

**Tree species group distribution according to canopy layer position within Deramakot Forest Reserve's network of permanent sample plots**

Compartment	Year of Assessment	Species Group	Lower Canopy (stems.ha <sup>-1</sup> )	Mid Canopy (stems.ha <sup>-1</sup> )	Upper Canopy (stems.ha <sup>-1</sup> )	Total (stems.ha <sup>-1</sup> )
58 (49)	2009 (Harvested)	DIPTEROCARP	131.6	63.7	11.3	206.6
		FRUIT	82.0	5.7	1.4	89.1
		OTHERS	113.2	11.3	2.8	127.3
		PIONEER	134.4	25.5	2.8	162.7
		Total	461.2	106.2	18.5	585.7
	2012	DIPTEROCARP	125.9	66.5	11.3	203.7
		FRUIT	79.2	8.5	1.4	89.1
		OTHERS	103.3	8.5	2.8	114.6
		PIONEER	131.6	19.8	2.8	154.2
		Total	440.0	103.3	18.3	561.6
	2013	DIPTEROCARP	125.9	66.5	11.3	203.7
		FRUIT	79.2	8.5	1.4	89.1
		OTHERS	103.3	8.5	2.8	114.6
		PIONEER	131.6	19.8	2.8	154.2
		Total	440.0	103.3	18.3	561.6
	2014	DIPTEROCARP	127.3	67.9	14.2	209.4
		FRUIT	82.0	8.5	1.4	91.9
		OTHERS	96.2	8.5	2.8	107.5
		PIONEER	133.0	19.8	2.8	155.6
		Total	438.5	104.7	21.2	564.4
	2015	DIPTEROCARP	123.1	67.9	18.4	209.4
		FRUIT	82.0	8.5	1.4	91.9
		OTHERS	96.2	8.5	2.8	107.5
		PIONEER	131.6	21.2	2.8	155.6
		Total	432.9	106.1	25.4	564.4
2018	DIPTEROCARP	107.5	69.3	19.8	196.6	
	FRUIT	77.8	9.9	1.4	89.1	
	OTHERS	90.5	7.1	4.2	101.8	
	PIONEER	120.2	19.8	4.2	144.2	
	Total	396.0	106.1	29.6	531.7	

Compartment	Year of Assessment	Species Group	Lower Canopy (stems.ha <sup>-1</sup> )	Mid Canopy (stems.ha <sup>-1</sup> )	Upper Canopy (stems.ha <sup>-1</sup> )	Total (stems.ha <sup>-1</sup> )
69	2008	DIPTEROCARP	125.7	33.0	6.3	165.0
		FRUIT	58.2	11.0	1.6	70.7
		OTHERS	128.9	14.1	4.7	147.7
		PIONEER	50.3	17.3	1.6	69.2
		Total	363.1	75.4	14.1	452.6
	2010 (Harvested)	DIPTEROCARP	114.7	33.0	4.7	152.5
		FRUIT	55.0	11.0	1.6	67.6
		OTHERS	125.7	12.6	1.6	139.9
		PIONEER	50.3	17.3	1.6	69.2
		Total	345.8	73.9	9.4	429.1
	2011	DIPTEROCARP	121.0	33.0	4.7	158.7
		FRUIT	51.9	12.6	3.1	67.6
		OTHERS	138.3	12.6	1.6	152.5
		PIONEER	53.4	17.3	1.6	72.3
		Total	364.6	75.4	11.0	451.1
	2012	DIPTEROCARP	116.3	29.9	6.3	152.5
		FRUIT	50.3	11.0	4.7	66.0
		OTHERS	133.6	11.0	3.1	147.7
		PIONEER	53.4	17.3	1.6	72.3
		Total	353.6	69.2	15.7	438.5
	2013	DIPTEROCARP	116.3	29.9	6.3	152.5
		FRUIT	50.3	11.0	4.7	66.0
		OTHERS	133.6	11.0	3.1	147.7
		PIONEER	53.4	17.3	1.6	72.3
		Total	353.6	69.2	15.7	438.5
	2014	DIPTEROCARP	119.4	31.4	6.3	157.2
		FRUIT	47.2	11.0	6.3	64.4
		OTHERS	125.7	14.1	3.1	143.0
		PIONEER	55.0	12.6	1.6	69.2
		Total	347.3	69.2	17.3	433.8
2015	DIPTEROCARP	119.4	28.3	9.4	157.2	
	FRUIT	45.6	12.6	6.3	64.4	
	OTHERS	122.6	17.3	3.1	143.0	
	PIONEER	55.0	12.6	1.6	69.2	
	Total	342.6	70.7	20.4	433.8	

