VIOLENCE AND FARMERS' WELFARE IN RURAL BENIN

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ABSTRACT

Shocks such as conflicts and violence can have devastating consequences on the daily life of rural households, particularly on their ability to maintain an adequate level of consumption to ensure their subsistence. This paper aims to analyze the impact of violence on the welfare of farmers in rural Benin. This study uses the rural sample of the 2018/2019 Harmonized Survey on Living Conditions of Households (EHCVM) of Benin (4,072 households). For this purpose, the study relies on an extended regression model. The extended regression model is characterized by the fact that it fits a linear regression, accommodating any combination of endogenous covariates, nonrandom treatment assignment, and endogenous sample selection. The results suggested that the households that experienced violence have an annual per capita consumption lower of about 7.45% than those that did not experience this shock. Therefore, policymakers could reinforce policies aiming to prevent violence in rural areas.

Keywords: Idiosyncratic shocks, Covariate shocks, Violence, Farmers, Welfare

1. INTRODUCTION

Households shift to lower returns activities but are less risky when they face certain shocks, such as violence and conflicts (Arias et al. 2019), leading to lower welfare. These authors argue that conflicts affect economic production through two broad channels: i) conflicts cause devastation, killings, and maiming of the population; ii) households are prompted to modify behavior due to the presence of non-state armed actors (NSAA), regardless of whether they experienced violent shocks. Conflict, whether political, ethnic, or resource-related, has always been a painful reality for many rural populations across the world (Keyate 2018). These shocks can have devastating consequences on the daily life of rural households, particularly on their ability to maintain an adequate level of consumption to ensure their subsistence (Kaila and Azad 2023). According to Sen (1983), the ability of households to cope with shocks is determined by their "capacities" – that is, their available resources, skills, and assets. In times of conflict and violence, these capacities are often compromised, leaving rural households in a state of extreme vulnerability. Sen (1983) pointed out violence destroys local infrastructure, crops, and traditional household livelihoods. This leads to a drastic reduction in income available for consumption, as well as an increase in the prices of necessities due to market disruption.

The constant fear of violence can discourage local economic investments, reduce employment opportunities, and hinder business development. This often results in a decline in household income, and productivity plunging them into a vicious cycle of poverty and insecurity (Jalal et al. 2022). Moreover, conflicts and insecurity can disrupt agricultural activities, leading to reduced harvests, higher food prices, and increased food insecurity among vulnerable rural populations. The theoretical work of Sen (1983) and Barrett and Carter (2013) provided valuable insight into the devastating impact of conflicts and violence on rural household consumption. Violence does not undermine only the economic livelihoods of households, but also their health, education, and food security (Arias et al. 2019). Understanding these mechanisms is essential for designing effective policies and interventions that aim to protect and support rural households facing the ravages of violence. By working to build more stable, peaceful and resilient societies, we can hope to improve the living conditions of the most vulnerable rural populations.

According to Couttenier et al. (2022), conflicts and violence can directly decrease productivity and price distortions. In India, these authors find that the Maoist insurgency -conflict- results in an average aggregate output loss of 3.8 billion USD per year. Conflicts lead indirectly to the diversion of resources into directly unproductive uses. An exogenous shock disturbs an existing state of equilibrium for the households. African

states' policies tend to maintain this equilibrium. Covariant shocks and idiosyncratic shocks such as violence, disease, death, and fire impede these efforts rendering them unsuccessful. Thus, conflicts and violence can exacerbate the impact of those shocks, pushing the households into the poverty trap. Barrett and Carter (2013) highlighted the strategies that rural households adopt to cope with the challenges posed by conflicts and violence. In such situations, households may be forced to reduce food consumption, sell assets, or take on debt to meet their basic needs. Malevolti (2022) also pointed out that rural households often resort to temporary or permanent migration strategies to escape conflict zones and seek more stable economic opportunities. However, this migration can also bring additional risks and instability for households.

