

## **APPENDIX 3.1.1.6**

### **DUNKWA-ON-OFIN CLIMATIC DATA**

Dunkwa: Rainfall (1979-2008)														
Year	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Total	Mean Annual
1979	20.1	3.5	130.2	209.4	168.7	219.9	232.7	123.1	416.2	195.9	-	8.1	1727.8	157.1
1980	7.4	87.3	94.4	109.6	213.4	216.0	66.0	136.4	279.1	177.8	167.1	21.7	1576.2	131.4
1981	0.0	56.6	178.0	256.1	284.9	288.6	126.2	80.2	121.7	228.1	84.0	20.4	1724.8	143.7
1982	0.0	37.4	175.6	161.1	216.1	186.5	121.7	42.9	4.7	166.6	48.0	1.3	1161.9	96.8
1983	0.0	21.4	17.0	197.9	196.4	222.7	32.1	14.5	169.5	51.8	53.0	94.9	1071.2	89.3
1984	1.8	21.6	128.4	207.2	265.7	209.3	225.5	207.8	214.2	240.8	32.0	74.7	1829.0	152.4
1985	34.0	59.2	162.3	70.8	124.9	179.3	259.2	150.4	166.8	179.2	81.5	12.0	1479.6	123.3
1986	1.1	70.6	153.9	142.7	222.2	--	--	-	276.4	108.7	64.2	0.0	1039.8	115.5
1987	20.1	58.9	169.0	75.3	175.3	272.7	151.4	187.8	280.8	156.5	56.3	22.8	1626.9	135.6
1988	0.0	95.2	179.2	118.0	154.6	256.7	118.8	114.0	293.4	152.1	79.5	29.3	1590.8	132.6
1989	0.0	0.0	95.0	121.6	167.1	292.0	251.7	108.8	171.3	188.6	40.4	17.2	1453.7	121.1
1990	0.0	80.9	9.7	190.6	176.5	223.0	117.5	11.7	250.7	150.3	71.7	140.1	1422.7	118.6
1991	22.7	51.2	178.0	169.1	215.3	164.5	131.0	194.3	55.1	129.3	29.6	0.0	1340.1	111.7
1992	0.0	0.7	105.9	177.4	254.0	128.3	108.5	20.3	108.7	111.0	132.8	25.4	1173.0	97.8
1993	0.0	36.7	245.9	159.3	54.5	313.2	194.8	32.2	184.9	244.0	150.2	32.7	1648.4	137.4
1994	52.4	24.6	116.4	362.0	158.0	126.2	106.9	82.2	52.4	365.9	58.1	0.0	1505.1	125.4
1995	1.4	0.0	132.9	164.4	226.4	110.8	199.9	68.8	61.1	131.4	-	87.5	1184.6	107.7
1996	26.4	148.3	134.1	133.5	285.5	268.6	139.9	159.7	76.2	163.3	41.1	33.5	1610.1	134.2
1997	64.9	7.7	111.4	271.1	134.6	356.2	53.8	103.4	75.8	94.5	74.9	95.3	1443.6	120.3
1998	59.4	42.1	108.2	158.1	222.7	113.5	63.6	33.8	54.2	181.1	72.5	22.7	1131.9	94.3
1999	15.7	86.3	175.9	214.8	151.2	223.6	179.2	224.1	203.5	223.5	63.0	65.9	1826.7	152.2
2000	54.1	52.5	39.4	88.6	129.2	167.0	69.5	179.4	73.2	66.1	31.8	0.4	951.2	79.3
2001	18.8	34.8	158.6	229.3	99.5	415.8	134.5	25.1	75.0	158.4	74.4	41.1	1465.3	122.1
2002	0.6	54.4	120.4	159.5	161.6	220.2	358.4	89.7	108.3	232.0	117.0	27.8	1649.9	137.5
2003	23.0	56.6	68.7	219.7	110.4	229.7	50.5	58.0	74.5	266.0	200.0	81.8	1438.9	119.9
2004	10.7	124.0	101.8	81.8	219.6	43.4	121.1	75.7	367.1	159.5	115.1	29.7	1449.5	120.8
2005	8.1	25.5	160.6	156.2	159.5	169.0	55.3	26.4	99.4	186.7	76.7	0.8	1124.2	93.7
2006	73.7	66.5	179.3	172.7	257.8	189.1	111.8	32.7	232.8	228.1	41.7	121.4	1707.6	142.3
2007	8.3	14.5	89.4	246.0	181.2	179.1	135.9	112.0	234.4	277.1	105.3	14.1	1597.3	133.1
2008	0.0	51.2	158.0	59.3	255.8	274.3	140.6	148.3	126.9	234.0	57.6	71.4	1577.4	131.5
<b>Mean</b>	<b>17.5</b>	<b>49.0</b>	<b>129.3</b>	<b>169.4</b>	<b>188.1</b>	<b>215.8</b>	<b>139.9</b>	<b>98.1</b>	<b>163.6</b>	<b>181.6</b>	<b>79.3</b>	<b>39.8</b>	<b>1451.0</b>	<b>122.6</b>
<b>Min</b>	<b>0.0</b>	<b>0.0</b>	<b>9.7</b>	<b>59.3</b>	<b>54.5</b>	<b>43.4</b>	<b>32.1</b>	<b>11.7</b>	<b>4.7</b>	<b>51.8</b>	<b>29.6</b>	<b>0.0</b>	<b>951.2</b>	<b>79.3</b>
<b>Max</b>	<b>73.7</b>	<b>148.3</b>	<b>245.9</b>	<b>362.0</b>	<b>285.5</b>	<b>415.8</b>	<b>358.4</b>	<b>224.1</b>	<b>416.2</b>	<b>365.9</b>	<b>200.0</b>	<b>140.1</b>	<b>1829.0</b>	<b>157.1</b>