Compartment	Year of Assessment	Species Group	Lower Canopy (stems.ha <sup>-1</sup> )	Mid Canopy (stems.ha <sup>-1</sup> )	Upper Canopy (stems.ha <sup>-1</sup> )	Total (stems.ha <sup>-1</sup> )
86	2004	DIPTEROCARP	73.9	33.0	23.6	130.5
		FRUIT	73.9	11.0	0.0	84.9
		OTHERS	198.0	9.4	6.3	213.8
		PIONEER	47.2	25.1	0.0	72.3
		Total	392.9	78.6	29.9	501.4
	2005 (Harvested)	DIPTEROCARP	56.6	29.7	15.6	101.8
		FRUIT	59.4	9.9	0.0	69.3
		OTHERS	165.5	11.3	5.7	182.5
		PIONEER	35.4	18.4	0.0	53.8
		Total	316.9	69.3	21.2	407.4
	2006	DIPTEROCARP	55.2	25.5	18.4	99.0
		FRUIT	58.0	9.9	0.0	67.9
		OTHERS	165.5	9.9	5.7	181.1
		PIONEER	35.4	17.0	0.0	52.3
		Total	314.0	62.2	24.0	400.3
	2007	DIPTEROCARP	69.3	26.9	17.0	113.2
		FRUIT	60.8	9.9	0.0	70.7
		OTHERS	168.3	8.5	4.2	181.1
		PIONEER	35.4	12.7	0.0	48.1
		Total	333.8	58.0	21.2	413.0
	2008	DIPTEROCARP	77.8	26.9	17.0	121.6
		FRUIT	62.2	11.3	0.0	73.6
		OTHERS	169.7	8.5	4.2	182.5
		PIONEER	33.9	14.1	0.0	48.1
		Total	343.7	60.8	21.2	425.8
	2009	DIPTEROCARP	79.2	26.9	17.0	123.1
		FRUIT	58.0	14.1	1.4	73.6
		OTHERS	176.8	8.5	4.2	189.5
		PIONEER	33.9	15.6	0.0	49.5
		Total	348.0	65.1	22.6	435.7
	2010	DIPTEROCARP	79.2	26.9	17.0	123.1
		FRUIT	56.6	14.1	1.4	72.1
		OTHERS	175.4	9.9	4.2	189.5
		PIONEER	32.5	17.0	0.0	49.5
		Total	343.7	67.9	22.6	434.3
	2012	DIPTEROCARP	99.0	25.5	18.4	142.9
		FRUIT	63.7	14.1	1.4	79.2
		OTHERS	189.5	9.9	4.2	203.7
		PIONEER	35.4	12.7	0.0	48.1
		Total	387.6	62.2	24.0	473.9
	2013	DIPTEROCARP	99.0	25.5	18.4	142.9
		FRUIT	63.7	14.1	1.4	79.2
OTHERS		189.5	9.9	4.2	203.7	
PIONEER		33.9	14.1	0.0	48.1	
Total		386.2	63.7	24.0	473.9	
2014	DIPTEROCARP	99.0	25.5	18.4	142.9	
	FRUIT	63.7	14.1	1.4	79.2	

		OTHERS	189.5	9.9	4.2	203.7
		PIONEER	33.9	14.1	0.0	48.1
		Total	386.2	63.7	24.0	473.9
	2015	DIPTEROCARP	99.0	25.1	17.3	141.5
		FRUIT	62.9	12.6	0.0	75.4
		OTHERS	190.2	11.0	4.7	205.9
		PIONEER	29.9	14.1	1.6	45.6
		Total	381.9	62.9	23.6	468.4

