

IMPLICATIONS OF COASTAL TOURISM ON FOOD PRODUCTION IN
KWALE DISTRICT.

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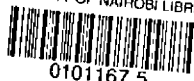
BY

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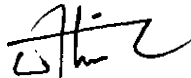


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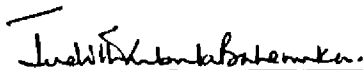
DECLARATION

This thesis is my original work and has not been presented for a degree in any other University.



FRANCIS MUINDE NTHUKU

This thesis has been submitted with my approval as a university supervisor.



PROFESSOR JUDITH MBULA BAHEMUKA

DEDICATION

Fredrick, Lisa and Nzisa

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ABSTRACT

This is an exploratory study to investigate the implications of the expanding Coastal Tourism on food production in Kwale district.

The study focuses on the emerging behavioural patterns around major socio-economic factors of production including land, labour, income and the market for farm produce among the farmers and other stakeholders in the tourist industry and their possible implications on farming and other food production practices in Diani Location of Kwale district. The units from which the study population was obtained were the households in Diani location.

In the light of various theories on Social Change and Development, several aspects of tourism and agriculture were investigated . Specifically, this study set out to establish the:

- (1) occupations and income levels among the local people;
- (2) market outlets for farm produce and the problems faced in the market;
- (3) emerging structure of land ownership and;
- (4) emerging structure of family labour in terms of age and sex.

It was established that tourism is the largest employing sector in Diani location. Most labour was however employed in sectors that are not directly related to this industry.

The male children were found to spend most of their time along the beach line and also around the market centres not necessarily doing any work; a practice that had negative affects on labour in the farms.

Majority of the households were not self-sufficient in labour during the rain season. Data analysis shows a strong relationship between output and the type of family labour.

The effects of tourism on household income distribution was found to influence farmers' crop husbandry practices. The analysis shows that the higher the income level the higher the degree of farm modernisation as well as output.

Emerging land use patterns have had negative effects on the acreage under crop farming. Most of the beach land has been taken away by speculative land developers and the pressure on the remaining land where the residents can practise agriculture is mounting.

Other results show that although land in most parts was surveyed in the late 1960s, the local farmers complained of a second survey that had reduced their land from 5 to 3 acres.

Cases of squatting and eviction were also reported. There was no significant relationship between tourism and the market for farm produce. Despite the potential to produce some foodstuffs for sale at the tourist hotels, the local farmers were not active participants in the formal tourist market.

Middlemen and a certain foreign owned farm; the Darad Farm, had for instance excluded local farmers from selling at the beach hotels. Thus, exploitation by middlemen and inadequate market outlets were problems cited by most farmers.

The study recommends that:

- (a) the government should evolve a clear policy on land ownership in Diani location. The land registration process should be completed, and title deeds given to the residents to enable them invest in their farms without fears of eviction. Residents evicted from their farms by the Darad Farm and other speculative land developers should be resettled and compensated for the loss of property. In addition, the on-going second survey should be nullified;
- (b) the Ministry of Local Government should nullify the allocation of public beach plots along Diani beach to give the residents access to the Indian Ocean where they can carry out fishing;

- (c) the local farmers should be encouraged to form co-operative societies from which they can enjoy credit facilities to improve food production practices and to which, they can sell their farm produce and;
- (d) the government should implement the recommendations of the 1974 task force set to study the possibilities of establishing an intergrated tourism development plan that would not compromise on the existing socio-economic life aspects of the local communities in Diani.

CHAPTER ONE

BACKGROUND INFORMATION AND PROBLEM STATEMENT.

1.1: Introduction.

In the world, tourism is the second largest commercial sector surpassed by oil (Mitchel, 1968; Kadt, 1979; Visser and Koyo, 1992). From 1960 to 1991, world tourism grew from 69 million tourists arrivals to 404 million at an average growth rate of 6.3 percent per annum (Munyori, 1992).

Tourism has increasingly provided many countries with an important source of foreign exchange earnings. By 1976 for example, tourism's contribution to the world economy amounted to 2 billion sales, equivalent to 12 percent of the global Gross National Product (GNP) and over 5 percent in global sales of all goods and services (Mburugu, 1992).

Further analysis reveals that 25 percent of the gross income earned from tourism over the past one decade went to the third world countries where Africa recorded an average annual growth rate of 7.1 percent Kenya took a high proportion of the Africa's share with an average growth rate of 6.5 percent per annum (Visser and Koyo, 1992).

Compared to other tourist destinations in Africa, Kenya stands fourth in tourist traffic after Morocco, Tunisia and Egypt, partly because the North African States are close to the European markets (MTW, Tourist Market Report, 1987/1988).

The industry has become the mainstay of the economy of this country, with the number of tourist arrivals increasing from, 86,000 tourists in 1985 to 805,000 in 1991 while tourist proceeds went up from Ksh.80 million to Ksh.19.9 billion over the same period (Kenya and Munai, 1992).

Additional evidence shows that earnings from tourism in Kenya exceed those from the other two major export commodities of coffee and tea (see table 1).

Table 1: Foreign Exchange Earnings (KE million) at Current Prices 1985-1989.

Year	1985	1986	1987	1988	1989
Tourism	209	250	292	349	432
Coffee	230.6	388.5	194.4	244.5	203.8
Tea	191.6	172.7	163.3	185.3	271.9
Earnings(\$)	353	308	355	394	420

Source: MTW, Tourism Market Report 1987/1988.

Kenya's tourism development has also created employment opportunities for many people. The industry had for instance employed at least 45,600 people directly and an equivalent number was absorbed in other tourist-related sectors such as, the vehicle hire companies, curio shops, beach hotels and restaurants among others (Migot-Adholla et al, 1982).

To support the above development is the varied potential that Kenya enjoys. The country has a wide range of wildlife in their natural habitats, that are specifically conserved and protected for tourists viewing, snow-caped mountains and other activities along the coast including gogging and sun bathing.

Previous studies indicate that Wildlife-based tourism is the main attraction that has secured this country an indisputable place on the world tourism map.

Meanwhile, available statistics tend to suggest that coastal tourism has concomitantly increased in recent years and that today, the coastal region receives high tourist traffic than any other destination in the country (MTW, Tourism Market Report, 1987/1988). Of the 1101 tourist hotels that had been registered country wide by 1989 for example, 482 were in this region (Kenya and Munai, 1992; see table 2 overleaf).

Table 2: Hotel Capacity and Occupancy Rate 1982-1988.

Year	Total no. of beds	Coast		Games lodges	
		No. of beds	Occup .%	No. of beds	Occup .%
1982	24,715	11,118	59.8	2,245	52.0
1983	25,210	11,389	56.2	2,371	49.0
1984	25,213	11,219	59.0	2,587	52.9
1985	24,725	11,238	59.6	2,634	52.2
1986	25,675	11,887	62.0	2,755	52.0
1987	25,970	12,267	58.5	2,769	54.5
1988	26,587	12,659	58.7	2,730	58.3

Source: MTW, Tourism Market Report 1987/1988.

The Kenya coast became a tourist destination in the early 1920s attracting mainly the white settlers and other officials in the colonial government who sought excitement there. Realising the great potential in this industry, a number of private organisations such as the East Africa Tourists Travel Association-EATTA as well as the colonial government carried out numerous advertisement and other campaigns to market tourists resources in the region that made small towns like Mombasa and Malindi became famous tourist resorts (Migot-Adholla et al,1982).

The industry has in the recent years expanded rapidly to other towns in the region such as Watamu in the north coast and Diani and Shimoni in the south coast.

The expansion of tourism along the Kenya coast presents an additional economic activity. We learn from history that the indigenous people of the coast, mainly the Mijikenda were agriculturalists, practising both crop and livestock farming although they traded with their neighbours from the hinterland and Arabs from the Persian Gulf.

Fishing was done in the Indian Ocean and in a few rivers in the region.

The coastal plains stretch between 10-30 metres above sea level and have both high and medium agricultural potential. In Kwale district, the plains are occupied by the Adigo while those in Kilifi district are occupied by the Giriama, Rabai and Chonyi. The hinterland is occupied by the Duruma who are pastoralists.

The plains are characterised by fertile soils and ample rainfall thus making them production for both crop and dairy farming (Hayer, 1963).

Other published studies that have been undertaken in the same area indicate that, the plains can produce enough food to feed the growing population and have surplus for sell (Carlsen, 1980).

A 10 percent sample study of the land registered under the Land Adjudication Program from two sub-locations that was done a decade later however revealed that, while farming remained a way of life for over 80 percent of the residents, above 50 percent of the farms were below 2 hectares and only one third of the residents could produce above subsistence level (The Kwale District Development Plan, 1974/1978).

1.2: Problem Statement.

Kenya's Coastal Tourism has continued to expand in a high agricultural potential area. This study raises concern over the possible implications of unplanned tourism development on food production particularly among the communities settled along the coastal region of Kenya.

The study focuses on the emerging behavioural patterns among the resident farmers and also among the other stakeholders in the tourist industry, that may influence food situation in Diani location.

The Diani Beach which is located in this location is one of the largest tourists receiving destinations in Kenya.

Early research on tourism development along the coast pointed out that, the colonial government had left the initiative to provide accommodation for tourists in the hands of private developers; a practice that might raise important issues in the area of public land policy (Migot-Adholla et al, 1982).

Tourism has for instance, been attributed to serious social, cultural, economic and environmental implication on the lives of many Kenyans settled around or near the tourist catchment centres according to the Kenya National Development Plan, (1974/1978).

In view of the eminent problems from tourism, the Kenya Government took preventive measures as early as in the seventies.

For example, the government established two working parties, one in 1971 and another one in 1974, to design a comprehensive plan for a tourist beach complex in Diani, in accordance with the government's policy of maximizing the economic benefits from the industry subject to important social, cultural and environmental constraints and returns from other alternative forms of land-use (Migot-Adholla et al, 1982).

The Ministry of Tourism and Wildlife has however repeatedly set high target numbers of tourist arrivals from time to time, for example, a million tourist by the year 1990. This situation is perhaps so because of the full benefits accruing to the national treasury. For Awuondo and Nthuku, (1992:12),

'... tourism has been regarded for a long time since independence in 1963 as a 'sacred cow', an important source of the badly needed foreign exchange earnings.'

Notwithstanding the overall benefits accruing to the economy of Kenya, this study holds that careful planning must be done to avoid compromising on important life aspects for a trade that is dictated by many factors in the international circles over which, Kenya might not have control.

Coastal tourism is rapidly expanding in an area that is potential for agricultural development and therefore, there is a high likelihood that the latter shall be adversely affected by the competitive nature of the tourism over most local resources. The implications with the above development on food production can be summarised as follows:

'Tourism is an expensive industry to sustain and could easily compel the host countries especially those from the third world to spend a lot of public investment in infrastructural development and in the provision of other services; a practice that might compromise very important life aspects among the communities living around the tourist catchment areas' (Mitchel, 1968).

The magnitude of the above problem along the Kenya coast must be seen in relation to the overall land resources in this country.

Statistical evidence advanced by Agricultural Economists show that, from a total of 52 million hectares of arable land in Kenya, only 6.8 million hectares constituting 13 percent are considered high potential; 3.6 million hectares (6 percent) are medium potential and the remaining 42 million hectares (81 percent) are classified as low potential or marginal lands (Mbithi and Barnes, 1975).

Consequently, caution must be exercised because wildlife tourism has for instance taken over large areas of agricultural land amounting up to 10 percent of Kenya's arable land, and that continued expansion of the industry is likely to alienate more land (Mbithi and Barnes, 1975; Awuondo, 1982).

In this study, it is postulates that, pressure and demand on land resources around coastal tourists resources is bound to increase as the local people and other stakeholders in the industry endeavour to maximise its economic returns.

Second, although tourism is likely to create widespread employment opportunities, the social dynamics that characterise this industry may not urger well with the development of local agricultural. For instance, is the local labour in a position to generate adequate income from the emerging sectors to invest in agriculture?

Third, the construction of tourist facilities may present an additional market outlet for farm produce due to the creation of a wider body of consumers in the host countries.

Meanwhile, available evidence from research on this aspect of tourism indicate that the above assumption can be dangerous. Tourism is a very competitive business to the extent that small-scale farmers may find themselves excluded from selling at the beach hotels partly because of the size and demand for food and other goods that are required, and the expectations of qüality and promptness of delivery (Migot-Adholla ẽt al 1982).

1.3: The significance of the study.

The study contributes to the on-going debate on sustainable tourism development; the Ecotourism.

