
<b>B10</b>	Belsendha	<b>B25</b>	Kari	<b>B40</b>	Baherda
<b>B11</b>	Dhaman	<b>B26</b>	Bhilwa	<b>B41</b>	Baherda
<b>B12</b>	Kakai	<b>B27</b>	Jamun	<b>B42</b>	Gunja
<b>B13</b>	Kasai	<b>B28</b>	Dhudhi	<b>B43</b>	Kaya
<b>B14</b>	Kosum	<b>B29</b>	Ghont	<b>B44</b>	Semal
<b>B15</b>	Kullu	<b>B30</b>	Teak	<b>B45</b>	Tinsa

**Appendix 9: Percentage of trees showed increment in DBH, and values in parenthesis indicate an average annual increment in DBH (cm year<sup>-1</sup>)**

Location	Plot	2011	2012	2013	2014	Mean
Tala	1	100 (0.85)	100 (1.2)	97 (0.79)	97 (0.56)	99 (0.85)
Tala	2	56 (0.43)	81 (0.52)	91 (0.41)	91 (0.41)	80 (0.44)
Tala	3	49 (0.34)	69 (0.84)	77 (0.19)	89 (0.38)	71 (0.44)
Tala	4	51 (0.20)	78 (0.50)	78 (0.15)	86 (0.22)	74 (0.27)
Tala	5	44 (0.28)	94 (0.49)	81 (0.22)	94 (0.30)	78 (0.32)
Pataur	6	78 (0.48)	85 (0.59)	85 (0.43)	85 (0.36)	83 (0.46)
Pataur	7	74 (0.46)	78 (0.72)	93 (0.58)	89 (0.43)	83 (0.55)
Kallwah	8	72 (0.41)	87 (0.49)	92 (0.49)	92 (0.33)	86 (0.43)
Kallwah	9	78 (0.43)	63 (0.31)	83 (0.34)	93 (0.34)	79 (0.36)
Magdhi	10	41 (0.29)	80 (0.60)	86 (0.30)	94 (0.30)	75 (0.37)

**Appendix 10: Relative deviation (RD%) in AGB as compared to AGB in the initial year of the study (i.e. 2010)**

Location	Plot	2011	2012	2013	2014	Mean±SD
Tala	1	11.81	36.79	35.42	37.95	30.49±12.5
Tala	2	4.30	18.33	14.68	19.42	14.18±6.89
Tala	3	2.21	10.80	7.84	11.85	8.17±4.33
Tala	4	1.52	5.89	3.32	6.89	4.4±2.44
Tala	5	1.14	4.44	2.94	5.24	3.44±1.8
Pataur	6	7.36	26.39	16.62	28.54	19.73±9.74
Pataur	7	5.35	19.70	17.38	21.92	16.09±7.39
Kallwah	8	3.55	15.86	15.61	17.15	13.04±6.37
Kallwah	9	4.37	13.73	12.85	16.60	11.89±5.26
Magdhi	10	1.98	9.42	8.85	10.43	7.67±3.85

