

Eco- Tourism: Strategy to Leverage HIV/AIDS Prevalence in Usigu Division Siaya County, Kenya

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Abstract: In Kenya ecotourism is seen as having the potential of driving the economy for locally directed developments based on utilization of the ecosystem and cultural resources. The study explores how ecotourism products can be utilized to leverage the fights against HIV/AIDS among the fishing communities. Specifically, it sought to examine the nature based eco-tourism products and artifacts to leverage the fight against HIV/AIDS in Usigu Division. This study sought to establish nature-based ecotourism products in Usigu that can be explored to leverage prevalence of the pandemic. This study was anchored on Product Branding Theory and conducted through a descriptive research design. Research population consisted of beach assembly members. The findings established that, the natural attractions and artifacts in Usigu can promote eco-tourism and reduce poverty, and that there are plenty of nature-based opportunities for ecotourism activities. The study recommends the Branding and marketing of Usigu nature-based products and destinations such as natural attractions, artifacts and heritage sites.

Keywords: *Ecotourism, nature-based products, heritage, Artifacts, HIV/AIDS prevalence,*

1, Introduction

Ecotourism remains the hope of the future for many developing countries given that agriculture and dwindling fish resources which has been the mainstay economic activity is facing adverse effects of climate change (Hayombe, 2011). In USA, of the 1200 tour operators listed in the National Tour Association (NTA), 62 offered eco-tours (5%). Domestic and international travellers made nearly 287 million recreation visits to the 378 recreation areas administered by the U.S. National Park Service (NPS) in 2008 compared to the 275 million visits in 2007 this is an increase of 4.4% (Travel Industry Association of America, 2008). Travel to the United States National Parks Service areas generated direct and indirect economic impacts for local communities to the tune of US\$14.2 billion and supported almost 300,000 tourist-related jobs during 2008 (Tourism Works for America, 2008). In Germany, according to the information of the German Travel Agency and Tour Operator Association (DRV, 2008), at least 122 tour operators specialize in ecotourism, which is around 6 – 8% of all tour operators. The vast majority of these tour operators are either small or very small. For this reason, the estimated share of ecotourism trips among all package tours sold in Germany is less than 1 % (WTO, 2008). In Spain, an approximation of 5-6% of the outbound tourism departures can be considered as nature or eco-tourism according to a survey of 20 tour operators (WTO, 2008). There are an estimated 600 ecotourism operators in Australia today, approximately 85% of these, employ more than 20 staff members. Ecotourism businesses are estimated to have an annual turnover of some \$250 million, and employ a total staff of around 6500 staff members, the equivalent of 4500 full-time staff (Australian Government, 2009). There has been a considerable increase of international visitors to Australia's national parks, with a rise in visitor numbers between 2004 and 2007 from around 1.2 million to more than 1.6 million, an increase of 33.3 per cent. By 2008, this figure had increased to nearly 1.7 million, or 47% of all inbound visitors to Australia aged 15 and over reported having visited national parks (Australian Government, 2009). In Australia, recent research found eco-tourists to represent nearly 30% of domestic travellers (McLaren, 2008).

In Brazil, there are more than 150 conservation areas, of which 40 are National Parks. An estimated number of 3.5 million visitors went to these National Parks in 2008. Especially the last few years the number of foreign eco-tourists has grown, it had 600,000 Brazilian eco-tourists and attracted 200,000 foreign eco-tourists in 2008 (Janér, 2008). According to (WTO, 2007), the current increase in international tourist arrivals is projected to be around 4%, much in line with the forecast long-term annual growth rate of 4.1% through 2020. In 2004, ecotourism was growing globally 3 times faster than tourism industry as a whole, WTO (2008) stated that ecotourism and all nature-related forms of tourism account for approximately 20%, of total international travel, Fillion (2008) identified, through an analysis of inbound tourist motivations to different worldwide destinations that 40-60% of all international tourists are nature tourists and that 20-40% are wildlife-related tourists.

In Africa, major destinations such as South Africa, Kenya and Morocco all continued to post excellent results in ecotourism, South African Tourism Board, (2008). In 2008, an average of 36.7 million tourists visited Africa, up from 33.3 million in the previous years, compared to some 443 million tourists who visited European countries in the same period. In the period of 1996 to 2008, the number of visitors to game and nature reserves in South Africa grew by 108% annually. In 1996 the number of visitors to the reserves was 4,544,280; in 2008 this number grew to 5,898,000 visitors. Game and nature reserves were the number one activity for visitors to the country in 2007 (60%), rising by 2% over the previous year (South African Tourism Board, 2008).

