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Analysis of Multidimensional Nature of Poverty in Kitui County, Kenya

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Abstract:
The battle to end poverty in the world at large has continued since time immemorial. Despite stringent measures to overcome this global challenge, poverty levels remain high. Kenya has not been left behind in fighting this battle. The country has formulated various development plans and strategies to end this challenge. The fight towards ending poverty began when Kenya attained her independence in 1963 and continues up to date. To effectively reduce the levels of poverty in the country, there is a need to understand first the multidimensional nature since poverty differs in different areas. Then being fully equipped with this nature, one can understand the focal point to start developing the measures to curb this challenge. Thus, this paper aims to analyze the multidimensional nature of poverty in Kitui County, whose poverty level stands at 63.1 percent as of 2021, an increase from 47.5 percent in 2019 and above the country's poverty level of 41.9 percent. The study used secondary data from Kenya Integrated Household Budget Survey collected in 2015/16 by the Kenya National Bureau of Statistics. Analysis of data based on the Alkire and Foster procedure for analyzing the multidimensional nature of poverty was used in the study. The study found that the households in Kitui County are multidimensionally poor and are deprived more of living standard indicators than indicators in health and education. Based on the study's findings, the County Government of Kitui and other stakeholders should prioritize measures to improve living standards since many of the households in the county are mainly affected by economic shocks. Also, the government should ensure there is easy accessibility to credit. This will enable households to get resources that can be used to start economic activities, generate income and improve their welfare.

Keywords: Poverty, multidimensional, kitui, deprivation, poverty cutoff

1. Introduction

Poverty is the biggest challenge facing Kenya and many other African countries today (World Bank, 2021). The battle to end poverty in the world at large has continued since time immemorial. Millennium Development Goals (MDGs) implemented in 2000 sought to lower global poverty by half between 2000 and 2015. This was achieved when extreme poverty declined from 29.1 percent in 2000 to 10.8 in 2015 (World Bank, 2015). After the MDGs expired in 2015, the United Nations launched the Sustainable Development Goals (SDGs). Among the 17 SDGs in the 2030 Agenda, the first goal was to eliminate poverty by 2030 in every country (UN, 2015).

Moreover, numerous efforts have been made to combat the high poverty rates in the African region. The Ten Year Strategy (TYS) 2013 – 2022 of the African Development Bank (AfDB) emphasized inclusive and sustainable growth (AfDB, 2013). The AfDB identified several transformative forces and long-term trends affecting the continent: changes in the global market systems, new technologies, particularly in agriculture and health, and improvements to infrastructure and environmental adjustments to mitigate the impact of climate change. The AfDB's transformational forces and trends align with AU Agenda 2063. The Union implemented Agenda 2063 on "The Africa We Want" (African Union (AU), 2019). One of the seven aspirations of Agenda 2063 is to create a thriving African economy based on progressive development and inclusive growth.

In addition, Kenya has made tremendous strides in alleviating poverty since her independence. She has implemented the following strategies and plans: Sessional Paper No 10 of 1965 on African Socialism, Development plans of the 1970s ranging from the first to the third plan, Structural Adjustment Programmes (SAPs) of the 1980s, Welfare Monitoring Surveys (WMSs) initiated in the early 1990s, The Interim Poverty Reduction Strategy Paper (IPRSP 2000-2003), Poverty Reduction Strategy Paper (PRSP 2001-2004), Economic Recovery Strategy (2003-07) and Kenya Vision 2030 which was launched in 2008 (Manda et al., 2001; Owidhi, 2015; Republic of Kenya (RoK), 1965, 2000, 2001, 2004, 2007; Urrutia & Yukawa, 1988). The Kenya Vision 2030 is implemented based on a series of successive five-year Medium-Term Plans (RoK, 2013, 2013, 2018). The implementation aligns with SDGs since it aims to ensure no poverty by 2030. However, ensuring there is no poverty by 2030 is a challenge, as the poverty level in Kenya is very high.

