Correlations for CPO & Total Planted Area (Combined)

		Annual Average Prices of Oil Palm Products(C PO-local delivered)	Principal Statistics of Oil Palm Estates (harvested hectareage)	Principal Statistics of Oil Palm Estates (production of fresh fruit bunches)	Principal Statistics of Oil Palm Estates (yeild per hactare)	Principal Statistics of Oil Palm Estates (local delivered average price)	Principal Statistics of Oil Palm Estates (total number of worker employed)	Fresh Fruit Bunches (FFB) Yield Tonnes/ Hectare (P. Malaysia)	Fresh Fruit Bunches (FFB) Yield Tonnes/ Hectare (Sabah)	Fresh Fruit Bunches (FFB) Yield Tonnes/ Hectare (Sarawak)	Fresh Fruit Bunches (FFB) Yield Tonnes/ Hectare (Malaysia)	Total Planted Hectareage of Oil Palm (Total Area)	Agricultural land (% of land area)	Arable land (% of land area)	Employment in agriculture (% of total employment)	Fertilizer consumption (kilograms per hectare of arable land)	Forest area (sq. km)	Terrestrial protected areas (% of total surface area)	Area Und Oil Paln (Mature Immature) . Malays	Area Ur Oil Pal (Mature Immatu Saba
Annual Average Prices of Oil Palm Products(CPO-local delivered)	Pearson Correlation Sig. (2-tailed) N	1 51	.692** .000	.700** .000 51	.419** .002 51	.560** .000 51	.691** .000 51	.740** .000 51	.763** .000 51	.717** .000 51	.745** .000 51	.684** .000	.505** .000	.561** .000	.468** .001 51	.599** .000 51	.579** .000 51	.753** .000 51	183*** 100 51	
Principal Statistics of Oil Palm Estates (harvested	Pearson Correlation Sig. (2-tailed)	.692**	1	.995**	.640**	.765**	.958**	.801**	.830**	.771**	.811**	.000	.789**	.825**	.372**	.643**	.759**	.807**	908** 100	
hectareage)	N	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	
Principal Statistics of Oil Palm Estates (production of fresh fruit bunches)	Pearson Correlation Sig. (2-tailed) N	.700** .000	.995** .000	1	.636** .000	.776** .000	.971** .000	.788** .000	.820** .000	.762** .000	.799** .000	.000	.771**	.805**	.361** .009	.672** .000	.720** .000	.792** .000	101** 100	
		51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	51	
Principal Statistics of Oil Palm Estates (yeild per hactare)	Pearson Correlation Sig. (2-tailed) N	.419** .002	.640** .000	.636** .000	1 51	.598** .000	.658** .000	.403** .003	.401** .004	.399** .004 51	.406** .003	.719** .000	.664** .000	.664** .000	.634** .000	.199 .161	.440** .001	.400** .004	i33*** 100 51	
Principal Statistics of Oil Palm Estates (local delivered average price)	Pearson Correlation Sig. (2-tailed)	.560** .000	.765** .000	.776** .000	.598**	1	.846** .000	.435** .001	.468** .001	.407** .003	.447**	.771**	.570**	.561**	.238 .093	.532** .000	.391** .005	.451** .001	191** 100	
Principal Statistics of Oil	N Pearson Correlation	.691**	.958**	.971**	.658**	.846**	51 1	.690**	.736**	.662**	.705**	.956**	.717**	.733**	.345*	.724**	.612**	.698**	51	_