**Appendix 11: List of tree species recorded in MNP**

<b>S. No</b>	<b>Botanical name</b>	<b>Family</b>
1	<i>Acacia nilotica</i> , wild	Leguminosae
2	<i>Acacia catechu</i> , wild	"
3	<i>Acacia ferruginea</i> , Dc	"
4	<i>Acacia leucophloea</i> , wild	"
5	<i>Adina cordifolia</i> , Hook.f.	Rubiaceae
6	<i>Aegle marmelos</i> , Correa	"
7	<i>Ailanthus excels</i> , Roxb.	Simarubaceae
8	<i>Ailangium salvifolium</i> , Linn	Cornaceae
9	<i>Albizzia stipulata</i> , Boiv.	Leguminosae
10	<i>Albizzia lebbeck</i> , Benth	"
11	<i>Albizzia odoratissima</i>	"
12	<i>Albizzia procera</i> , Benth	"
13	<i>Anogeissus latifolia</i> , Wall	Combretaceae
14	<i>Anogeissus pendula</i> , Edgew	"
15	<i>Anona squamosa</i> Linn	Anonaceae
16	<i>Anthocephalus cadamba</i> , Miq.	Rubiaceae
17	<i>Artocarpus heterophyllus</i> , Lamk	Salicaceae
18	<i>Azadirachta indica</i> , A Juss	Meliaceae
19	<i>Bauhinia malabarica</i> , Roxb	Leguminosae
20	<i>Bauhinia purpurea</i> , Linn	"
21	<i>Bauhinia racemose</i> , Limk and H.K	"
22	<i>Bauhinia retusa</i> , Ham	"
23	<i>Bauhinia variegata</i> , Linn	"
24	<i>Bridelia retusa</i> , Spreng	Euphorbiaceae
25	<i>Boswellia serrata</i> , Roxb	Burseraceae
26	<i>Buchanania lanzan</i> , Spreng	Anacardiaceae
27	<i>Butea monosperma</i> , Lamak, Tarv	Leguminosae
28	<i>Balanites aegyptiaca</i> , Delile	Zygophyllaceae
29	<i>Callistemon viminalis</i>	Myrtaceae
30	<i>Careya arborea</i> , Roxb	"
31	<i>Casearia elliptica</i> , Wild	Samydaceae
32	<i>Casearia graveolens</i> , Dalz	"
33	<i>Cassia fistula</i> , Linn	Leguminosae
34	<i>Cochlospermum religiosum</i> , Linn	Bixaaceae
35	<i>Cordia macleodii</i> , Hif and th	Boraginaceae
36	<i>Cordia dichotoma</i> , Frost	"
37	<i>Cordia latifolia</i> , Roxb	"
38	<i>Crataeva unilocularis</i> , Ham	Capparidaceae
39	<i>Chloroxylon swietenia</i> , D.C	Meliaceae
40	<i>Dalbergia latifolia</i> , Roxb	Leguminosae
41	<i>Dalbergia paniculata</i> , Roxb	"
42	<i>Dalbergia sissoo</i> , Roxb	"
43	<i>Delonix regia</i> , (Bojer) Raf.	"
44	<i>Diospyros cardifolia</i> , Roxb	Ebenaceae
45	<i>Diospyros melanoxylon</i>	"
46	<i>Dolichandronea falcate</i> , Seem	Bignoniaceae

47	<i>Dillenia pentagyna</i> , Roxb	Dilleniaceae
48	<i>Ehretia laevis</i> , Roxb	Boraginaceae
49	<i>Elaeodendron glaucam</i> , Pers.	Celastreaceae
50	<i>Embliu officinalis</i> , Geertn	Euphorbiaceae
51	<i>Erythina suberosa</i> , Roxb	Leguminoseae
52	<i>Erythrina variegata</i> , Linn	"
53	<i>Euphobia nivueia</i> , Ham	Euphorbiaceae
54	<i>Euphobia nerfolia</i> , Linn	"
55	<i>Feronia limonia</i> , Swingle	Rubiaceae
56	<i>Ficus benghalensis</i> , Linn	Moraceae
57	<i>Ficus glomerata</i> , Roxb	"
58	<i>Ficus lacor</i> , Buch-Ham	"
59	<i>Ficus religiosa</i> , Linn	"
60	<i>Ficus microcapra</i> , Linn.f	"
61	<i>Ficus hispida</i> , Linn	"
62	<i>Flacourtia indica</i> (Burm.f) Merr.	Bixaceae
63	<i>Gardenia latifolia</i> , Ait	Rubiaceae
64	<i>Gardenia lucida</i> , Roxb	"
65	<i>Gardenia turida</i> , Roxb	"
66	<i>Garuga pinnata</i> , Roxb	Burseraceae
67	<i>Gmelina arborea</i> , Roxb	Verbenaceae
68	<i>Grewia titliaefolia</i> , Vahl	Tilliaceae
69	<i>Hardwickia binata</i> , Roxb	Leguminoseae
70	<i>Holoptelea integrifolia</i> , Planch	Ulmaceae
71	<i>Hymenodictyon excelsum</i> , Wall	Rubiaceae
72	<i>Ixora arborea</i> , Roxb	"
73	<i>Jacaranda acutifolia</i> , Hunb, and Bonpl	Pedaliaceae
74	<i>Jatropha curcas</i> , Linn	Euphorbiaceae
75	<i>Kydia calycina</i> , Roxb	"
76	<i>Lagerstroemia parviflora</i> , Roxb	Lythraceae
77	<i>Lannea coromandelica</i> , (Houtt.) Merr.	Anacardiaceae
78	<i>Limonia crenulata</i> Linn	Rutaceae
79	<i>Litsea glutinosa</i> , (Lour) C.B. and Robbin	Lauraceae
80	<i>Madhuca indica</i> , Cmel	Sapotaceae
81	<i>Mallotus philippinensis</i> Muell	Euphorbiaceae
82	<i>Mangifera indica</i> , Linn	Anacardiaceae
83	<i>Manikara hexandra</i> , (Roxb.) Dub	Sapotaceae
84	<i>Melia azedarach</i> Linn	Meliaceae
85	<i>Miliusa velutina</i> , H.F and Thoms	Anonaceae
86	<i>Miliusa tomentosa</i> , Sincelair	"
87	<i>Millingtonia hortensis</i> Linn.	Pedaliaceae
88	<i>Mitragyana parvifolia</i> Kortyh	Rubiaceae
89	<i>Moringao leifera</i> , Lamk	Moringaceae
90	<i>Morinda tinctoria</i> , Roxb	Rubiaceae
91	<i>Morus laevigata</i> , wall	Urticaceae
92	<i>Murraya koenigil</i> , Spreg.	Rutaceae
93	<i>Ougeinia oojelinensis</i> , Roxb. Hocherut	Leguminoseae
94	<i>Phoenix humilis</i> , Poyle	Palmae

