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EFFECTIVENESS OF SOCIAL PROTECTION PROGRAMME IN COCOA-PRODUCING COMMUNITIES IN IKOM AGRICULTURAL ZONE, CROSS RIVER STATE, NIGERIA

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Abstract

This study, conducted in the Ikom agricultural zone of Cross River State, Nigeria, aimed to assess the knowledge, effectiveness, and challenges of social protection programs among cocoa farmers. Using a three-stage sampling method, 144 respondents were surveyed. Data was collected using a structured questionnaire, distributed using the drop-and-collect method. The data was analyzed using means, percentages and standard deviation. Findings revealed widespread knowledge (80.6%) of social protection programs, with cash transfers being the most utilized, benefiting 91.4% of cocoa farmers. The common types of social protection programme were cash transfers (91.36%), food transfers (64.2%), public work (65.4%), and subsidies (60.5%). Existing social protection measures were effective in terms of adequacy (3.5), accessibility (3.0) and reliability (3.3). While these programs positively impacted cocoa production (3.4), household income (3.1), and food security (3.3), challenges such as irregularity of benefits (4.2) and corruption (3.9) were identified. Opportunities for improvement included increasing coverage (4.3), enhancing program adequacy (3.7), and removing intermediaries (3.9). it was recommended that awareness of social protection programs should be increased among cocoa farmers through targeted campaigns. Also, the adequacy and reliability of social protection should be enhanced by conducting regular assessments to determine the needs of cocoa farmers.
Key words: Social protection, cocoa production, farmers, effectiveness

1.0 Introduction

Climate change presents a significant threat to agricultural livelihoods worldwide, with increasing temperatures, shifting precipitation patterns, and more extreme weather events impacting agriculture and agro-ecosystems (Keutgen, 2023). However, the sensitivity of agriculture to these changes varies regionally due to diverse weather patterns, crops, and management practices. This uncertainty exacerbates the threat to food security and livelihoods, particularly in regions already experiencing food insecurity (Wimmer, 2023). Smallholder farmers, in particular, face severe challenges such as droughts, high temperatures, and reduced soil moisture content (Keutgen, 2023). Despite employing various adaptation strategies, their effectiveness is hindered by inadequate adaptive capacity and structural challenges

within the agricultural sector (Wimmer, 2023).

Among the sectors most vulnerable to climate change is cocoa production, which requires specific climatic conditions and faces numerous biophysical and socio-economic risks. Nigeria, the fourth largest cocoa producer globally, relies heavily on cocoa cultivation, with around 800,000 smallholder farmers operating in 14 states (FAO, 2015). However, these farmers encounter low productivity, poor quality, limited market access and finance, weak institutional support, and heightened exposure to climate hazards like droughts, floods, pests, and diseases.

Social protection measures, encompassing policies and programs aimed at reducing poverty, vulnerability, and inequality, have proven effective, particularly in upper-middle-income countries since 2005 (Rocha, 2023). These measures, essential for achieving universal health coverage, have demonstrated their value during crises such as the COVID-19 pandemic by mitigating economic hardship and protecting incomes and poverty levels (Oliveira et al., 2023). Access to social protection, including healthcare, is crucial for labor markets to generate productive and decent employment, thereby mitigating disruptions stemming from factors like climate change, population aging, and digitalization (Yue et al., 2023).

Moreover, social protection contributes to sustainable and inclusive food systems transformation by reducing poverty, enhancing food security and nutrition, and minimizing food loss and waste (Rana et al., 2022). In the context of cocoa farming communities, social protection can bolster resilience to climate change by addressing immediate needs and building adaptive capacity (Kosoe and Ahmed, 2022). However, effective implementation requires context-specific, participatory, and inclusive approaches to ensure coverage of vulnerable groups and address their specific needs (World Bank, 2023). Yet, social protection programs in Nigeria encounter numerous challenges, including low coverage, inadequate funding, weak institutional coordination, poor targeting and delivery mechanisms, and limited integration with climate change policies and strategies (Ladan, 2022; World Food Program (WFP), 2019). Overcoming these hurdles demands concerted efforts to enhance the design, implementation, and integration of social protection interventions into broader climate change adaptation strategies.

