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Impact of Socio-Economic Activities on Poverty Alleviation in Magina Sub-Location Kenya

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Abstract

This paper was to determine the impact of socioeconomic activities on poverty alleviation in wetland areas considering that resources like water and land are key in every wetland area. The study employed descriptive and correlational research methods through a questionnaire, focus group discussion, and key informant interview schedules to collect data. The findings on household population revealed that 159 (48.5%) were between 4 – 6 people. This, therefore, means that the views of those household members of 4 – 6 people influenced the study findings. The household income findings revealed that those earning less than Kshs.5000 were 202 (61.6%). This, therefore, means that the views of those earning between the ranges of less than Kshs 5000 dominated the study. The findings on household main income earner revealed farming being the main income earner 267 (81.4%). Therefore, the views of those earning from farming tend to dominate the study. The finding indicates a significant relationship between socioeconomic impacts, drivers of change, and poverty alleviation at Pearson correlation *(p-value 0.001)*. In contrast, socioeconomic impacts were significant at a P-value of 0.556. With this finding, the null hypothesis that there is a significant relationship between socioeconomic impacts and poverty alleviation was rejected, and the alternative hypothesis that there is a significant relationship between socioeconomic impact and poverty alleviation at Magina Sub-Location was accepted.

Keywords*:* Socioeconomic activities, Farm production, Ceramic production, Expansions of river banks, Seasonal human migration, infrastructure facilities, Poverty Alleviation.

Résumé

Cet article était pour déterminer l'impact des activités socioéconomiques sur la réduction de la pauvreté dans les zones humides, étant donné que des ressources comme l'eau et la terre sont essentielles dans chaque zone humide. L'étude a utilisé des méthodes de recherche descriptives et corrélationnelles à travers un questionnaire, une discussion de groupe de discussion et des calendriers clés des entretiens pour collecter des données. Les résultats de la population ménagère ont révélé que 159 (48,5%) se situaient entre 4 et 6 personnes. Cela signifie donc que les opinions de ces membres du ménage de 4 à 6 personnes ont influencé les résultats de l'étude. Les résultats du revenu des ménages ont

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révélé que ceux qui gagnaient moins que KSHS.5000 étaient de 202 (61,6%). Cela signifie donc que les vues de ceux qui gagnent entre les gammes de moins de KSHS 5000 ont dominé l'étude. Les résultats sur le revenu principal des ménages ont révélé que l'agriculture était le principal revenu 267 (81,4%). Par conséquent, les vues de ceux qui gagnent de l'agriculture ont tendance à dominer l'étude. La conclusion indique une relation significative entre les impacts socioéconomiques, les moteurs du changement et la réduction de la pauvreté à la corrélation de Pearson (valeur p 0,001). En revanche, les impacts socioéconomiques étaient significatifs à une valeur p de 0,556. Avec cette constatation, l'hypothèse nulle selon laquelle il existe une relation significative entre les impacts socioéconomiques et la réduction de la pauvreté a été rejetée, et l'hypothèse alternative selon laquelle il existe une relation significative entre l'impact socioéconomique et la réduction de la pauvreté à la sous-location de Magina.

Mots-clés : Activités socioéconomiques, production agricole, production en céramique, extensions des rives de la rivière, migration humaine saisonnière, installations d'infrastructures, réduction de la pauvreté.

Introduction

The importance of ecosystems in providing the services that underpin every single productive and spiritual activity of humankind has been suppressed in the consciousness of many. So, ecosystems are mismanaged, abused, and degraded. So too, the struggle for daily survival of others, who may have a keen appreciation of the importance of ecosystem services in their everyday lives, means that they have to make constant short-term trade-offs between the environment and their next meal. If these trends persist, humankind's spiritual and material well-being and survival are at risk. Because of the disproportionally great direct reliance of the world's poor on ecosystem services and their reduced capacity to compensate when ecosystem services are impaired, they are most at risk and in shorter time scales (WRI, 2005). This process of environmental degradation was accelerated with the development of socioeconomic activities like agriculture, industrialization, drugs and pharmaceuticals, transport, and civil construction, including roads and buildings; with the growing population, the requirements for food grains and other consumer items increased greatly, leading to further environmental degradation (Pandey, 2007).

