Scientific Research Publishing

Open Journal of Social Sciences, 2023, 11, 366-377
https://www.scirp.org/journal/jss
ISSN Online: 2327-5960
ISSN Print: 2327-5952

Socio-Economic Impacts of the *Kamuina Nsapu* Phenomenon and Analysis of Community Resilience in the Province of Kasai Oriental: Case of the Territory of Miabi (DRC)

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How to cite this paper: Katayi, A. L., Kalambaïe, M. M., Mbuyamba, H. T., Mbuyi, C. T., & Mobula, V. M. (2023). Socio-Economic Impacts of the *Kamuina Nsapu* Phenomenon and Analysis of Community Resilience in the Province of Kasai Oriental: Case of the Territory of Miabi (DRC). *Open Journal of Social Sciences, 11,* 366-377.
https://doi.org/10.4236/jss.2023.113026

Received: November 3, 2022
Accepted: March 28, 2023
Published: March 31, 2023

Abstract

This research aims to identify socio-economic and sanitarian impacts of the *Kamuina Nsapu* insurrection on the livelihood of rural populations in the territory of Miabi. It also seeks to understand the resilience mechanisms developed by the local community faced this psychosocial shock. Therefore, the household survey and structured interview were used for collecting data through the villages of Katende, Miketa and Tshilundu. In addition, the analysis method was explored for data processing by using R 3.5 software. After investigation, it was found that the *Kamuina Nsapu* phenomenon remains the major shock recorded by the respondents. This humanitarian shock had driven to socio-economic impacts: decreasing of livelihoods for local community which is linked with the increasing of insecurity and vulnerability in this rural area, on one hand. On the other hand, the sanitarian impact is namely the increase of severe malnutrition at around of 36.6%. Faced this mechanism, the local community are resorting more to migration as the main resilience mechanism to ensure their survival. Therefore, it is necessary to call on all stakeholders in this territory for helping local community to overcome this humanitarian tragedy.

Keywords

Community Resilience, Nutritional Status, *Kamuina Nsapu* Phenomenon, Kasai Oriental, DRC, Shocks

1. Introduction

Natural and human-made hazards and their impacts are more affecting populations and they can vary in time and space. These events can be sudden or gradual, in whichever case can be devastating for a community, country or region (UNOCHA, 2012). The combined effects of climate change, economic crisis and socio-economic conditions have resulted in an increased frequency and severity of risk exposure for vulnerable populations (FSIN, 2014).

Furthermore, the sociopolitical context of developing countries combined with multiple security challenges and socio-economic conditions (prevalence of chronic poverty) can directly threaten the community stability of the entire region. While the fact that democracy is gaining ground and an important step forward, the manipulation of electoral gains for personal purposes leads to risks of destabilization and tensions, which need to be constantly analyzed (Grünewald & Brangeon, 2016). The Democratic Republic of the Congo (DRC) is not an exception to this reality and had been experienced a period of high political and security instability during the period between 2015 and 2017. The transition to a democratic policy in the DRC, which is still very recent, is often marred by violence (Saumet, 2018).

The *Kamuina Nsapu* phenomenon decried in the Kasai region during the period from June 2016 to August 2017, is contextualized as a major civil war and community clash, resulting in the loss of human lives, livelihoods and even psycho-social stress of local community through the central region of DRC (Grünewald & Brangeon, 2016). In fact, the repercussions of this tragic phenomenon had conducted to the massive relocation of rural population, with all consequences on their livelihoods and agricultural production. Moreover, this phenomenon had increased the malnutrition in various forms beyond the rural areas, which is estimated between 61.4% and 70.1% (PRONANUT, 2018).

In addition, the Congolese population in general are confronted to food insecurity day to day, and which threatens represents more than a third of people through the country (Tollens, 2003). Furthermore, this same population is facing constantly to spiral poverty, especially in rural areas. Although the urban population might be less vulnerable to this phenomenon than the rural ones who are highly exposed to poverty due to their few incomes (Marivoet and Keje, 2011). Thus, the civil war from *Kamuina Nsapu* phenomenon had exacerbated not only food insecurity, but also the rate of poverty and chronic malnutrition in this region.