Cocoa production is a vital sector in Nigeria, contributing significantly to non-oil export earnings and offering employment to millions. However, climate change threatens the livelihoods of cocoa farmers and their communities, impacting yields, quality, and profitability. Social protection measures, including cash transfers and insurance schemes, can enhance resilience and adaptation to climate change by reducing poverty, inequality, and vulnerability. The case of cocoa-producing communities in Ikom agricultural LGA of Cross River State exemplifies the need for such measures due to multiple challenges exacerbated by climate change.

Therefore, in these communities, focusing on existing programs, their effectiveness in reducing vulnerability and promoting sustainable development, and the challenges and opportunities for improvement.

2.0 Objectives of the study

The broad objective of this study was to examine the social protection measures among cocoa farmers in Ikom Agricultural zone. The specific objectives were to:

i. assess farmer's knowledge of social protection programmes;
ii. identify the type of social protection program benefited by respondents;

iii. assess the effectiveness of existing social protection programme in reducing vulnerability, enhancing adaptive capacity, and promoting sustainable development among cocoa farmers;
iv. assess the impact of the social protection programs on cocoa production and household income;
v. identify the challenges faced by farmers in benefitting from social protection measures;
vi. identify suggested ways to improve the social protection measures

3.0 Methodology

This study was carried out in Ikom agricultural zone, Cross River State. The zone comprises of six (6) agricultural blocks namely: Abi, Boki, Etung, Ikom, Obubra and Yakurr. Ikom agricultural zone shares boundary with the Republic of Cameroun to the East, Obanliku and Obudu to the North, Ebonyi State to the West and Biase and Akamkpa to the South (Cross River State Geological Agency (CRSGA), 2010). It covers an approximate landmass of 16,280.02km^2 and lies at latitude $5^0$32N and $4^0$27N and between longitude $7^0$50^{0}E and $9^0$28^{0}E (CRSGA 2010), with an annual temperature range of 27^0C - 33^0C, while rainfall varies between 1500mm - 2000mm per annum (CRSGA 2010). The main economic activities in the zone are farming, fishing, hunting and trading. The major food crops produced here are cassava, yam, rice, potatoes, maize, bush mango, oil palm, vegetables, cocoyam etc.

3.1 Sampling procedure and sample size

A three-stage sampling method was adopted for this study. In the first stage, 3 blocks (Etung, Ikom and Obubra) were purposively selected based on their intensity of cocoa production. In the second stage, four (4) villages were randomly selected from each block to give a total of twelve (12) villages, used in the study. In the third stage, the Yamane (1967) formula was applied on the list of registered cocoa farmers in the selected villages, obtained from the agricultural development programme (ADP), to realize approximately 144 respondents for the study. Data was collected using structured questionnaires, employing the drop and collect method. Data generated from the study was analyzed using means, percentages and standard deviation.

4.0 Results and discussions

4.1 Farmer's knowledge of social protection programmes

Table 1: Distribution of respondents based on their knowledge of social protection programmes

Variables		Freq.	%
Awareness of social protection programs	Yes	116	80.6
	No	28	19.4
	Total	**144**	**100.0**
Source of awareness	Radio/TV	39	33.6
	Internet/social media	53	45.7
	Friends/relatives/neighbours	19	16.4
	Extension gents/ NGOs	5	4.3
	Total	**116**	**10000**
Have you benefited from any social protection program	Yes	81	56.3
	No	35	43.7
	Total	**116**	**100.0**
How often did you benefit?	Once	61	75.3
	Twice	9	11.1
	Thrice	9	11.1
	More than three-time	2	2.5
	Total	**81**	**100.0**
Level of satisfaction with the social protection program	Very satisfied	8	9.9
	Satisfied	17	20.9
	Neutral	31	38.3
	Dissatisfied	9	11.1
	Very dissatisfied	16	19.8
	Total	**81**	**100.0**
Did you pay any fee or meet any conditions to benefit from the program	Yes	10	12.4
	No	71	87.7
	Total	**81**	**100.0**