Compartment	Year of Assessment	Species Group	Lower Canopy (stems.ha <sup>-1</sup> )	Mid Canopy (stems.ha <sup>-1</sup> )	Upper Canopy (stems.ha <sup>-1</sup> )	Total (stems.ha <sup>-1</sup> )
12	2003 (Harvested)	DIPTEROCARP	102.2	28.3	18.9	149.3
		FRUIT	94.3	14.1	1.6	110.0
		OTHERS	215.3	18.9	4.7	238.9
		PIONEER	36.1	9.4	1.6	47.2
		Total	447.9	70.7	26.7	545.4
	2004	DIPTEROCARP	97.4	29.9	17.3	144.6
		FRUIT	83.3	15.7	1.6	100.6
		OTHERS	198.0	17.3	6.3	221.6
		PIONEER	28.3	12.6	1.6	42.4
		Total	407.1	75.4	26.7	509.2
	2005	DIPTEROCARP	95.9	31.4	15.7	143.0
		FRUIT	83.3	15.7	1.6	100.6
		OTHERS	194.9	17.3	6.3	218.5
		PIONEER	25.1	12.6	1.6	39.3
		Total	399.2	77.0	25.1	501.4
	2006	DIPTEROCARP	94.3	33.0	15.7	143.0
		FRUIT	83.3	15.7	1.6	100.6
		OTHERS	193.3	18.9	6.3	218.5
		PIONEER	25.1	12.6	1.6	39.3
		Total	396.1	80.2	25.1	501.4
	2007	DIPTEROCARP	95.9	33.0	15.7	144.6
		FRUIT	83.3	15.7	1.6	100.6
		OTHERS	194.9	23.6	6.3	224.8
		PIONEER	25.1	12.6	1.6	39.3
		Total	399.2	84.9	25.1	509.2
	2008	DIPTEROCARP	95.9	33.0	15.7	144.6
		FRUIT	83.3	15.7	1.6	100.6
		OTHERS	193.3	23.6	6.3	223.2
		PIONEER	25.1	12.6	1.6	39.3
		Total	397.6	84.9	25.1	507.7
	2009	DIPTEROCARP	97.4	31.4	17.3	146.2
		FRUIT	83.3	15.7	1.6	100.6
		OTHERS	196.5	23.6	6.3	226.3
		PIONEER	25.1	12.6	1.6	39.3
		Total	402.4	83.3	26.7	512.4
	2010	DIPTEROCARP	97.4	31.4	17.3	146.2
		FRUIT	83.3	15.7	1.6	100.6
		OTHERS	196.5	23.6	6.3	226.3
		PIONEER	25.1	12.6	1.6	39.3
		Total	402.4	83.3	26.7	512.4
	2012	DIPTEROCARP	106.9	34.6	17.3	158.7
		FRUIT	88.0	14.1	1.6	103.7
OTHERS		212.2	22.0	4.7	238.9	
PIONEER		29.9	12.6	0.0	42.4	
Total		436.9	83.3	23.6	543.8	
2013	DIPTEROCARP	106.9	34.6	17.3	158.7	
	FRUIT	88.0	14.1	1.6	103.7	

		OTHERS	212.2	22.0	4.7	238.9
		PIONEER	29.9	12.6	0.0	42.4
		Total	436.9	83.3	23.6	543.8
	2014	DIPTEROCARP	106.9	34.6	17.3	158.7
		FRUIT	88.0	14.1	1.6	103.7
		OTHERS	212.2	22.0	4.7	238.9
		PIONEER	29.9	12.6	0.0	42.4
		Total	436.9	83.3	23.6	543.8
	2015	DIPTEROCARP	100.6	36.1	18.9	155.6
		FRUIT	80.2	15.7	1.6	97.4
		OTHERS	193.3	23.6	4.7	221.6
		PIONEER	23.6	12.6	0.0	36.1
		Total	397.6	88.0	25.1	510.8

Compartment	Year of Assessment	Species Group	Lower Canopy (stems.ha <sup>-1</sup> )	Mid Canopy (stems.ha <sup>-1</sup> )	Upper Canopy (stems.ha <sup>-1</sup> )	Total (stems.ha <sup>-1</sup> )
33	2002	DIPTEROCARP	94.3	31.4	12.6	138.3
		FRUIT	64.4	12.6	3.1	80.2
		OTHERS	124.2	14.1	1.6	139.9
		PIONEER	44.0	23.6	0.0	67.6
		Total	326.9	81.7	17.3	425.9
	2003 (Harvested)	DIPTEROCARP	77.0	23.6	6.3	106.9
		FRUIT	55.0	14.1	3.1	72.3
		OTHERS	113.2	14.1	1.6	128.9
		PIONEER	36.1	20.4	0.0	56.6
		Total	281.3	72.3	11.0	364.6
	2004	DIPTEROCARP	77.0	23.6	6.3	106.9
		FRUIT	53.4	14.1	3.1	70.7
		OTHERS	113.2	12.6	1.6	127.3
		PIONEER	36.1	20.4	0.0	56.6
		Total	279.8	70.7	11.0	361.5
	2005	DIPTEROCARP	73.9	23.6	6.3	103.7
		FRUIT	53.4	14.1	3.1	70.7
		OTHERS	113.2	12.6	1.6	127.3
		PIONEER	34.6	20.4	0.0	55.0
		Total	275.0	70.7	11.0	356.8
	2006	DIPTEROCARP	84.9	22.0	7.9	114.7
		FRUIT	66.0	12.6	3.1	81.7
		OTHERS	130.5	11.0	3.1	144.6
		PIONEER	42.4	20.4	0.0	62.9
		Total	323.8	66.0	14.1	403.9
	2007	DIPTEROCARP	84.9	22.0	7.9	114.7
		FRUIT	64.4	14.1	3.1	81.7
		OTHERS	130.5	11.0	3.1	144.6
		PIONEER	40.9	22.0	0.0	62.9
		Total	320.6	69.2	14.1	403.9
	2008	DIPTEROCARP	88.0	23.6	9.4	121.0
		FRUIT	64.4	17.3	3.1	84.9
		OTHERS	138.3	14.1	3.1	155.6
		PIONEER	45.6	22.0	0.0	67.6
		Total	336.3	77.0	15.7	429.1
	2009	DIPTEROCARP	88.0	23.6	9.4	121.0
		FRUIT	62.9	18.9	3.1	84.9
		OTHERS	139.9	12.6	3.1	155.6
		PIONEER	45.6	22.0	0.0	67.6
		Total	336.3	77.0	15.7	429.1
2010	DIPTEROCARP	86.4	23.6	11.0	121.0	
	FRUIT	62.9	18.9	3.1	84.9	
	OTHERS	139.9	12.6	3.1	155.6	
	PIONEER	45.6	22.0	0.0	67.6	
	Total	334.8	77.0	17.3	429.1	
2012	DIPTEROCARP	89.6	25.1	11.0	125.7	