The poverty level in Kenya is unevenly distributed, with high poverty levels concentrated in rural areas. The high poverty levels experienced in rural areas are associated with heavy reliance on agricultural activities, whose pay is relatively low. World Bank estimates in Kenya show that 41.9 percent of her population currently lives in absolute poverty compared to the world poverty level, which is 9.1 percent.

Kitui County is one of the rural counties in Kenya in an Arid and Semi-Arid region characterized by high poverty levels. Since devolution in 2013, the County has initiated various measures to fight poverty. This includes the Kitui County Integrated Development Plan (CIDP) 2013-2017 that formulated multiple efforts to improve health care, including completing stalled health facilities, providing government procurement opportunities to solve youth unemployment, building greenhouses to increase agricultural production and income, and planting trees to increase forest cover (Kitui County Government, 2018).

Also, the current Kitui CIDP (2018-2022) focuses on five pillars, namely: food security and water; healthcare, education and training; empowering women, youth and People with Disabilities (PWDs); and wealth creation (Kitui County Government, 2018). However, despite these efforts, the absolute poverty rate is estimated to be 63.1 percent which is higher than the national poverty rate (Kitui County Government, 2021). This makes many households in the county unable to afford basic needs; food, shelter, and clothing, which are essential in everyone's life. Therefore, what is inhibiting poverty reduction in Kitui County remains an empirical issue. Thus there is a need to understand the multidimensional nature of poverty, which can be achieved by looking at the dimensions of health, education and living standards. The objective of the study was to analyze the multidimensional nature of poverty.

2. Literature

Numerous studies have been done trying to address this global challenge. Gachanja and Kinyanjui (2016) analyzed the household poverty determinants in Kenya. Secondary data from the 2008 Kenya Demographic and Health Survey was used in the analysis. Using a binary and ordered logistic model, the study found that the following had a significant correlation on the probability of a household being considered poor: having fewer years of education by a household head, having larger families, marital status of a household head and the residence of a household while the gender and age of a household head had an insignificant influence. This study failed to look at the multidimensional nature of poverty in the country, which shows how poor households are deprived of various indicators of health, education, and living standards. The current study examined the multidimensional nature of poverty in Kitui County, which is important in knowing which policy measures to be used to overcome poverty in the area.

Alkire et al. (2017) researched 'Measuring Chronic Multidimensional Poverty' in Chile. This study utilized Alkire and Foster procedure to quantify poverty across health, education, and living standards. The endogenous variable used was the headcount ratio, while the regressors used were an individual's education level, income, and housing conditions. The study found these variables to significantly determine the poverty level of an individual. This study left out some variables which greatly influence poverty. The present study included variables, for instance, the source of drinking water, the incidence of shock and access to health insurance coverage which will help understand the multidimensional nature of poverty in the county.

Biyase and Zwane (2018) analyzed the causes of poverty in South Africa. Secondary data from the National Income Dynamic Study was used to explore these determinants. Using a random effect probit estimation, the study found that the education level, gender, race, work status and household head's marital status and also dependency ratio are the major determinants of poverty. Also, the findings indicated that households residing in urban settings were unlikely to be affected by poverty. Nevertheless, the study failed to analyze the multidimensional nature of poverty in the country, which shows how poor households are deprived in various dimensions. The current study elaborated on the multidimensional nature of poverty in Kitui County, which is important in analyzing poverty and knowing which policy measures to overcome poverty in the area.

Bonareri (2019) analyzed the multidimensional poverty in Kenya. This study aimed to outline the multidimensional poverty levels in Kenya using domesticated indicators. The 2015/16 KIHBS dataset was used to domesticate the universal multidimensional poverty index (MPI) to obtain the national MPI in Kenya. Using Alkire Foster's measure of poverty, the MPI in Kenya was found to be 0.19. This revealed that at least one-third of Kenya's population was multidimensionally poor. Further, using STATA to carry out the data analysis, it was found that the households were mostly underprivileged in access to safe drinking water, access to electricity, and schooling years. An understanding of the multidimensional nature of a particular county is essential since different counties differ in geographical, climatic conditions and resource endowment.