The United Nations has identified the development of ecotourism as one of the methods poorer countries might use to meet the Millennium Development Goals (MDGs). For the first MDG, alleviating poverty, the merits of ecotourism are evident. It can provide jobs and generate income for communities that, in some cases, lack viable alternative means of employment and has the capacity to spread its socioeconomic benefits to all levels of society (UNWTO, 2009). Ecotourism can be a leading industry in the fight against poverty and HIV/AIDS, with its tendency to produce flexible labour markets and offer diverse working opportunities, ecotourism can realize a second MDG, that of promoting gender equality by eliminating poverty and disease, providing opportunities for both women in handicraft cooperatives, catering to the tourist market and, providing many youths, with both independent incomes and improved self-esteem (Corazon & Cidi, 2005). If carefully managed, ecotourism can also be an important part of promoting a sustainable environment, another of the MDGs, identified potential for not only protecting the natural environment, but also "preserving historical, archaeological, and religious monuments; and stimulating the practice of local folklore, traditions, arts and crafts, and cuisine (David, 2008). Finally, ecotourism can foster effective global partnerships, the eighth MDG, in addition to advancing development goals, ecotourism can help build and sustain peace (Anditi, 2008).

In Kenya, the Government recognises eco-tourism as having the potential of driving the economy especially for locally directed and participatory rural development based on a rational utilization of the ecosystem, environmental and cultural resources on which tourism and ecotourism relies on for instance, Kenya and Mozambique turned out to be the fastest growing tourism destinations (Mclaren, 2008). In Tanzania and Kenya, Wildlife attracts over 75 percent of the tourists. According to the Central Bureau of Statistics (CBS, 2008), 1.68 million tourists visited Kenya in 2008, 23 percent more than 2007. The sector contributed Ksh48.9 billion to the national revenue. This was up from Ksh42 billion realized the previous year, (Africa WTO, 2008). Kenya quest therefore to be one of the top ten long-haul tourist destinations globally require a strategic focus as envisaged in Kenya's Vision 2030. Eco-tourism is therefore emerging as an alternative development path to enhance source of sustainable livelihood (Hayombe, Agong, Nystrom, Mossberg, Malbert & Odede, 2012).

Ecotourism in particular relies on travellers' positive attitudes towards isolated landscapes, wildlife and cultures among other environment and nature-based activities. As the awareness of the fragility of the world most adverse cultures and pristine environments continues to increase, 83 percent of developing countries rely on eco-tourism industry, in this regard, international tourist can partake in the experiences while locals benefit through economic empowerment and financial revenues while improving the livelihood of the vulnerable members of the community and hence reduce the spread of HIV/AIDS prevalence occasioned by poverty (Haacker, 2002). Each ecotourism activities has the potentials to provide incentives for sustainable development and related issues in order to minimize the impact of HIV/AIDS by creating new job opportunities for local people and especially fisher folk communities living along the beaches and islands in Usigu, Siaya County, which has continued to practice the exchange of fish for sex behaviour hence, facilitating high prevalence of HIV/AIDS (Vitti, 2007).

Local natural resources are an important means of sustenance and income-generation in many rural areas of developing countries. The health of the local environment which ecotourism relies on can shape individual vulnerability to HIV/AIDS in two ways. First, resource scarcity often deepens poverty in natural resource-dependent areas (Scott, 2003). It's noted that desperate economic circumstances can heighten the risk of HIV infection by leading individuals, particularly women and girls, to engage in "transactional sex" for material goods, like sex for fish exchange, sometimes to meet daily sustenance needs. Women are more likely to engage in unsafe sex. Local resource scarcity and risky sex are both clearly associated with a strong intermediary: poverty (Jacobson & Robles, 1998). Natural resource scarcity may also lead to food insecurity and inadequate diet, which can further undermine the immune system of HIV-infected people (Honey, 2008).

