

## FORM 5: DATA ANALYSIS

<b>Purpose and scope of the data collected</b>	The data analysis purpose and scope covers the Ghana Cocoa Forest REDD+ Programme (GCFRP) area and is used for reference level estimates reported in the Emissions Reductions Program Document (ERPD) to the Forest Carbon Partnership Facility (FCPF).
<b>Date</b>	First exercise (16 <sup>th</sup> – 20 <sup>th</sup> December, 2019) Second exercise (3 <sup>rd</sup> – 13 <sup>th</sup> December, 2020) Third exercise (2 <sup>nd</sup> – 5 <sup>th</sup> March, 2020)
<b>Data underlying this analysis</b>	Data will be stored at the climate change unit of the forestry commission, the resources management support Centre and the, national forest monitoring system and the ICT unit. A data management and storage platform yet to be develop under the national forest monitoring system
<b>Person that completed this form</b>	Mr. Yakubu Mohammed, Mr. Thomas Gyambrah, Mr. Jacob Amoako, Mr. Frank Kwadwo Owusu, Ms. Tessia Boateng
<b>SOPs used</b>	Version 1, Version 2 and Version 3

### Data analysis

Data analysis is completed in excel and the full spreadsheet can be found here: Information on this can be requested from the Climate Change Directorate or the GIS and Mapping of the Forestry Commission.

### Strata (map) against reference classes (sample data)

Report a matrix of counts of sampling units per class in the stratification map and classes resulting from interpretation.

PLOT COUNT BY VEG ZONE			
GCFRP landscape			
vegzone	Forest	Non-forest	total
Moist evergreen	904	1219	2123
Moist semi deciduous (north west subtype)	691	1354	2045
Moist semi deciduous (south east subtype)	573	1575	2148
Wet evergreen	438	543	981
Upland evergreen	207	185	392

Non-response

PLOT COUNT BY VEG ZONE AND GRID INTENSITY					
GCFRP landscape					
vegzone	stratum	Fo	NF	(blank)	total

<b>Moist evergreen</b>	2	799	585	9	1384
<b>Moist evergreen</b>	4	105	634	5	739
<b>Moist semideciduous (north west subtype)</b>	2	647	907	3	1554
<b>Moist semideciduous (north west subtype)</b>	4	44	447	0	491
<b>Moist semideciduous (south east subtype)</b>	2	497	1046	3	1543
<b>Moist semideciduous (south east subtype)</b>	4	76	529	4	605
<b>Wet evergreen</b>	2	408	345	1	753
<b>Wet evergreen</b>	4	30	198	1	228
<b>Upland evergreen</b>	1	207	185	1	392

### Strata weights

<b>WEIGHTS PER STRATUM / EXPANSION FACTORS</b>			
<b>Strata</b>	<b>area per stratum</b>	<b>number of sample units per stratum</b>	<b>expansion factor (the area that each sample in the stratum represents)</b>
<b>Moist evergreen 2x2</b>	886,983	1384	640.88
<b>Moist evergreen 4x4</b>	945,406	739	1,279.30
<b>Moist SemiD NW 2x2</b>	962,079	1554	619.10
<b>Moist SemiD NW 4x4</b>	595,511	491	1,212.85
<b>Moist SemiD SE 2x2</b>	989,659	1543	641.39
<b>Moist SemiD SE 4x4</b>	737,423	605	1,218.88
<b>Wet evergreen 2x2</b>	457,198	753	607.17
<b>Wet evergreen 4x4</b>	277,565	228	1,217.39
<b>Upland evergreen</b>	62,601	392	159.70
<b>Total GCFRP area</b>	5,914,425	7689	

### Open forest - annual degradation (ha/year)

	Wet Evergreen	Moist Evergreen	Moist Semideciduous NW	Moist Semideciduous SE	Upland Evergreen
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2005-2014	-	128	183	64	-
2015	-	-	-	-	-
2016	-	-	-	-	-
2017	-	-	1,213	-	-
2018	-	-	-	-	-
2019	-	-	-	-	-
Closed forest - annual degradation (ha/year)					
	Wet Evergreen	Moist Evergreen	Moist Semideciduous NW	Moist Semideciduous SE	Upland Evergreen
2005-2014	304	1,153	1,354	1,270	80
2015	1,214	3,845	8,048	1,860	160
2016	-	3,202	619	641	319
2017	1,217	4,481	2,476	2,502	639
2018	607	641	1,238	-	160
2019	607	1,282	3,095	4,426	-
Open forest - uncertainty (90% CI in ha)					
	Wet Evergreen	Moist Evergreen	Moist Semideciduous NW	Moist Semideciduous SE	Upland Evergreen
2005-2014	-	210	223	105	-
2015	-	-	-	-	-
2016	-	-	-	-	-
2017	-	-	1,989	-	-
2018	-	-	-	-	-
2019	-	-	-	-	-
Closed forest - uncertainty (90% CI in ha)					
	Wet Evergreen	Moist Evergreen	Moist Semideciduous NW	Moist Semideciduous SE	Upland Evergreen
2005-2014	264	513	531	505	58
2015	1,407	2,570	3,647	2,259	262
2016	-	2,777	1,015	1,052	370
2017	1,997	3,479	2,029	2,491	522
2018	996	1,051	1,435	-	262
2019	996	1,486	2,267	3,084	-
Open forest - uncertainty (90% CI in %)					
	Wet Evergreen	Moist Evergreen	Moist Semideciduous NW	Moist Semideciduous SE	Upland Evergreen
2005-2014		1.64	1.22	1.64	
2015					
2016					
2017			1.64		
2018					
2019					