From 2005 to 2009, most wetlands have been intensively utilized for agricultural activities and livestock grazing. Many studies have looked at the importance of wetlands in agriculture, particularly crop production and poverty alleviation (Mkavidanda & Kaswamila, 2000; Majule & Mwalyosi, 2003). However, most of these studies only consider a single component (crop production). In contrast, a number of interacting activities are being undertaken in wetlands with impacts on the household livelihoods of the people and the environment. This study, therefore, sought to determine the relationship between Socioeconomic activities and poverty alleviation in Magina Sub-Location – Kenya.

Literature Review

Farm production

Unreliable, low rainfall in semi-arid areas results in low and unpredictable productivity of both crops and livestock. Soil moisture stress caused by erratic rainfall distribution, high runoff, excessive evaporation, and leaching losses is a severe problem of crop farming. Such a situation puts farmers at risk of losing seeds and crops if the rains start

late and stop early, thus contributing to food insecurity and increased poverty levels. In some communities, farmers have evolved coping strategies which enable them to utilize rainwater runoff for crop cultivation. However, the question is to what extent do socioeconomic activities contribute to alleviating poverty in the Magina Sub-location?

The ministry of lands sessional paper 3 of 2009 on national land policy (Daily Nation Sunday, May 16, 2010) indicates that sustainable land use practices are key to providing food security and attaining food self-sufficiency. Afework and Abbot (1998) highlight that the impact of continuous wetland cultivation affects ecology and socio-economy, as illustrated below:

Ecology

- Destroys the natural habitats for wetland flora and fauna.
- Degrades vulnerable soil organic matter that is stored under waterlogged conditions.
- Reduces the water holding and filtration functions of the wetland.
- Lowers water tables.

Socio-economy

- Removes access of poor to natural product harvesting and access of all to roof thatching reeds.
- Removes dry-season grazing resources.
- Reduces the availability of drinking water and increases workloads for women.
- Loss of medicinal plants.

This study, therefore, sought to find out the situation in the Magina Sub-location in regards to the impacts of socioeconomic activities towards poverty alleviation at the household level.

Ceramic Production

Wetlands degradation in Rwanda is closely linked to development in urban centers countrywide. Many construction activities being carried out require inputs from wetlands such as bricks and sand, a factor that has led to over-exploitation of the resource. (Rwanda Development Gateway, 2005).

The Rwanda Development Gateway (2005) highlights that the High demand for brick-making coupled with sand-mining due to current development construction in the country has led to the misuse of wetlands in the country. People practice such commercial gains to make ends meet regardless of environmental degradation. This study, therefore, seeks to find out whether the practices done by people to make ends meet an impact on wetland resource usage. The location of industries within the wetlands, such as the Gikondo industrial area, Utexrwa, dramatically affects the normal functioning of the resource to clean wastewater and the siltation of streams. This study has brought out an essential idea in Rwanda about industries in the wetlands; the study, therefore, sought to find out the situation in Magina Sub-Location.

Expansion of River Banks

Wetlands store excess water during heavy rainfall, ensuring flow regulation/ flood control and soil erosion prevention. Floodwater can be stored in the soils or retained as surface water, thereby reducing floodwater volumes downstream. In addition, wetland vegetation slows down the flow of floodwater, resulting in silt and sediment retention and

riverbank protection. Besides reducing flooding events downstream, this process also ensures that river flows are maintained for extended periods. Furthermore, the vegetation shields the soil from damage by strong waves and wind (national wetlands conservation and management sessional paper, June 2005). This study indicated the importance of wetlands vegetation; this study, therefore, sought to find out the situation in Magina Sub-Location.

Seasonal Human Migration

In other parts of Botswana, particularly in communal areas, the land is regarded first as a resource for humans to fulfill their socioeconomic requirements. Habitat needs of fauna on that land are hardly considered, but rather fauna is regarded as a resource to be harvested. For instance, grazing resources are primarily assessed for livestock needs and hence can be over-utilized and leave nothing for 'remnant' wildlife. Deforestation through land clearing and wood cutting occurs without regard for fauna species, particularly hollow tree inhabiting species, which were affected by fuel wood harvesters in South Africa (Du Pleisses, 1995), and are a growing concern in areas of Botswana with intense fuel wood harvesting and trade. This study, therefore, sought to find out the impact of seasonal human migration in the Magina Sub-Location, for it had been indicated that the influence of human beings on the wetlands.