Empirical studies such as Arias et al. (2019) highlighted the devastating impact of violence on household health in rural areas. Physical trauma, injuries and psychological effects of violence have been associated with worsening individuals' mental and physical health, leading to increased healthcare costs and reduced economic productivity (Mkhize and Collings 2012). Indeed, households facing violent environments are often forced to remove their children from school for fear of their safety. This can lead to lower educational attainment and future opportunities for children, perpetuating the cycle of poverty. Therefore, violence has a profound impact on the health and education of members of rural households. Indeed, health and education infrastructure can be destroyed or inaccessible in times of conflict and violence, leading to the deterioration of health and limited access to education for children. Rates of malnutrition, infectious diseases, and child mortality often increase in conflict and violence zones, directly affecting the well-being of rural households (Kirschner and Finaret 2021; Tapsoba 2023). Additionally, children may be forced to drop out of school to contribute to family survival efforts, thereby compromising their prospects (Woldehanna et al. 2021).

Against this background, there is a need for studies showing the magnitude of the detrimental impact of violence on household welfare, especially in rural areas. This paper aims to analyze the impact of violence on the welfare of households in rural Benin. Many studies have assessed the effects of shocks, either covariant or idiosyncratic, on household welfare using income/consumption as an indicator (Pradhan and Mukherjee 2018; Bonou et al. 2024). Many others rely on subjective well-being about shocks. Indeed, life evaluation captures individuals' perspectives on their lives. In contrast, emotional well-being, hedonic well-being, and daily affect measures capture the presence of various emotions in the individual at a point during a timeframe (Sun et al. 2020). However, because impacts are case-specific, any attempt to find an effective solution requires local data collection on the case being handled. Thus, it is important to undertake context-specific research to guide policy-making. Overall, rural violence has profound and diverse impacts on household well-being, affecting their health, education, income, and economic security. Recent economic studies highlight the urgency of taking measures to prevent and mitigate these devastating effects and to promote a secure and prosperous environment for vulnerable rural populations.

2. MATERIALS AND METHODS

Ethical approval and consent of the participants: Verbal informed consent was obtained before the interview.

2.1. Data

This study uses the Benin 2018/2019 Harmonized Survey on Living Conditions of Households (EHCVM). This is the first edition of a nationally representative household survey that was conducted within the framework of the West Africa Economic and Monetary Union (WAEMU) Household Survey Harmonization Project (P153702), which is a joint program by the World Bank and the WAEMU Commission that aims at producing household survey data in the eight WAEMU member countries. The country's regions are covered by the survey which included 8,000 households. Two main survey instruments were used: a household/individual questionnaire, and a community-level questionnaire. The surveys took place in two rounds, to account for seasonality of consumption, with each round covering half of the sample: the first round between October and December 2018, and the second round between April and July 2019. In this paper, the rural sample of the dataset is used and includes 4,072 rural households. Table 1 describes the variables: the variable of interest is the idiosyncratic shock: violence. The household had been asked if, over the past 3 years, has been negatively affected by at least one of the following conflicts: farmer/raiser conflict, armed conflict, violence, or insecurity. Violence is a force that harms, hurts, or kills. This force may go beyond the critical threshold and run out of control (Porchon and Aubin 2023). The dependent variable is the household's annual per capita consumption, and the control variables include other idiosyncratic and covariant shocks, households' socioeconomic characteristics, and the agroecological zone (AEZ) characteristics.