Whereas a number of studies have been done on tourism, most of them focused on the social and cultural life aspects. Little is known about the economic dimensions of tourism on the alternative forms of production among the host communities in Kenya. Wherever research has been done, the target has been on wildlife tourism and not coastal tourism.

This study is therefore an eye opener on coastal tourism and its findings could form a basis for enacting a policy towards sustainable tourism development.

The Ecotourists observe that, host countries should evolve a policy that gives the people living at the tourist catchment areas an opportunity to enjoy the trickle-down benefits from the industry. Ecotourism is opposed to conventional tourism that had thrown the local people into confrontation with other stakeholders.

The desire of this approach is to induce and motivate the host communities to be at the fore-front in conserving the resource-base of this industry since they live nearby and/or own some of the resources that support the industry such as labour and land (Gakahu, 1992; Western 1992).

The Kenya Wildlife Services (KWS) which was established in 1989 has tried to implement programmes in its efforts to achieve the above objectives. The programme has for example been initiated in Kajiado district where the communities living in the ditrict are given some money collected at the gates, rights of use over certain animal species and employment as tour guides by hotels and tour firms operating in the district (Berger, 1993).

However, the above programmes have only been implemented among communities living around wildlife catchment centres. Tourist facilities in this case are owned by the public through the county councils.

There has however been no significant effort on these programmes among the people living next to the coastal water-front, where most of the sectors of this industry are privately owned. This is a major flaw in tourism planning yet statistics indicate that coastal tourism has increased considerably in the recent past.

1.4 Objectives of the Study.

This study sought to investigate the effects of the expanding Coastal tourism on agriculture among resident farmers in Diani location of Kwale district.

The main aim of the study is to find out the way local farmers have reorganised their farming practices in light of the increased market outlets for their farm produce and possible income arising from the widespread employment opportunities created as the industry expands.

The study also examines how tourism development has influenced land and labour resources in the areas and the possible impact on food production in the district.

Specifically, this study seeks to establish:

- (i) the different occupations as well as the income distribution among the local people;
- (ii) the outlets for local farm produce and also the possible problems faced in the market;
- (iii) the emerging structure of family labour in terms of age and sex, and;
- (iv) the emerging structure of land ownership along the coast.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

This chapter attempts an integration of theory and literature on tourism and agriculture in order to provide an idea of what to expect in the study area. Important issues that arise from the relationship between tourism and some of the factors of production are discussed in light of the relevant theories to show how small scale agriculture could be affected.

2.1: Tourism and Factors of Production.

This presentation reviews the literature on the influence of tourism on the following factors of production; land, labour, income and market for farm produce.

2.1.1: Land Resources.

Land is one of the most important factors in agricultural production. Land ownership is essentially a pre-requisite for good agriculture.

Tourism development has been blamed for interfering with this important resource. It is attributed to the loss of agricultural land amounting to 10% of Kenya's arable land suitable for crop-based agriculture (Mbithi and Barnes, 1975; Awuondo, 1982).

Research done along the Kenya coast suggest that, land-use patterns had changed in response to the demands of tourism to the extent that the area had been turned into a series of exclusive tourist resorts. Instead of active fishing industry, which dominates the lives of people in the area for instance, much of the land had been converted into marine reserves (Okidi and Westley, 1978).

The early white settlers and other officials in the colonial government are reported to have alienated all land in Malindi and its environs rendering many local people landless under the guise that it had not been developed (Migot-Adholla, et al, 1982; Mwanyule, 1985).

In the Caribbean, tourism was associated with increased land prices around the tourist centres (Lundberg, 1972). Similar observations were cited along the Kenya coast particularly in the first and second beach plots of Kilifi and Kwale districts (Okidi and Westley, 1978). In Malindi for example, expatriates of a Scandinavian origin were blamed for increased land prices. They are reported to have bought 24 beach plots at an average price of Ksh. 50,000 per acre (Migot-Adholla et al, 1982).

2.1.2: Labour Resources.

Although there is abundant labour in the agricultural sector, most of it is essentially unproductive. This aspect can be explained by the structure of rural labour which has three major characteristics; the seasonality of labour use; the allotment of time between farm work, non-farm work and leisure and; the division of labour between sex (Lele, 1975).

Tourism has been associated with the creation of widespread employment opportunities. The industry has numerous related-sectors including the hotel, commerce and the building industries where people at the tourist centres can be employed (Mitchel, 1968).

For every hotel employee in Tunisia,

'...there are three to four persons employed directly by tourism and for every hotel job, around three-quarters of another job is generated in agriculture than one in shops and in production of goods such as handicrafts purchased by tourists,' (Kadt, 1979:33).

Equally important to note is the fact that, the geographical distribution of jobs in tourism closely follows that of tourist facilities. Labour migrations towards the coastal towns of Kwale district were for instance attributed to tourism development, (The Kwale District Development Plan, 1974/1978).

The concentration of tourist facilities along the coastal water-front is therefore expected to attract valuable household labour from the hinterland. This can in turn affect the seasonality of agricultural labour, which is demanded in peaks and troughs according to the agricultural calendar (Mbithi, 1974).

Although the seasons might appear as if they are primarily a result of climatic factors, the above author argues that cropping patterns obviously affect the profile of labour schedules, and that the labour available at these seasons toil endlessly in falling rains and intense heat to plant in time, to weed before the crop is choked by weeds and to harvest before the yield is spoilt.

There also seems to be an emerging relationship between the type of employment and one's age as well as sex. In Kenya, the construction of tourist complexes has been linked up with the movement of the strong and able-bodied men from the farms (Macharia, 1974) while in Seychelles, jobs such as those accruing from the hotel industry are more liked by the youth perhaps because they bring boys and girls into contact with Europeans either working there or those visiting the islands (Lea, 1988).

2.1.3: Income.

Tourism development could lead to widespread employment opportunities for the labour around the tourist catchment areas (Migot-Adholla et al, 1982: Mitchel, 1968). This observation has been challenged.

Experts in this field argue that, most beneficiaries of tourism are not the local people but rather the speculative land developers and successful entrepreneurs who provide transport, accommodation, food and beverage services, sightseeing and other forms of entertainment to tourists including boat riding and scuba diving (Lundberg, 1972).

A similar observation on the situation reads:

"The jet airport on the Caribbean Islands is fine but the native who receives a marginal income cannot afford to fly...neither can he afford to eat in the new restaurant... As the dollars brought into an economy by tourism stimulates that economy, costs of goods and services increase...." (Kadt, 1979:129).

2.1.4: Marketing for Farm Produce.

A sound marketing system is an important service towards agricultural development. Inadequate and fragmented market, poor transport facilities as well as uneconomic and unpredictable prices are some of the bottlenecks facing this sector.

Lele, (1975) outlines some of the important aspects of a good marketing system to include the following:

- (a) protection of small-scale producers from the exploitative nature of the traditional trade by providing reliable outlets for their farm produce instead of leaving them in the hands of middlemen who buy from them cheaply but sell with profits. Small-scale producers should also be encouraged to form autonomous societies and unions to which they would sell their produce and from which they can enjoy the benefits of credit, and;
- (b) ensures an effective distributive mechanism by developing and maintaining good transport and communication network to link farmers to the large market.

It has also been pointed out that although enclaves of tourism in the less developed areas may be a source of frustration and resentment, many other areas benefit from good roads, adequate water supply among other utilities (Lundberg, 1979). In the former case, the people may express their frustrations in many different ways as observed below:

'When tourism is grafted onto a society where poverty is widespread and where many inhabitants do not share in the benefits brought by tourism, negative attitude towards tourists and resentment of their wealth and well-being should cause no surprise' (Kadt, 1979:66)

The relationship between tourism and market for farm produce is an area full of dialectics. For example,

'In East and North Africa, most food requirements can be procured locally while in West Africa, different patterns of agricultural output make such targets unrealistic. The Canary Islands although perfectly capable of producing much of the necessary foodstuffs themselves appear to import tourists food needs from Europe. In Majorca, hoteliers had banded into purchasing co-operatives to by-pass some domestic distribution network and agricultural producers to deal directly with overseas exporters.' (Kadt, 1979:33).

The Caribbean Commission, (1945) concluded that, agriculture among the local people had gained from the creation of much larger body of consumers and that, vegetable gardeners, fruits' grocers, dairymen and cattlemen should be encouraged to increase their production and improve standards of quality.

On the contrast, a study by Mwanyule, (1985) revealed that although Malindi had been receiving high tourist traffic in the north coast of Kenya, most of the hotels' food needs were procured from a few non-resident producers including the ADC farm, M/s Ratief, Raul Ruf and, Meryhart and Cowan. Majority of the local producers sold their produce either at the restaurants in the town, in the open air markets or to individual tourists staying in the cottages.

2.2: Theoretical Framework

In order to understand the changing as well as the emerging patterns in land ownership, labour movements, income and also those in the market for farm products, this study benefitted from several theoretical models of Social Change and Development as argued by development experts and scholars in the area of agricultural economic.

The framework underscores the fundamental dynamics between the two economic sectors and is able to throw light on the socio-economic relationships between tourism and agriculture.

The emerging changes in land ownership can for example be seen in light of the articulation model of social change as advanced by Laclau, (1970) where capitalism is said to thrive by co-existing with other peasant modes of production.

As is the case in this study, tourism has since the colonial times increasingly becoming a dominant mode of production along the Kenya coast at the expense of other important land use patterns such as small-scale crop farming and fishing.

A study on the relationship between agriculture and other economic activities done in semi-arid areas further shows that the overflow of in-migrants and the consequent population growth can lead to the adoption of conflicting land-use patterns thus compelling farmers to extend their activities into areas which pastoralists often of a different ethnic group had traditionally regarded as their own.

The results indicate that agriculture became more intense and fallowing decreased leading to low yields and greater soil erosion (Campbell and Patutikof, 1978).

The above in-flow can also increase the commercial value of land and attract many speculative developers who may decide to use unscrupulous ways to acquire land from the local people for their gains as was the case with the early white settlers while the good prices offered are tempting enough to the extent that the local people can begin sub-dividing their land into smaller pieces for sell and whose effects on the acreage under crop-farming may eventually be negative for any meaningful agriculture.

Theories on migration throw light to the effects of Coastal Tourism on farm labour.

This study for example recognises that although labour migration is essentially economical, it can also present a transition that is not purely economical. For example, since the advent of the money economy, there has been an atmosphere of restlessness among the youth and that immersion into the city serves as an initiation rite. Young women with difficulties in marriage may leave for the urban areas anticipating the availability of a greater selection for a second marriage (Peil, 1977).

Again, the study reckons that not everybody migrates to the urban areas. Instead, people of particular age, sex, education and social class are more likely to migrate than others. The young for instance, migrate more than the old because they have little to keep them in the rural areas and also due to certain "pull" and "push" factors that characterise both the urban and the rural areas.

Men migrate more often than women because of social responsibilities. The former migrate to areas of heavy industries, women to commercial areas while people with higher levels of education migrate more often than others (Mbithi, 1974).

The predominance of the young, the men, and the able-bodied persons migrating from their rural families therefore implies that, farm work would be left in the hands of women and children. If these developments can therefore be seen in relation to the inability of women to make critical decisions without their husbands permission in most cultures, it becomes logical to expect poor harvests and a slow rate of rural change (Mbithi, 1974).

The dialectic relationships and changes affecting the market for farm produce at the tourist catchment areas can be seen more analytically in what Hyden, (1983) calls the 'uncaptured peasantry'. The author argues that, capitalism has not yet conquered the peasant systems of production and that it had certainly left intact many of the properties of the economy of affection where for instance, a peasant sells his produce in return for some basic commodities, but the market does not really determine nor influence his behaviour.

Hyden attributes the above behaviour to lack of an effective market component among the African peasantry, partly because of what he sees as vested interests among officials in the ruling parties and bureaucracy.

A further analysis of this situation by Adrew Pearse in Shanin (1971) indicates that, there is a persistent but a partial process of penetration and incorporation of the rural areas in the system of market relations. He argues that certain mechanisms in the capitalist market are seen to inhibit full incorporation of the small-scale production forms, into the systems of market relations for fear that if such is allowed, it would lead to the establishment of competitive commercial farms.

The author concludes that any commercial farmers in the rural areas do not emerge from the peasantry, but from either of these cases:

- (a) a peasant migrant who returns from the industrial or commercial occupation to lands already in the possession of his family or which he acquires;
- (b) an outsider attracted by the productive and commercial opportunities which are not perceived or not realised by its members, or;
- (c) a member of the peasant community who has been able to establish himself in commerce or transport and who has been exposed to urban life.