Infrastructural Facilities

Energy consultant Falgout noted that wetland erosion is also making coastal highways more vulnerable. The highways are often the only ways in and out of the ports where Gulf pipelines terminate. Prone to flooding, highways in eroding wetlands face "more of a threat to being cut [off] and rendered unavailable during storms," Falgout said. Louisiana Highway 1—"extremely important to the ability of the energy industry to function efficiently"—is a perfect example, he said. For oil distribution, the road is the only link between Port Fourchon and the rest of the world. Roughly 18 miles (29 kilometers) of the highway need to be elevated, Falgout said.

According to the LA 1 Coalition website, a nonprofit advocating improvement of the highway, "if LA 1 were to be rendered unserviceable due to high water, even for just a few days, this nation's energy supply would be crippled." Falgout is also concerned about the erosion of the Intracoastal Waterway, a central navigational corridor for energy-industry vessels. He said that more vessels are grounding without well-defined banks that act as points of reference, increasing the likelihood of oil spills. It is more than just the pipeline infrastructure or the energy facilities themselves," Falgout said. It is the roads, the waterways, those things that are slowly washing into the sea. (news.nationalgeographic.com). This study showed the adverse effects of wetlands on infrastructure; this study, therefore, sought to find out if this is true about Magina Sub-Location.

Research Methodology

The study was a social survey involving both descriptive and explanatory designs. Qualitative and quantitative methods were employed. A sample survey was preferred to a census survey due to its advantage over the economy regarding resources, time, and finances. The descriptive regarded information on how socioeconomic activities in terms of farm production and ceramic production contribute towards poverty alleviation in the Magina Sub-Location, and the explanatory was about the information on the relationship of

socioeconomic activities, drivers of change, and poverty alleviation and determining the extent to which drivers of change influence poverty alleviation. It was a sample survey because specific households were picked to get what the researcher wanted in the study, and it gave ample time to pick respondents across the entire population. The research was quantitative because it employed statistical formulas like percentages, frequencies, means, Correlation, and regression to analyze the data.

The researcher used a self-administered questionnaire/interview schedule to collect data on the impact of wetland resource utilization on poverty alleviation concerning the variables. The study also employed the use of Key Informant (KI) interviews and FGD (Focus Group Discussion) to collect data. The data collected was processed and analyzed using descriptive (mean, frequency and percentages) and inferential statistics (Correlation and regression analysis) on the statistical package for social sciences (SPSS), computer program, and manual analysis.

Results and Discussion

The study considered the respondents' socio-demographic characteristics of the age of the respondent, gender of the respondents, village the respondents come from, the household population of the respondents, respondent's household income per month, respondent educational level, respondent source of household income, and the relationship between the respondents and the household head. The aim was to determine whether there were variations in the respondents' backgrounds and whether these impacted their views. The findings are presented in this sub-section of the report.

Table 1 *Showing a general frequency distribution table of the respondents' demographic information*

Responses		Count	Col %
A. Age of the respondent	15- 20 years	7	2.1%
	20 - 24 years	28	8.5%
	40 - 44 years	31	9.5%
	25 - 29 years	47	14.3%
	50 years and above	50	15.2%
	45 - 49 years	51	15.5%
	30 - 34 years	57	17.4%
	35 - 35 years	57	17.4%
Total		328	100.0%
B. Gender of the respondents	Male	140	42.7%
	Female	188	57.3%
Total		328	100.0%
C. Village of the respondents	Kochi	39	11.9%
	Kokul	51	15.5%
	Katieno	56	17.1%
	Kanyilum	59	18.0%
	Kojiem	60	18.3%
	Kanika	63	19.2%
Total		328	100.0%