The *Kamuina Nsapu* consequences are more detrimental in Kasai Oriental

than other provinces, because this province had faced many crises like the failure of diamond price in 2008 and more land conflict after dismemberment in 2015. In addition, there is a contrast in this entity between agricultural production and population growth. This phenomenon, which has targeted rural areas, considered as the production basin, had leaded to an increase in the rural exodus and emigration of population to other provinces, with logical consequences of increasing the vulnerability of hosting households, the flight of agricultural labor which influence, the food dependence of rural entities on the urban entity to other neighbor provinces (Katayi et al., 2018).

Despite the fact that the capacity of communities and institutions to respond to spontaneous hazards is limited, the community resilience remains a useful tool for accessing livelihoods and socio-economic conditions after disaster phenomenon (UNOCHA, 2012). In fact, resilience is the ability of communities and households to anticipate and adapt to risks and to absorb, respond and recover from shocks and stresses appropriately and effectively without compromising their long-term prospects (GOAL, 2015). In addition, resilience transcends the ability to respond to shocks (natural and human-made disasters), but also takes into account threat prevention and risk preparedness. In others terms, resilience is the ability of a system, community or society potentially exposed to hazards to adapt by resisting or evolving in such a way as to achieve or maintain an acceptable level of functioning and structure. This capacity is determined by the degree to which the social system is able to organize itself to increase its ability to learn from the past disasters for better future protection and to improve risk reduction measures" (UN/ISDR, 2004; Rahi et al., 2021). Hence, the scale of crises depends as much on the situation at the time of the shock (the stresses) and the nature of the shock as on the capacities of societies to cope with it (Grünewald & Brangeon, 2016).

Although the fact that, this tragic phenomenon was more spread through medias, it stays few documented by scientist. Therefore, this study aims to assess the resilience mechanisms implemented by rural communities faced to this humanitarian catastrophe as well as their socio-economic and sanitarian impacts. Thus, the fundamental question of this research was: how the rural community of Miabi territory had behaved during *Kamuina Nsapu* phenomenon and had managed the socio-economic and health impacts of this phenomenon?

2. Methodology

This study was conducted in three villages, namely: Katende, Miketa and Tshilundu all located in the territory of Miabi, situated in the Kasai Oriental Province, which is one of the 26 provinces of the DRC. The geographical coordinates of this territory are: 6˚12' South latitude, 23˚22' East longitude and 600 m of altitude.

The territory of Miabi covers an area of 1747 km^2. Its population is estimated approximately at 833,401 habitants with the human density of 477 habitants/km^2. Administratively, it is a deconcentrated entity of Kasai Oriental province, created

by the presidential ordonnance n˚ 078/018 of 18 January 1978. In which ordonnance, this entity had consecrated as one of the territory of the former district of Tshilenge, which constitutes the current province of Kasai Oriental. It comprises 4 sectors, namely Kakangayi, Movo-Nkatsha, Tshijiba and Tshilundu; with 37 groupings and 467 villages. This territory is located at a distance of 30 km on the West side of Mbujimayi, the capital of the Kasai Oriental province (Anonym, 2017).

It is bounded to the north by the territory of Kamiji, to the south by the territory of Lupatapata, to the east by the territory of Tshilenge and to the west by the territory of Kabeya-Kamwanga. Figure 1 below illustrates the map of Miabi territory.

As shown in Figure 1 below, the territory of *Miabi* is one of the areas affected by malnutrition in DRC (color red on DRC map). The three surveyed sites are marked with red points to indicate areas affected by the *Kamuina Nsapu* phenomenon. This map is produced using coordinates collected in the field with, a GPS and the vector layers of RCG.