Migot-Adholla et al, (1982) gives a conditional statement that attempts to explain the above observations:

"...given the size and demand for food and other goods by tourist firms, expectations of quality or standards and promptness of delivery, it is imperative that small-scale producers would be excluded from supplying the tourist sector."

Conclusion.

Tourism development has become a viable economic activity in Kenya. However, the relationship between tourism and agriculture raises concern on several aspects that need to be studied.

First, competition for the land resources between private operators who control most of the industry and the local farmers seem to compromise on a valuable resource in agricultural development. High prices of land as well as evictions are some of the means through which land has been alienated from the local people.

Second, the extent to which agricultural development among the local people can be stimulated by the trickle-down effects of tourism is full of dialectics.

There are possibilities that tourist hotels would procure most of their food requirements from the local farmers or even import from outside thus by-passing the local producers.

Thirdly, the impact of tourism development on local labour is equally an area to be investigated. Specifically therefore, this study seeks to examine how the impact of tourism on a farmer's socio-economic status influences his food production practices. In addition, it examines how the impact of tourism on the market for farm produce has influenced farming among the local communities.

Also this study proposes that despite widespread employment opportunities that are created as tourism expands to new areas, the local labour may not be in a position to generate adequate payment and invest in farming.

2.3: Hypotheses.

From the above review of theory and literature, several hypotheses are formulated. These are grouped into two broad categories; major and subsidiary hypotheses.

2.2.1: Major Hypotheses.

1. A farmer's socio-economic status is important in the organization of food production. Farmers with high socio-economic status tend to have high food production than those with low socio-economic status.
2. Local farmers sell their farm produce in the informal tourist market.

2.2.2: Subsidiary Hypotheses.

1. High income leads to the high degree of farm modernization.
2. Absorption of household labour in the tourist industry has negative effects on farm output.
3. The smaller the acreage the higher the incidence of food insecurity.

2.3: Operational Definition of Variables and Concepts

1. *Socio-economic status.* This variable was measured by sex, age, family size, occupation, income and acreage.
 - a) Sex was measured by one's gender; whether male or female;

- b) Age refers to the length of time a person has lived since birth and was measured in years;
- c) Household family size was measured by the total number of children plus that of their parents;
- d) Occupation was measured by the different forms of activities undertaken;
- e) Household income from all occupations was measured was measured in Kenya shillings;
- f) Acreage was measured in acres and;
- g) Household labour was measured by the number of people (as well as their ages) living within the household and whose labour in the farm was reliable throughout the year;

2. *Food Production.* This variable was indicated by the following subsidiary variables;

- a) Farm output which was measured in kilograms;
- b) Food security which was measured by the extend to which food for consumption at the household level could last the entire family from one harvest to the other;
- c) Farm Modernisation measured by the extend to which resident farmers had been using modern methods of farming and;
- d) Land-use patterns. This refers to the different ways in which land was utilised

3. *Tourism* is the business of transport, care, feeding and entertainment of tourists. *Tourism* constitutes all forms of spending both by resident and non-resident visitors within the economy of a host community.
4. *Ecotourism* refers to sustainable tourism development and has been coined for principles of 'ecology'. Development experts argue that tourism development should for instance cater for the interests of the host communities.

CHAPTER THREE

SITE SELECTION AND METHODOLOGY

3.1: Site Description.

This study was done in Diani location of Kwale district. The location is situated to the south of Mombasa on the way to Lunga Lunga (Kenya-Tanzania border point) and lies within the coastal plains which stretch from the Indian Ocean to about 10 to 30 kilometres in the interior.

The indigenous people of this area are the Adigo; one of the Miji Kenda ethnic groups who occupy most parts of Kwale and Kilifi districts. However, immigration of people from other parts of the country largely due to tourism development has changed the population composition in this region.

Administratively, Diani location is in the Southern Division of Kwale district and has two sub-locations; Bongwe and Gombato which occupy an area of about 41 and 27 square kilometres respectively (The Kwale District Development Plan, 1984/1988).

Gombato sub-location has a high population density of about 418 persons per square kilometre spread over 9 villages.

The villages include Maweni, Mkwakwani, Magutu, Mvumoni, Mwaroni, Mwamambi, Kilolapwa, Diani and Ukunda. The last two are settlement schemes.

Bongwe sub-location has a population density of 133 persons per square kilometre and comprises 8 villages including, Bongwe, Mwamanga, Mbuwani, Shamu, Mabokoni, Mwanjamba, Vukani and Mulungunipa.

The agricultural potential of the study area is both high and medium. The area has a monsoon type of climate where humidity varies between 60 percent to 95 percent and an annual maximum temperature range between 26 and 30 degrees celsius. The average rainfall in the area is about 980mm while the soils are very fertile. They consist of sand, corals and alluvial deposits.

The above climatic conditions make the area very conducive for tropical agriculture. Coconuts, cashewnuts, mangoes, citrus fruits, sugar cane, bixa, simsim, sweet potatoes, cassava, maize, vegetables and cow peas are some of the crops grown in this area. Fishing as well as dairy farming are also carried out in this region (Carlsen, 1980; The Kwale District Development Plan, 1984/1988).

The largest trading centre in this region is called Ukunda. The location is well linked to the outside world. The centre is situated along the Mombasa-Lunga Lunga Road which is about 30 kilometres from Mombasa. The Mombasa-Lunga-Lunga Road is tarmacked and also links Diani with Tanzania. Diani location also has a number of feeder roads running up and down Diani Beach and a private air strip used by chartered planes.

In addition to crop farming, the residents of this area carry out fishing in the Indian Ocean and also in some rivers. They also keep livestock mainly beef cattle. Meanwhile, the expansion of tourism development in the region has increasingly become an additional economic activity among the local communities.

Diani Beach is increasingly becoming an exclusive tourist zone with numerous hotels where the local people are employed. Examples of these hotels are, the Leopard Beach Hotel, the Leisure Lodge, the Baobab Hotel, Jadini Beach Hotel and the Two Fishes Hotel.

The growth of market centres in the area as a result of tourism also provide quite a number of other economic activities for the local people.

With the growth of population in the region, commerce and other small-scale businesses have considerably increased in the recent past. Thus, whereas Ukunda was the only big market, other small towns have come up.

Therefore, to achieve the objectives of this study, the research ought to have been done in an area where the two economic sectors have co-existed for sometime mainly because they appear to compete for similar resources. And against this background, Diani location was a good study area, where the effects of one sector on the other could easily be established.

3.2: The Research Design.

This study is a social survey. Probability sampling theory was used to select the respondents of the study. The following reasons are advanced for the adoption of sampling:

1. the parent population for this study was over 5000 households. Due to limitations in funds, time and personnel to map out the whole area, we made partial observations by applying and adhering to several sampling technical procedures in order to establish some known sample statistics which can help to generalise the results about the parent population (Mueller and Schueller, 1960) and;

2. this study acknowledges the use of probability sampling theory as the most scientific method of arriving at convincing results.

The units from which the study population was obtained were the individual families in the location. The household heads were listed down and sampled.

Meanwhile, respondents were not selected directly. Instead, multi-stage sampling method was used. Two clusters were created to facilitate sampling procedures. The first cluster comprised the sub-locations and the second comprised the villages in Diani location. All the units in each of these clusters were numbered and lottery method was used to select from each cluster.

Multi-stage Probability Sampling Method, was preferred because it is cost-effective. Blalock, (1981) notes that sampling by stage is advantageous where there is no adequate sampling frame. Whereas this research could have used records of the 1989 Population Census this document had not been released for public consumption by the time of this research. We adhered to the principles of this method to develop our sampling frames from which the samples were picked.

The procedure is summarised below:

- a) all sub-locations in Diani location were listed and numbered. One of them was randomly selected. This was Gombato sub-location;
- b) all the villages in the above sub-location were listed down and numbered. Five units were randomly selected. They represented Mvumoni, Magutu, Mwamambi, Diani and Ukunda villages, and;
- c) a list of all the households in each of the above 5 villages was prepared and a 10% sample was randomly picked. A total of 140 households were selected in this stage.

In addition to the above 140 households, 20 Key Informants were purposively selected. These were in two categories: 10 of them were household heads from Gombato sub-location who had lived in the area for a minimum of 15 years. On the basis of the period one had stayed in the area, these respondents were logically expected to explain some of the social dynamics around land ownership and tourism development. The second category of key informants were 10 purchasing officers from 10 beach hotels. From this group, the study intended to find out the different sources of food supplies at the tourist hotels.

3.3.0: Data Collection Techniques

The approach adopted in this study views research as a process of interaction between theory and methodology.

Methodology is a means of generating data to be used in testing hypotheses which derive from theory. Merton, (1957) for example, argues for the relationship between empirical research methodology and theory.

Both qualitative and quantitative data were required in order to help test the hypotheses formulated to guide this research. The process of data collection was spread over 4 months during which, several techniques of data collection were used to generate a set of two types of data that was needed.

3.3.1: Structured Interviews.

The most useful tool for data collection was an interview schedule. The questionnaire contained both open and close-ended questions in which case, the open questions gave the interviewees a chance to express themselves fully whereas the closed-ended ones simplified the process of recording down the responses. It also carried several questions to ascertain the honesty of a respondent.

The questionnaire was used to collect data on the socio-economic status of the individual farmers such as the age, family size, occupation and income levels. This instrument was also useful in establishing farm products and also the output levels of the produce.

Interview schedules were preferred because most respondents in the sample population were not literate to respond to written questions and therefore, this method was advantageous because certain aspects carried in the questionnaire needed further explanation from the researcher, and third, because the method provided an opportunity for direct observations on certain research aspects.

3.3.2: *Documentary Data.*

For a meaningful analysis of the relationship between food production and tourism development, it was necessary to have background information about the two economic sectors. This entailed collecting data from unpublished and published sources.

The main source of such data were libraries from the Ministry of Agriculture, the Ministry of Tourism and Wildlife as well as the Department of Livestock Development at the district level.

Of particular interest was the information on tourism traffic in Kwale and also the number registered and unregistered. of tourist hotels in the district.

Through the above records, we found for instance that, Kwale district had about 66 registered tourist hotels and that majority of them were situated along the coastal water-front with only a few exceptions in the hinterland. We also found that the coastal plains are good for crop production as well as dairy farming.

The limitations of secondary data are many.

- a) the findings obtained through this method represent an official view on the situation. It is likely that this information was biased;
- b) the records were not a representative of the whole district. Also, there was no data on farm output in specific divisions of the district.

3.3.3: Key Informant Interviews.

To help systematise information on the dynamics surrounding tourism development and food production, 20 key informants were interviewed in depth using an interview guide (see appendices 2 & 3).

The questions to the key informants sought to generate data on the relationship between the industry and land ownership as well as on the market for farm produce. Through the above questions for example, we sought information about the history of the Adigo settlement in Diani as well as that of other ethnic groups who have migrated into the area. This was done from the peoples' perspective.

The interviews conducted with village elders took about 10 days while those with purchasing officers from the beach hotels took 12 days. A pencil was used to record down the responses in the form of field notes in a Field Note-Book.

3.3.4: *Observation and Informal Interviews.*

Along side the interview schedules, Direct Observation Method was used to establish some of the aspects which did not require questioning, for instance, transportation network, crops and any other visible economic activities in the farms and the general cleanliness in the gardens.

The researcher also talked to the local people in an informal manner as a way of establishing their general feelings towards tourism.

The experiences with some boat operators along Diani Beach were a wealth of information to this study. Through this method, the study established certain negative aspects that tourism development had on the fishing industry among the local people.

Equally, this method enabled the researcher to reconceptualise some aspects of tourism which he further investigated through interview schedules. Meanwhile, the information generated through this method was purely qualitative and could not be relied upon at the exclusion of others.

3.4: Problems Encountered in the Field.

Some problems were encountered in the field. There was communication breakdown within the provincial administration in that, the district administration was not informed early enough by their headquarters in Nairobi about this research. In addition to the research permit, the researcher was compelled to produce photocopies of other personal documents in order to get clearance.

Second, gate keepers at the tourist hotels were reluctant to allow the researcher to contact the Purchasing Officers who were key informants to this study.

Third, the study was done when the Kenyans were preparing themselves for the first multi-party elections. At most times therefore, it was hard to find some of the sampled respondents at home; they would have gone to attend political rallies.