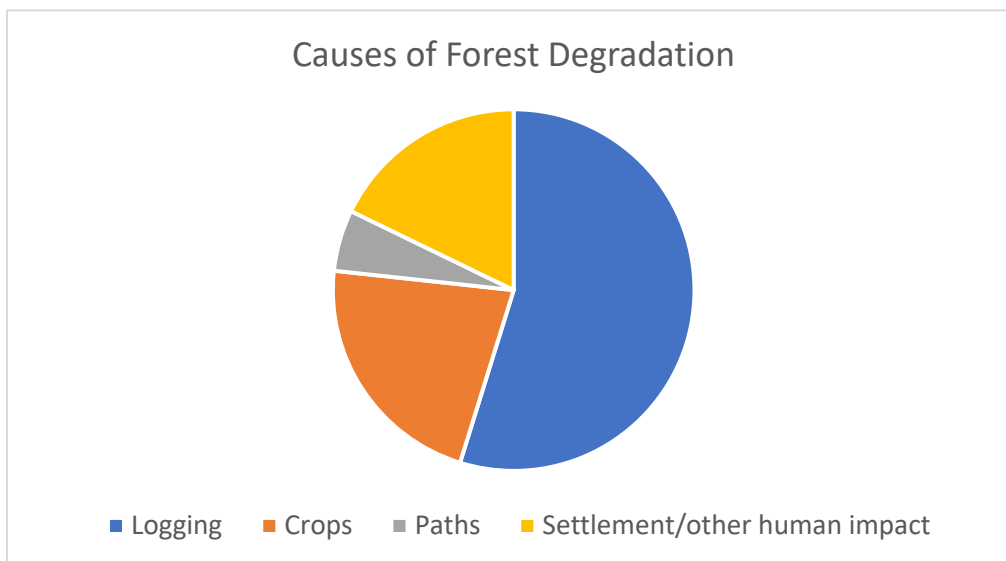
Closed forest - uncertainty (90% CI in %)					
	Wet Evergreen	Moist Evergreen	Moist Semideciduous NW	Moist Semideciduous SE	Upland Evergreen
2005-2014	0.87	0.45	0.39	0.40	0.73
2015	1.16	0.67	0.45	1.21	1.64
2016		0.87	1.64	1.64	1.16
2017	1.64	0.78	0.82	1.00	0.82
2018	1.64	1.64	1.16		1.64
2019	1.64	1.16	0.73	0.70	

Open forest - annual deforestation (ha/year)					
	Wet Evergreen	Moist Evergreen	Moist Semideciduous NW	Moist Semideciduous SE	Upland Evergreen
2005-2014	182	768	1,840	1,950	15.97
2015	607	1,282	3,070	1,860	160
2016	1,217	641	1,832	1,860	-
2017	1,217	-	1,238	1,283	160
2018	-	1,279	619	641	-
2019	-	641	-	1,283	-
Closed forest - annual deforestation (ha/year)					
	Wet Evergreen	Moist Evergreen	Moist Semideciduous NW	Moist Semideciduous SE	Upland Evergreen
2005-2014	304	1,728	1,171	1,078	159.70
2015	607	3,202	1,857	641	319
2016	-	-	1,238	-	479
2017	-	1,282	1,238	641	160
2018	-	-	1,213	1,283	160
2019	-	-	619	-	-
Open forest - uncertainty (90% CI in ha)					
	Wet Evergreen	Moist Evergreen	Moist Semideciduous NW	Moist Semideciduous SE	Upland Evergreen
2005-2014	223	491	661	667	26
2015	996	1,486	2,654	2,259	262
2016	1,997	1,051	2,233	2,259	-
2017	1,997	-	1,435	1,487	262
2018	-	2,098	1,015	1,052	-
2019	-	1,051	-	1,487	-

Closed forest - uncertainty (90% CI in ha)					
	Wet Evergreen	Moist Evergreen	Moist Semideciduous NW	Moist Semideciduous SE	Upland Evergreen
2005-2014	264	730	482	472	82
2015	996	2,777	1,757	1,052	370
2016	-	-	1,435	-	452
2017	-	1,486	1,435	1,052	262
2018	-	-	1,989	1,487	262
2019	-	-	1,015	-	-

