

CHANGING CLIMATIC PATTERNS AND STUDENT'S ACADEMIC PERFORMANCE AT ST. PONTIANO NGWODWE'S. S.S IN KANGULUMIRA SUBCOUNTY IN KAYUNGA DISTRICT

1 Birungi Sarah, 2 Mayanja Moses

1, 2 Metropolitan International University

ABSTRACT

Although on a global scale Uganda is experiencing significant impacts on weather patterns, reduction in water levels and increased frequency of extreme weather events like floods as well as drought experienced in some parts of the country like floods in Kasese, even near Ssezibwa Kayunga road made the social economic impacts on communities very vulnerable. In the recent past especially in the years with above normal rainfall around Ssezibwa in Kayunga district led to inaccessibility which made it difficult for students to reach their schools. This study therefore looks at the various climatic changing patterns, how it has affected the students' academic performance in Kayunga district kangulumira subcounty and also the mitigation variables to be done to curb the issue or if not to reduce it. The findings of the study also presented results, 40% of the respondents informed the researcher that they strongly disagreed that climatic change patterns had an influence on students' performance followed by 30% of the respondents who presented results indicating that they agreed with the fact that climatic change patterns had an influence on the academic performance. 13% of the respondents presented results to the researcher indicating that they strongly disagreed with the fact that climatic change patterns would influence students' performance. There was a need to put in place the weather forecast equipments in every community in order to inform the community members about the possible climatic change patterns.

Key words: changing climatic patterns, students and academic performance

Background of the study

Globally, climate change is seen mostly in the Arctic, Africa, small islands and Asian megadeltas, and in Austria with increased heat, drought and insect abundance, all related to climate (Nicholas et al., 2023). Others include; increased forest fires, reduced water supplies, reduced agricultural yields, urban health impacts due to heat, flooding and coastal erosion (Willies et al., 2022). Africa is one of the most vulnerable continents to climate variability and change due to numerous existing stresses and low adaptive capacity (Christopher, 2022). Much has already warmed by more than 1°C since 1901, with heatwaves and hot days increasing, reducing rainfall over northern Africa and southwestern South Africa, according to the Intergovernmental Panel on Climate Change (IPCC), 27 October 2020 (Richard, 2022). In East Africa, climate change is driven by changes in the frequency, intensity and predictability of rainfall. Major cities witnessed temperature increases that almost doubled with the 1.1°C warming seen by the globe since pre-industrial times in 1860, Addis Ababa (Ethiopia) warmed by 2.2°C, Khartoum (Sudan) by 2.9 °C and others (Nicholas et al., 2023). At the national level, Uganda is experiencing significant impacts from climate change, declining water levels and increased frequency of extreme weather events such as floods and droughts, the socio-economic impacts of which make communities highly vulnerable. Kayunga recently had floods on 29 October 2019

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that cut it off from Mukono District at Ssezibwa Bridge, students studying in Ntunda schools were unable to access them (Seth & Ntirandekura, 2022). Therefore, Kayunga has a diverse climate in that the southern part is characterized by a tropical climate where rainfall is bimodal. St. Pontiano Ngondwe in Kangulumira sub-county near Kalangala Falls is changing the climate to heavy rains that lead to the collapse of the routes that students use to access schools, hence you find some missing and others held back. time that reduces academic performance (Godfrey et al., 2023)

Statement of the problem

Climate change has a direct impact on education in Kayunga district, for example, heavy rains accompanied by flash floods that broke some routes leading to schools, such as the floods that cut off kayunga from mukona along the ssezibwa bridge, could not allow students to access schools (Anthony et al., 2023). This study sought to identify and document the various impacts of changing climate patterns, their impact on student academic achievement in Kayunga District, and help policy makers and school administrators understand their impact on student academic achievement and lay strategies to mitigate them (Victoria et al., 2023).

Specific objectives

- To identify the various climatic changes that are evident in kayunga district kangulumira Sub County.
- To find out the influence of climatic changing patterns on students' academic performance in kayunga district kangulumira sub county.
- To identify the steps adopted by students to ever come the effects on climatic changes and improve on the academic performance in kayunga district kangulumira sub county.