Dunkwa: Rain Days (1979-2008)													
Year	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec	Total
1979	3	2	9	14	14	21	23	18	26	17	-	1	148
1980	2	6	16	11	16	20	10	16	16	15	12	4	144
1981	0	8	11	14	17	16	18	12	12	15	10	4	137
1982	0	4	12	8	15	21	14	12	7	16	6	2	117
1983	0	5	3	17	17	18	7	4	13	8	5	5	102
1984	1	3	14	15	16	14	13	11	11	16	4	4	122
1985	4	5	10	7	12	14	15	16	14	12	11	3	123
1986	2	7	9	15	16	0	0	0	15	14	9	0	87
1987	2	6	10	9	16	20	15	20	24	19	7	2	150
1988	0	4	9	7	13	16	13	16	21	17	9	2	127
1989	0	0	11	13	13	18	15	19	18	19	6	5	137
1990	0	6	4	9	13	18	11	9	17	13	8	9	117
1991	4	6	14	10	19	19	15	20	14	11	7	0	139
1992	0	1	6	11	19	14	19	8	17	15	10	3	123
1993	0	4	14	10	13	16	15	16	17	18	10	5	138
1994	4	5	8	13	16	15	16	15	23	20	6	0	141
1995	0	0	11	8	16	15	19	24	14	16	0	6	129
1996	3	10	9	9	15	20	19	25	15	22	5	4	156
1997	3	1	9	15	16	23	11	15	11	14	10	7	135
1998	2	5	6	11	13	15	13	18	13	17	7	4	124
1999	5	7	9	13	20	17	15	15	18	15	15	3	152
2000	3	3	6	8	14	21	11	15	14	13	4	1	113
2001	1	1	15	10	14	16	16	12	13	10	5	2	115
2002	1	3	11	10	16	12	24	11	13	18	13	3	135
2003	2	5	8	16	11	21	8	12	16	23	12	4	138
2004	3	8	10	8	18	11	13	18	17	16	14	3	139
2005	1	7	9	11	12	11	6	8	12	19	10	1	107
2006	3	6	12	10	17	14	11	9	17	20	4	3	126
2007	1	4	4	15	15	19	13	12	18	18	12	4	135
2008	0	4	12	12	11	15	16	13	14	16	5	7	125
Mean	2	5	10	11	15	16	14	14	16	16	8	3	129
Min	0	0	3	7	11	0	0	0	7	8	0	0	87
Max	5	10	16	17	20	23	24	25	26	23	15	9	156