2.2. Model Specification

Regarding the nature of the dependent variable and the independent variable of interest, this paper makes use of an extended regression model to assess the impact of violence on the welfare of farmers. The extended regression

model is characterized by the fact that it fits a linear regression accommodating any combination of endogenous covariates, nonrandom treatment assignment and endogenous sample selection (StataCorp 2023). The equation to be estimated is specified as follows:

$$y_i = X_i'\beta + \mu_i \tag{1}$$

where y refers to the welfare indicator of the household, X is the vector of explanatory variables including the binary variable capturing the shock under interest (violence), β is the vector of coefficients to be estimated, and μ is the error term. In this framework, violence is considered as exogenous. In line with the literature (Pradhan and Mukherjee 2018; Arias et al. 2019; Kaila and Azad 2023), the control variables include economic and natural covariate shocks, household size, economic and demographic idiosyncratic shocks, the age and the gender of the household head, access to conventional and solar energy and the agroecological zones (Table 1). Owing to the extended regression framework with exogenous treatment, there is an automatic interaction between the violence variable and the other covariates in the model. Thus, separate models are created for those that did not experience violence and those that did. Nevertheless, equation (1) is first estimated by the ordinary least squared (OLS) method to ascertain the consistency of the extended regression model.

Table 1: Description of the variables

Variables	Description	Type of variables
Welfare	Welfare indicator of the household; per capita annual consumption in local currency (F CFA)	Continuous
Violence	either farmer/raiser conflict, armed conflict, violence, or insecurity at the household level	Binary variable taking 1 if the household has experienced any violence and 0 if no
Economic covariate shock	either high drop in agricultural product prices, high agricultural input prices, or high food product prices	Binary variable taking 1 if the household has experienced this shock and 0 if no
Economic idiosyncratic shock	either business closures, mass layoffs, price increases, job loss, wage cuts, loss of remittances, or theft of personal property (money, goods, crops, livestock)	Binary variable taking 1 if the household has experienced this shock and 0 if no
Natural covariate shock	either drought/erratic rain, floods, fires, a high rate of crop diseases, a high rate of animal diseases, locust or other crop pest attacks, or landslides	Binary variable taking 1 if the household has experienced this shock and 0 if no
Demographic idiosyncratic shock	Demographic shock at household level	Binary variable taking 1 if the household has experienced this shock and 0 if no
Household size	The number of persons in a household	Continuous
Age of household head	Age in years	Continuous
Male-headed household	Sexe of the head of household	Binary variable taking 1 Male-headed and 0 if Female-headed
Access to conventional electricity	Access to conventional electricity	Binary variable taking 1 if yes and 0 if no
Access to solar electricity	Access to solar electricity	Binary variable taking 1 if yes and 0 if no
Agro-ecological zones		
Soudan-Sahelian	Low precipitation, one rainy season	Binary variable taking 1 if yes and 0 if no
Soudan-Sahelian	Average precipitations, one rainy season	Binary variable taking 1 if yes and 0 if no
Transition zone	Average precipitations, cotton production zone	Binary variable taking 1 if yes and 0 if no
Subequatorial-tropical Guinean	High precipitations, two rainy seasons	Binary variable taking 1 if yes and 0 if no

3. RESULTS

3.1. Description of the Variables and Descriptive Statistics

The summary statistics of the variables included in the analyses are presented in Table 2. The annual per capita household consumption is 373612 F CFA (569€). However, there are disparities among the households as shown by the standard deviation of 272031 F CFA (the minimum of 24928 F CFA and the maximum of 3134181 F CFA). Around 6% of households (244 individuals) have experienced violence. So, this covariate shock is not common among households in the study area compared to other shocks in this study. However, it may lead to low household' welfare. For instance, 32, 18, 42, and 46% of households have faced economic covariate shock, economic idiosyncratic shock, natural covariate shock, and demographic idiosyncratic shock, respectively. Even though the households are not homogenous, the average household size is 5 persons. Around 80% of the households are headed by males, and the average age of the household head is 43.36 years. Most households do not have access to electricity, as shown by the 15% access to conventional electricity and the 15% access to solar energy. The statistics indicate that most households are either in the Soudan-Sahelian zones with low or average precipitation or in the transition zone with average precipitation and cotton production.