95	<i>Polyalthia longifolia</i> (Sonnerat.) Thw	Anonaceae
96	<i>Pongamia pinnata</i> , Linn Pierre	Leguminosae
97	<i>Pithecolobium dulce</i> , Benth	"
98	<i>Prosopis cineraris</i> , Linn Druce	"
99	<i>Prosopis juliflora</i> , D.C.	"
100	<i>Pterocarpus marsupium</i> , Roxb.	"
101	<i>Padernachera xylocarpox</i> Roxb.	Bignoniaceae
102	<i>Randia dumetorum</i> , Lamak.	Rubiaceae
103	<i>Randia uliginosa</i> , D.C.	"
104	<i>Salmalia malabarica</i> , D.C.	Salmaliaceae
105	<i>Salvadora oleoides</i> , Dcne	Salvadoraceae
106	<i>Sapindus laurifolius</i>	Sapindaceae
107	<i>Santalum album</i> , Linn	"
108	<i>Schle-chera oleosa</i> , Oken	"
109	<i>Schrebera swetenioides</i> , Roxb.	Oleaceae
110	<i>Samecarpus anacardium</i> , Linn	Anacardiaceae
111	<i>Soymida febrifuga</i> , A Juss	Meliaceae
112	<i>Sterculia urens</i> , Roxb	Sterculiaceae
113	<i>Stereospermum personatum</i> , (hassk). Chatt	Bignoniaceae
114	<i>Streblus asper</i> , Linn	Moraceae
115	<i>Syzygium cumini</i> , Linn Skeels	"
116	<i>Tamarindus indica</i> , Linn	Leguminosae
117	<i>Tamarix dioica</i> , Roxb	Tamaricaceae
118	<i>Tectona grandis</i> , Linn.F.	Verbenaceae
119	<i>Terminalia arjuna</i> , Bedd.	Combretaceae
120	<i>Terminalia belerica</i> , Roxb.	"
121	<i>Terminalia tomentosa</i> , W.A.	"
122	<i>Vitex peduncularis</i> , wall	Verbenaceae
123	<i>Wendlandia exerta</i> , A. Br	Rubiaceae
124	<i>Wrightia tinctoria</i> , A. Br.	Apocynaceae
125	<i>Zizyphus mauritiana</i> , Lamak	Rhamnaceae
126	<i>Zizyphus zylopyra</i> Wild	"

Source: Management Plan for Madhav National Park (2007-08 to 2016-17)