8: Mean Monthly Temperature °C at Dunkwa-on-Ofin (1987 – 2008)

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Mean
1987	28.5	28.5	28.3	28.5	28.1	27.3	27.0	25.1	26.4	26.8	26.9	26.3	27.3
1988	26.4	29.2	28.0	28.3	28.3	26.5	25.7	25.4	26.3	27.3	27.2	26.1	27.1
1989	26.5	28.6	28.3	28.5	27.6	26.6	26.2	25.6	25.8	26.6	27.6	26.6	27.0
1990	27.1	27.4	29.6	28.3	27.7	27.0	25.3	25.2	26.2	26.9	27.6	26.2	27.0
1991	26.4	28.4	27.5	27.7	27.4	27.3	25.9	25.4	26.7	26.3	27.0	26.9	26.9
1992	26.3	29.4	28.7	28.3	27.7	26.5	25.1	25.1	26.1	27.0	26.1	26.9	26.9
1993	26.0	28.8	27.1	27.4	28.3	27.1	25.6	25.4	26.5	27.1	27.3	26.6	26.9
1994	26.1	28.1	28.6	27.9	27.5	27.0	25.7	25.6	26.5	26.9	27.3	26.5	27.0
1995	26.3	29.4	28.4	28.6	28.3	27.3	26.6	26.6	26.9	27.1	28.1	27.2	27.6
1996	26.8	28.2	28.2	28.4	27.9	26.7	26.3	25.8	26.0	26.4	27.4	26.5	27.1
1997	26.9	27.9	28.4	27.3	27.7	26.4	25.3	25.1	26.5	27.2	27.0	26.6	26.9
1998	26.3	28.6	29.7	29.1	28.3	27.1	26.1	25.2	26.4	27.0	27.5	27.0	27.4
1999	27.5	27.5	27.9	27.8	27.3	26.8	26.0	25.6	25.7	26.3	26.9	26.7	26.8
2000	26.9	26.7	28.7	28.5	28.0	26.9	25.7	25.6	26.1	26.9	27.8	27.3	27.1
2001	27.2	28.6	28.2	28.0	28.2	27.1	26.0	25.3	25.7	27.0	27.5	27.9	27.2
2002	27.2	29.1	29.0	28.5	28.4	27.0	26.5	25.4	26.1	27.0	27.0	26.2	27.3
2003	26.9	28.9	29.1	28.4	28.3	27.0	26.6	29.5	26.9	27.5	27.3	26.3	27.7
2004	27.0	27.8	28.1	28.4	27.7	26.7	25.7	25.3	26.3	27.1	27.4	27.3	27.1
2005	25.8	29.3	28.6	28.7	28.2	26.8	25.8	25.5	26.9	27.3	27.5	27.4	27.3
2006	27.4	28.4	28.1	28.5	27.5	27.3	26.3	25.8	26.4	26.8	27.1	26.7	27.2
2007	25.3	28.7	29.2	28.5	28.1	27.0	26.1	25.7	26.4	26.5	26.6	27.0	27.1
2008	24.9	28.1	27.8	28.3	27.7	27.0	26.5	26.2	26.7	27.5	27.8	27.5	27.2
<b>Mean</b>	<b>26.6</b>	<b>28.4</b>	<b>28.4</b>	<b>28.3</b>	<b>27.9</b>	<b>26.9</b>	<b>26.0</b>	<b>25.7</b>	<b>26.3</b>	<b>26.9</b>	<b>27.3</b>	<b>26.8</b>	<b>27.1</b>
<b>Min</b>	<b>24.9</b>	<b>26.7</b>	<b>27.1</b>	<b>27.3</b>	<b>27.3</b>	<b>26.4</b>	<b>25.1</b>	<b>25.1</b>	<b>25.7</b>	<b>26.3</b>	<b>26.1</b>	<b>26.1</b>	<b>26.8</b>
<b>Max</b>	<b>28.5</b>	<b>29.4</b>	<b>29.7</b>	<b>29.1</b>	<b>28.4</b>	<b>27.3</b>	<b>27.0</b>	<b>29.5</b>	<b>26.9</b>	<b>27.5</b>	<b>28.1</b>	<b>27.9</b>	<b>27.7</b>