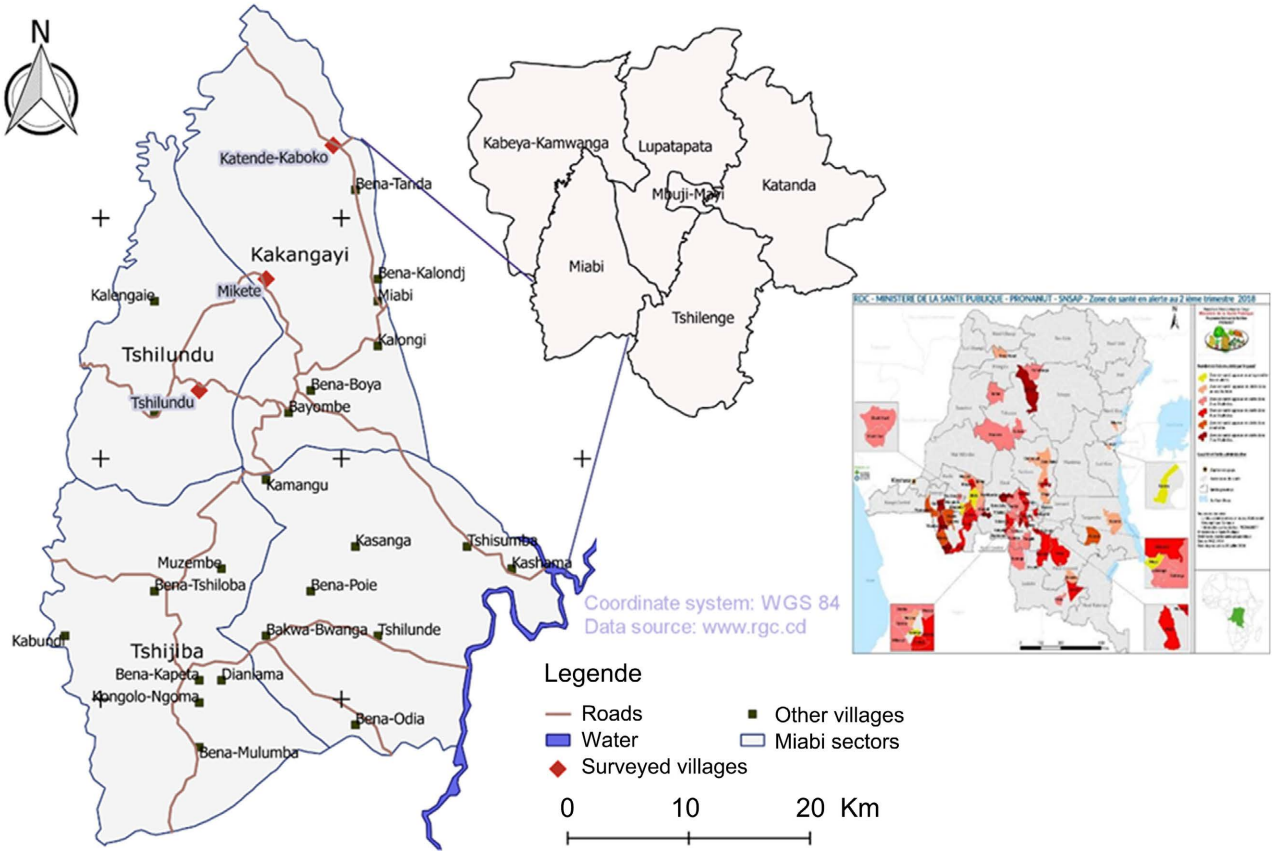

Figure 1. Localization of surveyed villages in Miabi Territory.

The data were collected by using the household survey method in the three sites mentioned above. The narrative technique associated with the administration of questionnaires were used to obtain data on the socio-economic and sani-

tarian or impacts of the *Kamuina Nsapu* phenomenon, *the* resilience mechanisms developed by the local community and the nutritional status of the households surveyed.

Hence, the casual sample of 90 rural households was selected in this territory, in the reason of 30 households per village. In most cases, the interviews were conducted with the heads of rural households who have approved knowledge of the *Kamuina Nsapu* phenomenon. In addition, the narrative technic allows the respondents to narrate their testimonies, for better analyze of this psycho-social shock.

In practice, this interview technique allowed the dialogue with rural households, for understanding them recounting their memories during this event. In fact, this technique consists in the deep conversation with the respondents, for deliver themselves their own melancholic stories, listening them in order to share their plight and emotional wishes and for offering them some necessary immediate advice.

In addition, this technique allowed the interviews with local, territorial and provincial authorities (3 village chiefs, 2 sector chiefs, the Administrator of the territory, the Head of the Provincial Division of Interior and Security and the Provincial Minister of Interior, Security and Customary Affairs) were carried out during 2018 to triangulate the data collected from the local community. The Figure 2 bellow, obtained from the provincial ministry of interior and security of Kasai Oriental illustrates the *Kamuina Nsapu* militias in Miabi territory.

Endly, the data processing had been possible by using the statistical analysis method. This was achieved by using the computer software Excel version 2016 for data encoding and R-studio 3.5.1 version (with the package ggplot2) for the making the graphics and statistics test.