**Appendix 12: List of mammals recorded in MNP**

S. No	Scientific name	Hindi name	English name
1	<i>Axis axis</i>	Chital	Spotted Deer
2	<i>Bandicota Bengalensis</i>	Chuha	Indian Mole Rat
3	<i>Boselaphus tragocamelus</i>	Nilgai	Blue Bull
4	<i>Canis aureus</i>	Gidar, Siyar	Jackal
5	<i>Canis familiaris (Linhhaeus)</i>	Kutta	The domestic dog
6	<i>Canis lupus (Linnaeus)</i>	The wolf	Bheriya
7	<i>Cervus unicolor nigra</i>	Sambhar	Sambar
8	<i>Cuon alpinus</i>	Dhole, Sone kutta	Indian wild dog
9	<i>Felis bengalensis</i>	Chita billi	Leopard cat
10	<i>Felis chaus</i>	Chita billi	Jungle cat
11	<i>Funambulus palmarum</i>	Gilhari	Three striped palm squirrel
12	<i>Funambulus pennanti</i>		Five stripped palm squirrel
13	<i>Gazella gazelle (Pallas)</i>	Chinkara	India gazelle
14	<i>Colunda ellioti (Gray)</i>	Chube	Indian bush rat
15	<i>Herpsetes edwardsi (Geoffroy)</i>	Com. Mongoose	Nyula
16	<i>Hyaena hyaena (Linnaeus)</i>	Lakkarbagha	Stripped hyena
17	<i>Hystrix indica (Kerr)</i>	Sahi	Indian poycupine
18	<i>Lepus ruficaudatus (Geoffroy)</i>	Khargosh	Indian hare
19	<i>Lutra perspicillata (I. Geoffroy)</i>	Smooth Indian	Udbilao
20	<i>Macaca radiate (Geoffroy)</i>	Bandar	Bonnet macaque
21	<i>Melurus ursinus (Shaw)</i>	Bhalu, Reech	Sloth bear
22	<i>Muntiacus muntjak (Zimmermann)</i>	Bherki, Kakar	Barking deer
23	<i>Mus platythrix (Bennet)</i>	Chuha	Piny field mouse
	<i>Panthera pardus (Linnaeus)</i>	Tendwa	Panther
24	<i>Panthera tigris (Linnaeus)</i>	Sher	Tiger
25	<i>Paraechinus nudivertris</i>	Bagad billa	Hedgehog
26	<i>Presbytis antellus (Dufreane)</i>	Langur	Common langur
27	<i>Rattus blanfordi (Thomas)</i>	Chuha	White-tailed wood rat
28	<i>Suncus murinus (Linnacus)</i>	Chuchunder	Grey musk
29	<i>Sus scrofa (Linnaeus)</i>	Suar	Indian wild bear
30	<i>Taphozous melanopogon</i>	Chamgadar	Bearded
31	<i>Temminck</i>		Sheath-tailed bat
32	<i>Vulpes bengalensis (Shaw)</i>	Lomri	Indian fox

Source: Management Plan for Madhav National Park (2007-08 to 2016-17)

*Appendix 13: Percent contribution of different tree species recorded at biomass sample plots in MNP*

Sample plot	M1*	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14	M15	M16	M17	M18	Total
SR_Ammakunj beat	39																		39
SR_Ammakunj beat	67	1	5																73
SR_Ammakunj beat		6		2	26	4	6	10	1										55
SR_Ammakunj beat								12		2									14
ER_Babanaua beat			19		4	2		3			1								29
CR_Dhamkan beat			19			1		7				1							28
CR_Dhamkan beat	1	1	1		5	4		72					3						87
CR_Eravan beat		5	24		22	1		4											56
NR_Bhurakha beat	6					2	2	15						32	1				58
SR_Kota beat	4															55	7	1	67
<b>Total tree</b>	<b>117</b>	<b>13</b>	<b>68</b>	<b>2</b>	<b>57</b>	<b>14</b>	<b>8</b>	<b>123</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>32</b>	<b>1</b>	<b>55</b>	<b>7</b>	<b>1</b>	<b>506</b>
<b>%Contribution</b>	<b>23.12</b>	<b>2.57</b>	<b>13.44</b>	<b>0.40</b>	<b>11.26</b>	<b>2.77</b>	<b>1.58</b>	<b>24.31</b>	<b>0.20</b>	<b>0.40</b>	<b>0.20</b>	<b>0.20</b>	<b>0.59</b>	<b>6.32</b>	<b>0.20</b>	<b>10.87</b>	<b>1.38</b>	<b>0.20</b>	<b>100</b>

\*M indicates species recorded at biomass sample plot in MNP.