A4: Relative Humidity Data for Dunkwa on-Ofin (1990 – 2008)

Year	January			February			March			April			May			June		
	0600	1500	Mean	0600	1500	Mean	0600	1500	Mean	0600	1500	Mean	0600	1500	Mean	0600	1500	Mean
1990	98.0	53.0	75.5	98.0	51.0	74.5	98.0	52.0	75.0	98.0	59.0	78.5	98.0	62.0	80.0	98.0	69.0	83.5
1991	98.0	60.0	79.0	98.0	58.0	78.0	98.0	59.0	78.5	99.0	62.0	80.5	97.0	68.0	82.5	97.0	71.0	84.0
1992	95.0	41.0	68.0	97.0	49.0	73.0	96.0	54.0	75.0	95.0	60.0	77.5	98.0	70.0	84.0	97.0	70.0	83.5
1993	96.0	4.0	50.0	96.0	51.0	73.5	97.0	58.0	77.5	97.0	63.0	80.0	96.0	66.0	81.0		70.0	
1994		43.0			53.0			58.0			59.0			67.0		98.0	70.0	84.0
1995	95.0	46.0	70.5	94.0	49.0	71.5	95.0	57.0	76.0	94.0	61.0	77.5	94.0	65.0	79.5	95.0	69.0	82.0
1996	96.0	60.0	78.0	94.0	59.0	76.5	94.0	63.0	78.5	94.0	65.0	79.5	95.0	66.0	80.5	96.0	74.0	85.0
1997	93.0	63.0	78.0	93.0	51.0	72.0	94.0	60.0	77.0	94.0	63.0	78.5	94.0	68.0	81.0	94.0	76.0	85.0
1998	95.0	59.0	77.0	93.0	58.0	75.5	94.0	58.0	76.0	93.0	61.0	77.0	95.0	68.0	81.5	96.0	72.0	84.0
1999	92.0	58.0	75.0	94.0	53.0	73.5	94.0	60.0	77.0	96.0	64.0	80.0	94.0	66.0	80.0	94.0	70.0	82.0
2000	95.0	61.0	78.0	92.0	50.0	71.0	95.0	58.0	76.5	96.0	61.0	78.5	96.0	66.0	81.0	96.0	72.0	84.0
2001	96.0	58.0	77.0	94.0	49.0	71.5	96.0	61.0	78.5	96.0	62.0	79.0	96.0	68.0	82.0	96.0	70.0	83.0
2002	94.0	55.0	74.5	93.0	50.0	71.5	95.0	60.0	77.5	96.0	63.0	79.5	96.0	64.0	80.0	95.0	72.0	83.5
2003	95.0	61.0	78.0	95.0	60.0	77.5	95.0	59.0	77.0	96.0	64.0	80.0	96.0	66.0	81.0	96.0	73.0	84.5
2004	96.0	65.0	80.5	95.0	62.0	78.5	96.0	60.0	78.0	96.0	65.0	80.5	97.0	70.0	83.5	96.0	71.0	83.5
2005	94.0	59.0	76.5	95.0	60.0	77.5	95.0	61.0	78.0	96.0	68.0	82.0	96.0	71.0	83.5	95.0	76.0	85.5
2006	95.0	68.0	81.5	95.0	63.0	79.0	95.0	63.0	79.0	95.0	65.0	80.0	95.0	68.0	81.5	95.0	68.0	81.5
2007	93.0	56.0	74.5	95.0	61.0	78.0	95.0	57.0	76.0	95.0	65.0	80.0	94.0	70.0	82.0	95.0	74.0	84.5
2008	93.0	44.0	68.5	95.0	53.0	74.0	95.0	61.0	78.0	94.0	62.0	78.0	94.0	66.0	80.0	95.0	70.0	82.5