Figure 2. The *Kamuina Nsapu* militiane (with red dadges) armed (credit photo, Mininter Kasaï Oriental).

3. Results

3.1. Major Shocks Experienced by Rural Households

The *Kamuina Nsapu* phenomenon is not the main psychosocial shock that the local community in *Miabi* territory has experienced during the study period. The Miabi people faced with other shocks that are considered either corollary to the *Kamuina Nsapu* phenomenon or coexisting with it. Figure 3 below illustrates the different shocks recorded among the respondents.

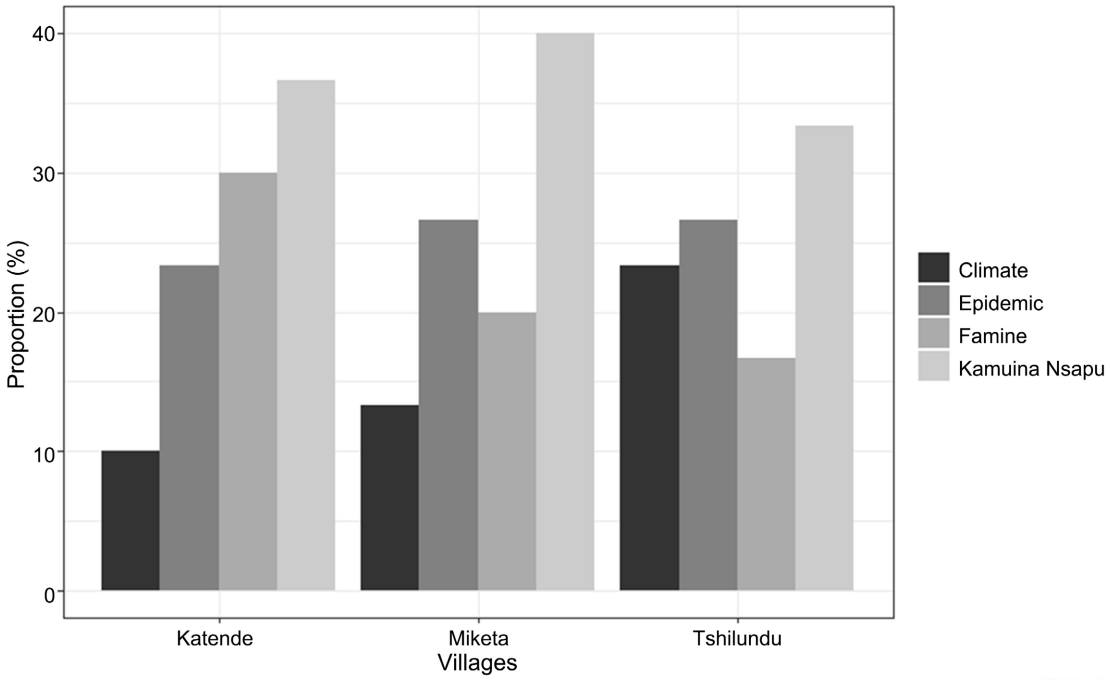

Figure 3. Major shocks experienced by respondents.

The local community of Miabi during 2016 and 2017 years, recorded several socio-economic shocks, the most notable are shown in Figure 3 above. As a result, the most salient shock reported by the local community in the three villages is the *Kamuina Nsapu* phenomenon, followed by famine, epidemics (of humans, crops and domestic animals), and finally the shock of global warming which materializes in the disruption of the cropping seasons.

In-depth interviews with the various stakeholders reveal that famine had increased in these areas following the *Kamuina Nsapu* phenomenon, as the population had fled their villages and taken refuge in the bush where they could no longer produce and, as a result, their livelihoods had dwindled. In the same sight, certain epidemics have been developed, such as cholera, as a result of poor hygiene in the bush camps and the consumption of water contaminated by run-off water that drains all the liquid and solid waste from the catchment area used as a shelter for the community.

In addition, some poultry outbreaks were mentioned by respondents as a result of the introduction of poultry into settlements where the ecological condi-

tions are unsuitable. It is also worth mentioning the maize epiphyte that occurred just after this phenomenon, namely *the* "*army worm*", which further aggravated the vulnerability of local communities. In addition, the climate also has a negative influence on agricultural production due perturbations of the cropping seasons. This affects the livelihoods of local communities, especially for farming households that are totally dependent on this sector.