This problem was further complicated since women in the area are culturally prohibited from discussing family matters without their husbands permission. We had to make repeated visits at the concerned household sometimes at very odd hours in order to trace a respondent.

Fourth, was a problem of measurements in cases where we had anticipated to measure output in kilograms. Of the crops that are grown in the area however, it is maize and cashewnuts that were measurable in kilograms while the others like coconut, mangos, cassava and oranges did not have a uniform measuring unit.

Again, individual households sold the above products differently; some in sacks and others one by one. Thus, the findings of farm output are mainly descriptive except that of cashewnuts and maize.

Fifth, the scathing heat (humidity) in Diani location together with the above problems made the study take

longer than the time we had budgeted for. It took four months to interview 160 respondents.

3.5: Methods of Data Analysis.

The coding scheme was prepared after the field work on basis of the categories that emerged from the information given. Both descriptive and inferential statistics were used depending on the characteristics of variables and their levels of measurements.

1. *Descriptive statistics:* these are summarising agents which are used to condense raw data into forms which supply useful information efficiently.

The most used descriptive statistics in this study is the mean (\bar{X}). The mean is obtained by summing up the individual values (\bar{X}) and dividing by their total number (N).

$$\text{Thus } \bar{X} = \frac{\sum X}{N}$$

The mean is referred to as a measure of central tendency since it tells the researcher about the central characteristics of a distribution of scores (Prewitt, 1975). Cumulative Frequency Polygons "ogive" were also in this study to show graphically the range of certain variables.

2. *Inferential statistics*: this technique deals with the method of drawing conclusion or making decisions about populations on the basis of samples. The inferential statistics tools that are used by this study include: (i) cross-tabulations, (ii) chi-square and, (iii) measures of association.

(i) *Cross-tabulations*: this is a joint-frequency distribution of cases according to two or more classificatory variables. The technique is to display the distribution of cases by their disposition of variables by use of contingency tables.

(ii) *Chi-square statistic* was used to test the statistical significance which helps to determine whether a systematic relationship exists between two variables. Chi-square measures whether something observed differs significantly from something expected. The formula for χ^2 is;
$$\chi^2 = \sum \frac{(f_o - f_e)^2}{f_e}$$

Chi-square test of significance entails that, both variables in the table are at nominal level; a condition that is catered for in this study. However, the risk of getting a chance finding is maintained at 0.05 (5%) level. A hypothesis is accepted as a true finding at or beyond the 95% level of confidence or certainty.

(iii) measures of association: a measure association indicates how strong two variables are related to each other. Such a statistic indicates the extent to which characteristics of one variable differ from those of another. Among them is the Contingency Coefficient (C). The Contingency Coefficient indicates the strength of the relationship between variables and is based on Chi-square. The formula is;

$$C = \sqrt{\frac{\chi^2}{\chi^2 + N}}$$

Contingency Coefficient can be used with a table of any size. The maximum value of C in a 2 x 2 table is 0.707.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.0: Introduction

This chapter presents the results of the study. The first part of this presentation gives a categorical description of data based on the major hypotheses, while the second part examines and interprets the relationship among the subsidiary hypotheses.

Many studies discussed in chapter two hold the view that tourism influences important resources of production such as income, family labour and acreage whose concomitant effects on agriculture can be negative. This observation forms the basis of the first major hypothesis of this study.

4.1.0: A farmers' socio-economic status is important in the organisation of food production. Farmers with high socio-economic status tend to have high food production than those with low socio-economic status.

Data on several subsidiary variables namely, age, family size, income, and acreage owned, was collected to measure the socio-economic status of farmers in Diani location. There was deliberate attempt to establish whether tourism development in the area would be responsible for the emerging behavioral patterns around these variables and any possible implications on farming practices.

4.1.1: Family Size.

The total number of children and that of parents was sought to explain this variable. Table 3 shows that, majority of the households sampled (82.9 percent) had 4-8 children while the remaining 17.1 percent had 9-12 children. The average number of children in the above distribution was established at 6.5.

Table 3: Total Number of Children by Household.

Number of Children	Frequency	Percentage
4	27	19.3
5	25	17.1
6	31	22.1
7	22	15.7
8	11	7.9
9	5	3.6
10	9	6.4
11	2	1.4
12	8	5
Total	140	100

The results on table 4 indicate that many of the respondents interviewed had married 2 wives. The range of wives in the households was however 1-4.

Table 4: Household Number of Wives.

Number of wives	Frequency	Percentage
1	45	32.1
2	47	33.5
3	26	18.6
4	22	15.7
Total	140	100

The average of number of wives in the above distribution was 2.19 per household. Thus on average, the family size among the households sampled was 9.69; parents and children.

However, to establish the emerging labour structures in the households, we sought to know from each of the 140 households sampled, the number of children living away from home as well as the reasons for that. On an average, the results showed that, at least 3.5 children stayed away from their parents most of the time.

Many of the respondents said that their children spent nights at home, and leave in the morning for their work places or for the market centres anticipating employment of some kind. The centres are within a short distance and so they can walk back in the evening after a long day away from home.

Table 5: Number of Children Living away by Household.

No. of absentees	Frequency	Percentage
0	2	1.43
1	8	5.71
2	25	17.86
3	19	13.57
4	33	23.57
5	42	30
6	11	7.86
Total	140	100

The above findings tie well with a report carried in the Kwale District Development Plan (1974/1978), that increased immigration along the coastal towns was partly due to possible employment opportunities at the beach hotels.

Compared to girls, boys formed the largest proportion of the children living away from parents. From direct observations, we found that Ukunda and other trading centres as well as the beach line were often crowded by male youth.

At the local market, this age group was not necessarily engaged in any meaningful work. Some were seen pushing hand carts with jerricans full of water trying to catch the attention of a potential buyer.

Other were either selling fruits or selling sea collections at the beach, while the majority were seen relaxing for a cup of local coffee famously known as 'kahawa chungu' in the evenings.

From a total of 140 households sampled, the average number of boys to girls living away from their parents was 2.9:0.8 respectively. An estimated age for this group was established at 15-23 years old. Most of them were primary school drop-outs.

Table 6: Number of Working Children by Household Totals.

Children by Household	Number of Employed Children				Row Total
	2	3	4	5	
4	9(6.4)	18(13)	-	-	27(19.3)
5	11(7.9)	10(7.1)	4(2.9)	-	25(17.9)
6	19(13.6)	12(8.9)	-	-	31(22.1)
7	3(2.1)	5(3.6)	12(8.9)	2(1.4)	22(15.7)
8	7(5)	3(2.1)	1(0.7)	-	11(7.9)
9	-	-	2(1.4)	3(2.1)	5(3.6)
10	9(6.4)	-	-	-	9(6.4)
11	-	-	1(0.7)	1(0.7)	2(1.4)
12	5(3.6)	1(0.7)	2(1.4)	-	8(5.7)
Column Total	63	49	22	6	140

There were complaints from parents that although they received cash remittance from these children at the end of the day, tourism had compromised better job opportunities for their children.

Further to the above information, the study sought to establish the emerging type of labour on the farms. The results summarised in table 7 show that, the available labour force in 62.1 percent of the total households surveyed was dependent, consisting of very young children in the lower primary school as well as adults over 65 years of age.

Families which could afford acquired surplus labour from the Duruma pastoralists settled in the interior of Kwale district who would seasonally migrate southwards in search of piece work for subsistence.

Second, labour force in 37.9 percent study units was mixed up of the very young children, middle aged and the old. This category is referred to as the active labour force.

Table 7: Type of Family Labour.

<i>Type of Labour</i>	<i>Frequency</i>	<i>Percentage</i>
<i>Dependent</i>	<i>87</i>	<i>62.1</i>
<i>Active</i>	<i>53</i>	<i>37.9</i>
<i>Total</i>	<i>140</i>	<i>100</i>

When asked whether or not they were self-sufficient in labour during the 1992 rain seasons, only 21.4 percent of the respondents answered in affirmative, while

78.6 percent said they were not. Observation showed that most of the gardens were not clean; crops like cashewnuts were left to grow in weeds.

4.1.2: Acreage Owned.

Land ownership is a prerequisite for agricultural production. Land adjudication and registration process that culminates in the award of title deeds confers the right of use and instills confidence to farmers.

The study gathered valuable information on the situation of land ownership in Diani location in relation to the expanding tourism industry first, through 10 elders who were sampled as key informants and later from individual farmers in the sampled households.

Through the key informants, we learnt that before independence in 1963, Diani location was part of a large piece of land that stretched from Ng'ombeni to Kinondo which was referred to as the 'African State' and whose ownership was claimed by a certain whiteman living in the area.

More information adduced revealed that the Adigo people begun settling in the area gradually after

independence, although they met a lot of resistance from the man who claimed ownership over this piece of land. Severe clashes were reported at the initial stages between the local people and the whiteman.

The independent Kenya government intervened and slowly managed to bring the situation under control in the sixties and consequently sub-divided parts of this piece of land among Adigo who were moving from the far south. Both Diani and Ukunda settlement schemes are examples of the early initiatives from the government to assist the residents of this area. Those who settled in Diani were allocated 12 acres while the others in Ukunda got 5 acres each.

By the time of this research, most of the original 'African State' had been sub-divided except for a few portions which the government has protected for tourist related activities. However, the elders complained that land allocation in Diani had been politicised very much.

Information adduced through our discussions tends to imply that, land registration in the location does not necessarily mean that one will get a title deed.

There were complaints that a few powerful people within the region were colluding with outsiders to influence decisions at the district's Land Board thus rendering unsuspecting residents landless. Cases where residents were allocated land about 20 years ago but only to be evicted later were cited.

Speculative land developers would for example, acquire fake title deeds from the Land Board, and use them to evict a resident settled on a parcel of land that seems potential for tourism development. Alternatively, they would invoke higher authority for their gains.

But suspecting that they might be discovered later, most of the speculative developers were reported to have sold such lands either to expatriates or to other foreign owned companies who would in turn put up large tourist complexes. The study learnt that the management of a certain tourist lodge known as Leisure Lodge Hotel was actively involved in what might seem to be illegal land buying practices. By the time of this research, the management of the hotel had a serious conflict with many residents of Diani location over land because of one of their investments known as the Darad Farm.¹

¹ Darad stands for Diani Agricultural Research and Development.

Amicable source of information within the farm revealed that Darad Farm was established in 1987 on a 3 acre plot to carry out agricultural research. Over time, the farm had expanded to cover over 5,000 acres which have slowly by slowly been annexed from the local people.

By the time this research was going on, the management of the cited hotel was clearing some hundreds of acres to extend the Darad Farm and also to construct a golf-course. These later developments had left more than one thousand families landless and great loss to property which was not compensated for.

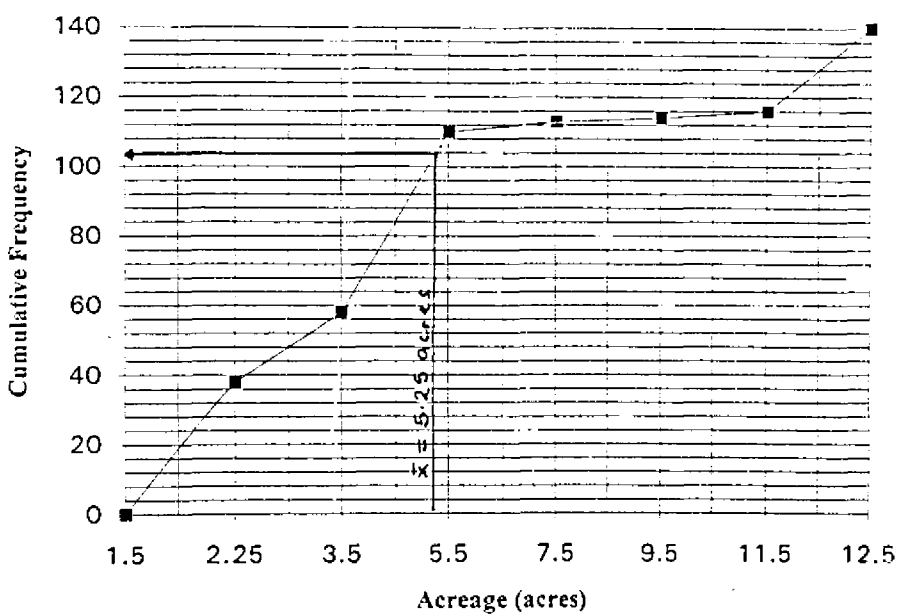
The revelations obtained from the key informants relate very well with earlier observations by Mbithi (1974), that most parts of the coastal strip had been leased out to a few well-to-do people for about 99 to 999 years upon payment of some high premiums through the Crown Land Ordinances of 1902 and 1911.