Malnutrition increases the susceptibility of HIV infected persons to opportunistic infections, while also increasing the risk of HIV transmission from mother to baby, malnutrition may also reduce the effectiveness of HIV/AIDS treatments. The magnitude of HIV/AIDS pandemic suggest that, the pandemic exerts environmental impacts at the community level which may affect ecotourism activities. There are many possible pathways for the HIV/AIDS and environment interaction. One-way HIV/AIDS affects the community is through the loss of crucial human capital required for ecotourism (Lori, Wayne & Aaron, 2005). Ecotourism sector, resource management institutions and organizations suffer as knowledge and labour are lost with the death of prime-age adults (Cohen, 2002). A second avenue for community impact is through the loss of traditional knowledge regarding cropping, fishing and other resource use when experienced farmers and fishermen die. Recognizing the associations between ecotourism, poverty and HIV/AIDS, the natural environment and sustainable development which can contribute to the wellbeing of both human populations and local environments, particularly in areas characterized by high prevalence of HIV/AIDS and natural resource dependence and scarcity (Cater & Lowman, 2004). Because environmental scarcity can heighten HIV/AIDS vulnerability, environmental policy encouraging sustainable use of local environments can also benefit public health and fight against HIV/AIDS (Isaacs, 2010). This is especially true in areas where resource scarcity deepens poverty and robs households of viable livelihood options (Cohen, 2002). In addition, health interventions to reduce HIV/AIDS vulnerability can produce environmental gains and support ecotourism, particularly in areas characterized by high levels of natural resource dependence which ecotourism depends on and where pressure on local resources is intensified by adult mortality, reduced mortality may lessen environmental pressure by reducing dependence on local natural resources such as fish, fuel wood among others (Clem, 2002). Because poverty is a driving force in the vulnerability to both HIV/AIDS and unsustainable resource use, poverty reduction efforts could yield substantial gains in both public health and environmental protection (Martin & Ian, 2010). Although ecotourism industry has been hard-hit by the loss of employees to AIDS, ecotourism has been increasing by 10 percent annually in the region, expanding opportunities for, communities, hospitality hosts, and other ecotourism service providers (Dimitrios, 2008). Enhancing opportunities for local artists, youth not only helps the local economy, but reduces the likelihood they will engage in risky sexual behavior (Fridell, 2009). The poverty reduction efforts through ecotourism therefore lessen the spread of HIV/AIDS as well as protect natural resources.

II. Literature Review.

Eco-tourism ventures has the potential to alleviate poverty through bringing money into the economy and creating jobs while providing alternative ventures to the communities (Clarkin & Kahler, 2011). With the growing of ecotourism cultural ventures and heritage, there is a great opportunity to capitalize on eco-tourism ventures to ensure that the people living in the areas being visited are benefiting from the economic growth (Tuohino & Hynonen, 2009). Ecotourism activities involves the community participation, where the local people's voices are heard and their engagement recognized, it is essential for eco-tourism ventures to be utilized through involving the full participation of the local people (Buckley, 2004). Eco-tourism activities involve inclusion of local people's skills to create employment for themselves and others through eco-ventures. In some instances, local job creation and economic development of the local vulnerable groups are facilitated, contributing to the alleviation of poverty and supports the achievements goals and criteria for success and community developments (Cater & Lowman, 2004). Another move is the growing number of communities led and managed ecotourism initiatives in which rural communities capture the bulk of the benefits through eco-ventures and artifacts (Honey, 2008).

Through ecotourism, the communities exploit cultural heritage to reduce poverty, enhance livelihood, transform the community and support local development (Agong, Odede & Ananga, 2012). The money generated can be used to help the poor fishermen and fishmongers living along the beaches to improve their economic status and empower them to fight the pandemic. The more, the involvements of the local people have in the management of ecotourism and tourist ventures in their areas, the more likely they will benefit economically (Duffy, 2000). Another benefit gained by the people living where eco-tourism is utilized is better roads, hospitals, schools and communication. Most of the areas that eco-tourism is developed are remote areas where the people do not have access to these facilities (Sharma, 2008). When eco-tourism is developed, there is necessity for roads, communication and schools for the travelers to visit and spend their money. According to (Naughton, 2005), Conservation cannot solve poverty, but it can significantly help to prevent and reduce poverty by maintaining ecosystem services and supporting livelihoods. Through the use of eco-tourism, ecosystems are conserved and local peoples are supported through jobs creation and better economies (Mathesen, Alister & Geoffrey, 2009).