Source: Field data, 2023

Table 1 reveals that the majority (80.6%) were aware of social protection programmes, which they learned about from sources such as internet/social media (45.7%), Radio/TV (33.6%), friends/relatives/neighbours (16.4%), among others. Results in Table 1 shows that out of the 116 farmers that were aware of social protection programmes, 56.3% of them had benefited from one social programme or the other. The majority (75.3%) of them benefited just once. Additionally, 9.9% of them were very satisfied with the programmes they benefited from, 20.9% were satisfied, 11.1% were dissatisfied and 19.8% were very dissatisfied with the programme they benefited from. The results also show that the majority (87.7%) of the beneficiaries did not pay any fee to benefit from any social protection programme.

The fact that the majority (87.7%) of beneficiaries did not have to pay any fees aligns with expectations, suggesting that the social protection programs are accessible without financial

barriers. This is a positive aspect as it ensures that those in need can benefit without additional financial burden.

4.2 Type of social protection program benefited by respondents

Table 2: Distribution of respondents based on the types of social protection programmes they benefited from **(**n=81**)**

S/N	Social protection program,	Yes	%*
1.	Cash transfers (conditional or unconditional) by governments and NGOs	74	91.4
2.	Food transfers (food aid, school feeding, etc.)	52	64.2
3.	Subsidies (input subsidies, price subsidies, etc.)	49	60.5
4.	Insurance (crop insurance, health insurance, etc.)	42	51.9
5.	Public works (employment guarantee schemes, community infrastructure projects, etc.)	53	65.4
6.	Social pensions (old-age pensions, disability pensions, etc.)	45	55.6
7.	Subsidized health care and old-age pensions	34	41.9
8.	Livelihood recovery support (such as restocking of damaged cocoa farms)	37	45.7
9.	Livelihood diversification support	34	41.9
10.	labour guarantee scheme to offer free labour to cocoa farmers in times of climate disaster	24	29.6
11.	Free education for your children	25	30.9
12.	Promotion of minority rights	22	27.2
13.	Anti-discrimination campaigns	24	29.6
14.	Proactively challenging discriminatory behaviour	23	28.4
15.	Employment guarantee scheme	22	27.2
16.	Social Pensions to those whose farms were completely destroyed as a result of climate events	18	22.2
17.	Availability of free extension services to vulnerable farmers	26	32.1
18.	Price hedging to protect futures market uncertainties	24	29.6
19.	Weather–indexed insurance	10	12.4
20.	Emergency food aid	14	17.3

Source: Field data, 2023 *=multiple responses

Table 2 reveals that 91.4% of the cocoa farmers benefitted from cash transfers, 65.4% benefitted from public works, such as community infrastructure projects, 64.2% benefited from food transfers, such as food aids and school feeding, 60.5% benefitted from subsidies, such as input subsidies and price subsidies, 55.6% benefitted from social pensions, such as old age pension and disability pensions, 51.9% benefitted from insurance, such as crop insurance and health insurance.

From Table 2, only a few farmers benefitted from social protection measures such as weather-indexed insurance (12.4%), emergency food aid (17.3%), social Pensions to those whose farms were destroyed as a result of climate events (22.2%), promotion of minority rights (27.2%), employment guarantee scheme (27.2%), proactively challenging discriminatory behaviour (28.4%), anti-discrimination campaigns (29.6%), labour guarantee scheme to offer free labour to

cocoa farmers in times of climate disaster (29.6%), among others.

Table 2 provides a comprehensive overview of the types of social protection programs embraced by cocoa farmers in the study area. Analyzing the participation rates in each category can guide policymakers and stakeholders in tailoring and optimizing social protection measures better to meet the diverse needs of the farming community.