Nafula et al. (2020) surveyed poverty and the impact of COVID-19 on Kenyan households. The Foster, Greer and Thorbecke indices of measuring poverty were used to analyze the effects of COVID-19. Secondary data from KIHBS 2015/16 was used. The estimation results indicated that following the pandemic, absolute poverty rose to 41.9 percent in 2020 from 36.1 percent in 2015/16. The pandemic wiped out the progress made since 2015/16 on poverty reduction. This was attributed to households' loss of income as the pandemic made many people lose jobs. This study focused on poverty in relation to COVID-19 in Kenya and not in single counties; the present study focuses on Kitui County. Also, the study failed to evaluate the multidimensional nature of poverty in Kenya, which shows how poor households are deprived in various dimensions. The current study overcame this by analyzing the multidimensional nature of poverty in Kitui County.

Analysis of the multidimensional nature of poverty is based on the capability approach theory, first introduced by Amartya Sen in the 1980s (Sen, 1999). The theory is a normative basis with two main evaluative statements (Anderson,

1999). First, the notion that having the freedom to achieve well-being is inevitably morally significant. In addition, well-being must be defined in terms of the capabilities of individuals rather than as a matter of their legal entitlement. This freedom influences the kind of life that people can successively lead (Anderson, 1999).

The theory is of core importance in this study as it guides the study in explaining the multidimensional nature of poverty in Kitui County. It views poverty as a deprivation of capabilities of individuals and provides information on how poverty can be alleviated by reducing their capability deprivations. The theory explains that reducing deficiencies in the dimensions of health, education and living standards can help lower the poverty levels in Kitui County. For instance, the capability of a person being in good health means that the person can work, earn income and thus improve his or her living standards.

3 Methodology

3.1. Theoretical Framework

The study uses the Alkire and Foster (AF) procedure of analyzing poverty to examine the multidimensional nature of poverty in Kitui County. The AF method measures the multidimensional nature of poverty using the dual cutoff methodology that is made up of two sets; deprivation cutoff and poverty cutoff. A deprivation cutoff shows who are deprived and in which indicator, while a poverty cutoff shows if a person is deprived enough to be considered poor. To determine which household is deprived in each dimension, the dual cutoff method defines a set of indicators to be considered. To determine the multidimensional nature of poverty, an n x d dimensional achievement matrix is used (Alkire & Foster, 2007).

$$X = \begin{bmatrix} x_{ij} & \cdots & x_{id} \\ \vdots & \ddots & \vdots \\ x_{jn} & \cdots & x_{nd} \end{bmatrix} \quad \text{Indicators} \quad \text{Households} \quad \text{.. 3.1}$$

x_{ij} is the achievement of household i (i= 1, 2,...,n) in dimension j (j= 1, 2,...,n). An assumption is made that the achievements are only represented by non-negative real numbers; $x_{ij} \in \mathbb{R}_+$. For each dimension j, a threshold Z_j which is the deprivation cutoff, is used to represent the minimum achievement required for a household to be deprived. If the ith household achievement level falls below the deprivation cutoff ($x_{ij} < z_j$), the household is said to be deprived in that dimension. Hence:

$$x_{ij} = \begin{cases} 1, & if\ x_{ij} < z_j \\ 0, & otherwise \end{cases} \quad \text{.. 3.2}$$

$x_{ij} = 1$ means that household i is deprived in dimension j and is assigned a deprivation status of 1 and $x_{ij} = 0$ means that household i is not deprived in dimension j and is assigned a non-deprivation status of 0.

The deprivation gap for household i in dimension j is then obtained as:

$$g_{ij} = \left(\frac{z_j - \bar{x}_{ij}}{z_j}\right) \text{...3.3}$$

g_{ij} is the deprivation gap, z_j is the deprivation cutoff, and $\bar{x}_{ij}$ is the household's achievement for a given indicator. If a household's achievement does not fall short of the deprivation cutoff, the deprivation gap is zero. To identify a poor household, assume that all the dimensions are given a weight $w_j > 0$. A household is said to be multidimensionally poor if the weighted proportion of deprivations exceeds the poverty cutoff threshold, which will be determined by the study. A higher weight indicates a greater value of deprivation; hence the household is poorer. If all dimensions are equally weighted, then a household is said to be poor if deprived in at least c dimensions. A deprivation score c_i (i=1, 2,..., n) which shows the deprivation that a household experience is obtained as:

$$c_i = \frac{1}{n}\sum_{i=1}^{d} w_j g_{ij} \text{...3.4}$$

c_i is the deprivation score, w_j is the weight for each dimension j, and g_{ij} is the deprivation gap. The more deprived conditions a household encounters, the higher its deprivation score becomes. A household that is not deprived in any dimension has a deprivation score of zero. The AF model will be used in the current study to determine the multidimensional nature of poverty in Kitui County by identifying how the households are deprived of the three dimensions of health, education and living standards. Equation (3.4) which shows the deprivation score (c_i), is used to analyze the multidimensional nature of poverty in Kitui County.

The three dimensions had an equal weight of 0.33 (i.e., 1/3). The indicators for the dimension of health included access to universal health insurance coverage and child mortality; the indicators for the dimension of education included years of schooling and school attendance; the indicators for the dimension of living standards included: the type of cooking fuel, sanitation, source of drinking water, access to electricity, house floor material and incidence of shocks. The weight of each dimension was divided by the number of indicators it had to determine the weights of these indicators. The weight of each indicator in the education and health dimension had a value of 0.165(0.33/2) and the weight of each indicator in the living standards dimension had a value of 0.055 (0.33/6). After obtaining the deprivation score, a poverty cutoff (k) was then applied to determine if a household is multidimensionally poor. Equation 3.5 was used to achieve this objective.

$$c_i \geq k \text{.. 3.5}$$

Where c_i is the deprivation score and k is the poverty cutoff. A household was said to be multidimensionally poor when the deprivation score was at or above a given poverty cutoff.

3.2. Data and Definition of Variables

3.2.1. Data Source
      The study used secondary data from the Kenya Integrated Household Budget Survey (KIHBS) 2015/16 Basic Report, which is one of the most current and comprehensive data sets in Kenya. The dataset was collected by Kenya National Bureau of Statistics. The sample size was independently determined for each county, resulting in 461 households in Kitui County.

3.2.2. Definition of Variable
      The multidimensional nature of poverty was summarized using three dimensions: health, education and living standards. A household was multidimensionally poor if its weighted deprivation score was above 33.3 percent. The three dimensions are explained below.

3.2.2.1. Health
      In health, child mortality and access to health insurance coverage were used to determine whether a household is deprived of health or not.
- *Child mortality:* The household was deprived of health if any child under the age of 5 years passed away in it.
- *Access to health insurance coverage:* A household lacking access to health insurance coverage was said to be deprived of health.

3.2.2.2. Education
      The years of schooling and school attendance were used to determine whether a household was deprived of education or not.
- *Years of schooling:* The household was considered deprived of education if any member over 18 years had less than five years of education.
- *School attendance:* A household was considered to be deprived of education if a child of school age was not enrolled in school.

3.2.2.3. Standards of Living
      The following variables, which included the type of cooking fuel, sanitation, the source of drinking water, availability of electricity, the house flooring material, and incidence of shocks, were used to show whether a household is deprived of living standards or not.
- *Cooking fuel:* If the members of a household used firewood as the primary source of cooking fuel, then it was deprived of living standards.
- *Sanitation:* If the members of a household used an unimproved human waste disposal method that included using open defecation, uncovered pit latrines, or bucket toilets, it was deprived of living standards.
- *Source of drinking water:* When a household lacked access to improved sources of drinking water, such as piped water, boreholes with pumps, protected springs, protected wells, rainwater, and bottled water, it was deprived of living standards.
- *Electricity:* A household with no access to electricity was deprived of living standards.
- *House flooring material:* A household with house floor material that is either earth or sand is said to be deprived of living standards.
- *Incidence of shocks:* A household that had experienced a shock that harmed the household's economic status was said to be deprived of living standards.

