INDONESIAN JOURNAL OF SOCIAL AND ENVIRONMENTAL ISSUES (IJSEI)
Journal Homepage: https://ojs.literacyinstitute.org/index.php/ijsei
ISSN: 2722-1369 (Online)
Research Article

Volume 5	Issue 3	December (2024)	DOI: 10.47540/ijsei.v5i3.1616	Page: 355 – 366

Coping Strategies of Social Protection Programs for Community Resilience to Climate Shocks in Tana North Sub-County, Tana River County, Kenya

Lucy Wangui Ikumu[1], Bessy Kathambi[2], Karatu Kiemo[3]
[1]Department of Earth and Climate Sciences, University of Nairobi, Kenya
[2]Wangari Maathai Institute for Peace and Environmental Studies, University of Nairobi, Kenya
[3]Institute of Development Studies, University of Nairobi, Kenya
Corresponding Author: Lucy Wangui Ikumu; Email: ikumulucy@gmail.com

ARTICLE INFO

Keywords: Adaptation; Climate Shocks; Community Resilience; Coping Strategies.

Received : 26 August 2024
Revised : 29 December 2024
Accepted : 31 December 2024

ABSTRACT

This study examines the effectiveness of coping strategies of social protection programs in enhancing community resilience to climate shocks in Tana North Sub-County, Tana River County, Kenya. Despite its potential as a policy response, the effectiveness of social protection as a coping strategy in fostering community resilience remains underexplored. This study explores coping strategies employed by local communities and analyses the role of social protection interventions in migrating the impacts of climate-related disasters. Using a mix of qualitative and quantitative methods data was collected from 362 respondents, including surveys, interviews, and focus groups. The research finds that while these programs provide essential immediate relief and improve absorptive capacities, their impact on adaptation and long-term resilience is limited. Challenges such as inadequate coverage, irregular support, and poor integration with broader resilience-building efforts hinder their effectiveness and restrict their ability to foster community resilience to shocks. The study underscores the urgent need to identify best practices and inform policy recommendations for improving adaptation and fostering community resilience to climate shocks in the region.

INTRODUCTION

As countries continue grappling with the impacts of climate change, in particular among the vulnerable and poverty-stricken populations, adaptation has become a key driver in the global social safety policy agenda (YangLiu et al., 2020); (Bakker & van Vliet, 2019); (Ziervogel et al., 2022). Accordingly, the global climate change situation has been highlighted in the IPCC Report (2022(Art 6), warning of severe implications due to increased global warming (Wang et al., 2022); (Blythe et al., 2014); (Hallegatte et al., (2019); (Aleksandrova, 2020a); (Black et al., 2023).

Cognizant, Sub-Saharan Africa's arid regions, are facing some of the most severe and significant climate impacts on livelihoods (Béné et al., 2014); (Francesca Bastagli et al., 2019); (Godfrey-Wood & Flower, 2018). To this end, given the magnitude of climate impacts on impoverished segments of society, adaptation is crucial for dealing with climate shocks and extremes (Fazey et al., 2021); (Wilkinson & King-Okumu, 2019); (Costella et al., 2017). Moreover, addressing the devastating effects of climate change requires a holistic approach that will foster community capacity for adaptation (Haile et al., 2023); (Hallegatte et al., (2019).

Social protection policy has a long history, rooted in the recognition of social security as a fundamental human right (Jackson, 2011) This principle has been upheld by various international declarations and conventions, including those from the International Labour Organization (ILO) in 1944 and 1952, the Universal Declaration of Human Rights (1948), and the International Covenant on Economic, Social and Cultural Rights (1966). Further, guidance on establishing national social protection systems is provided by the Social Protection Floors Recommendation No. 202 and other ILO conventions (Sanchez-Gutierrez & González Alvarado, 2019); (Barbier & Hochard,

2018); (Black et al., 2023). In 2012, these efforts culminated in the launch of the Global Partnership for Universal Social Protection by the World Bank and ILO. Further, in 2016, this initiative was realized through Sustainable Development Goals (SDG no.1.3), primarily focusing on implementing social protection systems for all (Fazey et al., 2021) ;(Mackinder, 2020); (European Commission, 2019). This study adopts the World Bank's (2019) definition of social protection programs that define it as a set of interventions that are aimed at reducing poverty and vulnerabilities by mitigating exposure to risks through cash or consumption transfers (WB, 2019).

Notably, over the past two decades, various theoretical frameworks and practical approaches to social policy have evolved, including the adoption of alternative social policy paradigms, policies, and programs aimed at enhancing community adaptation and resilience to shocks (Lowe et al., 2023); (Fazey et al., 2021); (Kühne, 2020); (Garg et al., 2020); (Béné et al., 2014). Thus, social protection programs, whether they are in-kind, contributory, or non-contributory schemes, play a key role in the global resilience-building agenda, to help mitigate climate-induced disruptions and or/disasters (Devereux, 2014); (Francesca Bastagli et al., 2019); (Bilo et al., 2021); (Black et al., 2023). Meanwhile, effective social protection delivery is expected to enhance community resilience by improving household savings, promoting productive livelihoods, and boosting the local economy (Kuriakose, et al., 2018); (Frimpong, 2022); (Bastagli & Hunt, n.d.-a)

Importantly, implementing these programs can enhance resilience through social, economic, and human capital development (BRACED, 2018); Lind et al., 2022); (World B, 2019; Mackinder, 2020); (Fisher et al., 2017) and support productive livelihoods by boosting local assets and food security (Sengupta & Bailey, 2022); (Barca et al., n.d.). Further, climate-responsive social protection programs have become a significant issue in global policy debates (Tenzing; 2020); (Aleksandrova, 2020b); (Ulrichs et al., 2019), and a critical component for supporting communities in minimizing negative coping mechanisms, by reducing vulnerabilities, and helping in preparing for risks (S. M. Brooks, 2015); (Bastagli et al., 2019); (Aleksandrova, 2019); (Rachel & Summers, 2019); (Mackinder, 2020); (Brooks, 2022).