D.	How many people stay in the same household	13 and above people	2	.6%
		10 - 12 people	10	3.0%
		1-3 people	71	21.6%
		7 - 9 people	86	26.2%
		4 -6 people	159	48.5%
		Total	328	100.0%
E.	The household income level	15001 - 20,000	3	.9%
		20,001 and above	5	1.5%
		10001 - 15,000	12	3.7%
		5001 - 10,000	106	32.3%
		Less the 5000	202	61.6%
		Total	328	100.0%
F.	Education level of the respondents	University	12	3.7%
		College	20	6.1%
		Not educated	29	8.8%
		Secondary	75	22.9%
		Primary	192	58.5%
		Total	328	100.0%
G.	Household main income earner	Others: Specify	2	.6%
		None	15	4.6%
		Salary/Wages	17	5.2%
		Self-employment	27	8.2%
		Farming	267	81.4%
		Total	328	100.0%
H.	Respondents' relationship with the household head	House help	1	.3%
		Child by birth	31	9.5%
		Spouse	125	38.1%
		Head	171	52.1%
		Total	328	100.0%

Legend:

A. Age of the respondents
B. Gender of the respondents
C. Village of the respondents
D. How many people stay in the same household
E. Household income level
F. Education level of the respondents
G. Household main income earner
H. Respondents' relationship with the household head

The findings reveal that the study is influenced by the views of household heads being females, aged between 30 – 34 years and 35 – 39 years, with a primary level of education, hailing from Kadika village, coming from houses with 4 – 6 people earning less than Kshs. 5000 from farming.

Relationship between socioeconomic activities and poverty alleviation in Magina Sub-location

To determine the relationship between socioeconomic activities and poverty alleviation in Magina Sub-Location. The variables investigated include socioeconomic activities (expansion of river banks, seasonal human migration, and infrastructural facilities) and poverty alleviation. It was hypothesized that there is a weak relationship between socioeconomic activities and poverty alleviation in Magina Sub-Location.

Table 2 *Showing the frequency distribution table on the respondent's awareness of any law by the government that governs the use of wetlands, knowledge of climate change, and if they have food in the house*

Responses		Count	Col %
Are you aware of any law by the government that governs the use of wetlands	Yes	109	33.2%
	No	219	66.8%
Total		328	100.0%
Do you know anything about climate change	Yes	239	72.9%
	No	89	27.1%
Total		328	100.0%
Do you have food in your household store	yes	280	85.4%
	No	48	14.6%
Total		328	100.0%

Table 2 shows the general frequency distribution table on the respondents' awareness of any law by the government that governs the use of wetlands, knowledge of climate change, and if they have food in the house. The findings revealed 219 (67%) no, 109 (33%) yes response that they are aware of the laws by the government that governs the use of wetlands, 239 (73%) yes response and 89 (27%) no response on if they know anything about climate change, and 280 (85%) yes and 48 (15%) no response on if they have food in their household stores.

Table 3 *A correlational table determines the relationship between socioeconomic impacts and poverty alleviation in Magina Sub-location*

	Poverty Alleviation
Pearson Correlation	.556(**)
Sig. (2-tailed)	.000
N	328

*** Correlation is significant at the 0.01 level (2-tailed).*

Table 3 shows a correlation table testing the relationship between socioeconomic impacts and poverty alleviation. The finding indicates a significant relationship between socioeconomic impacts and poverty alleviation, with Pearson correlations at 0.001. Socioeconomic activities were significant at a P-value of 0.556. This, therefore, means that occasionally there is an impact experienced from the socioeconomic activities toward poverty alleviation in Magina Sub-Location.

Conclusion and Recommendations

The finding, therefore, rejects the null hypothesis that there is a weak relationship between socioeconomic activities and poverty alleviation in Magina Sub-Location, and accepts the alternative hypothesis that there is a significant relationship between socioeconomic activities and poverty alleviation at Magina Sub-Location. Based on the major findings of the study, it is therefore recommended that wetlands are very instrumental in poverty alleviation. However, the impact is occasional in Magina Sub-Location on food security and human well-being. Based on this, the government should encourage the community members in development activities in the Magina Sub-Location for a substantive number of respondents had low education levels, household heads including females, aged between 30 – 34 years and 35 – 39 years hailing from Kadika village, coming from houses with 4 – 6 people and earning less than Kshs. 5000 from farming

The government's roll-back marketing program should be extended to Magina Sub-Location on their farm produce; the people in Magina are faced with marketing problems in the area they plant their crops, and when it comes to selling, they are exploited by the middlemen in Ahero Market. Women empowerment should be promoted to enable women to own some of the thing's men have dominated, like ownership of land, make decisions towards meaningful use of the wetland resources, and promote mutual understanding between men and women through capacity building on the effects of culture towards poverty alleviation in Magina Sub-Location.

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