Palm Estates (total number of worker Fresh Fruit Bunches	Sig. (2-tailed) N Pearson Correlation	.000 51 .740**	.000 51 .801**	.000 51 .788**	.000 51 .403**	.000 51 .435**	51 .690**	.000 51	.000 51 .993**	.000 51 .988**	.000 51 .999**	.000 51 .765**	.000 51 .670**	.000 51 .742**	.013 51 .217	.000 51 .504**	.000 51 .910**	.000 51 .998**	51 349**	<u></u>
(FFB) Yield Tonnes/Hectare (P.	Sig. (2-tailed)	.000	.000	.000	.003	.001	.000	51	.000	.000	.000	.000	.000	.000	.126 51	.000	.000	.000	100	ĺ
Fresh Fruit Bunches (FFB) Yield Tonnes/Hectare (Sabah)	Pearson Correlation Sig. (2-tailed) N	.763** .000 51	.830** .000 51	.820** .000 51	.401** .004 51	.468** .001	.736** .000 51	.993** .000 51	1 51	.978** .000 51	.996** .000 51	.793** .000	.664** .000 51	.733** .000 51	.209 .141 51	.585** .000 51	.897** .000 51	.994** .000	160** 100	
Fresh Fruit Bunches (FFR) Yield	Pearson Correlation Sig. (2-tailed)	.717**	.771**	.762**	.399**	.407**	.662**	.988**	.978**	1	.988**	.731**	.652**	.729**	.224	.490**	.901**	.984**	51 129**	
Tonnes/Hectare	N	51	51	51	51	51	51	51	51	51	.000 51	51	51	51	51	51	51	51	51	
Fresh Fruit Bunches (FFB) Yield Tonnes/Hectare	Pearson Correlation Sig. (2-tailed) N	.745** .000 51	.811** .000 51	.799** .000 51	.406** .003 51	.447** .001	.705** .000 51	.999** .000 51	.996** .000 51	.988** .000 51	1 51	.775** .000 51	.671** .000 51	.742** .000 51	.216 .128 51	.526** .000 51	.910** .000 51	.998** .000	152** 100 51	
Total Planted Hectareage of Oil Palm (Total Area)	Pearson Correlation Sig. (2-tailed) N	.684** .000	.989** .000	.980** .000	.719** .000	.771** .000	.956** .000	.765** .000	.793** .000	.731** .000	.775** .000	1 51	.806** .000	.834** .000	.450** .001	.608** .000	.741** .000	.772** .000	120** 100 51	
Agricultural land (% of land area)	Pearson Correlation Sig. (2-tailed)	.505**	.789** .000	.771** .000	.664**	.570** .000	.717** .000	.670**	.664**	.652** .000	.671** .000	.806**	1	.991**	.493** .000	.435** .001	.602** .000	.665**	396** 100	
Arable land (% of land	N Pearson Correlation	.561**	.825**	.805**	.664**	.561**	.733**	51 .742**	.733**	.729**	.742**	51	.991**	51	.509**	.442**	.674**	.737**	51	_
area)	Sig. (2-tailed) N Pearson Correlation	.000 51 .468**	.000 51 .372**	.000 51 .361**	.000 51 .634**	.000 51 .238	.000 51 .345*	.000 51 .217	.000 51 .209	.000 51	.000 51	.000 51 450**	.000 51 .493**	51 .509**	.000 51	.001 51 .054	.000 51	.000 51 .213	100 51 144**	
Employment in agriculture (% of total employment)	Sig. (2-tailed)	.001	.007	.009	.000	.093 51	.013 51	.126 51	.141 51	.224 .115 51	.216 .128 51	.450 .001 51	.000	.000	51	.706 51	.221 .120 51	.133	100 51	ĺ
Fertilizer consumption (kilograms per hectare of arable land)	Pearson Correlation Sig. (2-tailed) N	.599** .000	.643** .000	.672** .000	.199 .161	.532** .000	.724** .000	.504** .000	.585** .000	.490** .000 51	.526** .000	.608** .000	.435** .001	.442** .001	.064 .706	1 51	.288* .041	.515** .000	i40** 100	