As one of the three pillars of the economic success, ecotourism is a dynamic activity that is constantly evolving to cater for new needs and challenges ((Barkin, 2002). Eco-tourism in return also creates opportunities through which economic benefits can be generated from the environment, culture and heritage (Honey, 2008). Through this, eco-tourism can be utilized to combat the spread of HIV/AIDS through Poverty alleviation in the Islands and along the beaches due to its

potentials to create alternative livelihood. Eco-tourism is growing three times faster than tourism (Ndaskoi, 2003). Ecotourism protects local cultures and empowers indigenous peoples to preserve cultures, while providing visitors with unique opportunities to learn about the unique community practices and heritage as they visit and contribute to its success. Tourist seeking unique experiences to help preserve cultural heritage and environment and the need to help address various challenges facing the communities including poverty and HIV/AIDS pandemic (Clem, 2002). This contributes flexibility to adopt to change by the community to eco-ventures and other ecotourism activities, the growing significance of eco-tourism as an economic activity is reflected in the rising recognition it has been given due to its vital role as development tool and contribution in curbing socio-economic challenges such poverty and HIV/AIDS pandemic (Butler & Hinch, 2008).

Eco-tourism Society of Pakistan (ESP) asserts that ecotourism is a travel activity that ensures direct financial support to local people where ecotourism activities are being generated and enjoyed. It ensures respect for local cultures, and supports community participation to ensure that money flows to local economies to finance protection of the environment and preserve cultural heritage, thus ecotourism is major industry of the economy as it represents a significant portion of the gross domestic product and economic activity (Kin, 2002).

It improves benefits to local people who do not have the capacity to develop themselves, provides access and turn eco-benefits for local developments (Demetrio, 2008). The eco-tourism products includes activities that enhance quality of life and health of people living within the eco-tourism destinations enabling them focus on nature based products, socio-cultural products and encourage ordinary community members to participate and benefit from eco-ventures thus changing and providing alternative livelihood to marginalized fishing communities living along the lake and the Islands within the lake Victoria region (Elper, 2008). The fishing communities are renowned for their traditional crafts, artifacts, boat riding, nature trail, basketry of which are some of the most popular practiced by many groups within the beaches and Islands offering individualistic designs and patterns (Martin & Ian, 2010). These useful skills can be harnessed for ecotourism gain and help support livelihood through cultural heritage and socialization process in the community (Hayombe & Odede, 2012)

Eco-tourism has a significant contribution in alleviating poverty which is the cause of poor health and is an important sector with potentials to fight the spread of HIV/AIDS among the fishing communities by utilizing the potentials of eco-tourism potentials in fighting or combating HIV/AIDS among the fisher folk communities (Scheyvens, 2004). There are several eco-tourism activities that can be utilized to create awareness on the spread of HIV/AIDS and promote behavior change process among the fishing communities by providing alternative livelihood to the fishing communities of Lake Victoria (Mayaka & Prasad, 2011).

The concern for the utilization of eco-tourism products to combat HIV/AIDS among the fisher folk living in the Island and beaches of Usigu is based on the fact that eco-tourism has a great potential to change the life style of fishmongers and fishermen to get income from eco-ventures, heritage sites and other activities available around the beaches and the islands to provide alternative source of income which is sustainable (Martin & Ian, 2010). It's noted that the fish catch has become scarce due to overfishing and climate change and hence high competition among fishermen and fishmongers for the resources (Allison & Seeley, 2004). It is also evident that the Island and the beaches have potential eco-tourism attraction that can provide alternative income through eco-ventures.

Eco-tourism products such as artifacts, heritage sites among others are useful for alleviating the HIV/AIDS impact and reduction of poverty through provision of alternative income and employment creation thereby improving local economy and promotion of local developments, such activities like local tour guides, making of crafts and potteries by the local community members can transform the fishmongers and fishermen to fully engage on eco-tourism activities, thereby reducing poverty level responsible for HIV/AIDS spread (Haacker, 2002). This is often identified as a promising growth sector especially in small islands and beaches in the developing countries. It offers one of the few opportunities for economic diversification for the fisher folk (Honey, 2008). Through linkages with other sectors and integrated into national and County economic development plans with adequate provisions for inter-sectoral linkages, Ecotourism can contribute to the growth of all major economic sectors like fishing, agriculture, transportation and other service industry (Chiutsi, Mukoverwa, Karigambe & Mudzengi, 2011). The economic benefits derived from eco-tourism are diverse, in some islands in the developing states, eco-tourism has become the major contributor to the gross domestic product (Barkin, 2002).