Cognizant, African states have made strides in climate adaptation using social protection strategy, through; the Ouagadougou Declaration (2004), Livingstone and Yaoundé Call for Action (2006), and African Union Social Policy Framework (2008), (Tsegay & Kenton, 2022); (Kabeer, 2015); (Devereux, 2014). However, despite recent progress, gaps in coverage, adequacy, and comprehensiveness persist in developing countries, resulting in significant disparities mainly in global social protection coverage, for instance by 2020, Latin America and the Caribbean is at 53.6%, Asia and the Pacific at 44.1%, and Africa at only 17.4% (World Bank, 2019); (Tsegay & Kenton, 2022); (Black et al., 2023). In addition, by 2020, only 46.9% of the global population had access to at least one type of social protection benefit (excluding healthcare and sickness benefits) (ILO, 2021b); Silchenko & Una, (2022); (Costella et al., 2022); (Rana et al., 2022). To address these gaps, the global social protection sector needs to have secure, adequate, and sustainable financing to help design and implement social protection policies and strategies that will help meet the UNSDG goal of "leaving no one behind", (Frimpong, 2022); (Canton, 2021); (World Bank, 2019)

Tana North sub-county is a predominantly rural area characterized by arid and semi-arid conditions, that is highly susceptible to climate shocks with remarkable impacts on the community's adaptive abilities. Despite efforts to integrate climate adaptation into social protection programs to mitigate poverty and related vulnerabilities, there lack of evidence on their effectiveness in fostering community resilience to climate change. Given the region's socioeconomic and environmental challenges, this study analyses the coping strategies of social protection programs for community resilience to climate shocks in the Tana North sub-county, Tana River County, Kenya. To fill the knowledge gap, there is a need for investigation to assess the potential of social protection programs for long-term adaptability and resilience across various livelihoods. Research in Tana North Sub-County will further inform policy in the development of effective strategies and interventions to address present and future climate-

related vulnerabilities to enhance resilience in similar regions.

MATERIALS AND METHODS

This study was conducted in Tana North (Bura), an administrative unit within Tana River County, an area characterized by high vulnerability to climate shocks, particularly droughts and floods. A cross-sectional design was used, employing multiple data collection methods, including ODK online questionnaires, key informant interviews (KIIs), community focus group discussions (FGDs), and direct observations of relevant aspects. Purposive and stratified sampling techniques were used to select a study sample of 393 households using Solvin's formula. Data were primarily qualitative, analyzed using content analysis, while quantitative data were analyzed using simple regression methods.

Tana North Sub-County is a geographically diverse region situated in arid and semi-arid lands, whose ecosystem is classified as food insecure and has always depended on emergency appeals and food aid for decades. The sub-county faces a complex interplay of factors, including climate change, poverty, and limited access to resources, making it a valuable case study for understanding the multifaceted challenges of resilience building across all livelihoods.

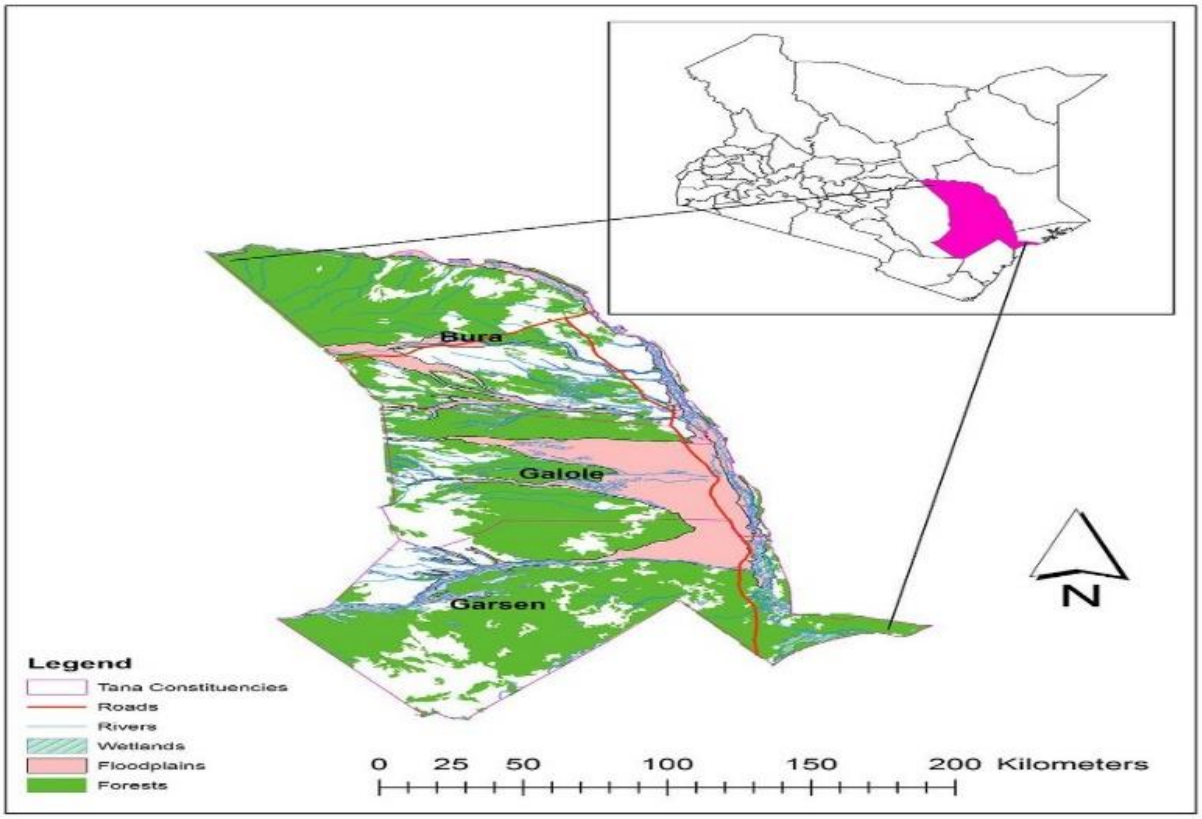

Figure 1: Map of study area uploaded by Koech Oscar in 2014, licensed under CC BY-NC-ND

RESULTS AND DISCUSSION

The study used the BRACED 3A model (Bahadur et al., n.d.) to assess the coping strategies of protection on the absorptive, adaptive, and anticipatory capacities of communities to climate shocks in the Tana North sub-county. The results analysis was derived from a selected sample of 362 respondents with a return rate of 92%. Results show that the majority (76.6%) of the respondents across livelihoods reported to have been adversely affected by at least one extreme weather condition resulting in poor livestock body condition, poor market prices, low crop yields, and high food prices, perversely increasing their dependence on negative coping mechanisms, constraining their resilience to climate shocks.