Table 2: Summary statistics of the variables

Variables	Mean	Standard Deviation	Minimum	Maximum
Welfare	373612	272031	24928	3134181
Violence	0.06	0.23	0	1
Economic covariate shock	0.32	0.46	0	1
Economic idiosyncratic shock	0.18	0.39	0	1
Natural covariate shock	0.42	0.49	0	1
Demographic idiosyncratic shock	0.46	0.50	0	1
Household size	5.48	3.12	1	24
Age of household head	43.36	14.56	15	97
Male-headed household	0.80	0.40	0	1
Access to conventional electricity	0.15	0.36	0	1
Access to solar electricity	0.15	0.36	0	1
Agro-ecological zones				
Soudan-Sahelian, low precipitation, one rainy season	0.28	0.45	0	1
Average precipitations, one rainy season	0.28	0.45	0	1
Transition, average precipitations, cotton	0.38	0.49	0	1
High precipitations, two rainy seasons	0.06	0.23	0	1

3.2. Estimating the Effect of Violence on Farmers Welfare

The estimation results are presented in Table 3 and Fig. 1. The findings show that violence is detrimental to household welfare. The annual per capita consumption of farmers who experienced violence is 270852 F CFA, whereas it is 457800 F CFA for the farmers who did not. The average effect of violence on this indicator, ATET, is -27831 F CFA. So, the average effect is around 7.45% of the average consumption per capita. The estimation of the impact using OLS yields an overestimated impact of -28386 F CFA.

Table 3: Estimation results

Variables	OLS Coefficients	Extended regression — Households that did not experience violence	Households that experienced violence
Violence	-28386.71** (13642.09)	457800.80*** (23491.20)	270852.50*** (54329.86)
Economic idiosyncratic shock	-22211.05* (11805.55)	-24782.92** (12363.92)	7033.91 (31578.53)
Economic covariate shock	13209.67 (10084.17)	11664.48 (10532.64)	47370.70* (27611.91)
Natural covariate shock	-44331.94*** (8566.82)	-43507.78*** (9000.80)	-2884.17 (22672.16)
Demographic idiosyncratic shock	-105.41 (8970.71)	1414.93 (9339.189)	-1981.22 (23405.27)
Household size	-30627.96*** (1754.65)	-31232.19*** (1865.41)	-22745.46*** (3691.69)
Age of household head	-25.90 (301.66)	-172.08 (316.78)	1423.66* (810.49)
Male-headed household	55166.25*** (11990.98)	52379.11*** (12410.70)	110310.20*** (30549.17)
Access to conventional electricity	199178.20*** (18000.29)	199041.10*** (18438.21)	227090.20*** (57792.72)
Access to solar energy	65801.96*** (12021.85)	66796.29*** (12729.92)	41973.22* (23825.28)
Agro-ecological zones (Reference: Soudan-Sahelian, low precipitation, 1 rainy season)			
Average precipitations, 1 rainy season, cotton	33677.23*** (10645.58)	41949.22*** (11311.35)	-57665.77** (25911.25)
Transition, average precipitations, cotton	43880.42*** (10784.18)	47817.91*** (11262.41)	19620.79 (31805.43)
High precipitations, 2 rainy seasons, subequatorial-tropical Guinean	30677.86 (24343.96)	35590.99 (24553.99)	-257401.90*** (57565.5)
No. of observations	4,072		
F(13, 4058) / Wald chi2(26)	39.82	10658.22	
Prob > F / Prob > chi2	0.00	0.00	
ATET	-	-27831.81** (13795.10)	