Forest area (sq. km)	Pearson Correlation Sig. (2-tailed)	.579** .000	.759** .000	.720** .000	.440** .001	.391**	.612** .000	.910** .000	.897** .000	.901** .000	.910** .000	.741**	.602** .000	.674**	.221 .120	.288* .041	1	.918** .000	51 746** 100	
Terrestrial protected areas (% of total surface	N Pearson Correlation Sig. (2-tailed)	.753** .000	.807** .000	.792** .000	.400** .004	.451** .001	.698** .000	.998** .000	.994** .000	.984** .000	.998** .000	.772** .000	.665** .000	.737** .000	.213 .133	.515** .000	.918** .000	51	51 153** 100	
area) Area Under Oil Palm	N Pearson Correlation	.000 51 .883**	.000 51 .808**	.000 51 .801**	.004 51 .633**	.001 51 .491**	.000 51 .746**	.000 51 .849**	.000 51 .860**	.000 51 .829**	.000 51 .852**	.000 51 .820**	.000 51 .696**	.757**	.133 51 .544**	.000 51 .540**	.000 51 .746**	51 .853**	51	<u> </u>
(Mature & Immature)-P. Malaysia	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000 51	.000	.000	.000	.000	.000	.000	.000	.000	51	1
Area Under Oil Palm (Mature & Immature)-Sabah	Pearson Correlation Sig. (2-tailed) N	.860** .000 51	.781** .000	.782** .000 51	.332* .017	.483** .000	.755** .000 51	.843** .000	.884** .000	.791** .000	.852** .000 51	.754** .000	.531** .000 51	.584** .000 51	.189 .183	.741** .000	.686** .000	.855** .000	167** 100	
Area Under Oil Palm (Mature &	Pearson Correlation Sig. (2-tailed)	.825** .000	.51 .596** .000	.615** .000	.142 .319	.353* .011	.617** .000	.710** .000	.764** .000	.677** .000	.722** .000	.554** .000	.317* .023	.369** .008	.062 .664	.789** .000	.496** .000	.722** .000	51 748** 100	
Immature)-Sarawak Area Under Oil Palm	N Pearson Correlation	51 .892**	.760**	51 .766**	51 .478**	51 .470**	51 .726**	51 .835**	51 .858**	51 .810**	.840**	.751**	51 .588**	51 .648**	51 .385**	.612**	.684**	51 .838**	51	<u></u>
(Mature & Immature)-Malaysia	Sig. (2-tailed) N	.000 51	.000 51	.000 51	.000 51	.001 51	.000 51	.000 51	.000 51	.000 51	.000 51	.000 51	.000 51	.000 51	.005 51	.000 51	.000 51	.000 51	100 51	
Principal Statistics of Oil Palm Estates (number of estate)	Pearson Correlation Sig. (2-tailed) N	.669** .000	.979** .000	.965** .000	.726** .000	.745** .000	.928** .000	.779** .000	.800** .000	.751** .000 51	.787** .000	.990** .000	.826** .000	.858** .000	.467** .001	.557** .000	.773** .000	.787** .000	122** 100 51	
Principal Statistics of Oil Palm Estates (planted hectareage)	Pearson Correlation Sig. (2-tailed)	.672** .000 51	.996** .000	.985** .000	.655** .000	.740** .000	.940** .000 51	.804** .000	.829** .000	.768** .000	.813** .000	.990** .000	.802** .000	.837** .000	.385** .005	.603** .000	.780** .000	.811*** .000 51	91*** 100 51	
		D1	51	51	51	51	51	51	51	01	51	51	51	D1	51	51	51	51	51	