The promotion of eco-tourism as a growth sector to accelerate the development at national, County and local level, support gainful employment, foreign exchange earnings and other tax revenue to the government and the local people are some of the advantages of ecotourism (Briffa & Lee, 2004). It plays an important role in the growth and development of Small Island and the beaches if appropriate measures are taken to support other sectors, in particular agriculture and fishing, so that they can more adequately meet the eco-tourism demand for consumer goods and services (Ziffer, 2003). For some islands and beaches, with careful planning and provision of adequate facilities such as credit for modernization and diversification, where necessary, support viable fishing and agricultural activities as well as eco-tourism can easily be utilized to reduce poverty and HIV/AIDS (Barnett & Whiteside, 2002). The high rate of HIV/AIDS infection also calls for

urgent need to assess the socio-economic impact of the pandemic in the country and especially the impact on rural household fishing communities included. The HIV/AIDS related burden of disease increases the demand for medical care; the pandemic also affects the health workforce in terms of increasing emotional, physical and mental stress (Morgan, Mahe&Mayanja, 2002).

The HIV/AIDS infected are often brought to the hospital at an advanced stage of illness resulting into high death rates combined with the limited possibility of effective care contribute to professional frustration, higher absenteeism and burnout and low staff morale. Eco-tourism can be of great importance in promoting income generation to the communities (Isaacs, 2010) and hence reduce economic burden of HIV/AIDS. The benefits that accrue from eco-tourism activities can reduce the burden caused by the pandemic through reduction of poverty and income capacity improvement to the communities (Kamauro, 2006). Eco-tourism activities may go a long way to minimize the potentials social and economic impact of HIV/AIDS especially to the fishing communities in Africa if greater understanding of the economic opportunities associated with eco-tourism is explored and utilized (Barkin, 2002).It's therefore necessary to identify and utilize the ecotourism products along the beaches and Islands for economic empowerment to the fisher folk.

III. Theoretical Framework

This study was anchored on branding Theory. This theory seeks to promote the ecotourism destinations with the potentials of economic growth and development. The Branding Theory was advanced by Anholt (2007) and is applied to places (destinations) for variety of reasons and purposes, which include product promotions/ marketing and increase of exports, attraction of new investments and diversification of revenue generation streams of ecotourism destinations. The (destinations) Place Branding Theory is relevant to the study because it focuses on the promotion of the destination value and places or seeks to position that destination as a potential target market segment for ecotourism activities.

The Theory has been applied in diverse attempts to conceptualize and understand the dynamics of ecotourism potentials and markets places/destinations. Historically these involved about the relationship between ecotourism products like cultural heritage, nature and society, including resource and social processes, the split and the interplay between, environment, cultural heritage, traditional practices and economic diversity as ecotourism products and sustainable income for the communities (Gordon, 2010).

The Theory promotes economic and social development to impact on the welfare of the community and the beneficiaries, this effect is reflected through the monetary form and the market mechanism for ecotourism product. The Branding directly affects the economic environment and other economic benefits through promotion, income, empowerment and price influences. Through this, communities develop interest in ecotourism activities and eco-ventures while shunning away from fishing activities and fish trade which contribute to high prevalence of HIV/AIDS through fish for sex behavior. The development of ecotourism industry is advantageous to local communities to change the ideas of traditional values, practices and the way of life and production, realizes the replacement of traditional practices like farming, fishing, fish trade, utilizes nature based products and resources like ecotourism in the form of non-consumption, promotes the development of local communities by use of local resources in the local economy to address local health challenges (Saayman, 2012). At the same time, ecotourism activities help the communities to explore their local cultural and natural resources for development and economic empowerment. The branding theory therefore markets the places and products as ecotourism destinations.

While there is criticism that ecotourism environment has its own carrying capacity and that ecological tourists may bring pressure to the ecological environment inevitably when they carry on eco-tourism activities (Cater, 2004). Natural and historical humanities resources are the foundations of developing ecotourism as a source of communities' income, as opposed to other traditional activities like fishing, fish trade, farming among others which contribute to health challenges. The development of ecotourism is based on the carrying capacity of ecological environment (Kamauro, 2006). The economic activities and driving of benefits are in the guiding ideology of developing ecotourism in many places, while environmental and social benefits are ignored, and the phenomena that some places gain short-term benefits at the cost of long-term benefits and environmental protection often occur. It emphasizes that, the communities become too much focused in creating jobs and provide alternative platform for local development through the ecosystem and more particularly ecotourism attractions. Likewise, this trend could lead to conservation so that the communities view ecotourism as viable livelihood.

Objective.

