

## Welfare Dynamics: Sustainable Rise or Fall among Cocoa Farming Households in Southwest, Nigeria

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### Introduction

In many developing countries, another fundamental problem rural farming households are faced with is how to maintain satisfactory levels of consumption (in and out of season) in the face of shocks. These shocks can affect household welfare by negatively impacting on household income. When all these mix together it results in welfare dynamism for the cocoa farming households.

### Objectives to:

- Determine welfare category lines for Cocoa Farming Households (CFHs);
- Determinants of Rise and Fall in Welfare among Cocoa Farming Households in Southwest, Nigeria.

**Methodology :** Primary data were collected with well-structured questionnaire in heavy and light cocoa seasons using multistage sampling technique. From the cocoa producing states, two states were randomly chosen which are Ondo and Oyo both representing the high and medium cocoa producing states in Nigeria (NCDC, 2010; CRIN, 2012). study made use of two point's data (panel data) that is data collected during the cocoa on-season/heavy harvest (August-January) and cocoa off-season/light harvest (February-July). After the first round of data were collected, 381 of the questionnaires were fit for analysis and recording but after the second round of data was collected among the same cocoa farming households that were used in the first round, only 366 of the household's data were fit for analysis. Data collected were subjected to descriptive analysis, Markov chain analysis and Ordered Probit analysis to achieve set objectives.

**Results:** The socioeconomic characteristics reveal that majority of cocoa farmers are males and with mean of 7.97 years of education. The mean household size, age of cocoa plantation, years of cocoa farming experience, farm size, age of CFH head in southwest Nigeria for cocoa farming households are 7 persons, 30.71 years, 28.15 years, 3.79 hectares, 54 years respectively in the study areas. The Mean per Capita Household Expenditure (MPCHHE) heavy season and light seasons are N38,818.04 and N29,194.68 respectively. Per capita household expenditures are calculated as the sum of per capita household cash expenditure on food and non-food items and the value of own produced consumption based on local market prices. For this study, welfare category lines were constructed based on the MPCHHE of sampled households in the heavy and light cocoa seasons. Most cocoa farmers work on inherited lands while the quantity harvested in heavy season is more than that of the light season but obtained better prices in the light season probably due to scarcity of the produce in light season which made the cocoa beans command better pricing. The Welfare categories are arrived at by further break-down of the nine group into three welfare categories of *No-Change in welfare category* in between the two seasons; this comprises of Low-Low, Medium-Medium and the High-High groups (remained in the same category), *Rise in Welfare* consist of the Low-Medium, Low-High and the Medium-High groups some moved from a lower level to a higher level constitutes of 21.9% of the total respondents while *Fall in Welfare* this comprise of the Medium-Low, High-Low and High-Medium for those that moved from higher to lower levels between the two seasons and it constitutes only 12.3% of the total respondents.

**Conclusion:** This study concludes that for sustainable rise in the welfare of the cocoa farming households in southwest Nigeria which is the hub of 70% production of cocoa in Nigeria, there is the need for involvement of youths and women in cocoa production; ensure new plantings are done to conquer the aging plantations and boost production; ensure stable and increased price for improved living income of farmers; ensure extension activities are stepped up to disseminate research innovations to farmers and ensure government policies are favourable to cocoa farming households in Southwest Nigeria to boost farmers income and welfare.



**Table 1: Marginal Effect Estimates of Ordered Probit for Welfare Categories**

Variables	Rise				Fall			
	dy/dx	Std. Err.	z	p-value	dy/dx	Std. Err.	z	p-value
Age	-.0023**	.00116	-1.97	0.048	.0010*	.00048	1.90	0.057
Gender	-.1133*	.06506	-1.74	0.081	.0266**	.01052	2.53	0.012
Literacy	.0470*	.02803	1.67	0.095	-.0213	.01476	-1.45	0.148
Agecoc	-.0016**	.00081	-2.01	0.044	.0007*	.00034	1.89	0.058
Farmsize	.00022	.00227	0.10	0.924	-.0001	.00091	-0.10	0.924
Assomem	-.0039	.03396	-0.12	0.908	.0016	.01339	0.12	0.908
Poaccred	-.0639**	.03155	-2.03	0.043	.0260*	.01380	1.88	0.059
Landten	.0927***	.02469	3.76	0.000	-.0611**	.02608	-2.34	0.019
Pricstable	.0820***	.02672	3.07	0.002	-.0635*	.03745	-1.70	0.090
Poorcolate	-.1068***	.03476	-3.07	0.002	.0426***	.01574	2.71	0.007
Goodharvt	.1407***	.03338	4.22	0.000	-.0747***	.02459	-3.04	0.002
Ugovtpol	-.0555**	.02733	-2.03	0.042	.0237*	.01304	1.82	0.069
Remittance	.0418	.05585	0.75	0.454	-.0132	.01415	-0.94	0.349
Extension	.0535**	.0287	1.86	0.062	-.0285	.02037	-1.40	0.162
Illdeath	.0164	.0369	0.44	0.657	-.0066	.01526	-0.44	0.664
Gdrdmkt	-.0311	.02838	-1.10	0.273	.0130	.01254	1.04	0.299

**Source:** Printout of Ordered Probit\*Significant at 10%; \*\* Significant at 5%; \*\*\* Significant at 1%