Similar sentiments by Okidi and Westley (1978) are that, the Sultan of Zanzibar had signed a treaty with the colonial British Government in the early 19th century giving him control over the coastal strip leaving many unsuspecting local people landless.

The issues raised by the 10 household key informants were a wealth of knowledge for this study. The discussions had thrown light on the existing dynamics around land ownership and tourism development in the area. And in order to assess possible implications of the above developments on local agriculture, we sought to know from the 140 household sample about the total acreage owned in terms of acres.

The findings obtained show that, while land in 95 percent of the sample population was under individual ownership, 5 percent was under family arrangements and that, majority of the farmers (102) owned less than 5.25 acres of land which was the calculated average. Only 38 respondents, out of the 140 households sampled, (about 27 percent) owned land above this margin. Graphs 1 & 2 illustrate this distribution.

Graph 1: Total Acreage Owned "Less than" Ogive



Graph 2: Total Acreage Owned "More than" Ogive

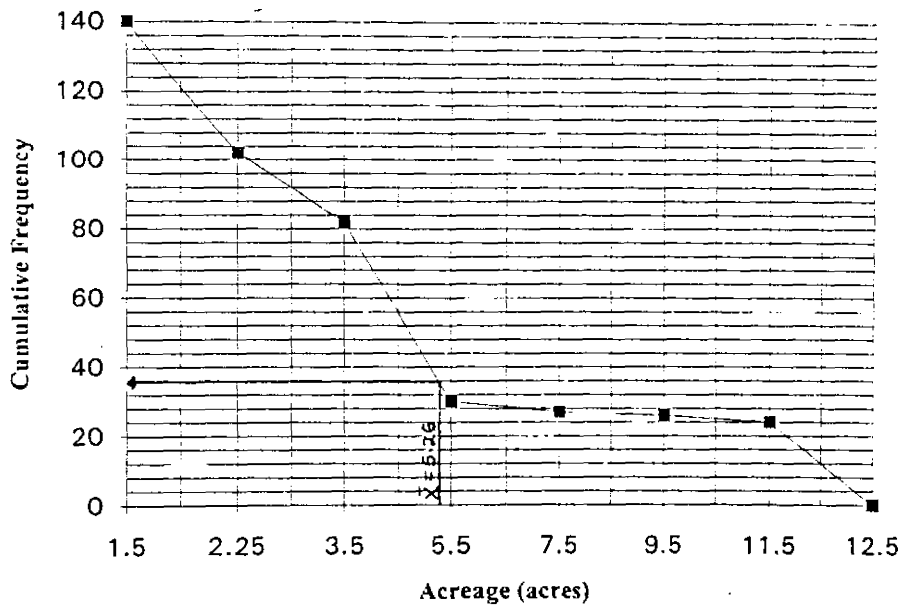


Table 8: Total Acreage Owned.

Acreage(acres)	Frequency	Percentage
2	20	14.29
2.5	11	7.86
3	27	19.29
4	7	5
5	45	32.14
6	3	2.14
8	1	0.71
10	2	1.43
12	24	17.14
Total	140	100

Farmers who owned land below the above average were sampled from the villages near Ukunda namely Magutu and Mwamambi which tend to have the highest population density; a phenomenon partly associated with the expanding tourism. Logically, pressure and demand on land is high and can lead to constant sub-division of land by farmers.

Cases of eviction were also reported from the household surveys. About 9.3 percent of the total respondents, mainly from Diani and Mwamambi villages had been threatened to be evicted in 1992 by the management of the Darad Farm cited elsewhere in this work. Individuals of a certain ethnic community from upcountry were also linked up with evictions of residents in the two villages.

When asked whether their land had been surveyed, the results gathered were that, land in 70 percent of the households in the sample population had been surveyed, while in 30 percent households it was not.

Table 9 shows the distribution of the above responses gathered from all the villages. Eighty percent of the households where land had been surveyed were from Diani and Ukunda settlement schemes. Another 20 percent were distributed in Magutu, Mvumoni and Mwamambi villages.

Table 9: Land Registration by Village.

Village	Surveyed	Not Surveyed	Row Total
Magutu	6	12	18
Mvumoni	4	15	19
Ukunda	49	-	49
Diani	30	-	30
Mwamambi	9	15	24
Column Total	98	42	140

Up to this point, the information collected on land ownership in Diani raises a lot of issues of serious concern which needed further investigation. It seemed land registration does not confirm ownership of land nor the confidence that is expected of it.

When asked to prove land ownership for example, 24.49 percent of the respondents whose land had been surveyed could not prove their claims, 42.86 percent recited their land registration numbers and only 32.65 percent had been awarded with title deeds.

Surprisingly, those who could not show anything to prove ownership said that their land had been surveyed way back in the 1960s. Some said they had been promised title deeds at a later date but such promises had not been honoured for many years since then.

Table 10: Evidence of Land Registration by Village.

Village	Evidence of Registration			Inappl	Row Total
	T.Deed	Reg.no.	None		
Magutu	4(2.9)	2(1.4)	-	12(9)	18(13)
Mvumoni	-	3(2.1)	1(0.7)	15(11)	19(14)
Ukunda	17(12)	24(17)	8(5.7)	-	49(35)
Diani	5(3.6)	11(7.9)	14(10)	-	30(21)
Mwamam.	6(4.3)	2(1.4)	1(0.7)	15(11)	24(17)
C/Total	32	42	24	42	140

Many residents have therefore become very suspicious of the whole exercise as well as their future.

Majority of them were interviewed in Diani, Mwamambi and Mvumoni villages all of which are in the so-called 'Beach 1'. which is an area where the commercial value of land is expected to be very high mainly due to its great potential from the expanding tourism.

Cases of repeated land registration were also discovered. Farmers in Diani Settlement Scheme revealed that whereas in the late sixties and early seventies they had been allocated 5 acres of land, a second registration was going on and was reducing their land to 3 acres with great loss of permanent industrial crops including coconut, cashewnut and some species of citrus fruits among other property.

The above findings are worthy commenting on. First, it is evident that pressure and demand on land is very high in areas adjacent to the coastal water-front.

The growth of tourism has led to stiff competition and scramble for land by speculative land developers on one hand and the residents on the other because of its good commercial value.

The concomitant effects of the above behaviour has led to an increase in the prices of land in Diani location.

An acre of land in Magutu and Ukunda was selling at an average price of Ksh.25,000.00 in 1992 which was a significant increment from Ksh. 5,000.00 in 1989. Elsewhere, land price is still quite cheap for the residents to afford a piece.

The results of the above developments have seriously compromised valuable land resources on which the residents could be practising agriculture. The Darad Farm has turned out to be a commercial enterprise under the guise of research. Many of those rendered landless are some how absorbed as casual labour.

People in the area must however live. They have evolved problem solving mechanisms among themselves that are well entrenched in the culture of living together. For example, land leasing had emerged as an alternative land use pattern in Diani.

The practice has the following three dimensions:

- i) where an immigrant to the area decides to lease a portion of land from a resident for a small fee payable on yearly or monthly basis just to put up a living structure. This is a case involving other community members from the interior who have moved into the location for better life prospect;

- ii) where a resident who has been evicted from his previous land requests a neighbour to lease out a plot to erect a living house and;
- iii) where a resident decides to sub-divide part of his land into plots for lease at will by anybody who might wish to start a temporary business.

4.1.3.: *Income Distribution.*

The study also sought to establish all possible sources of income accruing to the respondents and their wives at the end of every month. Crop-farming agriculture was found to be the main occupation among all respondents in our sample population.

When asked to state whether or not they had any other sources of income from which they received enumerations at the end of the month, about 21.4 percent out of 140 respondents answered in affirmation while 78.6 percent said otherwise. They were also asked to indicate their work places.

Proportionally, employment in the tourist sector was relatively higher than any other sector. For example, of those who were on wage employment (amounting to 21.4 percent), about 80 percent were absorbed in a number of tourist-oriented sectors such as the beach hotels and restaurants within Diani.

The remaining 20 percent in this category worked in other sectors in Msambweni, Tiwi, Kwale and Mombasa among other centres along the region.

Table 11: Wage Employment of the Household Heads by Place of Work.

Place of Work	Frequency	Percentage
Beach	9	6.43
Ukunda	11	7.86
Darad Farm	4	2.86
Others	6	4.29
Unemployed Cases	110	78.56
Totals	140	100

Data on income from self-employment activities was also collected. From a total of 44.3 percent of those who had some other occupations, 11.4 percent were fish hawkers, 10.4 percent owned rental houses, 10 percent were boat operators, 7.9 percent operated a shop business and 4.3 percent sold water and fruits.

Again, all of these activities had some bearing to the tourism industry.

We also had an opportunity to visit and conduct informal discussions with a group of goggling boat operators at a certain beach plot along the waterfront. The beach had been set aside by the government so that the public can have access to the Indian Ocean.

This particular group comprised young and old men who were undertaking fishing and other tourist-related activities. Our discussions revealed that the government had set aside many similar plots along the beach line.

The group members interviewed said that such entry points to the ocean were very necessary for the local fishermen and also for the general public because the construction of tourist facilities had increasingly excluded them from the coastal water-front.

Members of this group however raised concern over persistent eviction threats from a certain developer who claimed to have been allocated this piece of land by the government for private development.

Women employment in the sample population was also investigated. The findings showed that women did not participate actively in wage employment.

In 32.9 percent of the total households however, women were engaged in various self-employment activities for instance, cooking and selling of various foodstuffs including 'chapati', 'ma'hamri', 'vitumbua', 'wali' or fried fish. Women would position themselves at strategic places, preferably at the trading centres or

at the road junctions certain hours the morning, lunch and evening to sell their products. Their customers comprise workers in the beach hotels but even other people would occasionally buy from them.

In between hours, we found that women wove locally produced roofing materials 'makuti' from coconut trees and even mats to supplement their little income obtained from other sources. Those who were interviewed said that their products were on demand both by the tourist hotels and also by the local people who used them for thatching purposes.

Table 12: Household Income from both Agricultural and Non-agricultural Activities in 1991.

<i>Income(ksh)</i>	<i>Frequency</i>	<i>Percentage</i>
12000-17999	25	17.86
18000-23999	39	27.86
24000-29999	37	26.43
30000-35999	19	13.57
36000-41999	9	6.43
42000-47999	7	5
48000-53999	4	2.96
Total	140	100

Prices for such products were very low. The hotels were buying them at wholesale price, for example, a bundle of 10 pieces of 'makuti' at Ksh. 10.00.

At this level, we grouped all the data collected from different activities adduced above for analysis. On an average, income distribution in the study population was established at Ksh. 26,356.63. A total of 53.4 percent (76 households) earned less than average while 45.7 percent (64) exceeded the above average as illustrated in graphs 3 and 4.

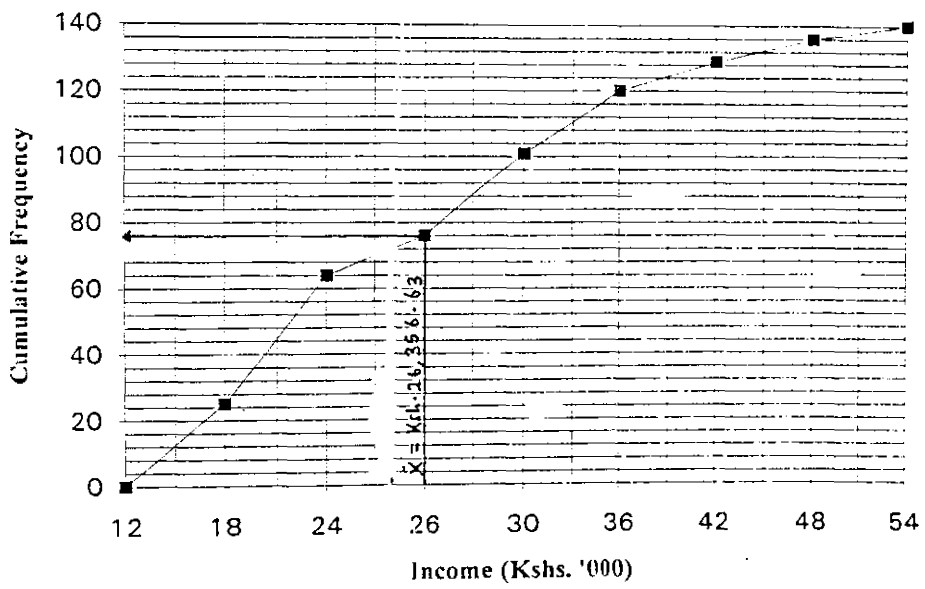
In order to undertake a statistical test of the relationship between a farmer's socio-economic status and food production in Diani location, this study had proposed to collect another set of data on several subsidiary variables of food production.