To establish nature based eco-tourism and artifacts that can enhance eco-tourism as a strategy to leverage the fight against HIV/AIDS prevalence on the islands and Beaches of Usigu Division.

Research Question

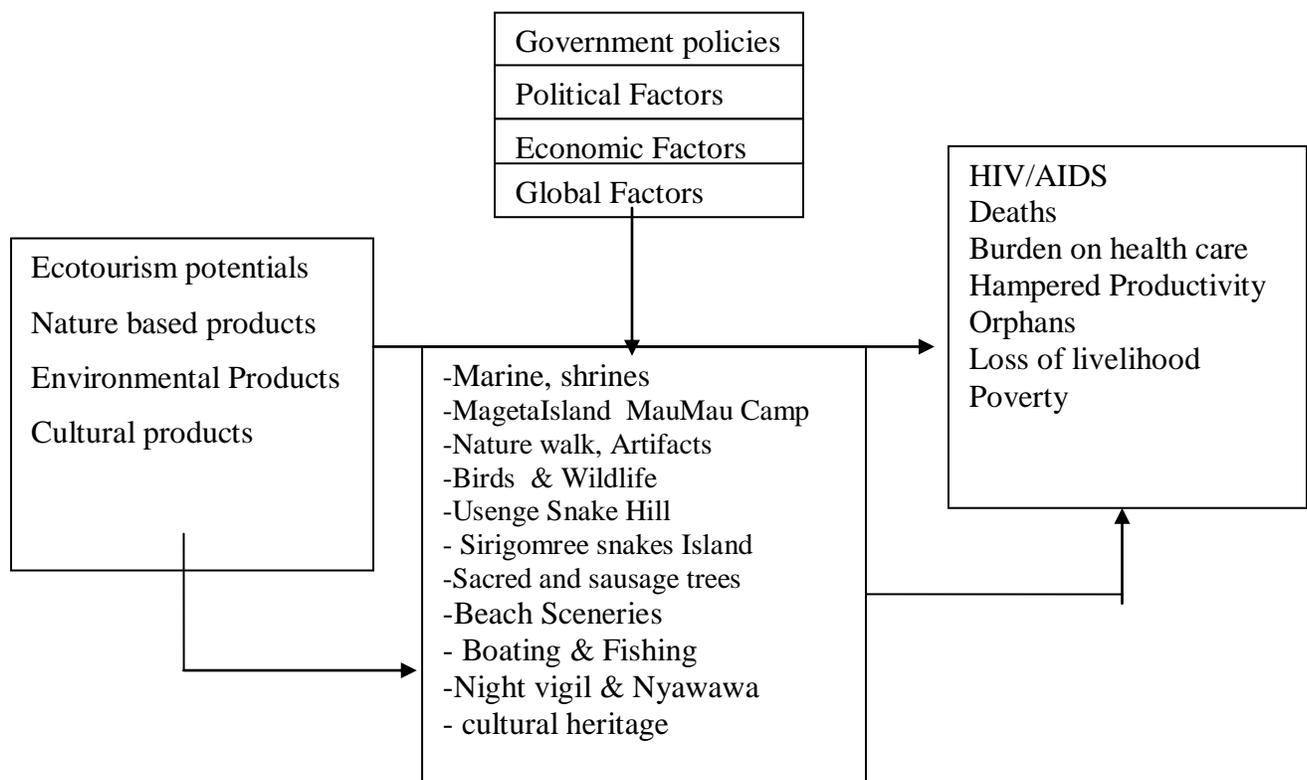
What are the nature based eco-tourism products and how can they leverage the fight against HIV/AIDS prevalence on the Islands and beaches of Usigu Division?

Hypothesis

The study hypothesized that there is a significant relationship between natures based eco-tourism, artifacts and eco-tourism as a strategy to leverage the fight against HIV/AIDS prevalence on the islands and Beaches of Usigu Division.

Conceptual Framework:

The Study was guided by the following conceptual framework:



One important contribution in the ecotourism framework came from Community-based Ecotourism. Kersten (1997) described community-based ecotourism as a kind of nature tourism wherein the local community maintains full control over the management and the profits of the project. Based on this definition, the conceptual framework was formulated. The operationalization of the framework included an assessment of the relationship of ecotourism as an independent variable and prevalence of HIV/AIDS as a dependent variable. Eco-tourism and HIV/AIDS are linked to each other by the fact that fishing fishermen and tourist may contribute to the spread of HIV/AIDS on one hand and on the other hand ecotourism can help fight HIV/AIDS through eco-venture activities that provide alternative livelihood to fight poverty and the pandemic and reduce fish for sex behavior. Eco-tourism can offer great opportunity for the community to alleviate poverty and other social ills and challenges like pandemic within the community, through this, HIV/AIDS spread can greatly be reduced. One area where eco-tourism can be useful includes, providing alternative income for livelihood, health awareness, occupation, employment opportunities, poverty reduction, culture and heritage preservation, environmental protection this will help in fighting the spread of HIV/AIDS through providing alternative income to the communities.