Overview of Social Protection Programs in Tana North Subcounty

According to the Kenya Social Protection Sector Report (2022), the Ministry of Labour and

Social Protection developed policy guidelines on the operationalization and governance of social protection programs. In addition, the Kenya government in collaboration with the World Bank, UN Agencies (NGOs), and Community-Based Organizations (CBOs) operating within the study area has introduced several climate-sensitive social protection programs; The Kenya Climate Smart Agriculture Project (KCSAP); Labor market programs; Weather- and Index-based Agricultural programs; Health and Nutrition programs; Water Sanitation and Hygiene programs (WASH) as well as infrastructure-based and educational transfers.

Awareness and Interaction with the Social Protection Program

Regardless of gender, results of analysis from responses on knowledge and existence of social protection programs and interaction with social protection programs in the last 24 months, show that (48.6 (%) of respondents had interacted with specific programs mainly OVC-CT and CT-OP cash transfer programs, (34.8%) of respondents knew someone who had benefited from at least one program, while (22.6%) knew of the existence of cash transfers though they never benefited. Conversely, only a small number (17.7%) of the respondents did not know about social protection programs.

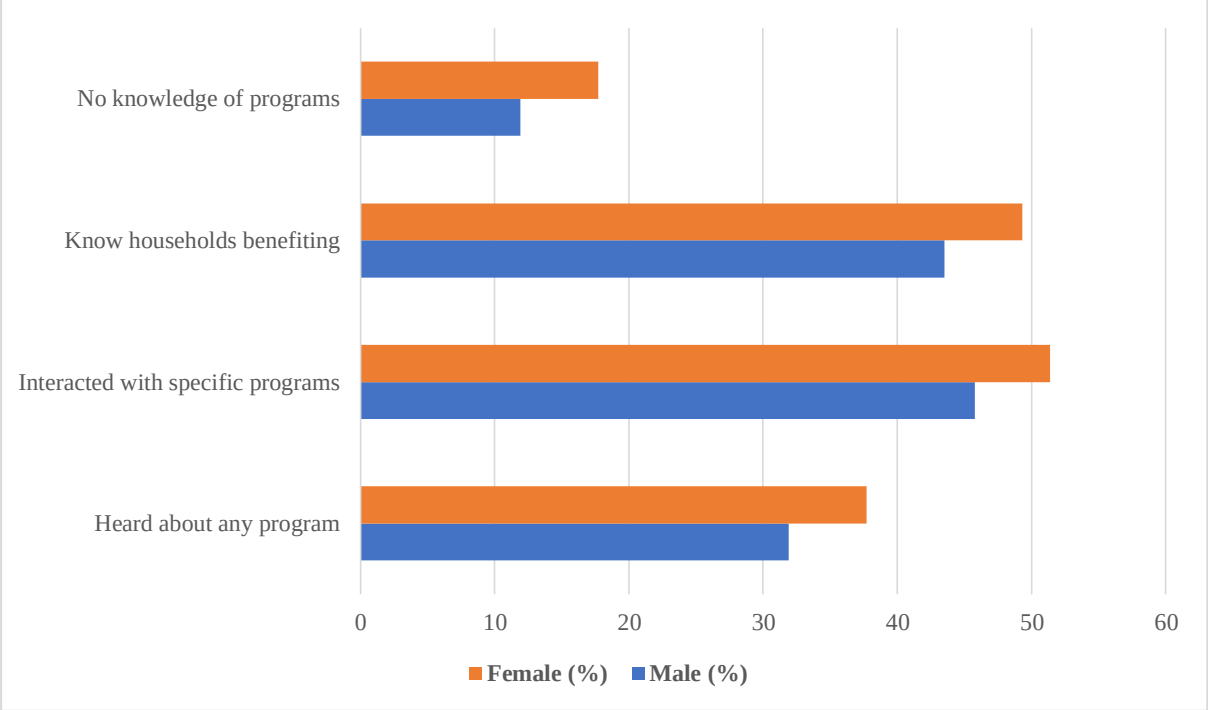

Figure 2: Awareness level and interaction with social protection

The analysis above yielded a Pearson Chi-Square (0.0079, df = 3, p = 0.999) and the p-value (0.999) is > 0.05, showing insufficient evidence to conclude a significant association between respondents' awareness categories and their interaction with social protection programs. Meanwhile, the results of the analysis of awareness levels and interaction with social protection programs among different genders are represented in percentages of each gender reporting different levels of awareness.

Table 1. Distribution of Awareness Levels and Interaction with Social Protection by Gender

Category	Male (%)	Female (%)
Heard about any program	31.9	37.7
Interacted with specific programs	45.8	51.4
Know households benefiting	43.5	49.3
No knowledge of programs	11.9	17.7

Results analysis as shown in Table 1 indicates that the mean percentage of awareness across all levels is approximately 36.15%, with a standard deviation of about 13.4%. The higher standard deviation reflects a wide range of awareness among respondents, both male and female. Confidence intervals were calculated at a 95% confidence level.