<b>Code</b>	<b>Species</b>												
<b>M1</b>	Kardhai	<b>M4</b>	Awala	<b>M7</b>	Gurjan	<b>M10</b>	Rimgha	<b>M13</b>	Kankher	<b>M16</b>	Jamun		
<b>M2</b>	Tendu	<b>M5</b>	Dhawda	<b>M8</b>	Khair	<b>M11</b>	Gumer	<b>M14</b>	Khardhari	<b>M17</b>	Koha		
<b>M3</b>	Salai	<b>M6</b>	Ghont	<b>M9</b>	Saja	<b>M12</b>	Ber	<b>M15</b>	Setha	<b>M18</b>	Oomer		

*Appendix 14: Percentage of trees showed increment in DBH, and values in parenthesis*

<b>Location</b>	<b>Plot</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>Mean</b>
SR_Ammakunj beet	1	100 (0.49)	97 (0.50)	97 (0.69)	97 (0.53)	98 (0.55)
SR_Ammakunj beet	2	79 (0.43)	81 (0.40)	74 (0.37)	82 (0.33)	79 (0.38)
SR_Ammakunj beet	3	80 (0.29)	85 (0.36)	87 (0.40)	96 (0.37)	87 (0.36)
SR_Ammakunj beet	4	86 (0.99)	64 (0.76)	79 (1.06)	93 (0.83)	80 (0.91)
ER_Babanaua beat	5	79 (0.33)	83 (0.40)	86 (0.53)	100 (0.38)	87 (0.41)
CR_Dhamkan beat	6	48 (0.25)	97 (0.40)	97 (0.61)	97 (0.41)	84 (0.41)
CR_Dhamkan beat	7	86 (0.49)	82 (0.43)	87 (0.43)	90 (0.35)	86 (0.43)
CR_Eravan beat	8	75 (0.31)	73 (0.33)	91 (0.44)	84 (0.35)	81 (0.36)
NR_Bhurakha beat	9	95 (0.77)	91 (0.52)	97 (0.52)	97 (0.34)	95 (0.54)
SR_Kota beat	10	85 (0.39)	84 (0.31)	79 (0.25)	69 (0.15)	79 (0.28)

*Appendix 15: Relative deviation (RD%) in AGB compared to AGB in the initial year of the study (i.e. 2010)*

<b>Location</b>	<b>Plot</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>Mean±SD</b>
SR_Ammakunj beet	1	9.9	22.2	92.1	59.0	45.8±37.2
SR_Ammakunj beet	2	7.0	18.9	38.0	29.0	23.2±13.3
SR_Ammakunj beet	3	5.3	16.8	49.5	43.1	28.7±21
SR_Ammakunj beet	4	55.8	100.0	399.9	354.8	227.6±174
ER_Babanaua beat	5	3.2	9.4	25.0	21.1	14.7±10.1
CR_Dhamkan beat	6	2.7	7.8	23.3	15.7	12.4±9
CR_Dhamkan beat	7	12.5	29.1	110.6	73.3	56.4±44.3
CR_Eravan beat	8	4.7	10.0	30.8	24.5	17.5±12.2
NR_Bhurakha beat	9	15.6	21.3	45.5	27.2	27.4±13
SR_Kota beat	10	2.6	4.2	8.5	4.3	4.9±2.5