4.3 Effectiveness of existing social protection programme in reducing vulnerability, enhancing adaptive capacity, and promoting sustainable development among cocoa farmers

Table 3: Distribution of respondents based on their perception of the effectiveness of social protection measures **(n=144)**

S/N	Variables	Mean	SD
1.	Adequacy (amount or quantity of benefit)	3.5*	1.33
2.	Accessibility (ease of reaching or obtaining benefits)	3.0*	1.02
3.	Affordability (cost of benefit relative to income)	2.9	1.20
4.	Reliability (regularity and timeliness of benefit)	3.3*	1.39
5.	Relevance (suitability of benefit to needs and preferences)	1.8	0.00
6.	Sustainability (continuity and durability of benefit)	1.6	0.00
7.	There was no social protection program at all	1.7	0.00

Source: Field data, 2023 Decision rule = 3.0

The results reveal that social protection programmes were rated to be most effective in terms of adequacy (amount or quantity of benefit), with the highest mean score of 3.5 and a rank of 1st. The social protection program was also effective in terms of reliability, with a mean score of 3.31. ranking 2nd. Following this order was accessibility, with a mean score of 3.00, ranking 3rd. affordability came 4th, with a mean score of 2.9. Table 3 reveals that the relevance and sustainability of social protection measures had mean scores that are below the cut-off score of 3.0, lending credence to the fact that social protection programmes in the study area were not effective in terms of relevance to their target audience and sustainability of the programmes.

4.4 Impact of the social protection programs on cocoa production and household income

Table 4: Distribution of respondents based on their perception of the impact of social protection programmes (n=144)

S/N	Outcome	Mean	SD
1.	Cocoa production (yield and quality)	3.4*	1.19
2.	Cocoa income (price and profit)	2.6	1.11
3.	Household income (diversification and stability)	3.1*	1.12
4.	Household expenditure (consumption and investment)	2.7	1.21
5.	Household food security and nutrition (Availability and access)	3.3*	1.28

Source: Field data, 2023 Decision rule = 3.0

Table 4 presents data on the impact of social protection programmes on cocoa production and household income, among farmers in the study area. The results reveal that the social protection programme impacted cocoa yield and quality. This could be because of the cash transfers that afforded farmers the means to purchase production resources and thus, result in quality produce. This parameter had a mean score of 3.4 and ranked 1st. Results in 7 also showed that social protection programmes positively impacted the availability of and access to nutritious food, leading to household food security. This could be because of the cash transfers that may afford farmers the ability to purchase nutritious food for their households. This parameter had a mean score of 3.3 and ranked 2nd.

Furthermore, the social protection programme helped farmers to diversify household income, leading to stability. This had a mean score of 3.1 and ranked 3rd. this implies that the social protection programme enabled farmers to have multiple income sources, resulting in financial stability. These findings are similar to the findings of Boone et al. (2013), that social protection measures, such as cash transfers increase ownership of productive assets and help farmers to overcome constraints.

4.5 Challenges faced by farmers in benefitting from Social Protection Measures

Table 5: Weight of challenges faced by farmers in benefitting from social protection measures **(n=144)**

S/N	Challenges	Mean	Rank
1	Lack of awareness or information about available programs or policies	3.5*	1.57
2	Lack of eligibility or qualification for existing programs or policies	2.7	1.19

3	High cost of participating in programs or policies	2.8	1.25
4	Low quality or quantity of benefits from programs or policies	4.0*	1.38
5	Irregularity or delay of benefits from programs or policies	4.2*	1.32
6	Hijacking of program benefits by politicians and middle men	3.9*	1.35
7	Segregation based on tribe	4.2*	1.40
8	Corruption	3.9*	1.61

Source: Field data, 2023 Decision rule = 3.0

Table 5 highlights the challenges that hinder farmers from deriving maximum benefit from social protection programmes in the study area. From the result, irregularity or delay of benefits from programs or policies ranked 1st, implying that this is a critical bottleneck. Segregation based on tribe ranked 2nd, low quality or quantity of benefits from programs or policies ranked 3rd, corruption ranked 4th and hijacking of program benefits by politicians and middlemen ranked 5th.