IV. Methodology

Research Design

This study was conducted through a descriptive research design which described the situation and state of affairs and conditions that currently exists. To define the descriptive type of research, Creswell (1994) stated that the descriptive method of research is to gather information about the present existing condition. The emphasis is on describing rather than on judging or interpreting. The aim of descriptive research is to verify formulated hypotheses that refer to the present situation. The descriptive research design is appropriate because it is not restricted only to the fact findings, but may often result in the formulation of important principles of knowledge and solutions to problems (Kerlinger, 2009). This design was selected to facilitate rapid and cost effective collection of data and for its potential to enable one to understand a population from a sample and to allow the researcher to adopt a holistic approach of the study sample, thus enabling and utilizing research tools like questionnaires and Focused Group Discussion guides, moreover, It is a flexible approach when important new issues and questions arise during the duration of the study, further investigation may be conducted. The researcher equally obtained information from a sample rather than the entire population at one point in a given time.

Target Population

Research population of the study consisted of beach assembly members who included fishmongers, fishermen, beach leaders, youth groups, beach management units (BMU's), and beach interest groups in Usigu, Bondo Sub-County. Multistage sampling was utilized: cluster sampling was used to segregate the population into distinct subpopulations representing the target population; this formed the primary sampling units (PSU), further sampling was done to identify locations/groups from which individuals assembly members were drawn from. Purposive sampling techniques was then engaged to identify key informants and respondents knowledgeable in the field of study who constituted the focus groups members, this sampling technique was also used by Lwonga (2009) because it involved selection of individuals or objects that yielded the most information about the topic under investigation.

Sample size and selection

Purposive sampling techniques were used to settle on the beach assembly members of study. The sample size of 397 respondents drawn from beach assembly members

Sample Techniques.

The study used stratified sampling procedure to divide the population into subgroups. The samples were stratified according to the groups in the beaches. Using the Yamane formula, a sample of 397 consisting of beach assembly members was selected.

Data collection and analysis techniques

Data collection was from two main sources; Secondary and Primary. Secondary sources included relevant documents and reports like Census records, beach assembly records, journals, articles among others. This data was collected by reviewing available literatures or publication in relation to the Research topic. Primary sources data was collected from selected respondents. Primary data was gathered using Focused Group Discussion Guides and Questionnaires. The use of the two approaches at the same time in basic research was recommended by (Gay, 2006) as the best way to get sufficient results.

Data was analyzed using Inferential and descriptive statistics (mean test) then presented using frequency and percentage tables. A multiple regression and correlation statistical analysis (Using SPSS version 11.5) was used to determine the degree of association among the factors that were associated with the study objectives. Multiple regression analysis was conducted to determine the variables that had the greatest degree of association. A correlation analysis was conducted to examine patterns of correlation among all the original variables included in the regression analysis as well as the predicted dependent variable score. To test the Hypothesis, the independent t-test was used to determine the difference and relationships within and between populations in the data. The p- value was set at level 0.05. Cross-tabulation was used to show the interrelationship between the independent variables and the dependent variable. The number of respondents who responded to a particular option were recorded in one column and percentage calculated and recorded in

another column. The strength of percentages indicated the preferred response. Results from quantitative data was presented by use of frequency distribution in form of frequencies and percentage tables while responses from qualitative data were grouped into themes based on the objectives of the study and reported

V. Results and Discussions.

The aim of the study was to assess the role of eco-tourism as a strategy to leverage the fight against HIV/AIDS prevalence on the islands and beaches of Usigu Division, Bondo sub-county, Siaya County. The Principal guiding factor on the data analysis presented in this chapter was the objectives of the study. A sample size of 397 respondents selected through purposive sampling techniques from accessible population consisting of beach assembly members.