Food production was indicated by the following variables: farm modernisation, farm output and food security. Data on these variables was collected as presented in the text given below.

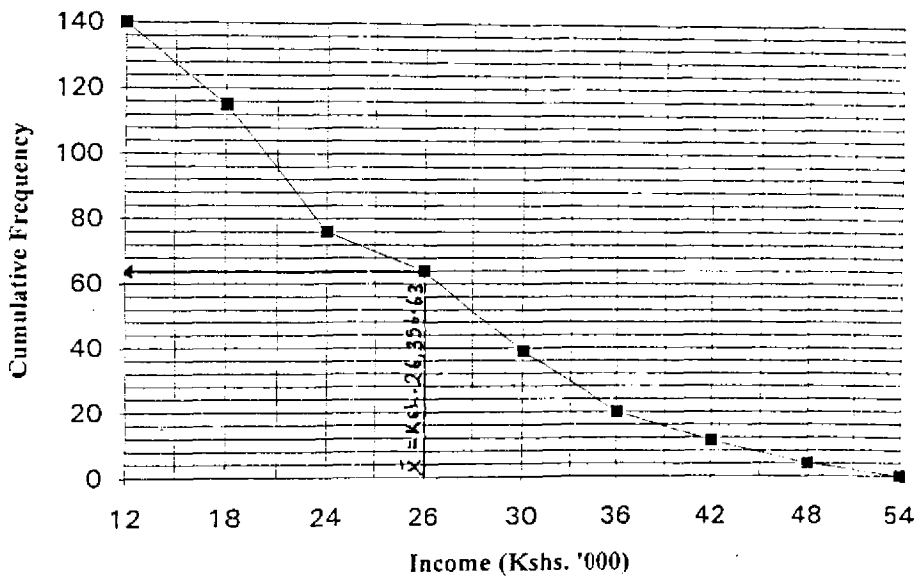
4.1.4: Farm Modernization.

A list of 10 indicators of farm modernisation was drawn up and a tick marked against each of them. These were: use of manure, use of fertilizer, use of certified seeds, plough by a tractor, improved poultry, grade cattle, pigs, soil conservation practices early weeding and spray of pesticides.

Graph 3: Household Income Distribution "Less than" Ogive



Graph 4: Household Income Distribution "More than" Ogive



The degree of farm modernization in the households was therefore measured by the number of indicators scored; the higher the score the higher the degree. Table 13 summarises the scores obtained from the respondents.

Table 13: Household scores for farm modernization.

Scores of Farm Modernisation	Frequency	Percentage
0-1	80	57.14
2-3	32	22.86
4+	28	20
Total	140	100

Farmers in 57.14 percent of total households sampled obtained very few scores in the range of 0-1, while 22.86 percent obtained 2-3 and only 20 percent had more than 4 scores. The above results tend to suggest that very few farmers in Diani location practised modern farming methods to improve output.

Further analysis of this variable shows that the use of manure, certified seeds and pesticides, crop rotation and early weeding were among the methods widely practised by farmers in Diani location.

None of the farmers interviewed had been using fertilisers to improve soil nutrients or even ploughed by a tractor or kept improved poultry and graded animals for better output.

Commenting on similar results from the interior of Kwale district, Heyer, (1963) attributed poor food production to the inability among farmers to modernise agriculture. The author observed that some of the methods of farming could however not be practised.

The use of tractor or plough by animals were impossible owing to stony soils while animals were not widely kept because the region was prone of livestock diseases. The findings of the above study can not be generalised for the whole region. The soils in Diani location are good and animals are kept both for milk and beef although traditional in nature. Farmers are still using traditional tools to plough partly because virtually every farm has the so-called permanent industrial crops and that they practice mixed farming. Some of the crops like coconut and cashewnuts have spreading roots that inhibit deep ploughing.

4.1.5: *Agricultural Output.*

Farmers in Diani location practice small-scale agriculture. The rains come in two seasons although the short season is not very reliable. This research found out that in the area, farmers planted coconut, cashewnuts, citrus fruits, as cash crops and maize, cassava and peas among others for subsistence.

Coconut, cashewnuts and citrus fruits are referred to in this study because they are grown once in life time. They normally take 4-7 years before the first yield can be harvested. Of the two, coconut is a very important crop.

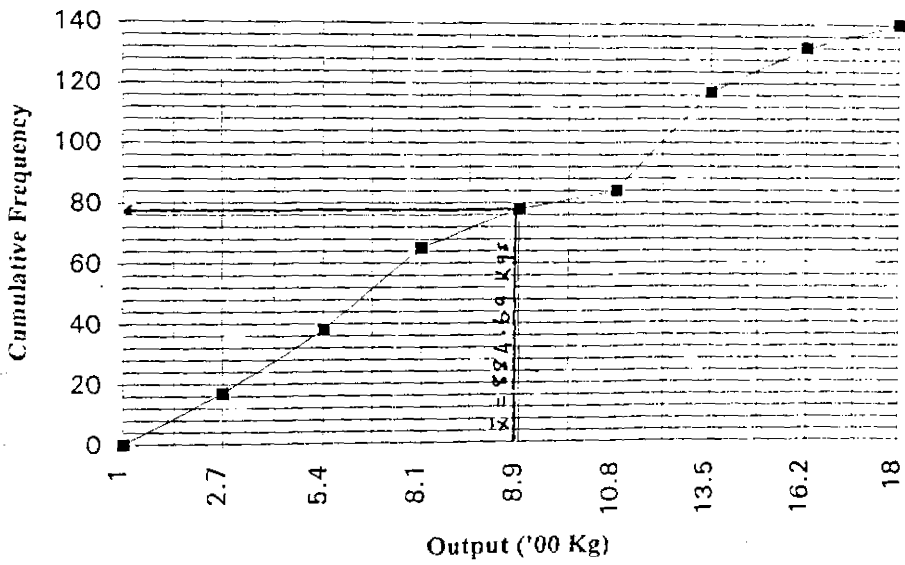
To measure output, this study only used the total harvest collected from cashewnuts and maize because of the measurement problems cited in chapter three. Cashewnuts however took the largest share since maize is planted once a year.

Table 14: Output of Maize and Cashewnuts in 1991.

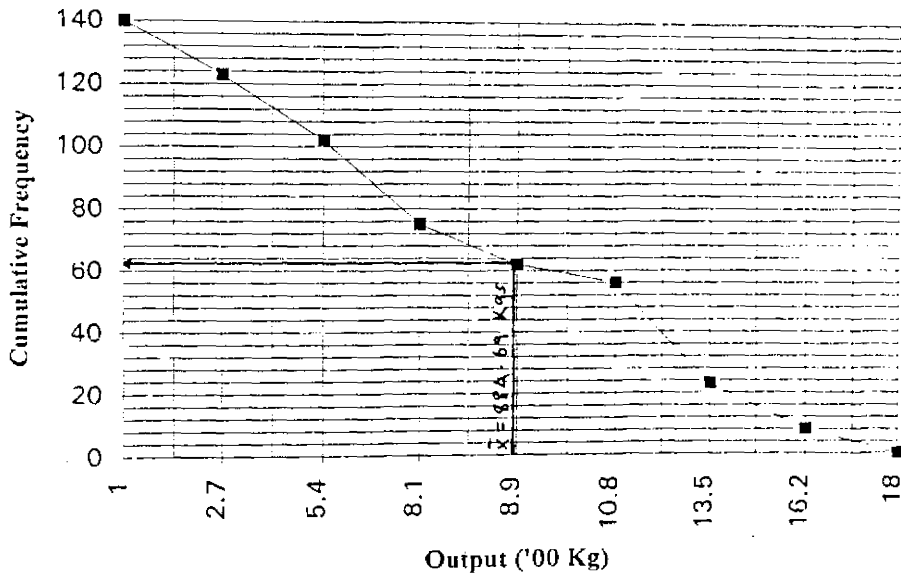
Output(kgs)	Frequency	Percentage
100-270	17	12.1
271-540	21	15
541-810	27	19.3
811-1080	19	13.6
1081-1350	33	23.6
1351-1620	15	10.7
1621-1800	8	5.7
Total	140	100

The average output in 1991 was 884.69 kilograms. Graphs 5 & 6 illustrate this variable. An analysis of output by village reveals that famers in Ukunda and Mvumoni villages had high yield than those from Magutu, Mwamambi and Diani.

Graph 5: Output from Maize and Cashewnuts "Less than" Ogive



Graph 6: Output from Maize and Cashewnuts "More than" Ogive



4.1.6: Food Security.

This study also tried to establish the food situation among the farmers. As presented in table 15, only 30 percent of the households sampled were self-sufficient in food during the year 1991, whereas majority of them (70 percent) did not have enough to eat.

The findings tend to disagree with previous observations advanced by Carlsen, (1980) that, the Adigo were producing enough for domestic purposes and even get surplus for sell. As in the above case, most of the households which had food problems were from Magutu and Mwamambi villages which are at the centre of tourism industry.

Table 15: Food Security by Household in 1991.

Food Security	Frequency	Percentage
Self-sufficient	42	30
Insufficient	98	70
Total	140	100

4.2: An analysis of the relationship between the influence of tourism on factors of production and agricultural production.

This section examines and interprets the relationship between a farmer's socio-economic status and food production. More complex statistical tools than simple description statistics have been applied.

The relationships between nominal variables are examined and interpreted through the application of the following inferential statistics: Chi-square (χ^2) and contingency coefficient (C).

While chi-square will be applied to test the statistical significance of such relationships, contingency coefficient will be used to measure the strength of such relationships.

The first hypothesis sought to establish the association between acreage owned by a farmer and the farm output.

Table 16: Farm Output by Acreage in 1991.

Acres	Output (0'kgs.)					Row Total
	10-27	27-54	54-81	81-108	108+	
2-3	11(8)	15(10)	23(16)	9(6.4)	-	58(41)
4-5	4(3)	3(2.1)	2(1.4)	7(5)	36(26)	52(31)
6-12	2(1.4)	3(2.1)	2(1.4)	3(2.1)	20(14)	30(21)
C/Total	17(12)	21(15)	27(19)	19(14)	56(40)	140

$$\chi^2 = 72.54$$

Contingency Coefficient = 0.584.

Degrees of freedom = 8

The decision criterion, at 0.05(5 percent) level of significance = 15.507.

The calculated χ^2 (72.54) with 8 d.f, is significant at 95 percent level of confidence. The value of C (0.584) shows a moderately strong association between the two variables.

From the above table, it is clear that farmers who owned more than the average acreage (5.25) had high farm output than those who had less than average. It is therefore concluded that farm output is dependent on the acreage owned; the higher the acreage the higher the output.

Further, an analysis of the relationship between the acreage owned by a farmer and the food situation at his home was also investigated.

Table 17: Food Situation by Acreage in 1991.

Acreage(acres)	Food Situation		Row Total
	Sufficient	Insufficient	
2-3	7(5)	51(36.43)	58(41.43)
4-5	26(11.43)	36(25.71)	52(37.14)
6-12	19(13.57)	11(7.86)	30(21.43)
Column Total	42(30)	98(70)	140(100)

$$\chi^2 = 24.764$$

$$\text{Contingency Coefficient} = 0.3876852$$

$$\text{Degrees of Freedom} = 2$$

The decision criterion at 0.05 (5 percent) level of significance = 5.991.

Since the calculated χ^2 (24.764) is more than its value at 2 degrees of freedom, the above results indicate a highly significant association between acreage and food security.

The value of contingency coefficient (0.388) however signifies a weak association between the above variables. Conclusively, we find that food security is influenced by the acreage owned.

Meanwhile, Lele (1938) argues that although the agricultural sector has abundant labour, production levels might be affected by its seasonality. Therefore, third hypothesis sought to establish the association between farm output and family labour.

Table 18: Output by type of Family Labour.