3.2. Corollaries of the *Kamuina Nsapu* Phenomenon

The *Kamuina Nsapu* phenomenon has had collateral effects in rural areas. Figure 4 below summarizes some of the corollaries in function of the shocks experienced by the local communities surveyed.

As will be explained later, the various shocks and/or humanitarian disasters have resulted in an enormous number of socio-economic and health impacts. These impacts or corollaries vary by village and according to the shocks. Figure 4 illustrates the corollaries of the shocks by village and the corollaries of each shock in the surveyed community.

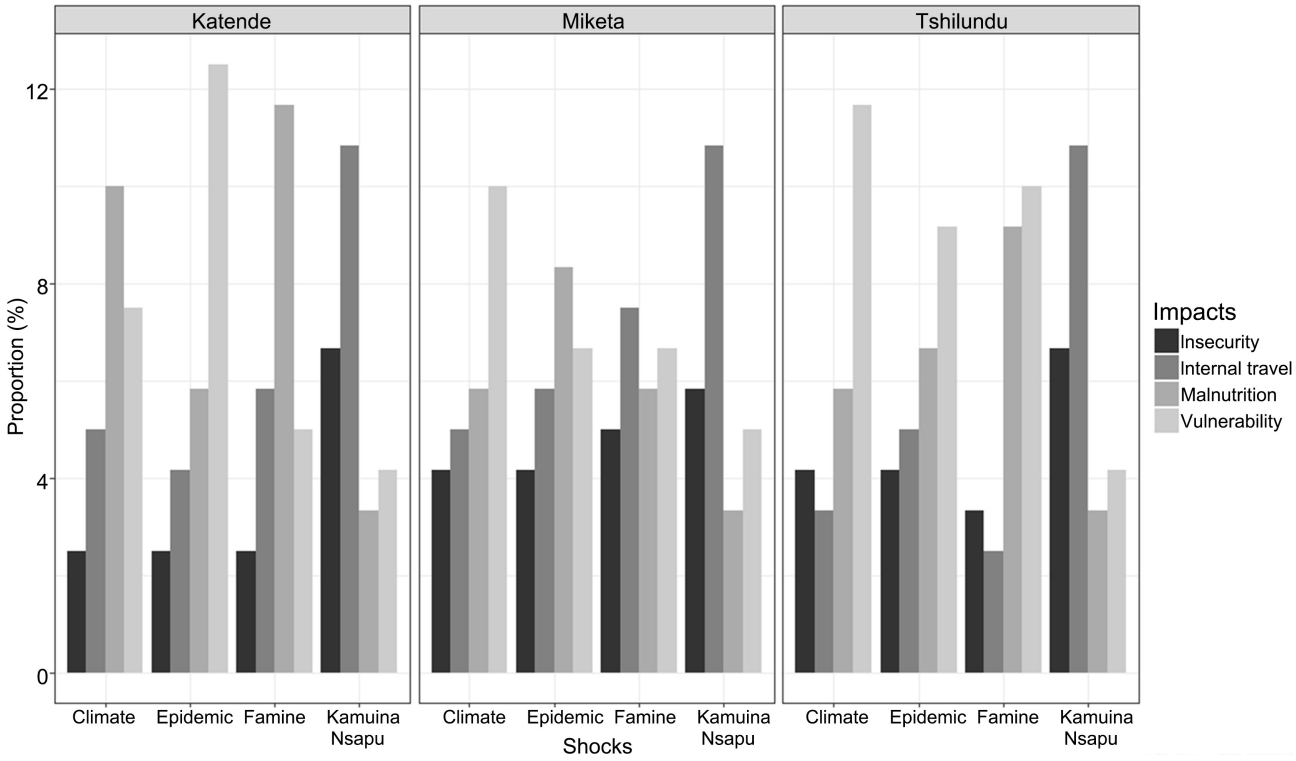

Figure 4. Impact of shocks per village and corollary per shock.

In the village of *Katende*, the climate and famine shocks had resulted in increasing of the malnutrition, while the epidemic and *Kamuina Nsapu* had increased respectively the vulnerability of local communities and the internal travel. According the village of Miketa, all shocks had contributed to the increase of insecurity and had exacerbated the vulnerability and the internal travel. Finally, in the village of Tshilundu, the climate and epidemic shocks had raised the vul-

nerability of local community whereas *Kamuina Nsapu* had significantly increased the insecurity and internal travel.