Methodology

A descriptive cross-sectional research design was adopted with both qualitative and quantitative approaches as a way of triangulating and enhancing the quality of the findings of the study. The qualitative approach was associated with ethnographic research whose interest was to understand social processes and cases in their socio-cultural setting. It was the use of open-ended questions or words and it helped the researcher enlist respondents' experiences in order to understand their perceptions and attitudes on climatic changing patterns and students' performance in St. Potiano Ngwonwes' SS. The study also employed a descriptive research design. Descriptive design was a design where the researcher described the status of affairs as they existed. This was a method of collecting information by means of interviews or administering questionnaires. The target population for the study consisted of School Head teacher, deputy head teacher and Directors of studies, teachers, and students in the selected secondary school in Kangulumira based on their role of overseers of the head teachers' day-to-day school administration (Education Act, 2008). Participation of members of Head teachers in the study was to bring light of their experiences of climatic changing patterns on students' performance at their respective school as they participated in responding to the questions by the researcher. The researcher believed the selected people had information concerning welfare and performance of teachers as educators. The study employed stratified and purposeful sampling techniques to select those who

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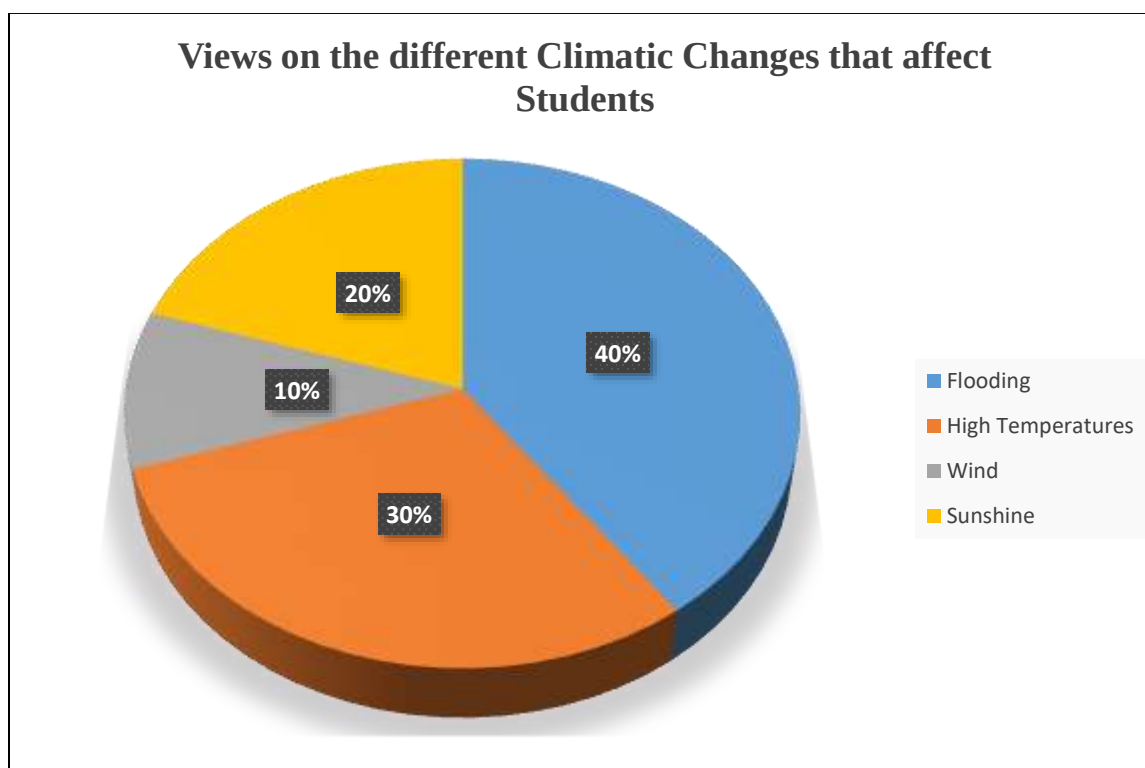
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participated in the study. A stratified sampling technique referred to the researcher identifying sub-groups in the target population, Purposeful technique was used by the researcher to decide who to be included in the sample from the school. This section identified and described the various instruments that were employed in the data collection. Data was collected using questionnaires and interviews. The selection of these tools was guided by the type and nature of data that was collected. The main data collection instruments in this study were structured interview question guides and questionnaires. The researcher used these two types of instruments for purposes of triangulation and developed on the basis of the study objectives. Descriptive analysis was used for categorical variables to be described in terms of frequencies and percentages using SPSS (Nelson et al., 2022). A qualitative method was used to analyze numeric data in order to measure and explained the relationship and differences between the given variables in the research topic looked about by the researcher.