Further, results show significant gender differences in awareness and involvement with social protection programs, with female respondents generally demonstrating higher levels of awareness and greater engagement with programs compared to males. The variations in awareness levels among different categories may be influenced by factors such as the focus of outreach programs, societal roles (including caregiving responsibilities for orphaned and vulnerable children), and the diversity of information channels.

A cross-analysis tabulation was done to examine whether education level influences awareness of and interaction with social protection programs. The results presented in Figure 3 reflect the weighted averages of awareness levels across the different education categories of respondents.

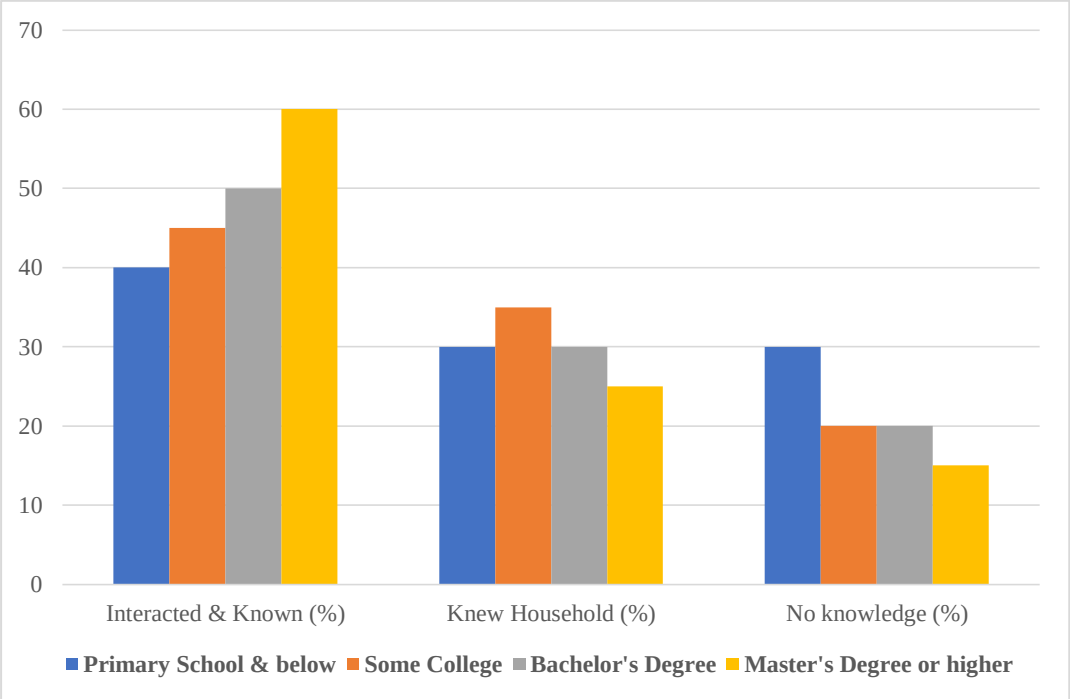

Figure 3: Awareness of Social Protection Programs by Level of Education

The analysis reveals significant variations in awareness levels of social protection programs across different education levels, for instance, higher levels of education generally correlate with higher levels of awareness regarding social protection programs. However, results show that significant proportions across all education levels did not know about these programs (ranging from 15% to 30%), suggesting some potential gaps in information dissemination or accessibility of social protection initiatives.

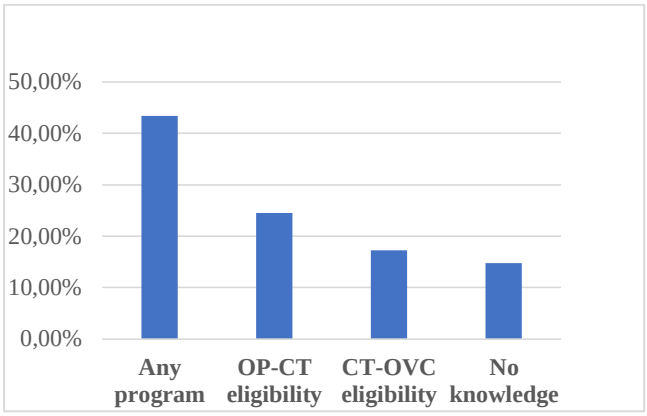

Figure 4: Knowledge of eligibility

Results illustrated in Figure 4 illustrate the percentage of respondents' awareness of eligibility for enlistment to the social protection programs. The highest level of knowledge was observed in the "Any program" category, with 43.45%, followed by "OP-CT eligibility" at 924.5%,) "CT-OVC eligibility" at (17.25%), and the lowest in the "No knowledge" category at (14.8%0, implying that knowledge of eligibility criteria varies significantly across different programs. The analysis reveals important insights into the awareness levels of social protection programs among the surveyed population. This information can be used to inform policy interventions to sensitize the residents on eligibility for different social protection programs and improve awareness where it is lacking.

Table 2. Distribution of Responses on Fairness on Beneficiary Identification

Attitude Level	Percentage	Frequency (Rounded)
Strongly agree	41.0%	148
Agree	22.0%	80
Neutral	3.7%	13
Disagree	21.9%	79
Strongly disagree	11.4%	41

The results analysis indicated that about (41.0%) of respondents strongly agreed, (22.0%) agreed, (3.7%) were neutral, (21.9%) disagreed, while (11.4%) strongly disagreed with statements on the fairness of beneficiary identification processes. A Chi-square analysis yielded χ^2 = 0.0069 with 3 degrees of freedom (df = 3), and p > 0.05. This result suggests that no significant difference was found between the observed distribution of attitudes and the distribution expected under the null hypothesis. These findings show that the majority of respondents perceive the household identification process as fair.

Impact of Social Protection Programs on Absorptive Capacity

The results analyzed the impact of social protection programs on community resilience to climate shocks, including coping indicators such as increased food intake, meeting immediate needs, investment usage, and access to resources. Results show that the majority (69.7%) of beneficiaries indicated that CT-OVC and OP-CT 'Inua Jamii' cash transfer initiatives (Table 1), were the most popular form of cash transfer probably considering their immediate tangible impacts on consumption. Further, results indicate that absorptive capacity had the strongest impact among the beneficiaries of social protection programs. For instance, (87%) of CT-OVC and OP-CT beneficiaries reported an increase in the number of meals and portions significantly impacting their food intake and food security.