In addition, the link between shocks and their corollaries reflects a certain trend in the facts. In this case, the shock of disruption of the cropping seasons and/or climate is most evident in the form of malnutrition. Epidemics (including epizootics and epiphytia) result in the vulnerability of the local community. As for famine, it has led to malnutrition in all its facets and to the vulnerability of the community. Finally, the *Kamuina Nsapu* phenomenon has led to massive displacement of the population and increased insecurity in rural areas.

3.3. Resilience Mechanisms Developed by Local Communities

Faced these humanitarian tragedy, some mechanisms and/or strategies were implemented to take care of themselves or to ensure the survival of the local community. Figure 5 below illustrates these local mechanisms implemented through Kasai Oriental province in general and in the territory of *Miabi* in particular, during the *Kamuina Nsapu* insurgency.

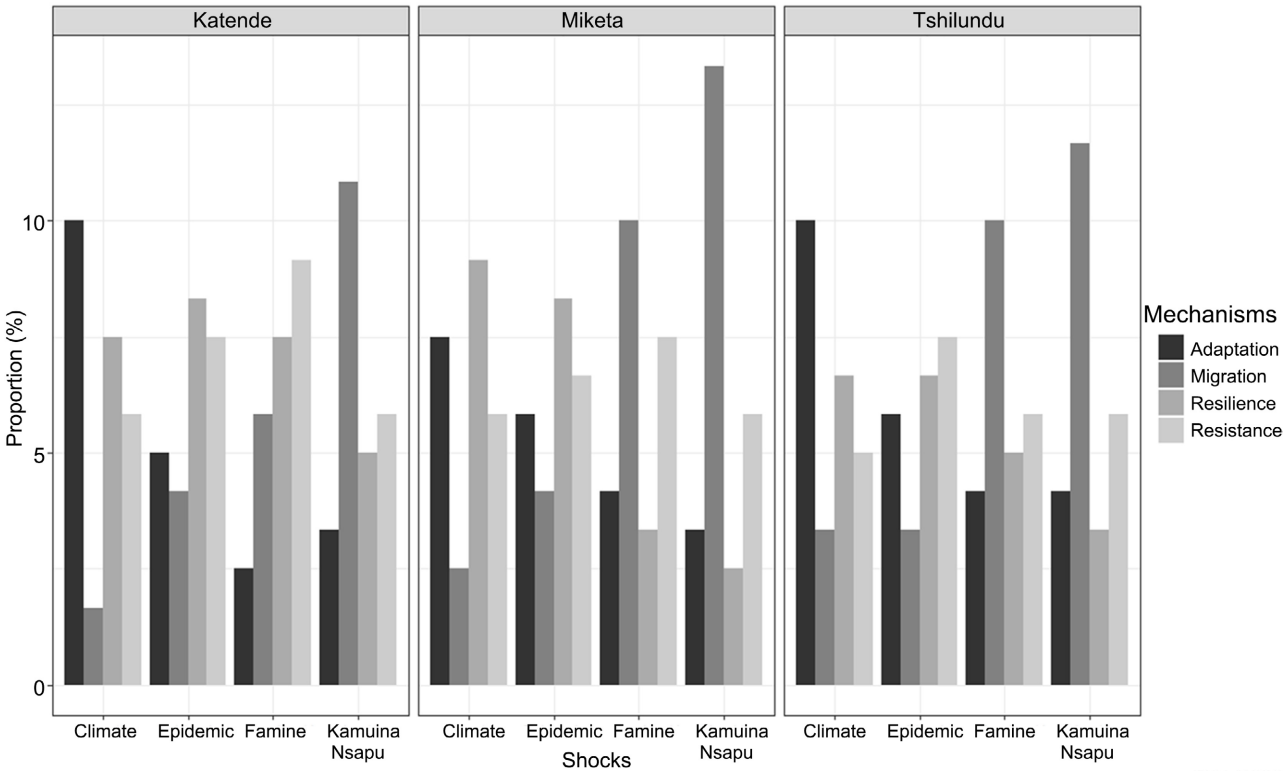

Figure 5. Resilience mechanisms by village and shock.