4. Results
      Descriptive statistics of the analyzed data indicated the following. Child mortality was reported by 0.65 percent of household members during the survey, while 99.35 percent reported no child deaths. As a result of the Kenyan government's improvements in maternal health care over the past decade, the number of maternal deaths has decreased (Gitobu et al., 2018). It was found that only 10.85 percent of households had health insurance coverage, while 89.15 percent lacked it. A large number of households were unable to afford the monthly premium required to obtain health insurance coverage (Mbau et al., 2020). As a result, if they become sick, they are forced to pay out of pocket for healthcare costs (Mbau et al., 2020).
      The household members deprived of years of schooling were 13.88 percent, while 86.12 percent were not. It revealed that a majority of household members had at least five years of schooling. A total of 88.07 percent of children of school age attended school, while 11.93 percent did not. Due to the free primary education introduced by the NARC Government in 2003, a high number of children attended school (RoK, 2004).
      Firewood was the primary form of cooking fuel used by 81.34 percent of households, while charcoal, kerosene, and liquefied petroleum gas were used by 18.66 percent of households. Since wood is readily available and does not incur purchase costs, it was the most popular source of cooking fuel. Households using unimproved human waste disposal methods were 44.03 percent, while 55.97 percent used improved human waste disposal methods. The unimproved human waste disposal methods included open defecation, uncovered pit latrines, or bucket toilets. This suggested that some households were unaware of the value of employing improved human waste disposal techniques to prevent illnesses like

cholera and dysentery (World Health Organization-WHO, 2021). However, the majority of the households used improved human waste disposals methods such as covered pit latrines and flush toilets. This showed that they were informed about the importance of using these methods to prevent diseases such as cholera (WHO, 2021).

The proportion of households having access to an improved source of drinking water was 50.65 percent, while 49.35 percent had access to an unimproved source of drinking water. Using unimproved water sources showed that the households lacked storage facilities such as tanks to store rainwater and could not afford to buy piped water or have access to water from a protected well. Only 16.49 percent of the households had access to electricity, while 83.51 percent lacked access to electricity. The high cost of installing electricity was associated with a large number of households without electrical connections (Chege, 2017).

The households living in houses whose flooring material was either earth or sand were 59.0 percent, while 41.0 percent lived in houses with tiles, cement, or wood planks as their floor material. Many households have sand or earth as their main floor material because there is little to no cost associated with having such a floor material (K'Akumu, 2006). The study showed that 95.66 percent of households experienced a shock that harmed the household's economic status, while 4.34 percent did not. Business failure, a drought that led to the death of livestock and crops, an increase in the price of agricultural inputs, job losses for breadwinners, and inflation were some of the economic shocks (RoK, 2018).

Using Alkire and Foster's (2011) dual cutoff methodology, the deprivation scores of households were calculated across all indicators.
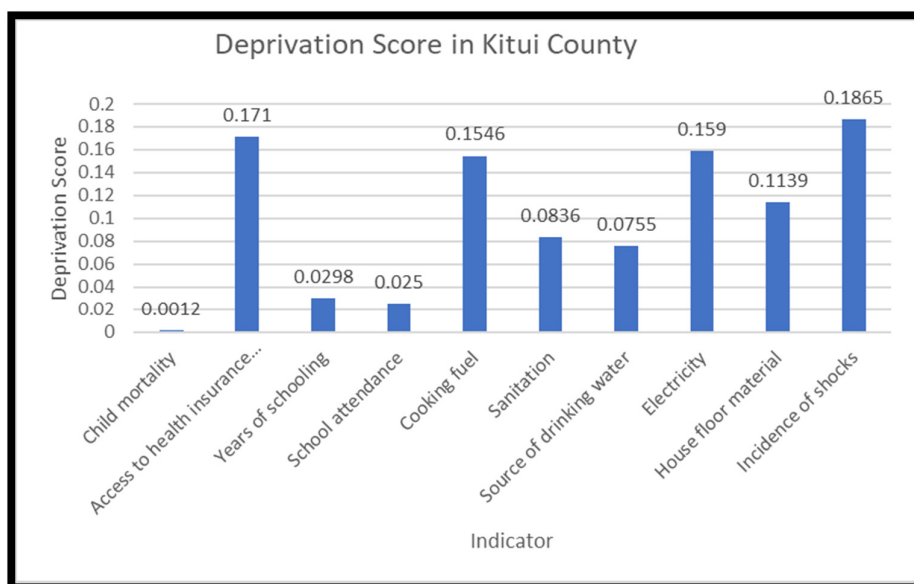
Figure 1: Source of Deprivation
Source: Author Computation, Study Data, 2015/16