Table 3. Distribution of responses on absorptive capacity to climate shocks

Social Protection Programs	Mean	N	Std. Deviation
0	4.2906	100	0.39321
1	4.4721	254	0.26819
Total	4.4208	354	0.31876

The results of the analysis in Table III indicate that respondents with social protection programs (mean = 4.4721) show slightly higher levels of resilience compared to those without such programs (mean = 4.2906). Standard deviations provided a measure of variability within each group,

suggesting that respondents without any social protection programs exhibit slightly higher variability in community resilience scores.

Impact of Social Protection Programs on Adaptive Capacity

Results show that (79%) of beneficiaries used emergency cash and food transfers to meet their immediate consumption needs partly preventing them from losing their assets during the drought period. However, the data evaluated could not conclusively explain whether the consumption levels and dietary diversity are maintained during times of extreme weather events. The results were summarized using mean values, standard deviations, correlations, and ANOVA.

Table 5. Distribution of responses on adaptive capacity to climate shocks

Coping Indicator	Observed (%)	Expected (%)
Increased food intake	87	83.445
Met immediate consumption needs	79	83.445
Rarely used for investment	88.6	83.445
No access to resources	79.18	83.445

Chi-square test analysis was used to evaluate the association between coping indicators to climate shocks and reported percentages, yielding a statistic of $\chi 2=0.893$, df=3, and $p>0.05$ These findings indicated that there is no significant association between social protection programs and adaptive capacity to climate shocks in Tana North sub-county.

Impact of Social Protection Programs on Anticipatory Capacity to Climate Shocks

Further, analyzed results show that while regular and predictable social protection programs have helped to alleviate poverty for vulnerable groups, the majority of the responses (87.4%) indicated that these transfers are too little, hence found it difficult to plan for climate eventualities, while (66%) of respondents cited irregular disbursement of transfers thereby hindering beneficiaries from making plans for expenditures to adjust and therefore are most unlikely to fulfill the expected anticipatory function. Meanwhile, (22.6 %) of the respondents indicate that the transfers are poorly timed to address climate variables, in particular weather variations and seasonality.

Table 6. Distribution of responses on absorptive capacity to climate shocks

Perception	Percentage (%)	Frequency (rounded)
Transfers are too little	87.4%	316
Distribution is unpredictable	66.0%	240
Poorly timed for climate variables	22.6%	82

The analysis shows perception regarding the sufficiency, distribution, and timing of social protection programs and community resilience to shocks. Chi's square analysis yielded the following $\chi 2=0.009832$, df=2, and $\alpha=0.05$. These results had little proof that social protection programs have remarkably contributed to an increase in the anticipatory capacity of beneficiaries to shocks. Hence, the transfers rarely contribute to enhancing anticipatory capacity for long-term planning for resilience outcomes to climate shocks.

The study investigates how social protection programs improve community resilience to climate shocks in the Tana North Sub-county. It employs the BRACED 3As model (Bahadur et al., 2015) to evaluate the interconnected capacities of communities to absorb, adapt to, and anticipate climate-related disasters. This discussion contextualizes findings from various related studies, emphasizing the crucial role of social protection coping strategies in strengthening community resilience to climate shocks and or disasters.

The study's findings indicate that the majority of the respondents in the study area reported negative effects from extreme weather conditions, in particular drought and floods. Meanwhile, evidence of absorptive capacity provided by social protection programs was found, with (87%) of beneficiaries of the CT-OVC and OP-CT programs reporting improved food intake and consumption patterns including an increase in the number of meals and food portions. Hence, the transfer programs have enhanced beneficiaries' ability to cope with shocks by improving their consumption patterns while also protecting their assets during extreme weather events. These results align with similar studies (Merttens et al., 2013; Devereux et

al., 2008; Sobhan, 2014), which demonstrate that cash transfers and food aid have significantly bolstered the absorptive capacity of households in Kenya, Ethiopia, and Bangladesh during extreme climate disasters, enhancing food security while also reduced their reliance on negative coping strategies.

Notably, overall 79% of the beneficiaries reported better food consumption patterns, highlighting the immediate benefits of cash transfers and food subsidies. Supporting evidence has been found from more recent studies (Hoddinott et al., 2023; Nath et al., 2022; Karamagi et al., 2024), which demonstrate that social protection programs, particularly cash transfers, play a vital role in enhancing absorptive capacity by aiding the poor and most vulnerable households during food crises and thus reduce their susceptibility to climate-induced disasters.

While most beneficiaries reported using the emergency cash and food transfers to address immediate needs and protect their assets during extreme weather conditions, findings regarding community adaptation to climate shocks tell a different story. Further, data on the adaptive capacity of beneficiaries of cash transfers was inconclusive, revealing unclear improvements in their investments or dietary diversity. As a result, the impact of these transfers on the long-term adaptive capacity remains unclear. These findings align with research by Laxminarayan and Sharma (2023), Smit et al. (2024), and Adriano et al. (2023), which indicate that while such programs effectively provide relief for immediate needs and reduce poverty, their capacity to enhance long-term adaptive capacity requires further development.

The study further reveals that beneficiaries tend to use cash transfers to their address immediate needs rather than to invest in long-term resilience strategies. As a result, the evidence suggests that cash transfers rarely enhance beneficiaries' long-term adaptive capacity to cope with impacts of climate-induced shocks, ultimately impacting community long-term resilience outcomes. However, these findings are challenged by studies such as Hossain et al. (2018) on India's National Rural Employment Guarantee Scheme (NREGS); (Baulch et al. (2015); Philippines' Conditional Cash Transfer Program, and (Duflo et al. (2012) on South Africa's Social Grants System, demonstrating that conditional cash transfer programs can enhance household adaptive capacity by enabling beneficiaries to invests in resilience-building activities, indirectly improving their ability to cope and adapt to environmental shocks.