Correlation is significant at the 0.01 level (2-tailed).
 Correlation is significant at the 0.05 level (2-tailed).

Correlations for CPO (Sep

BIVARIATE ANALYSIS FOR ALL THE VARIABLES AGAINST CPO AND TOTAL PLANTED AREA (Table has been downsized to fit the page)

Correlations

Oil Palm Products(CP-Olocal delivered)												
Prince of Coll Palm Products Products			Annual		Principal			Principal				
Palm Palm Poducts(C Products) Products(C Products) Produc												
Products Products												
Policy P								,			· ,	` '
Annual Average Prices of Oil Pearson Correlation Annual Average Prices of Oil Palm Pearson Correlation Sig. (2-tailed) Composition												
Annual Average Prices of Pearson Correlation 1 892" 700" 419" 560" 691" 740" 763" 717" 745 745 745 745 745 745 745 745 745 745												
Oil Palm Products(CP-Olocal delivered)			delivered)					employed)				` , ,
Products(CPC-local delivered) N			1	.692**	.700**	.419**	.560**	.691**	.740**	.763**	.717**	.745*
Define part		Sig. (2-tailed)		.000	.000	.002	.000	.000	.000	.000	.000	.000
Palm Estates (narvested hectareage)		N	51	51	51	51	51	51	51	51	51	51
N		Pearson Correlation	.692**	1	.995**	.640**	.765**	.958**	.801**	.830**	.771**	.811*
Principal Statistics of Oil Pearson Correlation 700** 995** 1	,	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000	.000	.000
Palm Estates (production of fresh fruit bunches)	nectareage)	N	51	51	51	51	51	51	51	51	51	51
Principal Statistics of Oil Pearson Correlation A19" A640" A660" A19" A640" A660" A19" A640" A19" A640" A19"		Pearson Correlation	.700**	.995**	1	.636**	.776**	.971**	.788**	.820**	.762**	.799*
Principal Statistics of Oil Pearson Correlation		• ,	.000	.000		.000	.000	.000	.000	.000	.000	.000
Principal Statistics of Oil Pearson Correlation	or fresh fruit buriches)	N										
Palm Estates (yeild per No			51	51	51	51	51	51	51	51	51	51
N	Principal Statistics of Oil	Pearson Correlation	.419**	.640**	.636**	1	.598**	.658**	.403**	.401**	.399**	.406*
Principal Statistics of Oil Pearson Correlation		Sig. (2-tailed)	.002	.000	.000		.000	.000	.003	.004	.004	.003
Palm Estates (local delivered average price) Sig. (2-tailed) 0.000 0.000 0.000 0.000 0.000 0.001 0.001 0.003 0.001 0.001 0.003 0.001 0.001 0.003 0.001 0.001 0.001 0.003 0.001 0.0	hactare)	N	51	51	51	51	51	51	51	51	51	51
delivered average price N	Principal Statistics of Oil	Pearson Correlation	.560**	.765**	.776**	.598**	1	.846**	.435**	.468**	.407**	.447*
Principal Statistics of Oil Pearson Correlation	Palm Estates (local	Sig. (2-tailed)	.000	.000	.000	.000		.000	.001	.001	.003	.001
Palm Estates (total Sig. (2-tailed) 0.000 0.00	delivered average price)	N	51	51	51	51	51	51	51	51	51	51
Palm Estates (total Sig. (2-tailed) .000 .0	Principal Statistics of Oil	Pearson Correlation		.958**		.658**			.690**			.705*
number of worker N 51	Palm Estates (total	Sig. (2-tailed)	000	000	000		000		000	000		
Fresh Fruit Bunches Pearson Correlation 740** 801** 788** 403** 435** 690** 1 993** 988** 999		O (,	l					51				
(FFB) Yield Sig. (2-tailed) .000 .00	Fresh Fruit Bunches	* *										
Tonnes/Hectare (P. N 51			· ·									
Fresh Fruit Bunches Pearson Correlation .763** .830** .820** .401** .468** .736** .993** 1 .978** .996		O (,	l						51			
Tonnes/Hectare (Sabah) N	Fresh Fruit Bunches	Pearson Correlation	.763**	.830**	.820**	.401**	.468**	.736**	.993**	1	.978**	.996*
Fresh Fruit Bunches Pearson Correlation .717** .771** .762** .399** .407** .662** .988** .978** 1 .988 (FFB) Yield Sig. (2-tailed) .000 .000 .000 .004 .003 .000 .000 .000 .000 Tonnes/Hectare N 51 51 51 51 51 51 51 51 51 51	(FFB) Yield	Sig. (2-tailed)	.000	.000	.000	.004	.001	.000	.000		.000	.000
(FFB) Yield Sig. (2-tailed) .000 .000 .000 .004 .003 .000 .000 .000 Tonnes/Hectare N 51	Tonnes/Hectare (Sabah)	N	51	51	51	51	51	51	51	51	51	51
Tonnes/Hectare N 51 51 51 51 51 51 51 51 51 51 51 51 51	(FFB) Yield Tonnes/Hectare	Pearson Correlation	.717**	.771**	.762**	.399**	.407**	.662**	.988**	.978**	1	.988*
(Seconds) N 51 51 51 51 51 51 51 51		Sig. (2-tailed)	.000	.000	.000	.004	.003	.000	.000	.000		.000
		N	51	51	51	51	51	51	51	51	51	51
	Fresh Fruit Bunches	Pearson Correlation	.745**	.811**	.799**	.406**	.447**	.705**	.999**	.996**	.988**	1
(FFB) Yield Sig. (2-tailed) .000 .000 .000 .000 .001 .000 .000 .00	\ ,	Sig. (2-tailed)	.000	.000	.000	.003	.001	.000	.000	.000	.000	
Tonnes/Hectare N 51 51 51 51 51 51 51 51 51 51 51		N	51	51	51	51	51	51	51	51	51	51

^{**.} Correlation is significant at the 0.01 level (2-tailed).