The health indicators, which included child mortality and access to health insurance coverage, and the education indicators, which were years of schooling and school attendance, had an equal weight of 0.165 (0.33/2) each. The living standards indicators, which included the type of cooking fuel, sanitation, the source of drinking water, availability of electricity, the house flooring material, and incidence of shocks, had an equal weight of 0.055 (0.33/6).

Figure 1 shows that the deprivation scores for all the living standard indicators were above the required weight of 0.055. This revealed that the living standard was the highest contributor to multidimensional poverty in the county. The households were mainly affected by economic shocks since 0.1865>0.055. These shocks severely hindered the ability to live a good life. The economic shocks included business failure, drought, which led to the death of livestock and crops, an increase in prices for agricultural inputs, loss of jobs for the breadwinners and inflation (RoK, 2018). This was in line with Kijana (2011), who found that being negatively impacted by an economic shock raises poverty levels since households lack the resources to cope with them.

The households were deprived of access to electricity (0.1590>0.055). Due to the high cost of installing electricity, many households could not access it, leading to alternative power sources such as solar power and torches (Chege, 2017). Firewood was the main cooking fuel source for many households (0.1546>0.055). The high deprivation score indicated that the households lacked the resources to buy charcoal, kerosene, and liquefied petroleum gas for cooking (Chege, 2017). Also, the households were deprived of the house floor material (0.1139>0.055). The main floor material used by the households was sand or earth. This implied that most households could not afford to live in houses with tiles, cement, or wood planks as their floor material (K'Akumu, 2006).

The sanitation indicator had a deprivation score of 0.0836>0.055. It indicated that households were still defecating outside, using uncovered pit latrines or bucket toilets for human waste disposal. This revealed that the households lacked proper knowledge of the importance of using improved means of human waste disposal. The improved means of human waste disposal methods, such as covered pit latrines and flush toilets, help prevent diseases such as

cholera and dysentery (WHO, 2021). In addition, the households were deprived of having access to an improved source of drinking water (0.0755>0.055). Many households relied on unimproved drinking water sources such as unprotected springs, unprotected wells and boreholes, ponds, water vendors and streams. It implied that financial resources hindered households from accessing piped water or buying storage facilities such as tanks to store rainwater (Bonareri, 2019).

Health is the second dimension in which the households were mainly deprived. This is because 0.171>0.165 shows that households were deprived of access to health insurance coverage. Health insurance coverage was unavailable to many households, implying that insurance was not affordable. This was in accordance with Mbau et al. (2020), who reported that many poor households lacked the funds to pay for the monthly contributions of insurance coverage, thus preventing them from purchasing it. However, the county was not deprived of child mortality since 0.001<0.165. The education dimension exhibited the least deprivations since all its indicators had a deprivation score of less than 0.165. The result suggested that most school-going children attended school, and most household members had completed more than five years of education.

Using a poverty cutoff of 33.3 percent, the study determined the multidimensional poverty status and compared it to the deprivation score on each dimension (Alkire & Foster, 2011). By summing up the individual deprivation scores in each dimension, the deprivation score for each dimension was calculated. For instance, the deprivation score for the health dimension was obtained by adding the deprivation scores for child mortality and access to insurance coverage (0.0012+0.1710=0.1722). The deprivation score for the education dimension was obtained by adding the deprivation scores for years of schooling and school attendance (0.0298+0.0250=0.0548). The deprivation score for the living standard dimension was obtained by adding the deprivation scores for the type of cooking fuel, sanitation, the source of drinking water, availability of electricity, the house flooring material, and incidence of shocks (0.1546+0.0835+0.0755+0.1590+0.1139+0.1865=0.7730).