Further, these findings indicate that while regular social protection programs provide some relief, they do not effectively enhance the community's capacity to anticipate and prepare for unpredictable climate events. Findings show that respondents expressed their concern over these transfers with a claim that the amount is inadequate to allow them to improve their ability to prepare for future climate extremes and events. Respondents also cited insufficient program coverage, irregular support, as well a lack of integration with other climate resilience program initiatives. These results are consistent with research by (Attanasio et al. (2015), Soares et al. (2010), and (Skoufias et al. (2008), which show that although social protection programs have helped improve beneficiaries' immediate well-being, their impact on anticipatory capacity is limited due to challenges related to the adequacy, timeliness of the transfers, and difficulties in addressing seasonal fluctuations, affecting long-term planning for resilience outcomes in the long run. Global further emphasizes that while social protection can enhance short-term resilience, long-term adaptation requires refined, climate-responsive program designs as supported by most current studies (Rojas et al., 2023); (Oliveira & Souza, 2024); (Vargas et al., 2023).

Further, findings show that, while income transfers have helped vulnerable households improve food security, there is a notable lack of focus on investments that encourage proactive planning for future climate shocks. This observation aligns with findings from Tenzing (2022); (Ahmed et al. (2020); (Lawlor et al. (2019); (Roberts and Pelling (2018); (Ulrichs and Slater (n.d.); (Bahadur et al., n.d.; Bastagli & Hunt, n.d.), suggesting that, while there is enough evidence that cash transfers enhance absorptive capacity, gaps remain in fostering effective planning for future shocks. Hence, these challenges ultimately reduce the overall effectiveness of social protection programs to enhance community resilience to climate impacts.

Furthermore, findings on the impact of education reveal that knowledge of social protection

programs indicates that higher levels of education correlate with greater awareness and high involvement with social protection programs. These findings have similarities with research by (Aaberg et al., (2014), (Smith, L., et al., 2022), which demonstrate that higher levels of educational attainment generally correlate with better awareness and utilization of social protection programs, as educated individuals are more likely to be more aware, understand and access available resources. Further, other findings show significant gender differences in awareness and involvement with social protection programs, with female respondents demonstrating higher levels of awareness and greater engagement with social protection programs compared to males. This finding aligns with studies by Kabeer (2012); (Kabeer, N., & Tran, A., 2023, which highlight that women often benefit more from social protection programs probably due to their roles in household management.

CONCLUSION

The findings from Tana North Subcounty underscore the critical role of social protection programs in enhancing community resilience to climate shocks. Specifically, cash transfer programs, such as those for orphaned and vulnerable children (CT-OVC) and older persons (OP-CT), effectively meet immediate household needs and bolster families' ability to absorb shocks. However, the analysis reveals significant gaps in these programs, particularly concerning their integration with broader climate resilience strategies. The lack of adaptation elements, such as consistent coverage and long-term investment planning limits their effectiveness. Additionally, communities in Tana North may not be adequately prepared for future climate impacts, which could be more severe than those previously encountered. The current design and policy framework of social protection programs often overlooks future climate scenarios, diminishing the anticipatory capacity essential for building resilience.

This study highlights the urgent need for more comprehensive and timely support for social protection programs. A multi-faceted approach is essential, in particular, one that not only will help strengthen livelihood diversification initiatives but also invest in long-term planning strategies. Ultimately, substantial improvements in policies and implementation practices are crucial for enhancing the ability of social protection systems to build community resilience to climate shocks, ensuring a more sustainable and equitable future.

REFERENCES

Adger, W. N., Barnett, J., Heath, S., & Jarillo, S. (2022). Climate change affects multiple dimensions of well-being through impacts, information and policy responses. *Nature Human Behaviour*, 6(11), 1465–1473.

Agrawal, A., Kaur, N., Shakya, C., & Norton, A. (2020). Social assistance programs and climate resilience: Reducing vulnerability through cash transfers. *Current Opinion in Environmental Sustainability*, 44, 113–123.

Ahmed, A. U., Hoddinott, J. F., Roy, S., Sraboni, E., Quabili, W. R., & Margolies, A. (2020). Which kinds of social safety net transfers work best for the ultra-poor in Bangladesh? Operation and impacts of the transfer modality research initiative. Washington, DC; Dhaka, Bangladesh: *International Food Policy Research Institute* (IFPRI); World Food Programme.

Aleksandrova, M. (2019). Social protection as a tool to address slow onset climate events: Emerging issues for research and policy (*Working Paper 16/2019*). Discussion Paper.

Aleksandrova, M. (2020a). Principles and considerations for mainstreaming climate change risk into national social protection frameworks in developing countries. *Climate and Development*, 12(6), 511–520.

Aleksandrova, M. (2020b). Principles and considerations for mainstreaming climate change risk into national social protection frameworks in developing countries. *Climate and Development*, 12(6), 511–520.

Aleksandrova, M. (2020c). Principles and considerations for mainstreaming climate change risk into national social protection frameworks in developing countries. *Climate and Development*, 12(6), 511–520.

Asma, K. Mst., Misu, F., & Islam, M. A. (2023). The Impact of Social Safety Net Programs on Poverty, Food Security and Standard of Living in Bangladesh. *The International Journal of Community and Social Development*, 5(1), 71-96.

Attanasio, O., Sosa, L. C., Medina, C., Meghir, C., & Posso-Suárez, C. M. (2021). Long Term Effects of Cash Transfer Programs in Colombia (*Working Paper 29056*). National Bureau of Economic Research.

Bahadur, A. V., Peters, K., Wilkinson, E., Pichon, F., Gray, K., & Tanner, T. (n.d.). The 3AS: Tracking Resilience Across Braced.

Bakker, V., & van Vliet, O. (2019). Social Investment, Employment Outcomes and Policy and Institutional Complementarities: A Comparative Analysis across 26 OECD Countries (SSRN Scholarly Paper 3458304).