Note: Robust standard errors are in parentheses. ***, **, *: significant at 1, 5, and 10%, respectively.
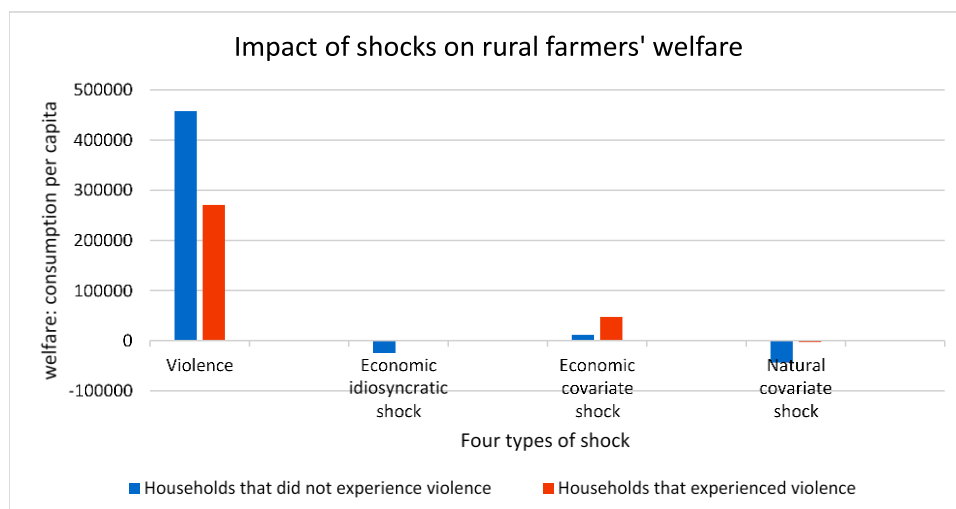
Fig. 1: Impact of violence on rural farmers' welfare

Moreover, the economic idiosyncratic and natural covariate shocks negatively affect the welfare of households that did not experience violence, whereas they do not affect those that experienced violence. As for economic covariate shock, it leads to the improvement of the welfare of households that experienced violence. These findings indicate the economic shock effect on household welfare depends on whether the household faces violence or not.

Household size is found to be negatively associated with household welfare, regardless of the status of having experienced violence or not. Having more household members means more pressure on the household resources. Therefore, the household will not adequately feed its members or satisfy the needs of all members compared to a household with fewer members, ceteris paribus. It appears that household welfare increases with the age of the household head among those who experienced violence. This finding suggests that the household has devoted more resources to satisfying the needs over the years. Therefore, households earn more resources over the years to spend more on household welfare ceteris paribus. Male-headed households are significantly better off than female-headed households. This may be because males have more access to resources than females, especially in rural areas. The findings indicate that access to electricity, either conventional or solar, increased household welfare. Households with access to electricity have on average more resources than their counterparts without access.

Household welfare also depends on AEZ. Most of the activities in rural areas depend on climate conditions since agriculture which occupies a large part of the active population is still highly subject to climate patterns as irrigation is not widespread. Considering households that have experienced violence, when a household lives in either the cotton production zone or subequatorial-tropical Guinean zone, it has a lower welfare than those in the Soudan-Sahelian zone.

4. DISCUSSION

The annual per capita household consumption of those who experienced violence is 27831 F CFA, lower than that of those who did not experience this shock. The results suggested that the households that experienced violence have an annual per capita consumption lower of about 7.45% than those that did not experience this shock. These findings are similar to those of Arias et al. (2019) in Colombia. The authors explained that households shift to activities with lower returns but are less risky when they face certain shocks such as violence and conflicts. Thus, violence deteriorates household welfare in the rural settings of Benin. For instance, violence can disrupt agricultural activities, leading to losses in productivity and reduced harvests, higher food prices, and increased food insecurity among already vulnerable rural populations (Barrett and Carter 2013; Hakim and Kumar 2018). Moreover, the constant fear of violence can discourage local economic investments, reduce employment opportunities, and hinder business development. This often declines household income and productivity, plunging them into a vicious cycle of poverty and insecurity (Jalal et al. 2022; Harada 2024).