Using the p- value to test the hypothesis significance level: 0.05% (95%), Decision Rule: Reject the H if the p -value is less than 0.05. P value is 0.051, more than 0.05. The study hypothesized that:

H₁ There is a significant relationship between nature based eco-tourism artifacts and eco-tourism as a strategy to leverage the fight against HIV/AIDS prevalence on the islands and Beaches of Usigu Division.

Table 4.1: No. of respondent against their age in Usigu Division

Age	Frequency	Percent	Valid Percent	Cumulative Percent
20-29	130	35	35	35
30-39	144	39	39	75
40-49	45	12	12	87
50-59	39	11	11	98
60<	9	3	3	100
Total	367	100	100	

Table 4.2: Comparison on Age and against sex of the respondent cross tabulation

Age	Sex		Total
	Male	Female	
20-29	56	65	121
30-39	48	105	153
40-49	10	35	45
50-59	30	9	39
60<	3	6	9
Total	147	220	367

Table 4.1 and 4.2 above, 130 (35%) of the respondents fell within the age bracket of 20 – 29 years, while 144 (39%) of the Respondents fell within the age bracket of 30 – 39, 45 (12%) of the respondents were in the age range 40 – 49 years, 50-59 age range of respondent represented 39 (11%). Only 9 (3%) of the respondents were 60 and above years of

age. As can be observed from Table 4.2, 74% of the respondents fell below 40 years of age a sign that beach activities were mostly engaged by respondents below the age of 40.

Table 4.3: Community listing of some nature based eco-tourism products that can leverage the fight against HIV/AIDS in Usigu Division

Perception	Frequency	%
Environmental factors, Sceneries,	117	32
Historic factors,	68	18
Marine, birds, wildlife, heritage sites,	182	50

Table (4.20) provided a variety of listed nature-based products, 117 (32%) of the respondents were in support of environmental factors and sceneries as some of the nature based eco-tourism products that could leverage the fight against HIV/AIDS through economic empowerment. A stronger distribution of 182 (50%) respondents suggest that marine, birds, wildlife and heritage sites were some of the nature based eco-tourism products that could leverage the fight against HIV/AIDS, while 68 (18%) of the respondents felt that Historic factors were nature based eco-tourism products that could leverage the fight against HIV/AIDS.

During the focused group discussion respondents expressed that marine, birds, wildlife, heritage sites, were not properly utilized in Usigu division, they equated the sceneries found within their community to those found in most well-known national parks yet in Usigu division such resources were untapped.



Plate 10: Goye beach- wetland –Usenge **Plate 11:** Nature trail- Mageta

Table 4.4: The perception of respondent on natural attractions available in the beaches and islands that can promote ecotourism and reduce poverty and HIV/AIDS prevalence in Usigu Division

Category	Frequency	Percent	Valid Percent	Cumulative Percent
SA	147	40	40	40
A	161	44	44	84
UD	44	12	12	96
SD	15	4	4	100
Total	367	100	100	

Table (4.21) statements touching on Respondent’s feelings on perceived relationships between natural attractions available in the beaches, eco-tourism, poverty and HIV/AIDS were sought and presented as follows: 147 (40%) of the respondents felt strongly that there were natural attractions in the beaches and the Islands that could promote eco-tourism and hence reduce poverty and fight against HIV/AIDS prevalence, while 161 (44%) of the respondents were in agreement that there were natural attractions based opportunities for ecotourism promotion and income as opposed to fishing activities which leads to HIV/AIDS prevalence, 44 (12%) of the respondents had no opinion, while only 15 (4%) had contrary opinion that there were natural attractions sites available for ecotourism activities which could be exploited for ecotourism activities.



Plate 13: Usenge Hill – ((Hill Lizard)

Plate 15: Bird watching

Plate 14. Mageta Island -Nature trail

VI. SUMMARY CONCLUSION AND RECOMMENDATIONS.

This study objective, through a stronger distribution of 182 (50%) respondents established that marine, birds, wildlife, boat riding, wetland, heritage sites, are not branded in Usigu division. 268 (73%) of the respondents unanimously agreed that branding and marketing of nature-based ecotourism products can support the fight against the HIV/AIDS.

The study established that the natural attractions in the beaches and the Islands could promote eco-tourism and hence reduce poverty and fight against HIV/AIDS prevalence.

There should be Proper design of eco-tourism plan and programs that will provide an incentive for HIV/AIDS fight especially when it triggers positive economic change to the communities, furthermore, a greater understanding on how to make or develop ecotourism business for fishing communities as an effort to change from fish trade to eco-tourism business as effective means to reduce the spread of the pandemic

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