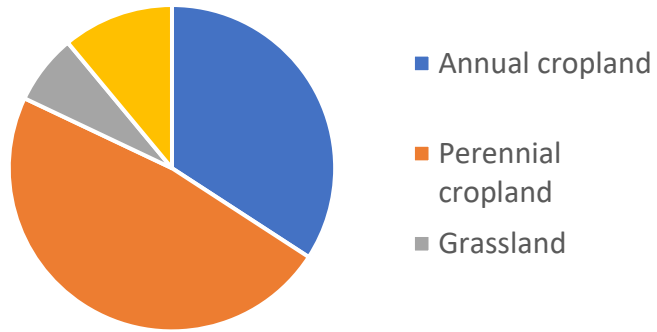
#### Additional analysis

Degradation causes	2005-2014	2015-2019
Logging	55%	66%
Crops	22%	18%
Paths	5%	3%
Settlement/other human impact	18%	13%
	100%	100%



Post-deforestation land use	Weighted average
Annual cropland	34%
Perennial cropland	48%
Grassland	7%
Settlement	11%

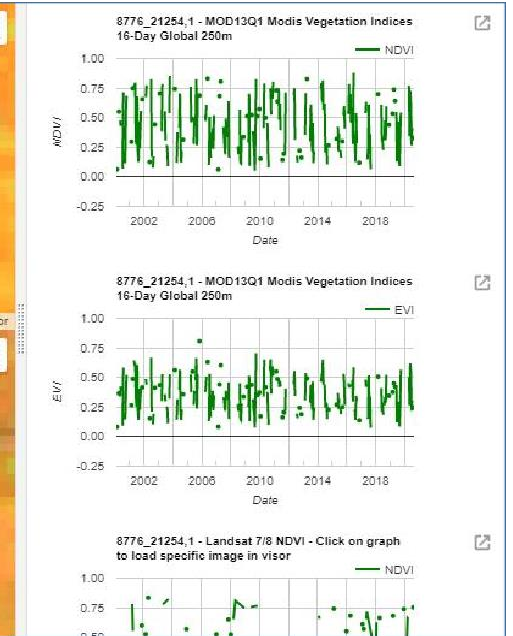
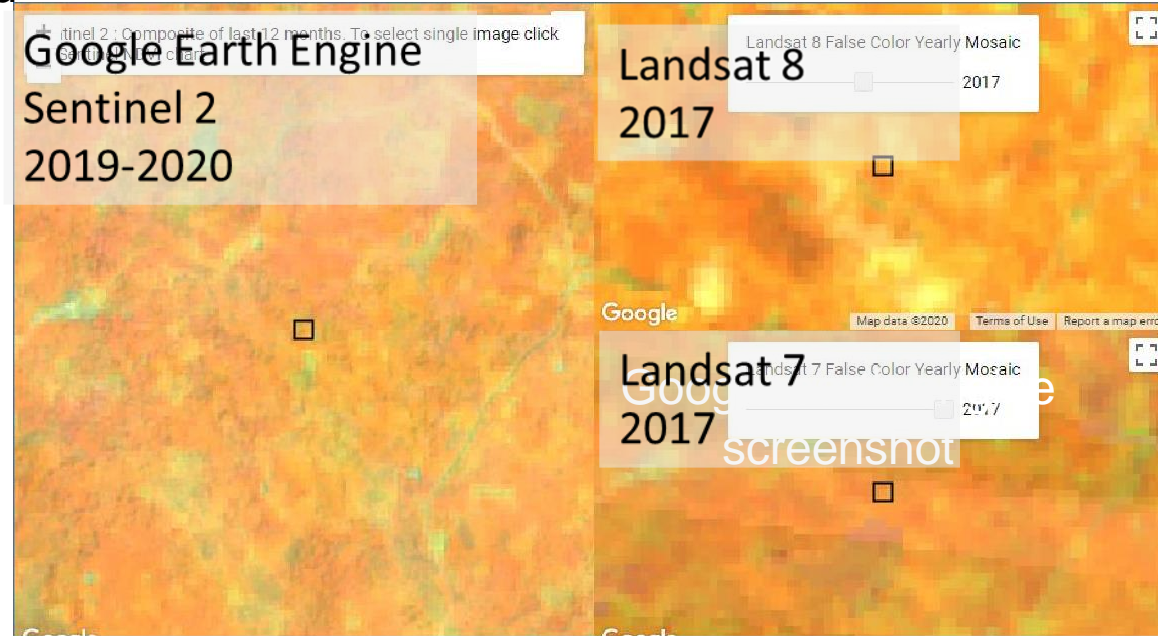
### Post-deforestation landuses



# Template Interpretation key

8776\_21254

Cropland remaining Cropland



# Template Interpretation Key

8758\_2121

Cropland remaining Cropland