Kaila and Azad (2023) highlighted that shocks can have devastating consequences on the daily life of rural households, particularly on their ability to maintain an adequate level of consumption to ensure their subsistence in Nigeria. This leads to a drastic reduction in income available for consumption, as well as an increase in the prices of necessities due to market disruption (Sen 1983). Barrett and Carter (2013) highlighted the strategies that rural households adopt to cope with the challenges posed by conflicts and violence. Moreover, households will reduce food consumption, sell assets, or take on debt to meet their basic needs. This result goes beyond the positive relationship between violence and poverty found by Jalal et al. (2022). They highlighted that women in the poverty-reduction program arm encountered 12% or fewer incidences of domestic violence than did the women in the comparison arm.

Other results of this study are important. These findings indicate that the effect of economic shocks on household welfare depends on whether the household faces violence. The economic idiosyncratic shocks negatively affect the consumption of households that did not experience violence, whereas these shocks do not affect those that experienced violence. The economic idiosyncratic shocks that affected households in this paper are either business closures, mass layoffs, price increases, job loss, wage cuts, loss of remittances, or theft of personal property (money, goods, crops, and livestock). This result is similar to the findings of Börner et al. (2012). They indicate that in response to economic idiosyncratic shocks, households tend to deplete financial and durable assets, whereas economic covariate shocks predominantly result in reduced consumption. From a methodological perspective, studies have assessed the effects of shocks, either covariant or idiosyncratic, on household welfare using either income or consumption as an indicator (Pradhan and Mukherjee 2018; Bonou et al. 2024).

Natural covariate shocks negatively affect the consumption of households that did not experience violence, whereas these shocks do not affect those that experienced violence. The natural covariate shocks in this paper are drought/erratic rain, floods, fires, a high rate of crop diseases, a high rate of animal diseases, locust or other crop pest attacks, and landslides. Natural shocks contribute to negative livelihood outcomes and further depletion of household assets, leading to a downward spiral of deepening poverty (Bonou et al. 2018; Nguyen et al. 2020; Amolegbe et al. 2022; Bonou et al. 2024).

Nevertheless, the economic covariate shock improves the welfare of households that experienced violence. This finding confirms the results of Hansen and Stutzer (2021): "The development of the welfare state seems crucial for how economic shocks affect the evolution of preferences and norms in society and thus finally feedback on institutional change." The economic covariate shocks in this paper are a high drop in agricultural product prices, high agricultural input prices, and high food product prices.

Household size is found to be negatively associated with household consumption, regardless of whether or not the household has experienced violence. Having more household members means more pressure on household resources. So, a household with more members may not be able to adequately feed its members or satisfy their needs compared to a household with fewer members, ceteris paribus (Siman et al. 2020).

It appears that household welfare increases with the age of the household head among those who experienced violence. This finding suggests that the household has devoted more resources to satisfying its needs. Households earn more resources over the years to spend more on household welfare ceteris paribus. It may also be that the old head of household can change in skilling decisions to mitigate violence shock impact. For example, Ganguli et al. (2024) highlighted the increased demand for telework courses among older users during the COVID-19 shock. Male-headed households are significantly better off than female-headed households. This may be because males have more access to resources than females, especially in rural areas. The findings indicate that access to electricity, either conventional or solar, increased household welfare. Households with access to electricity have, on average, more resources than their counterparts without access.

Household welfare also depends on the agroecological zone (AEZ) characteristics. This result aligns with Coromaldi (2020), who examines the effects of inter- and intra-seasonal weather shocks on farmers' welfare in rural Ethiopia. Results show that both rainfall and maximum temperature variability appear to exert a negative impact on the welfare. Most of the activities in rural areas depend on climate conditions since agriculture, which occupies a large part of the active population, is still highly subject to climate patterns as irrigation is not widespread. Considering households that have experienced violence, when a household lives in either the cotton production zone or subequatorial-tropical Guinean zone, it has lower welfare than those in the Soudan-Sahelian zone.