**Appendix 16: Volumetric Equation of tree species occurring in the study area**

S.No	Tree species	Volume equation
1	<i>Acacia catechu</i> (L. f.) Willd.	$0.21612-4.16597D+24.50948D^2 - 29.6773(D^3)$
2	<i>Acacia leucophloea</i> (Roxb.) Willd.	$(-0.00142+2.61911D-0.54703\sqrt{D})^2$
3	<i>Acacia nilotica</i> (L.) Willd. ex Delile	$(-0.00142+2.61911D-0.54703\sqrt{D})^2$
4	<i>Acacia pennata</i> (L.) Willd.	$(-0.00142+2.61911D-0.54703\sqrt{D})^2$
5	<i>Aegle marmelos</i> (L.) Corr.	$0.17553-0.71434\sqrt{D}+7.94663(D^2)$
6	<i>Anogeissus latifolia</i> (Roxb. ex DC.) Wall. ex Guill. & Perr.	$-(0.012484/(D^2))*H + 0.424503 - 0.009419(D^2)*H) * (D^2)*H$
7	<i>Anogeissus pendula</i> Edgew.	$(0.00085/(D^2)-0.35165/D+4.77386-0.90585D)*D^2$
8	<i>Bauhinia vahlii</i> Wt. & Arn.	$-0.04262+6.09491(D^2)$
9	<i>Bauhinia variegata</i> L.	$-0.04262+6.09491(D^2)$
10	<i>Bombax ceiba</i> L.	$0.076+0.228(D^2)*H$
11	<i>Boswellia serrata</i> Roxb. ex Colebr.	$(-0.1503+2.79425*D)^2$
12	<i>Bridelia retusa</i> (L.) Spreng.	$0.17553-0.71434\sqrt{D}+7.94663(D^2)$
13	<i>Buchanania lanzan</i> Spreng.	$0.017+0.381(D^2)*H$
14	<i>Butea monosperma</i> (Lam.) Taub.	$-0.07803+1.70258D- 9.16180(D^2) + 33.91455(D^3)$
15	<i>Cassia fistula</i> L.	$0.066+0.287(D^2)*H$
16	<i>Cassine glauca</i> (Rottb.) O. Kuntze	$0.17553-0.71434\sqrt{D}+7.94663(D^2)$
17	<i>Cochlospermum religiosum</i> (L.) Alston	$0.005183+0.245578(D^2)*H$
18	<i>Dalbergia paniculata</i> Roxb.	$(0.76896+7.31777D-4.01953\sqrt{D})^2$
19	<i>Diospyros melanoxylon</i> Roxb.	$0.042+0.246(D^2)*H$
20	<i>Euphorbia royaleana</i> Boiss.	$0.17553-0.71434\sqrt{D}+7.94663(D^2)$
21	<i>Flacourtia indica</i> (Burm. f.) Merr.	$0.17553-0.71434\sqrt{D}+7.94663(D^2)$
22	<i>Gardenia latifolia</i> Ait.	$0.17553-0.71434\sqrt{D}+7.94663(D^2)$
23	<i>Grewia tiliifolia</i> Vahl.	$-0.057+0.292 (D^2)*H$
24	<i>Lagerstroemia parviflora</i> Roxb.	$(0.002565/(D^2))*H+0.489814-0.00552(D^2)*H$
25	<i>Lannea coromandelica</i> (Houtt.) Merr.	$-0.057+0.292 (D^2)*H$
26	<i>Madhuca longifolia</i> (Koenig) Macbr. Var. <i>latifolia</i> (Roxb.) Chev.	$-0.014+0.275(D^2)*H$
27	<i>Milusa tomentosa</i> (Roxb.) Sinc.	$(1.67477+14.8374*D-9.43386\sqrt{D})^2$
28	<i>Mitragyna parvifolia</i> (Roxb.) Korth.	$(0.099768/(D^2)-1.744274/D+10.086934)*D^2$
29	<i>Narangi crenulata</i> (Roxb.) Nicols.	$0.17553-0.71434\sqrt{D}+7.94663(D*D)$
30	<i>Nyctanthes arbor-tristis</i> L.	$0.17553-0.71434\sqrt{D}+7.94663(D^2)$
31	<i>Ougeinia oogeinsis</i> (Roxb.) Hochr.	$\sqrt{-0.469152+1.403410D+1.42555\sqrt{D}}^2$
32	<i>Phyllanthus emblica</i> L.	$-0.038+0.344(D^2)*H$
33	<i>Pterocarpus marsupium</i> (Jacq.) Weight	$0.175068+4.598243*D-1.500562\sqrt{D})^2$

34	<i>Schleichera oleosa</i> (Lour.) Oken.	$0.010-0.912D+11.396(D^2)$
35	<i>Soymida febrifuga</i> (Roxb.) A. Juss.	$0.17553-0.71434\sqrt{D}+7.94663(D^2)$
36	<i>Sterculia urens</i> Roxb.	$0.0023/(D^2)*H+0.34018*(D^2)*H$
37	<i>Tectona grandis</i> L.f.	$0.008690+0.323051(D^2)*H$
38	<i>Terminalia alata</i> Heyne ex Roth.	$(0.41071+5.51319D-2.59952\sqrt{D})^2$
39	<i>Terminalia bellirica</i> (Gaertn.) Roxb.	$-0.005564+0.365874(D^2)*H$
40	<i>Ziziphus mauritiana</i> Lam.	$0.027354+4.663714(D^2)$
41	<i>Ziziphus oenoplia</i> (L.) Mill.	$0.027354+4.663714(D^2)$
42	<i>Ziziphus xylopyrus</i> (Retz.) Willd.	$-0.002557+0.260114(D^2)*H$
43	General Equation	$0.17553-0.71434\sqrt{D}+7.94663(D^2)$

Source: Volume Equations of India, Nepal and Bhutan, (1996), Forest Survey of India.