Correlations

						Correia								
		Total Planted Hectareage of Oil Palm (Total Area)	Agricultural land (% of land area)	Arable land (% of land area)	Employment in agriculture (% of total employment)	Fertilizer consumption (kilograms per hectare of arable land)	Forest area (sq. km)	Terrestrial protected areas (% of total surface area)	Area Under Oil Palm (Mature & Immature)-P. Malaysia	Area Under Oil Palm (Mature & Immature)- Sabah	Area Under Oil Palm (Mature & Immature)- Sarawak	Area Under Oil Palm (Mature & Immature)- Malaysia	Principal Statistics of Oil Palm Estates (number of estate)	Principal Statistics of Oil Palm Estates (planted hectareage)
Total Planted Hectareage	Pearson Correlation	1	.806**	.834**	.450**	.608**	.741**	.772**	.820**	.754**	.554**	.751**	.990**	.990**
of Oil Palm (Total Area)	Sig. (2-tailed)		.000	.000	.001	.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	51	51	51	51	51	51	51	51	51	51	51	51	51
Agricultural land (% of	Pearson Correlation	.806**	1	.991**	.493**	.435**	.602**	.665**	.696**	.531**	.317*	.588**	.826**	.802**
land area)	Sig. (2-tailed)	.000		.000	.000	.001	.000	.000	.000	.000	.023	.000	.000	.000
	N	51	51	51	51	51	51	51	51	51	51	51	51	51
Arable land (% of land	Pearson Correlation	.834**	.991**	1	.509**	.442**	.674**	.737**	.757**	.584**	.369**	.648**	.858**	.837**
area)	Sig. (2-tailed)	.000	.000		.000	.001	.000	.000	.000	.000	.008	.000	.000	.000
	N	51	51	51	51	51	51	51	51	51	51	51	51	51
Employment in agriculture	Pearson Correlation	.450**	.493**	.509**	1	.054	.221	.213	.544**	.189	.062	.385**	.467**	.385**
(% of total employment)	Sig. (2-tailed)	.001	.000	.000		.706	.120	.133	.000	.183	.664	.005	.001	.005
	N	51	51	51	51	51	51	51	51	51	51	51	51	51
Fertilizer consumption	Pearson Correlation	.608**	.435**	.442**	.054	1	.288*	.515**	.540**	.741**	.789**	.612**	.557**	.603**
(kilograms per hectare of	Sig. (2-tailed)	.000	.001	.001	.706		.041	.000	.000	.000	.000	.000	.000	.000
arable land)	N	51	51	51	51	51	51	51	51	51	51	51	51	51
Forest area (sq. km)	Pearson Correlation	.741**	.602**	.674**	.221	.288*	1	.918**	.746**	.686**	.496**	.684**	.773**	.780**
	Sig. (2-tailed)	.000	.000	.000	.120	.041		.000	.000	.000	.000	.000	.000	.000
	N	51	51	51	51	51	51	51	51	51	51	51	51	51
Terrestrial protected	Pearson Correlation	.772**	.665**	.737**	.213	.515**	.918**	1	.853**	.855**	.722**	.838**	.787**	.811**
areas (% of total surface	Sig. (2-tailed)	.000	.000	.000	.133	.000	.000		.000	.000	.000	.000	.000	.000
area)	N	51	51	51	51	51	51	51	51	51	51	51	51	51
Area Under Oil Palm	Pearson Correlation	.820**	.696**	.757**	.544**	.540**	.746**	.853**	1	.867**	.748**	.936**	.822**	.811**
(Mature & Immature)-P.	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000
Malaysia	N	51	51	51	51	51	51	51	51	51	51	51	51	51
Area Under Oil Palm	Pearson Correlation	.754**	.531**	.584**	.189	.741**	.686**	.855**	.867**	1	.945**	.919**	.723**	.772**
(Mature &	Sig. (2-tailed)	.000	.000	.000	.183	.000	.000	.000	.000		.000	.000	.000	.000
Immature)-Sabah	N	51	51	51	51	51	51	51	51	51	51	51	51	51
Area Under Oil Palm	Pearson Correlation	.554**	.317*	.369**	.062	.789**	.496**	.722**	.748**	.945**	1	.853**	.509**	.570**
(Mature &	Sig. (2-tailed)	.000	.023	.008	.664	.000	.000	.000	.000	.000		.000	.000	.000
Immature)-Sarawak	N	51	51	51	51	51	51	51	51	51	51	51	51	51
Area Under Oil Palm	Pearson Correlation	.751**	.588**	.648**	.385**	.612**	.684**	.838**	.936**	.919**	.853**	1	.735**	.753**
(Mature &	Sig. (2-tailed)	.000	.000	.000	.005	.000	.000	.000	.000	.000	.000		.000	.000
Immature)-Malaysia	N	51	51	51	51	51	51	51	51	51	51	51	51	51
Principal Statistics of Oil	Pearson Correlation	.990**	.826**	.858**	.467**	.557**	.773**	.787**	.822**	.723**	.509**	.735**	1	.985**
Palm Estates (number of	Sig. (2-tailed)	.000	.000	.000	.001	.000	.000	.000	.000	.000	.000	.000		.000
estate)	N	51	51	51	51	51	51	51	51	51	51	51	51	51
Principal Statistics of Oil	Pearson Correlation	.990**	.802**	.837**	.385**	.603**	.780**	.811**	.811**	.772**	.570**	.753**	.985**	1
Palm Estates (planted	Sig. (2-tailed)	.000	.000	.000	.005	.000	.000	.000	.000	.000	.000	.000	.000	
hectareage)	N	51	51	51	51	51	51	51	51	51	51	51	51	51

^{**.} Correlation is significant at the 0.01 level (2-tailed).

^{*} Correlation is significant at the 0.05 level (2-tailed).

List of Significant Variables for Palm Oil Price and Total Planted Area:

Palm Oil Price	Total Planted Area
Principal Statistics of Oil Palm Estates (harvested hectareage)	Agricultural land (% of land area)
Principal Statistics of Oil Palm Estates (production of fresh fruit bunches)	Arable land (% of land area)
Principal Statistics of Oil Palm Estates (local delivered average price)	Employment in agriculture (% of total employment)
Principal Statistics of Oil Palm Estates (total number of worker employed)	Fertilizer consumption (kilograms per hectare of arable land)
Principal Statistics of Oil Palm Estates (number of estate)	Forest area (sq. km)
Principal Statistics of Oil Palm Estates (yeild per hactare)	Terrestrial protected areas (% of total surface area)
Principal Statistics of Oil Palm Estates (planted hectareage)	Area Under Oil Palm (Mature & Immature)-P.Malaysia
Fresh Fruit Bunches (FFB) Yield Tonnes/Hectare (P.Malaysia)	Area Under Oil Palm (Mature & Immature)-Sabah
Fresh Fruit Bunches (FFB) Yield Tonnes/Hectare (Sabah)	Area Under Oil Palm (Mature & Immature)-Sarawak
Fresh Fruit Bunches (FFB) Yield Tonnes/Hectare (Sarawak)	Area Under Oil Palm (Mature & Immature)-Malaysia
Fresh Fruit Bunches (FFB) Yield Tonnes/Hectare (Malaysia)	Principal Statistics of Oil Palm Estates (number of estate)
Total Planted Hectareage of Oil Palm (Total Area)	Principal Statistics of Oil Palm Estates (planted hectareage)
Agricultural land (% of land area)	Principal Statistics of Oil Palm Estates (harvested hectareage)
Arable land (% of land area)	Principal Statistics of Oil Palm Estates (production of fresh fruit bunches)
Employment in agriculture (% of total employment)	Principal Statistics of Oil Palm Estates (yeild per hactare)
Fertilizer consumption (kilograms per hectare of arable land)	Principal Statistics of Oil Palm Estates (local delivered average price)
Forest area (sq. km)	Principal Statistics of Oil Palm Estates (total number of worker employed)
Terrestrial protected areas (% of total surface area)	Annual Average Prices of Oil Palm Products(CPO-local delivered)
Area Under Oil Palm (Mature & Immature)-P.Malaysia	Fresh Fruit Bunches (FFB) Yield Tonnes/Hectare (P.Malaysia)
Area Under Oil Palm (Mature & Immature)-Sabah	Fresh Fruit Bunches (FFB) Yield Tonnes/Hectare (Sabah)
Area Under Oil Palm (Mature & Immature)-Sarawak	Fresh Fruit Bunches (FFB) Yield Tonnes/Hectare (Sarawak)
Area Under Oil Palm (Mature & Immature)-Malaysia	Fresh Fruit Bunches (FFB) Yield Tonnes/Hectare (Malaysia)

Since all variables are significant at 0.01 and 0.05.

Regression

Data used to run the regression model for CPO:

Data used to run the regression for total planted area:

Palm Oil Price	Total Planted Area
Principal Statistics of Oil Palm Estates (harvested hectareage)	Agricultural land (% of land area)
Principal Statistics of Oil Palm Estates (production of fresh fruit bunches)	Arable land (% of land area)
Principal Statistics of Oil Palm Estates (total number of worker employed)	Employment in agriculture (% of total employment)
Principal Statistics of Oil Palm Estates (number of estate)	Fertilizer consumption (kilograms per hectare of arable land)
Principal Statistics of Oil Palm Estates (yeild per hactare)	Forest area (sq. km)
Principal Statistics of Oil Palm Estates (planted hectareage)	Terrestrial protected areas (% of total surface area)
Fresh Fruit Bunches (FFB) Yield Tonnes/Hectare (P.Malaysia)	Area Under Oil Palm (Mature & Immature)-P.Malaysia
Fresh Fruit Bunches (FFB) Yield Tonnes/Hectare (Sabah)	Area Under Oil Palm (Mature & Immature)-Sabah
Fresh Fruit Bunches (FFB) Yield Tonnes/Hectare (Sarawak)	Area Under Oil Palm (Mature & Immature)-Sarawak
Fresh Fruit Bunches (FFB) Yield Tonnes/Hectare (Malaysia)	Area Under Oil Palm (Mature & Immature)-Malaysia
	Principal Statistics of Oil Palm Estates (number of estate)
	Principal Statistics of Oil Palm Estates (planted hectareage)
	Principal Statistics of Oil Palm Estates (harvested hectareage)
	Principal Statistics of Oil Palm Estates (production of fresh fruit
	bunches)
	Principal Statistics of Oil Palm Estates (yeild per hactare)
	Principal Statistics of Oil Palm Estates (local delivered average price)
	Principal Statistics of Oil Palm Estates (total number of worker employed)