Some of these mechanisms have been facilitated by the humanitarian agencies, but in the most of case, the local communities had implemented these ones themselves. Hence, for the climate disruptions, most of household surveyed had adaptation and resilience as mechanisms against this shock. For epidemics, which had arisen during this period, the local communities had been more resi-

lient and in the most of case resistant faced this shock. According the famine, it was found that in the village of Katende, the household were resistant than those of Miketa and Tshilundu, who prefer the migration (temporal or definitive) face this shock. Finally, the *Kamuina Nsapu* shock in all villages had occurred the massive migration of population. This result shows a few percent of population who were resilient because this psycho-social shock had exacerbated the vulnerability of these local communities.

3.4. Nutritional Status of Rural Households Surveyed

The *Kamuina Nsapu* phenomenon associated with intern shocks, had affected local nutritional status as presented through Figure 6 bellow.

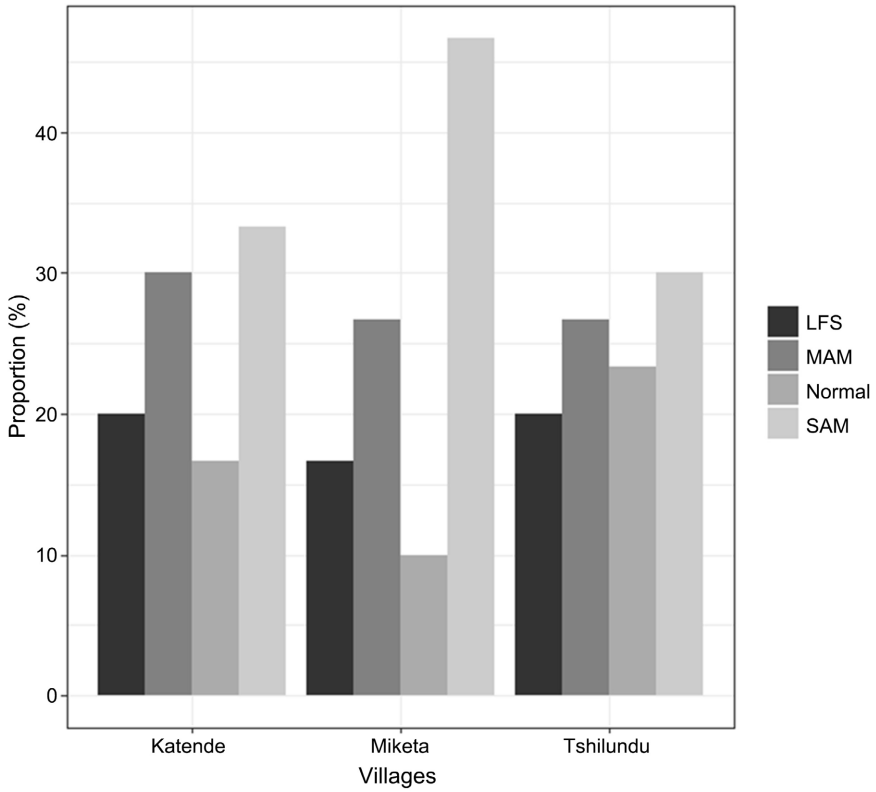

Figure 6. Nutritional status of surveyed households.

Based on the calculation of the composite score of nutritional status of rural households, it is found that most rural households live in severe acute malnutrition (*SAM*), 47% at Miketa, 33% at Katende and 30% at Tshilundu. In the second rank, the moderate acute malnutrition represented 30% at Katende, 26 % at Miketa and Tshilundu. The normal nutritional status was registered at 23% in Tshilundu village, 17% at Katende and 10% at Miketa. While the nutritional status of limited food security (LFS) had been registered at 20% in Katende and Tshilundu and 17% in Miketa. These results reflect the bleak board that the local community of Miabi experienced during and after this humanitarian tragedy and should alert all political and administrative decision-makers and humanita-

rians to take concerted action.

4. Discussion of the Results

This work did not aim to describe the *Kamuina Nsapu* phenomenon experienced in the Kasai region during 2016 and 2017. Rather, it sought to assess the socio-economic and sanitarian consequences of this humanitarian disaster in Kasaï Oriental province, Miabi territory, more precisely in the villages of *Katende*, *Miketa* and *Tshilundu*. This assessment should lead to an understanding of the resilience mechanisms and/or strategies adopted by the local community.