5. CONCLUSION AND POLICY IMPLICATIONS

This paper aims to analyze the impact of violence on the welfare of households in rural Benin. To this end, the extended regression model and the data from the 2018/2019 Harmonized Survey on Living Conditions of Households (EHCVM) of Benin are used. The findings show that the average annual per capita consumption of households that experienced violence is significantly lower (27831 F CFA) than that of the households that did not experience this shock. Faced with these challenges, it is crucial to put in place appropriate policies and interventions to prevent and mitigate the impact of violence on rural households' well-being. Social safety net programs, such as emergency food distributions and cash transfers, can provide immediate support to the most affected households. Additionally, efforts to restore basic infrastructure, restore access to health and education services, and promote mediation and peaceful conflict resolution are essential to recover household stability and well-being in rural areas affected by conflict. The policies are awareness programs, community mediation initiatives, and security-enhancing strategies.

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Consent to Participate: Verbal informed consent was obtained prior to the interview.

Data Availability Statement: Data will be available upon request.

REFERENCES

Amolegbe KB, Wirba EL and Kane GQ, 2022. Economic Shocks and Welfare of Nigerian Households. In: Socioeconomic Shocks and Africa's Development Agenda (pp. 199-213). Routledge.

Arias MA, Ibanez AM and Zambrano A, 2019. Agricultural production amid conflict: Separating the effects of conflict into shocks and uncertainty. World Development, 119: 165-184. https://doi.org/10.1016/j.worlddev.2017.11.011

Barrett CB and Carter MR, 2013. The Economics of Poverty Traps and Persistent Poverty: Empirical and Policy Implications. The Journal of Development Studies, 49(7): 976-990. https://doi.org/10.1080/00220388.2013.785527

Börner J, Shively GE, Wunder S and Wyman M, 2012. How do rural households respond to economic shocks? Insights from hierarchical analysis using global data. In: Conference, August 18-24, 2012, Foz do Iguacu, Brazil (No. 126143). International Association of Agricultural Economists. https://doi.org/10.22004/ag.econ.126143

Bonou A, Zafar S and Ammara S, 2024. Floods, Poverty, and Happiness of Rural Farmers in Northern Benin. Economies, 12(3): 52. https://doi.org/10.3390/economies12030052

Bonou A, Wünscher T, Adégbidi AA and Diaw A, 2018. Impact of Floods on Farmers' Livelihoods in the Semi-arid Zone of Benin. In: Saito O, Kranjac-Berisavljevic G, Takeuchi K, Gyasi, E A (eds) Strategies for Building Resilience against Climate and Ecosystem Changes in Sub-Saharan Africa (pp. 59-77). Springer, Singapore. https://doi.org/10.1007/978-981-10-4796-1_4

Coromaldi M, 2020. The impact of weather fluctuations and climate shocks on farmers' welfare: insights from rural Ethiopia. International Journal of Environmental Studies, 77(4), 619-635. https://doi.org/10.1080/00207233.2019.1695433

Couttenier M, Monnet N and Piemontese L, 2022. The economic costs of conflict: A production network approach. CEPR Discussion Paper No. DP16984, 54 pages, Available at SSRN: https://ssrn.com/abstract=4026891

Ganguli I, Haidar JI, Khwaja AI, Stemper S and Zafar B, 2024. Economic shocks and skill acquisition: Evidence from a national online learning platform at the onset of COVID-19. Labour Economics, 102575. https://doi.org/10.1016/j.labeco.2024.102575

Hakim HM and Kumar S, 2018. Shocks and Coping Strategies of the Poor. In: Poverty in Afghanistan: Causes, Consequences, and Coping Mechanisms, Print ISBN 978-3-030-10858-8, Online ISBN978-3-030-10859-5, pp. 95-125, Palgrave Pivot, Cham. https://doi.org/10.1007/978-3-030-10859-5_5

Harada M, 2024. War Violence Decreases Long-Term Human Well-Being: The Evidence from the Strategic Bombing to Japan During WWII. International Journal of Community Well-Being, 7(1): 31-56. https://doi.org/10.1007/s42413-022-00164-8