Total Planted Area: Enter Method

Variables Entered/Removed b									
Model	Variables Entered	Variables Removed	Method						
1		Nombrod	Monod						
	Principal								
	Statistics of Oil Palm								
	or Oil Palm Estates								
	(planted								
	hectareag								
	e),								
	Employme								
	nt in								
	agriculture								
	(% of total								
	employme								
	nt), Area								
	Under Oil								
	Palm								
	(Mature &								
	Immature)-								
	Sarawak,								
	Forest								
	area (sq.								
	km),								
	Agricultural								
	land (% of								
	land area),								
	Fertilizer								
	consumpti								
	on (1:11								
	(kilograms per								
	hectare of								
	arable								
	land), Area								
	Under Oil		Enter						
	Palm	•	Lino						
	(Mature &								
	Immature)-								
	Malaysia,								
	Area								
	Under Oil								
	Palm								
	(Mature &								
	Immature)-								
	Р.								
	Malaysia,								
	Terrestrial								
	protected								
	areas (%								
	of total								
	surface								
	area), Principal								
	Principal Statistics								
	of Oil Palm								
	Estates								
	(number of								
	estate),								
	Area								
	Under Oil								
	Palm								
	(Mature &								
	Immature)-								
	Sabah,								
	Arable								
	land (% of								

Table has been downsized to fit the page.

All requested variables entered.

Dependent Variable: Total Planted
Hectareage of Oil Palm (Total Area)

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.997 ^a	.995	.993	116794.906

- a. Predictors: (Constant), Principal Statistics of Oil Palm Estates (planted hectareage), Employment in agriculture (% of total employment), Area Under Oil Palm (Mature & Immature)-Sarawak, Forest area (sq. km), Agricultural land (% of land area), Fertilizer consumption (kilograms per hectare of arable land), Area Under Oil Palm (Mature & Immature)-Malaysia, Area Under Oil Palm (Mature & Immature)-P.Malaysia, Terrestrial protected areas (% of total surface area), Principal Statistics of Oil Palm Estates (number of estate), Area Under Oil Palm (Mature & Immature)-Sabah, Arable land (% of land area)
- b. Dependent Variable: Total Planted Hectareage of Oil Palm (Total Area)

99% or 100% of the variation in the Total Planted Hectareage of Oil Palm (Total Area) explained by the variation in the independent variables.

ANOVA b

Mode	el	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.9E+013	12	8.241E+012	604.096	.000 ^a
	Residual	5.2E+011	38	1.364E+010		
	Total	9.9E+013	50			

- a. Predictors: (Constant), Principal Statistics of Oil Palm Estates (planted hectareage), Employment in agriculture (% of total employment), Area Under Oil Palm (Mature & Immature)-Sarawak, Forest area (sq. km), Agricultural land (% of land area), Fertilizer consumption (kilograms per hectare of arable land), Area Under Oil Palm (Mature & Immature)-Malaysia, Area Under Oil Palm (Mature & Immature)-P.Malaysia, Terrestrial protected areas (% of total surface area), Principal Statistics of Oil Palm Estates (number of estate), Area Under Oil Palm (Mature & Immature)-Sabah, Arable land (% of land area)
- b. Dependent Variable: Total Planted Hectareage of Oil Palm (Total Area)

Its shows that the Regression model above are significant.

Coefficients a

		Unstandardized Coefficients			
Model	В	Std. Error	Beta	t	Sig.
1 (Constant)	-56957.4	108129.2		527	.601
Agricultural land (% of land area)	133760.0	40064.619	.545	3.339	.002
Arable land (% of land area)	-649214	187774.5	682	-3.457	.001
Employment in agriculture (% of total employment)	4214.180	2464.152	.038	1.710	.095
Fertilizer consumption (kilograms per hectare of arable land)	291.051	184.829	.062	1.575	.124
Forest area (sq. km)	305	.641	023	475	.637
Terrestrial protected areas (% of total surface area)	4171.211	11709.687	.026	.356	.724
Area Under Oil Palm (Mature & Immature)-P.Malaysia	.196	.106	.127	1.852	.072
Area Under Oil Palm (Mature & Immature)-Sabah	058	.304	020	190	.850
Area Under Oil Palm (Mature & Immature)-Sarawak	476	.669	083	711	.481
Area Under Oil Palm (Mature & Immature)-Malaysia	.024	.042	.026	.561	.578
Principal Statistics of Oil Palm Estates (number of estate)	316.092	104.140	.325	3.035	.004
Principal Statistics of Oil Palm Estates (planted hectareage)	.732	.110	.688	6.671	.000

a. Dependent Variable: Total Planted Hectareage of Oil Palm (Total Area)

Since there are only four variables (Agricultural land (% of land area), Arable land (% of land area), Principal Statistics of Oil Palm Estates (number of estate), Principal Statistics of Oil Palm Estates (planted hectareage) out of the 17 of the independent variables are significant at 0.05 level, so we have to transform the data to normalize the weightage of the variables in the model to derived more significant variables into the model.