RESULTS

Figure 1: Different Climatic Changes



Source: Primary Data 2020

According to the figure above, the findings of the study revealed results indicating that 40% of the respondents presented results showing that floods was one of the main climatic changes that usually affected the students followed by 30% of the respondents who presented results indicating that high temperatures was another climatic

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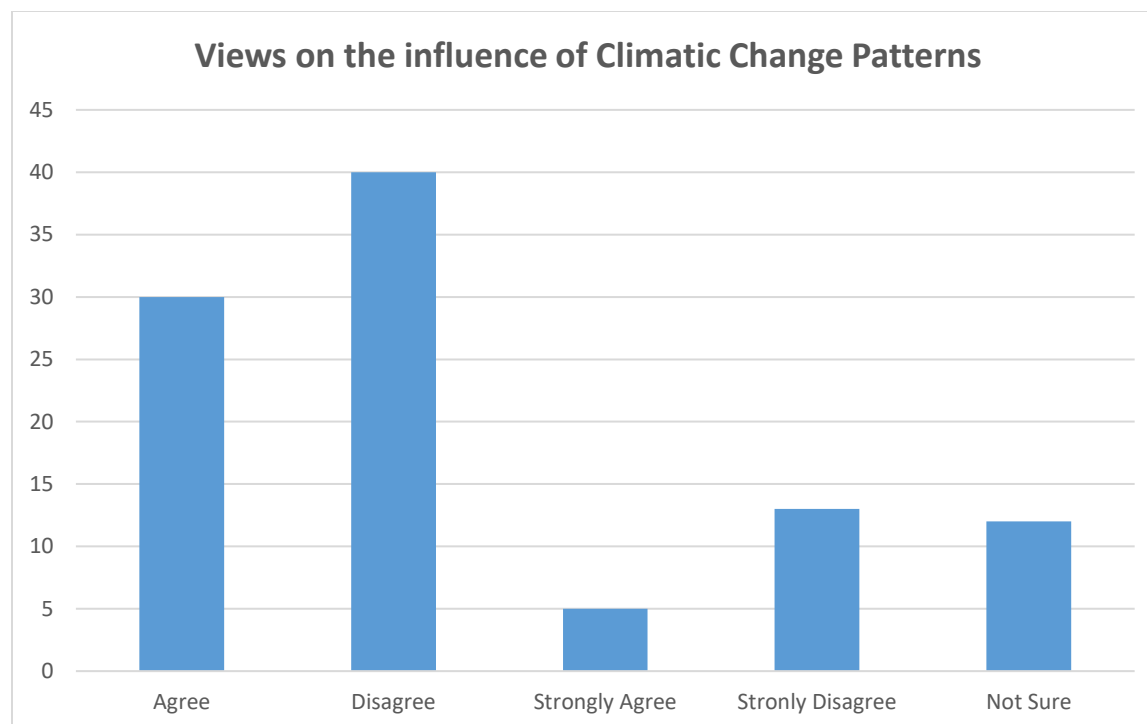
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change that affected the students. 20% of the respondents presented results to the researcher indicating that Sunshine was another climatic change that affected students and finally some other respondents informed the researcher that wind was another climatic change that always affected school going children (Mark et al., 2023).

Figure 2: Influence of Climatic Change Patterns



Source: Primary Data 2020

According to the findings of the study, 40% of the respondents informed the researcher that they strongly disagreed that climatic change patterns had an influence on students' performance followed by 30% of the respondents who presented results indicating that they agreed with the fact that climatic change patterns had an influence on the academic performance. 13% of the respondents presented results to the researcher indicating that they strongly disagreed with the fact that climatic change patterns would influence students' performance. 5% of the respondents presented results indicating that they strongly agreed that there was an influence of climatic change patterns on the academic performance and finally 12% of the respondents however presented results to the researcher indicating that they were not sure on whether climatic change patterns had an influence on the performance of students in school (Musaibah et al., 2023).