Type of Family Labour	Output (0'kgs.)					R/Total
	10-27	27-54	54-81	81-108	108+	
Dependent	11(8)	14(10)	19(14)	5(3.5)	20(14)	87(62)
Active	6(4.3)	7(5)	8(6)	14(10)	36(26)	53(38)
C/Total	17(12)	21(15)	27(19)	19(14)	56(40)	100

= 28.44

Degrees of Freedom = 4

Contingency Coefficient = 0.411

The decision criterion at 0.05 (5 percent) level of significance = 9.488

The calculated χ^2 (28.44) with 4 degrees of freedom, is significant at 95 percent level of confidence. However, the value of C (0.411) shows a moderately weak association between the farm output and family labour.

From the above table, 36 percent of the households where labour was categorised as active had an output above 8100 kgs (about the average) as compared with 17.5 percent in the dependent category. These findings indicate that households with abundant labour tend to have high farm output.

The fourth hypothesis aimed to analyze the association between family labour and the food situation among farmers.

Table 19: Food Situation by Family Labour.

Type of Family Labour	Food Situation		Row Total
	Sufficient	Insufficient	
Dependent	15(10.7)	72(51.4)	87(62.1)
Active	27(19.3)	26(18.6)	53(37.9)
Total	42(30)	98(70)	140(100)

$$\chi^2 = 17.83. \text{ Degrees of freedom} = 1$$

$$\text{Contingency Coefficient} = 0.336$$

The decision criterion at 5 percent level of significance = 3.841.

Thus, the calculated χ^2 (17.83) with 1 d.f, is significant at 95 percent level of confidence. The above association is however weak (C = 0.336).

The above findings show that 19.3 percent of the households which were sufficient in food had an active labour force and that majority of those who were not sufficient in food (51.4 percent) had dependent type of labour force. They suggest that food security was not independent of family labour.

This study also wanted to find out the relationship between a farmer's income and farm modernisation.

Table 20: Farm Modernisation by Income Level.

Income in (000'ksh)	Scores of Farm Modernisation			Row Total
	0-1	2-3	4+	
12-18	19(13.6)	6(4.3)	-	25(18)
18-24	25(17.9)	12(8.9)	2(1.4)	39(28)
24-30	26(18.6)	7(5)	4(2.1)	37(26)
30-36	5(3.6)	5(3.6)	9(6.4)	19(14)
36+	5(3.6)	2(1.4)	13(9)	20(14)
C/Total	80(57)	32(23)	28(20)	140(100)

$$\chi^2 = 69.98$$

Contingency Coefficient = 0.577.

Degrees of Freedom = 3 .

Decision criterion at 0.05 (5 percent) level of significance = 15.507.

The calculated χ^2 (69.98) with 8 d.f, is significant at 95 percent level of confidence. The value of C = 0.577 implies that the above association is moderately strong. The above test shows that farmers with high levels of income had high scores of farm modernisation.

Since income was found to influence the degree of farm modernisation, the sixth hypothesis sought to establish the existing relationship between output and the degree of farm modernisation.

Chitere (1982) says that income influences the way a farmer would organise farm production; buy fertilisers and use machine power for instance. It is suggested in this study that such inputs would have great influence on farm output.

Table 21: Output by Degree of Farm Modernisation.

Modernisation Scores	Output (0'kgs.)					Row Total
	10-27	27-54	54-81	81-108	108+	
0-1	17(12)	19(14)	26(19)	18(13)	-	80(57)
2-3	-	1(0.7)	1(0.7)	-	30(21)	32(23)
4+	-	1(0.7)	-	1(0.7)	26(19)	28(20)
Column Total	17(12)	21(15)	27(19)	19(14)	56(40)	140

$\chi^2 = 125.03$; Contingency Coefficient = 0.687.

Degrees of freedom = 8

The decision criterion at 0.05 (5 percent) level of significance = 15.507.

The calculated χ^2 (125.03) with 8 d.f, is significant at 95 percent level of confidence hence the above association is strong.

Therefore, the association between the two variables indicate that farmers with many scores of farm modernisation had high output. The test thus signifies that farm output in Diani location is dependent on the degree of farm modernisation.

At the same time it was apparent to establish the association between farm output and income among the farmers. The relationship between the two variables has been computed as shown on table 22 whereby, the calculated χ^2 (91.05) with 16 degrees of freedom, is significant at 95 percent level of confidence. The value of C = 0.628 signifies a strong association between the income and output.

Table 22 therefore shows that farmers with high income tend to have high output. This means that farm output is influenced by farmers' level of income.

Table 22: Farm Output by Income Level.

Income 000 ksh	Output(000kgs)					Row Total
	.1-.27	.27-.54	.54-.81	0.8- 1.08	1.08+	
12-17	9(5.7)	9(6.4)	5(3.6)	3(2.1)	-	25(18)
18-23	4(2.9)	10(7.1)	13(9.3)	9(6.4)	3(2.1)	39(28)
24-29	2(1.4)	2(1.4)	7(5)	7(5)	19(14)	37(26)
30-35	3(2.1)	-	-	-	16(11)	19(14)
36+	-	-	2(1.4)	-	18(13)	20(14)
Total	17(12)	21(15)	27(19)	19(13)	56(40)	140

$\chi^2 = 91.05$; Contingency Coefficient = 0.628.

Degrees of Freedom = 16; The decision criterion at 0.05 (5 percent) level of significance = 26.296.

On another dimension, the reviewed studies in chapter two suggest that local agriculture would benefit from tourism. The reviewed brings out academic gaps on the relationship between tourism development and the market for farm produce.

Whereas there is a possibility that local agriculture may gain from the creation of a large body of consumers tourism has at the same time been blamed for poor agriculture among the host communities. The above gaps form the basis of the second hypothesis of this study.

4.3: Despite increased tourism development, the local farmers are passive participants in the formal tourist market.

To test the above hypothesis, this study sought to establish the different market outlets of various farm products among the farmers interviewed in the sample population. It also sought to establish sources of the various food requirements at the beach hotels.

Interviews conducted in Diani location revealed that farmers sold cashewnuts and coconuts to middlemen or to a certain co-operative society in Ukunda and some few at the open air markets in Ukunda and Mombasa. The Darad farm was also cited as another market outlet for fruits and coconuts. The latter would in turn sell with profits to other beach hotels.

Experiences given by the farmers about the dynamics of the formal tourist market suggest that, the market is very competitive and that local farmers were discriminated in favour of upcountry producers.

The above was despite the potential by the local farmers to produce fruits and other food requirements abundantly. For instance, a local farmer had been asked to supply only 50 oranges to a certain tourist hotel while a retiree of Robinson Beach Hotel said

that workers at the tourist hotels were not allowed to sell their produce at their place of work!

Resident farmers also complained that they were exploited by middlemen; they sold their produce at throw away prices for instance, Ksh. 1.00 for a mango whereas its price at the retail market was found to be about seven times higher. And because of the above problems, most farm produce normally gets spoilt in the gardens.

Meanwhile, evidence generated from the households and also from the Ministry of Agriculture in Kwale district reveal that apart from coconuts and some species of citrus fruits, other foodstuffs that might be very necessary at the tourist hotels were not adequately produced in the region. Example of such are cabbages, onions, beef and dairy products, avocados and tomatoes are not adequately produced in the study area. None of the respondents in this study said he grew any of the above crops for sale despite the good agricultural potential in the area.

The information obtained from the 10 purchasing officers sampled from the beach hotels in Diani shows that food in these hotels was supplied by "reliable" sources most of whom were from the upcountry.

Even for the fruits that were locally produce, the residents could hardly win tenders to sell in the hotels. Only a few local producers could manage to sell at the beach hotels.

Thus, the hotels would buy from-upcountry suppliers or at the Kongowea market in Mombasa, about 30 km from Ukunda. The above key informants also said that they also secured a few food requirements from the Darad Farm.

Sources within the farm revealed that although the farm could not produce enough to sell at the beach hotels, the management would send out its workers to buy coconut and fruits from the local farmers at relatively low prices and in turn sell with profits to these hotels.

None of the respondent to this study complained of poor transportation network and therefore this does not inhibit transportation of farm produce.

The above evidence tend to suggest that, local farmers in Diani location have not been stimulated to diversify their farming practices despite the numerous tourist hotels that would have served as an additional supply line for their farm produce.

Most indigenous farmers have not reorganised their production activities to meet the increased food demand at the beach hotels. This is despite good agricultural potential in the area.

It is also logical to argue that, the Darad Farm has not only rendered the local people landless, but has also excluded them from selling at the tourist resorts and that is why they sell their produce at other places including the open-air market at Ukunda or to middlemen at throw away prices.

The above findings tend to confirm similar observations by Mwanyule (1985), that there was no significant association between tourism development and the market for farm produce in Malindi and its environs but contradicts those by Kadu (1979), that there was a positive relationship.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The findings of this study have important implications both for theory and policy towards tourism development and food production in general and among the Adigo in particular. Academically, the findings show that the modes of production and other migratory models are viable theoretical frameworks for the study on the relationship between agriculture and tourism development. The models used in this study have helped to formulate testable hypotheses which guided the study.

The findings have helped to improve our theoretical understanding about the relationship between the two economic sectors; it has revealed that the articulation of the two sectors in the economy of the host communities along the Kenya coast affects small-scale food production activities as it is stipulated theoretically.

Competing land use patterns have incapacitated the Adigo's potential to produce and feed themselves. For instance, people's access to the Indian Ocean which is a source of fish (proteins) has been reduced by the construction of exclusive beach hotels along the coastal water-front.

Again, the implications of tourism growth on the acreage covered by food crops has been negative. Consequently, with inadequate land to grow food crops, the indigenous people have no alternative other than to offer their labour for hire to the private operators who would further exploit them by giving them inadequate payment which can not guarantee them a living and be able to invest in agriculture.

Labour from the young and able-bodied people (especially the youth) had been withdrawn from the families where it is badly needed for agricultural production. Evidence shows that most of the youth were moving up and down the beach and in the market centres (not necessarily doing any work) were the youth. These findings tie very well with the bright-light theory of migration which is used in this study.

There seems to be evidence suggesting political will in some of the unorthodox ways of land acquisition by speculative developers. One would for example question the logic of the second land registration exercise in some parts of the region in addition to the insensitivity with which the government handles eviction cases that are reported in the area.

The findings further suggest that commercial farmers who supply food requirements to the beach hotels do not come from among the local population.

Instead these are established farmers from outside Kwale district or a local establishment whose management is not from within.

Although local farmers can produce some of the required foodstuffs, very few of them enjoy the creation of a large body of consumers directly; their produce is instead bought by exploitative middlemen who in turn sell it with profits at the beach hotels. Consequently, psychological defeat has taken roots among the local producers; they have become passive actors in an active tourism business at their doorsteps.

The study makes the following recommendations:

(a) the government should finalise the land registration exercise in Diani location. Again it should nullify the second survey that is going on in Diani and in other villages cited in the analysis. This should be an attempt to restore the tainted image of the government;

(b) the government should evolve a policy to ensure that private operators in the tourist industry

give priority to the local people when recruiting their work force especially for the duties that might not require specialisation. Such a policy should also give local producers a priority to enable them market some of their produce at the tourist hotels;

(c) the local farmers should be encouraged to form autonomous co-operative(s) from which they can get, credit facilities to invest in agriculture; assist them to market their produce at the beach hotels. Such an association would also reduce the exploitation by middlemen;

(d) the district agricultural extension staff should educate farmers in the area on the need to diversify and modernise their production patterns in order to be competitive enough to win supply tenders at the tourist hotels. Nevertheless, more emphasis should be given to production for domestic consumption than to production for sale.

BIBLIOGRAPHY

- Awuondo, C. O. and Nthuku, F.M. Social, Cultural Impacts of Tourism. Workshop paper; Nakuru 13-17 September, 1992.
- Babbie, E. R. The Practice of Social Research, Second Edition. Belmont:Wardsworth Publishing Company 1978.
- Berger, D. J. Wildlife Extension: Participatory Conservation by the Maasai of Kenya. Nairobi: ACTS Press, 1993.
- Blalock, H. M. Social Statistics. London: McGraw-Hill Book Company, 1980.
- Caribbean Commission, Caribbean Tourist Trade. Washington D.C. April, 1945.
- Carlsen, J. Economic and Social Transformation in Rural Kenya. Uppsala: Institute of African Studies; 1980.
- Centre of African Studies, Tourism in Africa and the Management of Related resources. University of Edinburgh: Scotland; 3-4 May, 1974.
- Cockcroft, J. D., Frank, A. K. and Johnson, D.L. Dependence and Underdevelopment: Latin America's Political Economy. New York; Doubleday and Company, 1972.
- Daily Nation, Nairobi: December, 1972.
- Daily Nation, Nairobi: May 30, 1976.
- David, J. C. Land Use Competition at the Margins of the Range Lands: A Proposal for Research in Kajiado District.
- East Africa Tourist Trade Association Annual Report, 1948.
- Gakahu, C. G. Participation of Local Communities in Ecotourism: Rights, Roles and Socio-economic Benefits. Workshop Paper, Nakuru: 13th-17th September, 1992.
- Gichuru, J. S. Kenya: A Decade of Progress. Revised Edition.