Barbier, E. B., & Hochard, J. P. (2018). The Impacts of Climate Change on the Poor in Disadvantaged Regions. *Review of Environmental Economics and Policy*, 12(1), 26–47.

Barca, V., Hebbar, M., Malik, M., & Le, F. (n.d.). Shock-Responsive Social Protection in the Caribbean: Literature Review.

Bastagli F, Hagen-Zanker J, Harman L, Barca V, Sturge G, Schmidt T. (2019). The Impact of Cash Transfers: A Review of the Evidence from Low-and Middle-income Countries. *Journal of Social Policy*. 48(3), 569-594.

Bastagli, F., & Hunt, A. (n.d.-a). Social protection and the future of work.

Bastagli, F., & Hunt, A. (n.d.-b). Social protection and the future of work.

Béné, C., Newsham, A., Davies, M., Ulrichs, M., & Godfrey-Wood, R. (2014). Review article: Resilience, poverty and development. *Journal of International Development*. John Wiley and Sons.

Bilo, C., Brito, R., Peres, A., & Balboni, M. (2021). What's next for social protection in light of COVID-19: Country responses (*Working Paper 47*). Policy in Focus.

Black, M. S., Parry, I. W. H., Mylonas, M. V., Vernon, N., & Zhunussova, K. (2023). *The IMF-World Bank Climate Policy Assessment Tool (CPAT): A Model to Help Countries Mitigate Climate Change*. International Monetary Fund.

Blythe, J. L., Murray, G., & Flaherty, M. (2014). Strengthening threatened communities through adaptation: Insights from coastal Mozambique. *Ecology and Society*, 19(2).

Brooks, N. (2022). Resilience Measurement in the Building Resilience and Adapting to Climate Change Programme. *Synthesis Report*. BRACC.

Brooks, S. M. (2015). Social protection for the poorest: Social Protection for the Poorest: The Adoption of Antipoverty Cash Transfer Programs in the Global South. *Politics & Society*, 43(4), 551–582.

Bullock, R., Katothya, G., Yami, M., & Rohregger, B. (n.d.). *Social protection, climate adaptation, and women's resilience in Ethiopia*. Social Protection.

Canton, H. (2021). World Food Programme—WFP. In *The Europa Directory of International Organizations 2021* (23rd ed.). Routledge.

Costella, C., Jaime, C., Arrighi, J., Coughlan De Perez, E., Suarez, P., & Van Aalst, M. (2017). Scalable and Sustainable: How to Build Anticipatory Capacity into Social Protection Systems. *IDS Bulletin*, 48(4).

Costella, C., van Aalst, M., Georgiadou, Y., Slater, R., Reilly, R., McCord, A., Holmes, R., Ammoun, J., & Barca, V. (2022). Can Social Protection Tackle Risks Emerging from Climate Change, and How? A Framework and a Critical Review (SSRN Scholarly Paper 4206401).

Devereux, S. (2014). Trajectories of social protection in Africa. In *Social Protection in Southern Africa*. Routledge.

Duchoslav, Jan; Kenamu, Edwin; Gilbert, Rachel; Baulch, Bob; Palloni, Giordano; and Gilligan, Daniel O. 2020. Building resilience and adaptation to climate change in Malawi: Quantitative baseline report. MaSSP Report May 2020. Washington, DC: *International Food Policy Research Institute* (IFPRI).

Fazey, I., Carmen, E., Ross, H., Rao-Williams, J., Hodgson, A., Searle, B. A., … Thankappan, S. (2021). Social dynamics of community resilience building in the face of climate change: the case of three Scottish communities. *Sustainability Science*, 16(5), 1731–1747.

Fisher, E., Attah, R., Barca, V., O'Brien, C., Brook, S., Holland, J., Kardan, A., Pavanello, S., & Pozarny, P. (2017). The Livelihood Impacts of Cash Transfers in Sub-Saharan Africa:

Beneficiary Perspectives from Six Countries. *World Development*, 99, 299–319.

Fitrinitia, I. S., & Matsuyuki, M. (2023). Social protection for climate-disasters: A case study of the program Keluarga Harapan cash transfer program for smallholder farm household in Indonesia. *Progress in Disaster Science*, 17, 100278.

Frimpong, K. (2022). *Recent Nexus of Social Protection and Sustainable Development Goals: An Evaluation from Ghana*. SSRN Electronic Journal.

Garg, T., McCord, G., & Montfort, A. (2020). *Can Social Protection Reduce Environmental Damages*? SSRN Electronic Journal.

Godfrey-Wood, R., & Flower, B. C. R. (2018). Does Guaranteed employment promote resilience to climate change? The case of India's Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA). *Development Policy Review*, 36, O586–O604.

Haile, D., Seyoum, A., & Azmeraw, A. (2023). Structural and stochastic poverty, shocks, and resilience capacity in rural Ethiopia. *Cogent Economics & Finance*, 11(2), 2256124.

Hallegatte, S., & Engle, N. L. (2019, January 1). The search for the perfect indicator: Reflections on monitoring and evaluation of resilience for improved climate risk management. *Climate Risk Management*. (23), 1-6.

Jackson, C., Butters, S., Byambaa, E., Davies, M., & Perkins, N. (2011). Lessons from Social Protection Programme Implementation in Kenya, Zambia and Mongolia. *IDS Research Reports*, 2011(69), 1–39.

Kabeer, N. (2015). Tracking the gender politics of the Millennium Development Goals: Struggles for interpretive power in the international development agenda. *Third World Quarterly*, 36(2), 377–395.

Kühne, E. (2020). *Building climate resilience through social protection in Brazil: The Garantia Safra public climate risk insurance programme*. International Policy Centre for Inclusive Growth.

Lawlor, K., Handa, S., & Seidenfeld, D. (2019). Cash Transfers Enable Households to Cope with Agricultural Production and Price Shocks: Evidence from Zambia. *The Journal of Development Studies*, 55(2), 209–226.