A4: Relative Humidity Data for Dunkwa on-Ofin (1990 – 2008)																		
Year	July			August			September			October			November			December		
	0600	1500	Mean	0600	1500	Mean	0600	1500	Mean	0600	1500	Mean	0600	1500	Mean	0600	1500	Mean
	99.0	78.0	88.5	99.0	75.0	87.0	98.0	71.0	84.5	98.0	66.0	82.0	98.0	63.0	80.5	98.0	66.0	82.0
	96.0	75.0	85.5	98.0	76.0	87.0	98.0	72.0	85.0	98.0	67.0	82.5	98.0	65.0	81.5	97.0	61.0	79.0
	97.0	76.0	86.5	98.0	73.0	85.5	98.0	72.0	85.0	98.0	65.0	81.5	96.0	63.0	79.5	97.0	66.0	81.5
		75.0			75.0			71.0			66.0			66.0			67.0	
	98.0	74.0	86.0	96.0	74.0	85.0	97.0	73.0	85.0	96.0	68.0	82.0	95.0	64.0	79.5	94.0	66.0	80.0
	95.0	71.0	83.0	95.0	73.0	84.0	96.0	73.0	84.5	95.0	67.0	81.0	94.0	61.0	77.5	95.0	64.0	79.5
	94.0	72.0	83.0	95.0	69.0	82.0	94.0	72.0	83.0	94.0	69.0	81.5	95.0	60.0	77.5	94.0	68.0	81.0
	95.0	75.0	85.0	95.0	74.0	84.5	95.0	70.0	82.5	95.0	66.0	80.5	94.0	63.0	78.5	96.0	70.0	83.0
	97.0	72.0	84.5	96.0	75.0	85.5	95.0	71.0	83.0	95.0	69.0	82.0	94.0	63.0	78.5	94.0	67.0	80.5
	94.0	72.0	83.0	94.0	71.0	82.5	95.0	73.0	84.0	96.0	70.0	83.0	96.0	66.0	81.0	95.0	66.0	80.5
	94.0	74.0	84.0	94.0	72.0	83.0	94.0	72.0	83.0	96.0	69.0	82.5	94.0	64.0	79.0	95.0	63.0	79.0
	96.0	76.0	86.0	94.0	75.0	84.5	96.0	73.0	84.5	95.0	69.0	82.0	96.0	65.0	80.5	96.0	65.0	80.5
	95.0	75.0	85.0	95.0	78.0	86.5	96.0	71.0	83.5	95.0	70.0	82.5	96.0	68.0	82.0	96.0	67.0	81.5
	96.0	79.0	87.5	96.0	76.0	86.0	95.0	70.0	82.5	96.0	69.0	82.5	96.0	68.0	82.0	95.0	69.0	82.0
	96.0	74.0	85.0	96.0	73.0	84.5	96.0	71.0	83.5	96.0	69.0	82.5	95.0	68.0	81.5	97.0	70.0	83.5
	96.0	78.0	87.0	94.0	76.0	85.0	95.0	70.0	82.5	95.0	72.0	83.5	95.0	65.0	80.0	95.0	67.0	81.0
	95.0	73.0	84.0	95.0	70.0	82.5	93.0	71.0	82.0	94.0	69.0	81.5	93.0	64.0	78.5	94.0	67.0	80.5
	95.0	75.0	85.0	95.0	75.0	85.0	94.0	71.0	82.5	93.0	69.0	81.0	93.0	66.0	79.5	95.0	66.0	80.5
	96.0	70.0	83.0	95.0	71.0	83.0	94.0	70.0	82.0	95.0	64.0	79.5	94.0	62.0	78.0	95.0	69.0	82.0