Hansen K and Stutzer A, 2021. Experiencing Booms and Busts in the Welfare State and Support for Redistribution. IZA - Institute of Labor Economics. https://www.jstor.org/stable/resrep61906 Accessed: 10-11-2024 21:45 UTC, 64 pages

Jalal CS, Frongillo EA, Warren AM and Kulkarni S, 2022. Subjective Well-Being and Domestic Violence Among Ultra-Poor Women in Rural Bangladesh: Findings from a Multifaceted Poverty Alleviation Program. Journal of Family and Economic Issues, 43(4): 843-853. https://doi.org/10.1007/s10834-021-09801-4

Kaila H and Azad A, 2023. The effects of crime and violence on food insecurity and consumption in Nigeria. Food Policy, 115, https://doi.org/10.1016/j.foodpol.2023.102404

Keyate AW, 2018. Cross Border Natural Resource-based Conflicts and Regional Security: a Comparison of the Eastern and Western Africa Experiences; Master dissertation, University of Nairobi, 108 pages.

Kirschner SA and Finaret AB, 2021. Conflict and health: Building on the role of infrastructure. World Development, 146: 105570. https://doi.org/10.1016/j.worlddev.2021.105570

Mkhize S, Gopal N and Collings SJ, 2012. The impact of community violence on learners: A study of a school in the Swayimana rural area. Acta Criminologica: African Journal of Criminology and Victimology, 2012 (sed-1): 38-45. https://hdl.handle.net/10520/EJC138456

Malevolti G, 2022. Can weather shocks give rise to a poverty trap? Evidence from Nigeria. In: Conference Paper/ Presentation, Agricultural Economics Society - AES, 96th Annual Conference, Leuven, Belgium, 24 pages. 10.22004/ag.econ.321172

Nguyen TT, Nguyen TT, Le VH, Managi S and Grote U, 2020. Reported weather shocks and rural household welfare: Evidence from panel data in Northeast Thailand and Central Vietnam. Weather and climate Extremes, 30, 100286. https://doi.org/10.1016/j.wace.2020.100286

Porchon D and Aubin L, 2023. Violence. In: Wallenhorst, N., Wulf, C. (eds) Handbook of the Anthropocene. Springer, Cham. https://doi.org/10.1007/978-3-031-25910-4_253

Pradhan KC and Mukherjee S, 2018. Covariate and idiosyncratic shocks and coping strategies for poor and non-poor rural households in India. Journal of Quantitative Economics, 16(1): 101-127. https://doi.org/10.1007/s40953-017-0073-8

Sen A, 1983. Poverty and Famines: An Essay on Entitlement and Deprivation. Oxford: Oxford University Press, ISBN: 0-19-828463-2, 250p.

Siman S, Tawakal MA, Risamasu, PIM and Kadir R, 2020. Effect of household size, working hours, health and income on consumption expenditure of poor household. Enfermería Clínica, 30: 512-515. https://doi.org/10.1016/j.enfcli.2019.10.131

StataCorp, 2023. Stata 18 Extended Regression Models Reference Manual. College Station, TX: Stata Press.

Sun J, Schwartz HA, Son Y, Kern ML and Vazire S, 2020. The language of well-being: Tracking fluctuations in emotion experience through everyday speech. Journal of Personality and Social Psychology, 118(2), 364–387. https://doi.org/10.1037/pspp0000244

Tapsoba A, 2023. The cost of fear: Impact of violence risk on child health during conflict. Journal of Development Economics, 160: 102975, https://doi.org/10.1016/j.jdeveco.2022.102975

Woldehanna T, Endale K, Hamory J and Baird S, 2021. Absenteeism, dropout, and on-time school completion of vulnerable primary school students in Ethiopia: exploring the role of adolescent decision-making power in the household, exposure to violence, and paid and unpaid work. The European Journal of Development Research, 33(5): 1349-1389, https://doi.org/10.1057/s41287-021-00454-5