- Hyden, G. Beyond Ujamaa in Tanzania: Underdevelopment and an Uncaptured Peasantry Berkeley; University of California Press, 1980.
- Iliffe, J. The Emergence of African Capitalism. London: The MacMillan Press Ltd., 1983.
- Kadt, E. Tourism: Passport to Development? A Joint World Bank UNESCO Study: Washington; Oxford University Press, 1979.
- Kenya Tourist Development Corporation: Annual Report and Accounts 1989/1990. KNA, Malindi Annual Report, 1939.
- Kwale District Development Plan, 1974/1978.
- Lea, J. Tourism and Development in Third World. New York: Chapman and Hall INC, 1988.
- Leys, C. Underdevelopment in Kenya: The Political Economy of Neo-Colonialism 1964-71. Berkeley: University of California Press, 1945.
- Livingston, I. and Ord, H. W. Agricultural Economics for Tropical Africa. Nairobi: Heinemann, 1981.
- Long, N. An Introduction to the Sociology of Rural Development. London. Tavistock Publications, 1977.
- Lundberg, D. E. The Tourist Business. Chicago: Institutions/Volume Feeding Management Magazine, 1972.
- Macharia, G. N. The Impact of Extended Tourist Industry on the Coastal Indigenous Population. Institute of Development Studies Publication: University of Nairobi, April, 1977.
- Mafeje, A. "The Fallacy of the Dual Economies," in the East Africa Journal, Dar-es-salaam: February 1972.
- Mbithi, P.M. and Barnes, C. Spontaneous Settlement Problems in Kenya. Nairobi: East African Literature Bureau, 1975.
- Mbithi, P.M. Rural Sociology and Rural Development. Nairobi: Kenya Literature Bureau, 1974.
- McLellan, D. Marx Before Marxism. London: MacMillan, 1970.

Migot-Adholla, S.E., Mkangi, K.G.C. and Mbindyo, J. Study of Tourism in Kenya: With emphasis on the attitudes of residents of the Kenya coast. Institute of Development Studies Consultancy Report No.7; University of Nairobi, February, 1982.

Ministry of Tourism and Wildlife Report. 1984/1988.

Mitchel, F. The Cost and Benefits of Tourism in Kenya: Report Prepared for the Kenya tourist Development Corporation. Institute of Development Studies: Nairobi University College; November 30. 1988.

Mollison, S. Kenya's Coast. Nairobi: East African Publishing House, 1971.

Moser, C.A. and Kalton, G. Survey Methods in Social Investigation. Second Edition. Heinemann Educational Books Ltd., 1978.

Mueller, J.H. and Schuessler, K. F. Statistical Reasoning in Sociology. Boston: Houghton Mifflin Company, 1961.

Mwanyule, M. The Role of Tourism in the Growth of Malindi and its Environs. Unpublished M.A. Thesis; University of Nairobi, 1985.

Noronha, R. and Lethem, F.J. Traditional Land Tenure and Land Use Systems in the Design of Agricultural Projects. Washington D.C. World Bank Staff Working Papers No. 561.

Pearse, A. Metropolis and Peasant: "The Expansion of the Urban Industrial Complex and the Changing Rural Structure," in Theodore Shannin pp.69-80.

Peil, M. Consensus and Conflict in African Societies; An Introduction to Sociology. London: Longman Group Ltd., 1977.

Republic of Kenya, Economic Management for Renewed Growth; Sessional Paper No.1, Nairobi: Government Printers, 1980.

Republic of Kenya, Kenya's Population Census 1979, Vol.1; Nairobi: Government Printers, 1981.

Republic of Kenya, Statistical Abstract, Central Bureau of Statistics: Ministry of Planning and National Development. Nairobi: 1985.

Ruttan, V. W. Agricultural Development: An International Perspective. London: The John Hopkins Press, 1971.

Seidman, A," "Comparative Development Strategies" in the East Africa Journal. Dar-es salaam, April, 1970.

Shannin, T . and Hamza, A, (eds.) An Introduction to the Sociology of Developing Societies. London:MacMillan Education Ltd., 1982.

Shivji, I. G. (ed.) Tourism and Socialist Development in Tanzania. Dar-es salaam: Tanzania Publishing House, 1973.

Western, D. Ecotourism: The Kenya Challenge. Workshop Paper, 1992.

Van Zwanenberg, A. M. A. Colonial Capitalism in Kenya 1919-1939; The Theory of Colonial Capitalism. Nairobi: East Africa Literature Bureau, 1975.

APPENDIX 1

INTERVIEW SCHEDULE ADMINISTERED TO 140 HOUSEHOLD HEADS

Good time. My name is Francis Muinde Nthuku from the University of Nairobi. Currently, I am studying the relationship between agricultural production and tourism development in the coastal region. Dear respondent, this study would benefit a lot if you can give me an opportunity to discuss the above with you. I assure you that nothing shall be disclosed without your consent. Your co-operation to make the study a success will be highly appreciated.

Thank you!

Name

Village

Sub-location

Age

1. Marital status: Single 1 Married 2
Divorced/separated 3

2. Where marriage is plural, state the number of wives;

3(a). How many children do you have?

	Sons	Daughters
First wife
Second wife
Third wife
Fourth wife
Fifth wife

3(b). How many of your children are working/in business? Sons Daughters

3(c). If any of them is working, please state their places of work.

3(d). How many of your children are in boarding schools? Sons Daughter

3(e). How many of them are married?

4(a). How many of your children remain at home when schools are open? Sons Daughters

- 4(b). What are their ages?
- 5(a). Are you on wage employment? Yes No
- 5(b). If yes, please state your place of work
.....
- 5(c). What is your monthly income? (ksh.)
- 6(a). Apart from agriculture, what other income
generating activities do you undertake?
1 2 3
4 5
- 6(b). Please state the monthly income generated from
each of these activities (ksh.).....
- 7(a). Is any of your wife on wage employment?
Yes No
- 7(b). If yes, Please state the place of work
- 7(c). What is her monthly income? (ksh.)
- 8(a). What other income generating activities are
undertaken by your wives; 1
2 3 4
- 8(b). Give an estimate of the monthly income generated
from each of the above mentioned occupations
(ksh.).....
- 9(a). How many acres of land do you have?
.....
- 9(b). Has your land been surveyed? Yes No
- 9(c). If yes, when was it surveyed? (answer in years)
.....
- 9(d). Circle any of the following choices to show
evidence of land registration.
Title Deed 1 Registration Number 2 Both 3
None 4
10. If the answer to question 10(c) is "none", explain
the irregularity;
11. What type of land ownership do you have?
Individual 1 Family 2 Communal 3
- 12(a). Have you sold any portion of your land?
Yes 1 No 2

- 12(b). If the answer to the above question is "yes", when was it? (year)
- 12(c). How many acres did you sell?
- 12(d). Who bought your land? A local person 1
 An upcountry person 2 A company 3
 Others(specify) 4
- 12(e). Approximately how much did an acre cost? (ksh.)
- 13(a). Have you leased out any portion of your land?
 Yes 1 No 2
- 13(b). If yes how many people have leased land from you?
- 13(c). Approximately how many acres have you leased out?
- 13(d). Who are your customers? Local people 1
 Upcountry people 2 Company 3 Others 4
- 13(e). Please state the total amount of money generated from this land-use pattern per month; (ksh.)
- 13(f) Is the above figure included in the amount stated in Q.No.6(b)? Yes 1 No 2
- 14(a). Have you at any time been threatened with eviction? Yes 1 No 2
- 14(b). If yes, when was it? (year)
- 14(c). Who among the following choices had threatened you? A local person 1 An upcountry person 2
 A company 3 Others(specify) 4
- 14(d). Did you report the matter to the area administration? Yes 1 No 2
- 14(e). Has the matter been solved? Yes 1 No 2
 Explain
- 14(f). If the answer to Q.No. 14(e) is "no", please explain the position at the moment;
15. What staple food crops do you grow?.....
16. What different cash crops you grow in your farm?.....

17. State the number of acres on which you grow the following types of crops;
 1 staple crops
 2 Cash crops
- 18(a). Do you keep animals? Yes 1 No 2
- 18(b). If yes, name the different animals that you keep; 1 2 3
 4
- 19(c). What type of animals do you keep?
 Traditional 1
 Graded 2
 Both 3
- 20(a). Do you keep poultry? Yes 1 No 2
- 20(b). Which type of poultry do you keep?
 Traditional 1
 Improved 2
 Both 3
- 21(a). Given below are some of the techniques associated with modern farming. Put a tick against the ones you have been practising.
 1 Manure 2 Fertiliser
 3 Pesticides 4 Early weeding
 5 Crop rotation 6 Graded animals
 7 Improved poultry 8 Pigs
 9 Certified seeds 10 Tractor ploughing
- 21(b). What amount of farm produce did you sell in the year 1991?
 1 Crops (kgs.).....
 2 Animals (no.).....
 3 Poultry (kgs.).....
- 22(a). Where do you sell your cash crops?
 Beach hotels 1 Co-operative 2
 Green grocers 3 Restaurants at Ukunda 4
 Mombasa 5 Others 6
- 22(b). What kind of problems do you normally face when selling your produce? (the most prevalent first) 1.
 2.
 3.
 4.
- 23(a). Do you sell any of your farm produce at the beach hotels? Yes 1 No 2
- 23(b). If yes, how often? Always 1 sometimes 2

- 23(c). Name all the produce that you sell at the beach hotels;
- 24(a). Are there any problems that you face at these market places? Yes 1 No 2
- 24b). If yes, please mention some of them starting with the most prevalent one?
 1.....
 2.....
 3.....
 4.....
- 25(a). Are you aware of a farm in this area known as the Darad Farm? Yes 1 No 2
- 25(b). Have you sold any of your farm produce to it? Yes 1 No 2
- 25(c). If the answer to Q.No.19(b) is yes, mention some of the things you have sold to this farm;
26. How many seasons of rain do you receive annually?
27. Where you labour sufficient during the last years rain seasons? Yes 1 No 2
28. Do you have hired labour? Yes 1 No 2
29. Where you food self-sufficient last year? Yes 1 No 2
30. In your opinion, do you think that the expansion of tourism in this region has benefited farmers in any way? Yes 1 No 2
 Explain

APPENDIX 2

INTERVIEW GUIDE FOR KEY INFORMANTS (10 VILLAGE ELDERS)

Good time. My name is Francis Muinde Nthuku from the University of Nairobi. Currently, I am studying the relationship between agricultural production and tourism development in the coastal region. As part of it, the study needs some background information about how the Adigo settled in this area.

Thank you.

Name.....

Village.....

Sub-location.....

Respondent's age.....

Time spent in the village (years).....

Topics Discussed.

- 1 Land ownership during the colonial days.
2. Land ownership and registration after independence.
3. The emergence of tourism in the area.
4. Tourism and land ownership.
- 5 The problem of Squatters in the area.
6. The Darad Farm and the problem of squatters.
7. The elders perspective of the issue of land problems in the location.

Given below are names of the elders who were interviewed:

Hassan Mwinyi, Sikudhani Rashid, Hamisi Juma, Abdalla Mwachimako, Dewe Mwafrika, Ali ShugaShuga, Mwanzori Jumbe, Mwijaka Swaleh, Ali Mramba, Mohammed Mwakuchegwa.

APPENDIX 3

INTERVIEW GUIDE FOR KEY INFORMANTS (10 PURCHASING OFFICERS FROM BEACH HOTELS)

Good time. My name is Francis Muinde Nthuku from the University of Nairobi. Currently, I am studying the relationship between agricultural production and tourism development in the coastal region. Of great interest, I would be glad to know the role of tourist hotels in agricultural production in this area.

Thank you.

Name

Hotel

Position

Topics Discussed.

1. Sources of food needs in the hotels.
2. Whether or not the food crops grown by farmers in the area are of demand in the beach hotels.
3. Possibilities of allowing local farmers to sell their produce at these hotels.

GOMBATO SUB-LOCATION OF DIANI LOCATION, SOUTH COAST