Leight, J., Hirvonen, K., & Zafar, S. (n.d.). The Effectiveness of Cash and Cash Plus Interventions on Livelihoods Outcomes.

Lind, J., Sabates-Wheeler, R., & Szyp, C. (2022). *Cash and Livelihoods in Contexts of Conflict and Fragility: Implications for Social Assistance Programming*. Institute of Development Studies (IDS).

Lowe, C., Rigolini, J., Solbes Castro, L., & Bastagli, F. (2023). *Pathways toward digitalization in Social Protection and Labor (SPL) service delivery*. World Bank, Washington, D.C.

Mackinder, S. (2020). Tracing the institutional barriers to the integration of the social protection and fragile states agendas within the World Bank. *Journal of International and Comparative Social Policy*, 36(2), 111–124.

Malerba, D. (2020). Poverty alleviation and local environmental degradation: An empirical analysis in Colombia. *World Development*, 127, 104776.

Matata, M. J., Ngigi, M. W., & Bett, H. K. (2023). Effects of cash transfers on household resilience to climate shocks in the arid and semi arid counties of northern Kenya. *Development Studies Research*, 10(1), 2164031.

Matata, M. J., Ngigi, M. W., Bett, H. K., & Michael, P. M. (2022). Effects of cash transfers on food expenditure patterns in northern Kenya. *Cogent Food & Agriculture*, 8(1), 2149138.

Nasreen, M., Mallick, D., & Neelormi, S. (2023). Empowering Women to Enhance Social Equity and Disaster Resilience in Coastal Bangladesh through Climate Change Adaptation Knowledge and Technologies. In *Coastal Disaster Risk Management in Bangladesh*. Routledge.

Nawaz, S., & Iqbal, N. (2020). The impact of unconditional cash transfer on fuel choices among ultra-poor in Pakistan: Quasi-experimental evidence from the Benazir Income Support Program. *Energy Policy*, 142, 111535.

Ngcamu, B. S. (2023). Climate change effects on vulnerable populations in the Global South: A systematic review. *Natural Hazards*, 118(2), 977–991.

Rachel, L., & Summers, L. H. (2019). On Secular Stagnation in the Industrialized World (*Working Paper 26198*). National Bureau of Economic Research. Cambridge.

Rana, I. A., Khaled, S., Jamshed, A., & Nawaz, A. (2022). Social protection in disaster risk reduction and climate change adaptation: A bibliometric and thematic review. *Journal of Integrative Environmental Sciences*, 19(1), 65–83.

Roberts, E., & Pelling, M. (2018). Climate change-related loss and damage: Translating the global policy agenda for national policy processes. *Climate and Development*, 10(1), 4–17.

Sanchez-Gutierrez, J., & González Alvarado, T. (2019). *Competitiveness Against The Sustainable Development Goals*. Mexico: Universidad de Guadalajara.

Scognamillo, A., Mastrorillo, M., & Ignaciuk, A. (2024). One for all and all for one: Increasing the adaptive capacity of households and communities through a public work programme. *World Development*, 175, 106467.

Sengupta, S., & Bailey, M. (2022). *Social protection as an enabler in scaling up Forecast-based Financing using Impact-based Forecasting.* Red Cross social protection, Lesotho.

Silchenko, D., & Una, M. (2022). Migration and climate change – The role of social protection. *Climate Risk Management*, 39, 100472.

Tenzing, J. D. (2020). Integrating social protection and climate change adaptation: A review. Wiley Interdisciplinary Reviews: *Climate Change*. Wiley-Blackwell.

Tenzing, J. D. (2022). Social protection in a changing climate: Critical perspectives on an evolving agenda [Phd, London School of Economics and Political Science]. https://etheses.lse.ac.uk/4494/

Tsegay, B., & Kenton, N. (2022). Social protection for pastoral livelihood systems in Ethiopia: The evolution of thinking and practice. In *Social Protection, Pastoralism and Resilience in Ethiopia*. Routledge.

Ulrichs, M., & Slater, R. (n.d.). How Can Social Protection Build Resilience?

Ulrichs, M., Slater, R., & Costella, C. (2019). Building resilience to climate risks through social protection: from individualised models to systemic transformation. *Disasters*, 43(S3), S368–S387.

Vera-Cossio, D. A., Hoffmann, B., Pecha, C., Gallego, J., Stampini, M., Vargas, D., Medina, M. P., & Álvarez, E. (2023). *Re-thinking Social Protection: From Poverty Alleviation to Building Resilience in Middle-Income Households*. IDB Publications.

Wang, Z. N., Yuan, J. S., Pang, B., & Huang, L. (2022). The interpretation and highlights on mitigation of climate change in IPCC AR6 WGIII report. *Climate Change Research*, 18(5), 531–537.

Wilkinson, E., & King-Okumu, C. (2019). Building resilience from the ground up. *Disasters*, 43(S3), S233–S244.

World Bank. (2019). The World Bank Annual Report 2019: Ending Poverty, Investing in Opportunity [*Annual Report*]. World Bank.

Yiridomoh, G. Y., Chireh, V. K., Bonye, S. Z., & Derbile, E. K. (2021). Enhancing the adaptive capacity of pro-poor populations for climate change adaptation: Analysis of cash transfer programs in rural Ghana. *Local Environment*, 26(1), 146–164.

Zakir Hossain, Md., & Ashiq Ur Rahman, Md. (2018). Adaptation to climate change as resilience for urban extreme poor: Lessons learned from targeted asset transfers programmes in Dhaka city of Bangladesh. *Environment, Development and Sustainability*, 20(1), 407–432.

Ziervogel, G., Lennard, C., Midgley, G., New, M., Simpson, N. P., Trisos, C. H., & Zvobgo, L. (2022). Climate change in South Africa: Risks and opportunities for climate-resilient development in the IPCC Sixth Assessment WGII Report. *South African Journal of Science*, 118(9–10), 1–5.