Data was collected from 90 rural households in these three villages through the administration of a survey questionnaire and the interview with local authorities. Analysis of the data revealed that the local population has experienced several socio-economic and health shocks, the most important of which are the *Kamuina Nsapu* drama, famine, epidemics and climatic disruptions for the period from 2016 to 2018. In addition to climatic disruptions, other shocks are inherent to the *Kamuina Nsapu* phenomenon as a result of the displacement of most rural households and the loss of livelihoods (FAO et al., 2017).

However, assessing community resilience has always required an integrated approach to consider a combined response (Grünewald, 2005). It needs to be done in a holistic and non-segmented way in order to respond simultaneously. As risks overlap and intertwine, it is necessary to see how they interact. A multi-factor and multi-hazard analysis is therefore necessary to better understand their interactions (Grünewald & Brangeon, 2016). This study had integrated this approach for analyzing the social, economic and sanitarian impact and to understand the resilience mechanisms implemented by local communities within the local community of *Katende*, *Miketa* and *Tshilundu*.

However, the emergence of resilience programs seems as a response to the increased frequency and impact of humanitarian crises that disproportionately affect the world's poorest and most vulnerable populations. This is not only to advocate for the root causes of vulnerability that exacerbate the impact of risks, but also for the building of resilience that can facilitate a transition from humanitarian responses to a longer-term development agenda (GOAL, 2015; CONCERN et al., 2017).

Currently, it is recognized that the interactions between climate perturbations, ecosystem fragility and geopolitical instability have given rise to new forms of risk that are increasingly difficult to predict (Fall et al., 2011). In fact, the combined effect of these new forms of risk has increased the negative pressures on agro-ecological systems, economic resources and social institutions, undermining welfare dynamics. As a result, the well-being of the poor, the most vulnerable part of the world's population, is threatened by an increasingly difficult set of shocks and stressors (PAM, 2014).

Furthermore, a resilient community is ideal. No community can ever be completely safe from natural or man-made disasters (Ruiz-Román et al., 2017). It

may be useful to think about "disaster resilient" or "disaster proof" community as one of possible event and know how to prevent and build an awareness system of natural or anthropic disaster in order to decrease vulnerability through DRC.

Endly, the three hypotheses which stated respectively: The Kasaian population, especially in the territory of Miabi, would be vulnerable following the *Kamuina Nsapu* phenomenon; rural households would be food insecure following the loss of their livelihoods; community resilience mechanisms would not be effective faced the *Kamuina Nsapu* shock. These findings have confirmed these hypotheses. In fact, the lack of early warning systems for the prevention of this tragedy, the absence of autonomous community resilience mechanisms and psycho-social support, which can reinforce the community resilience.

5. Conclusion

This study fills a scientific gap since the advent of *Kamuina Nsapu* in the Kasai region. It is not carried out for political purposes, but rather for scientific ones, in order to identify the impacts of this humanitarian tragedy on the socio-economic and health conditions of local communities. Indeed, this research was carried out for verifying the main hypothesis notably: *Kamuina Nsapu* phenomenon have been affected the livelyhoods in Kasaï region? To do this, the method of household surveys and narrative technic were implemented in the villages of Katende, Miketa and Tshilundu, all located in Miabi territory. This method allows the collection of qualitative data through a casual sample of 90 households in this territory affected by *Kamuina Nsapu*.

After investigation, this research found that, the *Kamuina Nsapu* phenomenon were major shock experienced by the local communities during the study period, although some other social shocks had been mentioned. The impact of these all shocks had significantly affected the livelihoods of local communities and increased their vulnerability. These impacts namely: the insecurity, the internal travel, malnutrition and vulnerability had been exacerbated by the *Kamuina Nsapu* tragedy. Moreover, these local communities had developed in the most of case themselves some resilience mechanisms such as the resistance or the migration. Furthermore, this phenomenon had exacerbated the severe acute malnutrition which is the most vulnerable nutritional status.

It is worth mentioning that the lack of community resilience mechanisms in rural areas makes the local population vulnerable because not only does each shock have sometimes irreversible consequences, but also this population is exposed to shocks due to excessive poverty. Early warnings are an essential disaster risk management tool that can build resilience through these communities which are subject to this cycle of crisis. They save lives by warning people of impending danger, enabling them to make decisions to protect their lives and livelihoods. When combined with early interventions, warnings can mitigate the effect of this shock on a community, protecting the community's hard-won gains to strengthen the future prospects sustainably.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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