Dimension	Deprivation score	Poverty cutoff
Health	0.172	0.333
Education	0.055	0.333
Living standards	0.773	0.333

Table 1: Comparison of Deprivation Scores and Poverty Cutoff
Source: Author computation, Study Data, 2015/16

The households in Kitui County were mainly deprived of living standards where $c_i = 0.773 \geq k = 0.33$ (c_i is the deprivation score and k is the poverty cutoff). The health and education dimension had a deprivation score of 0.172 and 0.055, respectively. Consequently, the living standard indicators were the major factors contributing to the high poverty rates observed in the county. This was in line with Chege (2017), who found that the living standard dimension was the biggest contributor to multidimensional poverty in Kipipiri Constituency, followed by the health dimension and then the education dimension. Likewise, in her study, Bonareri (2019) found that living standards most impacted multidimensional poverty.

5. Implications

Based on the study's findings, the following policy implications are suggested. Priority interventions should be directed at improving the living standard, which contributed most to multidimensional poverty in the county. It is necessary for Kitui County National Government, through the Ministry of National Treasury and Economic Planning, should advocate for lowering the interest rates charged on loans by financial institutions. As a result, households can easily access loans from financial institutions regulated by the Central Bank of Kenya, helping them overcome economic shocks. The County Government of Kitui, through the Ministry of Finance and Economic Planning, should also encourage women and youths to apply for loans under the Women Enterprise Fund (WEP) and Youth Enterprise Fund (YEP), respectively which issue loans at a lower interest rate. The loans can be used to carry out investments and overcome economic challenges. Through the Ministry of Energy, the national government should implement a program to subsidize electricity. This is because the high installation costs prevented many households from obtaining electricity. It is also necessary for the Ministry of Energy to lower the cost of cooking fuel. Households will be able to stop relying on firewood, which is a major cause of deforestation.

As part of its efforts to raise awareness of the importance of proper waste disposal, campaigns should be conducted by the County Government of Kitui through its Ministry of Health and Sanitation. The risk of diseases such as cholera and typhoid in rural areas will be reduced due to these campaigns. The County Government of Kitui, through the Ministry of Water and Irrigation, should lower the cost of installing piped water to households or increase the strategic water collection points in the county. Furthermore, the County Government of Kitui should work with the Ministry of Water and Irrigation to drill more public boreholes in all wards. Households will have greater access to safe drinking water, thereby reducing the spread of waterborne diseases. Finally, the County Government of Kitui should increase awareness about the importance of floored houses through the Ministry of Lands, Housing, and Urban Development. The reason is that earth or sand does not do well in wet and humid conditions. The humid nature of the floors may cause respiratory problems during the rainy season.

The second main deprived dimension was health. These deprivations can be reduced by following these steps. Access to health insurance coverage should be made affordable by the County Government of Kitui through the Ministry of Health and Sanitation. Households will then be able to afford hospital services when sick due to the affordability.

Furthermore, the County Government of Kitui should educate its residents on the importance of the National Health Insurance Fund (NHIF) through its community health workers. The NHIF covers hospital bills for families without imposing financial hardship since the expenses are deducted from the monthly contribution. It is also important that the County Government of Kitui, in collaboration with the Ministry of Health and Sanitation, encourages households to sign up for M-TIBA, which is a mobile health wallet aimed at making healthcare more accessible and affordable for everyone in Kenya.

6. Conclusion

Based on the analysis, households in Kitui County are multidimensionally poor and are deprived more of living conditions indicators than indicators in health and education. This was a result of all the indicators in the living standard dimension having a deprivation score that was above the required weight. Also, more than 40 percent of households are deprived of the type of cooking fuel, sanitation, source of drinking water, availability of electricity, the house flooring material, and are negatively impacted by the incidence of shocks. Households, however, had little access to health insurance coverage in the health dimension. The education dimension had all its indicators with a deprivation score less than the required weight hence an insignificant impact on multidimensional poverty.

7. Conflict of Interest Statement

The authors declare no conflicts of interest.

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