Other challenges with lesser weights include lack of eligibility or qualification for existing programs or policies (rank = 8th), high cost of participating in programs or policies (rank =7th), and Lack of awareness or information about available programs or policies (rank = 6th). The lesser weights of these challenges imply that these challenges are not critical in the study area. This aligns with the findings of Mahendru and Tasker (2020) that social protection remains inadequate globally.

4.6 Suggested ways to improve the social protection measures

Table 6: Opportunities to increase social protection measures in the study area (n=144)

S/N	Opportunities	Mean	SD
1.	Increasing the coverage and outreach of existing programs	4.3*	1.13
2.	Enhancing the adequacy and affordability of existing programs	3.7*	1.17
3.	Improving the reliability and timeliness of existing programs	3.8*	1.31
4.	Introducing new or innovative programs that address the specific needs of farmers	3.9*	1.34
5.	Removing middlemen and agents and dealing directly with farmers	3.9*	1.41

Source: Field data, 2023 Decision rule = 3.0

Table 6 presents information on suggested opportunities to improve social protection measures in the study area. From the result, the following suggestions were proffered: increase in the coverage and outreach of existing programs (Mean = 4.3, rank = 1st), introduction of new or innovative programs that address specific needs of farmers (Mean = 3.9, rank = 2nd), removal of middlemen and agents and dealing directly with farmers (Mean = 3.9, rank =2nd), improving the reliability and timeliness of existing programs (Mean = 3.8, rank = 4th), and enhancing the adequacy and affordability of existing programs (Mean = 3.7, rank = 5th). This is similar to the report of Jackson (2020), who suggested that extending social protection to rural poor farmers reduces poverty and inequality.

5.0 Conclusion

The findings of this research highlight the crucial role of social protection measures in enhancing the resilience and adaptation of cocoa farmers to climate change impacts in the Ikom agricultural zone of Cross River State, Nigeria. Despite facing challenges such as irregularity of benefits and corruption, social protection programs have demonstrated their effectiveness in positively impacting cocoa production, household income, and food security. Cash transfers emerged as the most utilized program, benefiting a significant percentage of cocoa farmers surveyed. Opportunities for improvement, including increasing coverage, enhancing program adequacy, and removing intermediaries, were identified. Addressing these challenges and capitalizing on opportunities can optimize social protection measures, contributing to the sustainable development and resilience of cocoa-producing communities. Policymakers and stakeholders should prioritize implementing context-specific, participatory, and inclusive approaches to ensure the effective integration of social protection interventions into broader climate change adaptation strategies, ultimately benefiting vulnerable farmers and their communities.

6.0 Recommendations

1. Increase awareness of social protection programs among cocoa farmers through targeted awareness campaigns utilizing various channels such as radio, television, and community meetings. Ensure accessibility by simplifying application procedures and providing information in local languages to reach farmers in remote areas.
2. Enhance the adequacy and reliability of social protection benefits by conducting regular assessments to determine the needs of cocoa farmers. Implement measures to ensure timely and consistent delivery of benefits, minimizing delays and interruptions.
3. Establish effective coordination mechanisms among relevant government agencies, NGOs, and community stakeholders to streamline the implementation of social protection programs. Enhance monitoring and evaluation frameworks to track program effectiveness and address any gaps or inefficiencies.
4. Implement measures to enhance transparency and accountability in the management of social protection funds and resources. Establish mechanisms for community participation and feedback to ensure that programs meet the needs of cocoa farmers and are free from corruption or misuse.
5. Explore innovative approaches, such as mobile-based payment systems and weather-indexed insurance, to enhance the effectiveness and resilience of social protection measures in the face of evolving

climate change challenges. Continuously adapt programs based on feedback and lessons learned to ensure relevance and effectiveness in supporting cocoa farmers' livelihoods.

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