		FRUIT	59.7	20.4	3.1	83.3
		OTHERS	143.0	12.6	3.1	158.7
		PIONEER	44.0	20.4	1.6	66.0
		Total	336.3	78.6	18.9	433.8
	2013	DIPTEROCARP	89.6	25.1	11.0	125.7
		FRUIT	59.7	20.4	3.1	83.3
		OTHERS	143.0	12.6	3.1	158.7
		PIONEER	44.0	20.4	1.6	66.0
		Total	336.3	78.6	18.9	433.8
	2014	DIPTEROCARP	89.6	25.1	11.0	125.7
		FRUIT	59.7	20.4	3.1	83.3
		OTHERS	143.0	12.6	3.1	158.7
		PIONEER	44.0	20.4	1.6	66.0
		Total	336.3	78.6	18.9	433.8
	2015	DIPTEROCARP	89.6	25.1	11.0	125.7
		FRUIT	59.7	20.4	3.1	83.3
		OTHERS	141.5	12.6	3.1	157.2
		PIONEER	44.0	20.4	1.6	66.0
		Total	334.8	78.6	18.9	432.2



Compartment	Year of Assessment	Species Group	Lower Canopy (stems.ha <sup>-1</sup> )	Mid Canopy (stems.ha <sup>-1</sup> )	Upper Canopy (stems.ha <sup>-1</sup> )	Total (stems.ha <sup>-1</sup> )
25	2002	DIPTEROCARP	90.5	26.9	18.4	135.8
		FRUIT	79.2	11.3	2.8	93.4
		OTHERS	141.5	12.7	2.8	157.0
		PIONEER	49.5	11.3	1.4	62.2
		Total	360.7	62.2	25.5	448.4
	2003 (Harvested)	DIPTEROCARP	72.3	25.1	15.7	113.2
		FRUIT	66.0	11.0	3.1	80.2
		OTHERS	108.4	9.4	3.1	121.0
		PIONEER	51.9	11.0	0.0	62.9
		Total	298.6	56.6	22.0	377.2
	2004	DIPTEROCARP	67.6	28.3	15.7	111.6
		FRUIT	62.9	12.6	3.1	78.6
		OTHERS	106.9	7.9	3.1	117.9
		PIONEER	48.7	12.6	0.0	61.3
		Total	286.0	61.3	22.0	369.3
	2005	DIPTEROCARP	64.4	29.9	17.3	111.6
		FRUIT	62.9	11.0	3.1	77.0
		OTHERS	106.9	7.9	3.1	117.9
		PIONEER	48.7	12.6	0.0	61.3
		Total	282.9	61.3	23.6	367.8
	2006	DIPTEROCARP	92.7	36.1	17.3	146.2
		FRUIT	91.2	12.6	3.1	106.9
		OTHERS	179.2	7.9	1.6	188.6
		PIONEER	81.7	12.6	0.0	94.3
		Total	444.8	69.2	22.0	535.9
	2007	DIPTEROCARP	86.4	37.7	15.7	139.9
		FRUIT	88.0	14.1	1.6	103.7
		OTHERS	182.3	7.9	1.6	191.7
		PIONEER	81.7	14.1	0.0	95.9
		Total	438.5	73.9	18.9	531.2
	2008	DIPTEROCARP	88.0	37.7	15.7	141.5
		FRUIT	88.0	14.1	1.6	103.7
OTHERS		191.7	7.9	1.6	201.2	
PIONEER		84.9	14.1	0.0	99.0	
Total		452.6	73.9	18.9	545.4	
2009	DIPTEROCARP	86.4	33.0	17.3	136.7	
	FRUIT	84.9	14.1	1.6	100.6	
	OTHERS	182.3	9.4	1.6	193.3	
	PIONEER	84.9	15.7	0.0	100.6	
	Total	438.5	72.3	20.4	531.2	
2010	DIPTEROCARP	86.4	33.0	17.3	136.7	
	FRUIT	84.9	14.1	1.6	100.6	
	OTHERS	182.3	9.4	1.6	193.3	
	PIONEER	84.9	15.7	0.0	100.6	
	Total	438.5	72.3	20.4	531.2	
2012	DIPTEROCARP	88.0	34.6	20.4	143.0	