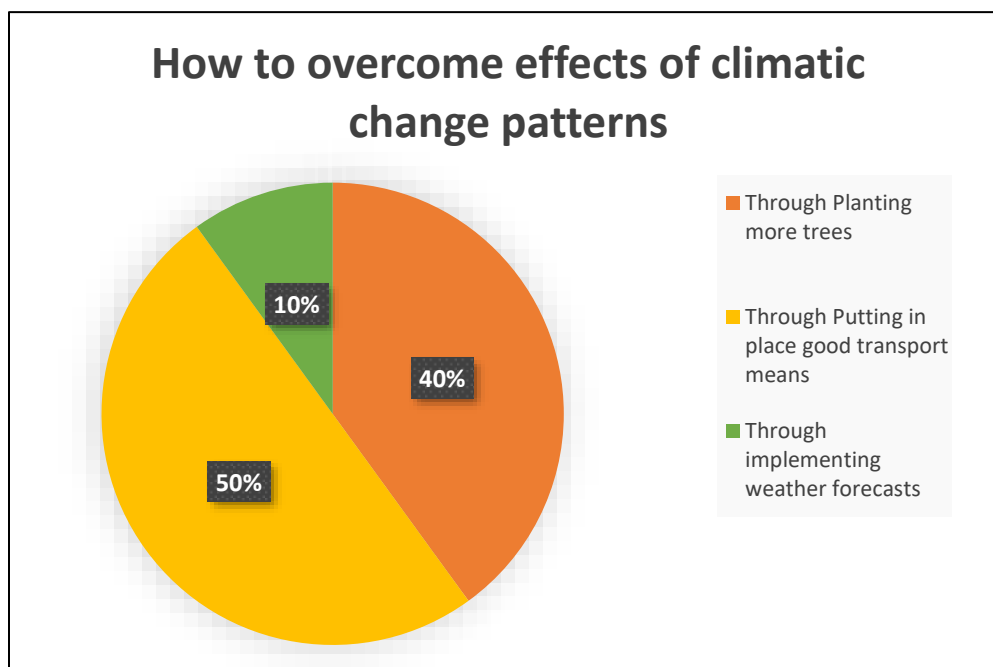


Figure 3: How to overcome the effects of Climatic change patterns

Source: Primary Data 2020

According to the figure above, the findings of the study revealed that 50% of the respondents presented results presenting that putting in place good transport means was one of the biggest solutions to overcome effects of climatic change patterns for example heavy rainfalls followed by 40% of the respondents who presented results indicating that through putting in place good transport means in the communities with good road network would make transportation easy even in times of heavy rains and floods and finally, through implementing weather forecasts in place would also reduce on the effects brought about from the climatic change patterns (Ivan & Kazaara, 2023)

The findings of the study also presented results, 40% of the respondents informed the researcher that they strongly disagreed that climatic change patterns had an influence on students' performance followed by 30% of the respondents who presented results indicating that they agreed with the fact that climatic change patterns had an

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Conclusions

In conclusion, findings of the study also presented results, majority of the respondents informed the researcher that they strongly disagreed that climatic change patterns had an influence on students' performance followed by other of the respondents who presented results indicating that they agreed with the fact that climatic change patterns had an influence on the academic performance. Some of the respondents presented results to the researcher indicating that they strongly disagreed with the fact that climatic change patterns would influence students' performance. Some of the respondents presented results indicating that they strongly agreed that there was an influence of climatic change patterns on the academic performance and finally the respondents however presented results to the researcher indicating that they were not sure on whether climatic change patterns had an influence on the performance of students in school.

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Recommendations

In relation to the findings of the study, the influence of changing climatic patterns on student's academic performance.

There was a need to put in place the weather forecast equipments in every community in order to inform the community members about the possible climatic change patterns.

There was also a need to sensitize the people in the community about the importance of planting trees in order to solve the problem of receiving too much sun shine.

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