Using Transformation (Ln):Enter Method

Variables Entered/Removed

b

Model	Variables Entered	Variables Removed	Method
1	Inplanted, Infertilizer, Inareamsi a, Inforestare a, Inagricultur al, Inemploym ent, Interrestria I, Inarable, Innumbere state, Inareasrw k, Inareapm, Inareasab ah		Enter

- a. All requested variables entered.
- b. Dependent Variable: Intotalarea

Mode

b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	1.000 ^a	.999	.999	.09981

- Predictors: (Constant), Inplanted, Infertilizer, Inareamsia, Inforestarea, Inagricultural, Inemployment, Interrestrial, Inarable, Innumberestate, Inareasrwk, Inareapm, Inareasabah
- Dependent Variable: Intotalarea

100% of the variation in the Total Planted Hectareage of Oil Palm (Total Area) explained by the variation in the independent variables.

ANOVA b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	449.701	12	37.475	3761.525	.000 ^a
	Residual	.379	38	.010		
	Total	450.080	50			

- a. Predictors: (Constant), Inplanted, Infertilizer, Inareamsia, Inforestarea, Inagricultural, Inemployment, Interrestrial, Inarable, Innumberestate, Inareasrwk, Inareapm, Inareasabah
- b. Dependent Variable: Intotalarea

The regression model are still significant after transform.

Coefficients a

		Unstandardized Coefficients			
Model	В	Std. Error	Beta	t	Sig.
1 (Constant)	.288	.136		2.121	.041
Inagricultural	.573	.124	.118	4.641	.000
Inarable	-1.423	.291	195	-4.892	.000
Inemployment	.016	.017	.008	.911	.368
Infertilizer	.025	.014	.021	1.739	.090
Inforestarea	013	.009	026	-1.504	.141
Interrestrial	.081	.062	.039	1.311	.198
Inareapm	.016	.083	.036	.197	.845
Inareasabah	.179	.181	.354	.987	.330
Inareasrwk	256	.152	462	-1.681	.101
Inareamsia	.033	.064	.073	.512	.612
Innumberestate	.330	.055	.204	5.987	.000
Inplanted	.837	.031	.828	27.138	.000

a. Dependent Variable: Intotalarea

After transformation, there are still four variables (Agricultural land (% of land area), Arable land (% of land area), Principal Statistics of Oil Palm Estates (number of estate), Principal Statistics of Oil Palm Estates (planted hectareage) out of the 17 of the independent variables are significant at 0.05 level, so its shows that this four independent variables are significantly affects the Total Planted Hectareage of Oil Palm (Total Area).

CPO REGRESSION RESULTS

Variables Entered/Removed

b

Model	Variables Entered	Variables Removed	Method
1	LNPLANT E, LNFFBSR W, LNYIELD, LNLABOR, LNPRODU C, LNNUMBE R, LNFFBSA B, LNFFBPM, LNFFBPM, LNHARVE S		Enter

- a. Tolerance = .000 limits reached.
- b. Dependent Variable: LNCPO

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	
1	.937 ^a	.879	.852	1.35383	

- a. Predictors: (Constant), LNPLANTE, LNFFBSRW, LNYIELD, LNLABOR, LNPRODUC, LNNUMBER, LNFFBSAB, LNFFBPM, LNHARVES
- b. Dependent Variable: LNCPO

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	544.709	9	60.523	33.021	.000 ^a
	Residual	75.147	41	1.833		
	Total	619.857	50			

a. Predictors: (Constant), LNPLANTE, LNFFBSRW, LNYIELD, LNLABOR, LNPRODUC, LNNUMBER, LNFFBSAB, LNFFBPM, LNHARVES

b. Dependent Variable: LNCPO

Coefficients a

		Unstandardized Coefficients		Standardized Coefficients		
Model		В	Std. Error	Beta	t	Sig.
1	(Constant)	8.324	1.120		7.434	.000
	LNHARVES	16.484	2.450	13.923	6.729	.000
	LNPRODUC	132	.108	287	-1.226	.227
	LNYIELD	7.040E-02	.523	.027	.135	.894
	LNLABOR	279	.104	392	-2.674	.011
	LNFFBPM	7.716	4.245	3.179	1.818	.076
	LNFFBSAB	-4.896	3.300	-2.079	-1.483	.146
	LNFFBSRW	-3.087	2.434	-1.178	-1.268	.212
	LNNUMBER	5.008	.877	2.636	5.710	.000
	LNPLANTE	-18.727	2.485	-15.774	-7.536	.000

a. Dependent Variable: LNCPO

Excluded Variables^b

					Partial	Collinearity Statistics
Model		Beta In	t	Sig.	Correlation	Tolerance
1	LNFFBMSI	-9.887 ^a	475	.638	075	6.943E-06

- a. Predictors in the Model: (Constant), LNPLANTE, LNFFBSRW, LNYIELD, LNLABOR, LNPRODUC, LNNUMBER, LNFFBSAB, LNFFBPM, LNHARVES
- b. Dependent Variable: LNCPO