		FRUIT	83.3	14.1	1.6	99.0
		OTHERS	182.3	12.6	1.6	196.5
		PIONEER	75.4	17.3	0.0	92.7
		Total	429.1	78.6	23.6	531.2
	2013	DIPTEROCARP	88.0	34.6	20.4	143.0
		FRUIT	83.3	14.1	1.6	99.0
		OTHERS	182.3	12.6	1.6	196.5
		PIONEER	75.4	17.3	0.0	92.7
		Total	429.1	78.6	23.6	531.2
	2014	DIPTEROCARP	88.0	34.6	20.4	143.0
		FRUIT	83.3	14.1	1.6	99.0
		OTHERS	182.3	12.6	1.6	196.5
		PIONEER	75.4	17.3	0.0	92.7
		Total	429.1	78.6	23.6	531.2
	2015	DIPTEROCARP	88.0	34.6	20.4	143.0
		FRUIT	83.3	14.1	1.6	99.0
		OTHERS	182.3	12.6	1.6	196.5
		PIONEER	75.4	17.3	0.0	92.7
		Total	429.1	78.6	23.6	531.2

**Volume increment for measured stands (All Species).**

Compartment No.	YEAR															**MAI m <sup>3</sup> /ha
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2018	
<b>12</b>	-	353.0	348.8	348.9	354.6	364.2	367.6	375.2	379.6	-	357.8	358.4	359.0	364.8	-	0.90
<b>25</b>	-	295.8	303.1	311.7	320.0	320.9	323.9	341.6	344.1	-	389.5	390.0	390.6	390.9	-	7.32
<b>33</b>	-	222.4	229.0	236.5	243.7	252.3	271.4	274.5	277.1	-	296.6	297.1	297.5	303.4	-	6.23
<b>69</b>	-	-	-	-	-	-	-	-	230.3	241.8	249.0	249.8	250.0	267.2	-	6.14
<b>86</b>	-	-	-	317.9	316.9	290.3	305.2	323.8	324.6	-	343.5	344.0	344.6	351.3	-	3.04
<b>58(49)</b>	-	-	-	-	-	-	-	323.8	-	-	344.2	344.9	362.6	362.6	420.1	6.47
<b>**STAND MEAN</b>															<b>5.02</b>	

Note: \*\* Based on calculated increments up to year 2015

**Volume increment for measured tree >60cm diameter at breast height (All Species).**

Compartment No.	YEAR															**MAI m <sup>3</sup> /ha
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2018	
<b>25</b>	-	202.2	209.7	221.7	210.6	227.3	227.4	249.8	250.2	-	257.6	257.6	257.6	257.6	-	4.3
<b>33</b>	-	86.9	178.9	175.1	174.6	178.8	107.9	184.8	186.9	-	116.6	160.5	116.6	167.2	-	6.2
<b>12</b>	-	178.2	178.9	175.1	174.6	178.8	179.3	184.8	186.9	-	160.5	160.5	160.5	167.2	-	-0.9
<b>86</b>	-	-	-	222.7	209.9	185.3	192.1	206.7	205.3	-	216.2	216.2	216.2	235.6	-	1.2
<b>69</b>	-	-	-	-	-	-	-	-	97.0	98.3	95.6	95.7	92.5	105.5	-	1.4
<b>58(49)</b>	-	-	-	-	-	-	-	85.7	-	-	96.5	96.5	112.1	125.7	167.2	6.7
<b>**MEAN FOR TREE &gt; 60cm DBH</b>															<b>3.15</b>	

Note: \*\* Based on calculated increments up to year 2015