**Appendix 17: Specific gravity of tree species occurring in the study area**

S.No	Botanical name	Specific gravity
1	<i>Acacia catechu</i> (L. f.) Willd.	0.86
2	<i>Acacia leucophloea</i> (Roxb.) Willd.	0.82
3	<i>Acacia nilotica</i> (L.) Willd. ex Delile	0.85
4	<i>Acacia pennata</i> (L.) Willd.	0.85
5	<i>Aegle marmelos</i> (L.) Corr.	0.75
6	<i>Anogeissus latifolia</i> (Roxb. ex DC.) Wall. ex Guill.	0.92
7	<i>Anogeissus pendula</i> Edgew.	1.01
8	<i>Antidesma acidum</i> Retz.	0.62
9	<i>Bauhinia vahlii</i> Wt. & Arn.	0.66
10	<i>Bauhinia variegata</i> L.	0.66
11	<i>Bombax ceiba</i> L.	0.37
12	<i>Boswellia serrata</i> Roxb. ex Colebr.	0.57
13	<i>Bridelia retusa</i> (L.) Spreng.	0.64
14	<i>Buchanania lanzan</i> Spreng.	0.47
15	<i>Butea monosperma</i> (Lam.) Taub.	0.44
16	<i>Cassia fistula</i> L.	0.81
17	<i>Dalbergia paniculata</i> Roxb.	0.60
18	<i>Diospyros melanoxylon</i> Roxb.	0.44
19	<i>Erythrina suberosa</i> Roxb.	0.30
20	<i>Euphorbia royaleana</i> Boiss.	0.50
21	<i>Feronia limonia</i> (L.) Swingle	0.78
22	<i>Flacourtia indica</i> (Burm. f.) Merr.	0.77
23	<i>Gardenia latifolia</i> Ait.	0.74
24	<i>Grewia tiliifolia</i> Vahl	0.76
25	<i>Holarrhena pubescens</i> (Buch.-Ham.) Wall. ex G. Don	0.60
26	<i>Helicteres isora</i> L.	0.56
27	<i>Hymenodictyon orixense</i> (Roxb.) Mabb.	0.45
28	<i>Lagerstroemia parviflora</i> Roxb.	0.78

29	<i>Lannea coromandelica</i> (Houtt.) Merr.	0.54
30	<i>Madhuca longifolia</i> (Koenig) Macbr. Var. <i>latifolia</i> (Roxb.) Chev.	0.96
31	<i>Manilkara hexandra</i> (Roxb.) Dubard	1.09
32	<i>Miliusa tomentosa</i> (Roxb.) Sinc.	0.84
33	<i>Mitragyna parvifolia</i> (Roxb.) Korth.	0.68
34	<i>Narangi crenulata</i> (Roxb.) Nicols.	0.50
35	<i>Nyctanthes arbor- tristis</i> L.	0.79
36	<i>Ougeinia oogeinsis</i> (Roxb.) Hochr.	0.87
37	<i>Phyllanthus emblica</i> L.	0.77
38	<i>Pterocarpus marsupium</i> Roxb.	0.80
39	<i>Schleichera oleosa</i> (Lour.) Oken	1.03
40	<i>Semicarpus anacardium</i>	0.57
41	<i>Soymida febrifuga</i> (Roxb.) A. Juss.	1.10
42	<i>Sterculia urens</i> Roxb.	0.57
43	<i>Syzigium cumini</i>	0.76
44	<i>Tectona grandis</i> L.f.	0.64
45	<i>Terminalia alata</i> Heyne ex Roth	0.85
46	<i>Terminalia arjuna</i> (Roxb.ex DC.) Wight and Arnott.	0.78
47	<i>Terminalia bellirica</i> (Gaertn.) Roxb.	0.69
48	<i>Ziziphus mauritiana</i> Lam.	0.56
49	<i>Ziziphus nummularia</i>	0.70
50	<i>Ziziphus oenoplia</i> (L.) Mill.	0.65
51	<i>Ziziphus rugosa</i>	0.61
52	<i>Ziziphus xylopyrus</i> (Retz.) Willd.	0.78

Source: Indian Woods, Volume I – VI, FRI, Publications