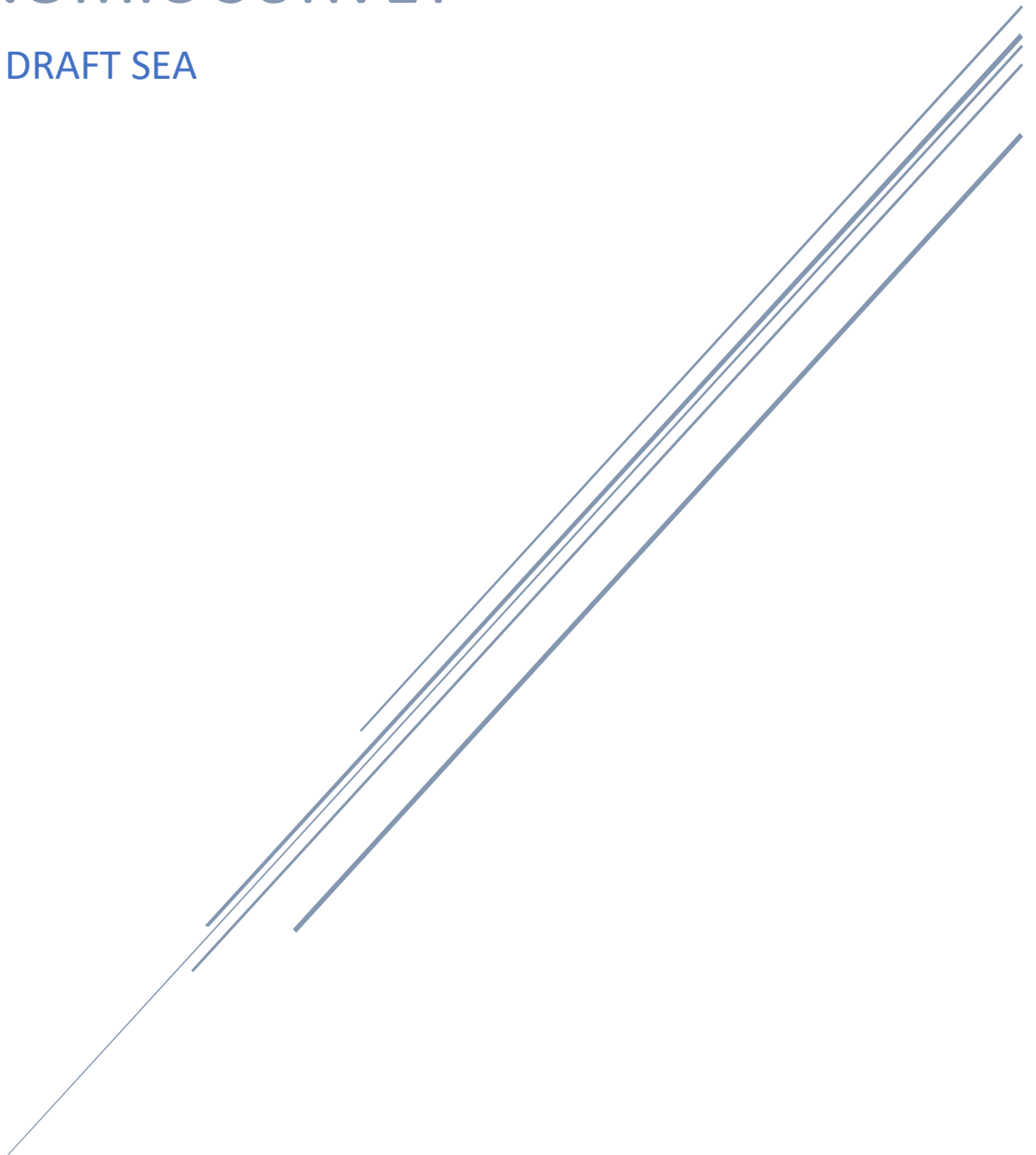# ANNEX: 1
HOUSEHOLD SOCIO - ECONOMIC SURVEY

VIPINGO DRAFT SEA

MAY 2020

PROJECT

STRATEGIC ENVIRONMENTAL ASSESSMENT SCOPING REPORT FOR THE PROPOSED VIPINGO DEVELOPMENT MASTER PLAN FOR 9,574.49 ACRES OF LAND BETWEEN MTWAPA AND KILIFI TOWN IN KILIFI COUNTY

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1 HOUSEHOLD SOCIO-ECONOMIC SURVEYS

The survey aimed at providing data on socio-economic aspects of the people living in and around Vipingo plantations. It majorly focused on the respondents' background in terms of education, health, energy, housing, water and sanitation. The data is critical to the County Government and the developer for purposes of guiding investment and national development policy decisions. It also provides a reflection of the social economic status of the residents living in Vipingo plantations, Kilifi County.

1.1 Goal and Objectives of the Socio Economic Survey

The overarching goal for the survey was to collect a wide spectrum of socio-economic data required to providing a baseline survey that is unprecedented in its level of detail, coverage and quality before the new development.

Specifically, the survey had the following objectives;

a) Identify the community needs and expectations concerning the proposed Vipingo master plan
b) Appraise the existing socio- economic situation in the Vipingo master plan area.
c) Asses the social requirements such as education, health, water resources and other social amenities in the area.
d) Assess the land tenure system with special reference to local communities in Vipingo
e) Assess the living standards/economic status of the communities before the commencement of the proposed Mixed-use Development.
f) Assess household survival and livelihood strategies in the area

1.2 Survey design and approach

1.2.1 Methodology

The proposed mixed use development is located along Mombasa-Malindi Highway in Kilifi County, Kenya and it covers an area of 9,574.49 acres. Survey tools were prepared for effective and systematic interviews by the socio-economic consultant assisted by a team of experts on the baseline survey. The tools included; structured household questionnaires, focussed group discussions checklist, key informant questionnaire, sampling of the areas and villages to be visited, field visits and observations; and triangulation of field data, which specifically focused on the local communities who stay within and around the proposed site.

1.2.2 Sample design and survey coverage

Communities along the proposed mixed use development area are organized in villages and are distinguished from their way of life by dressing, housing construction and village boundaries although they share common basic facilities like schools, health facilities and market centres.

The team adopted a sample size that was appropriate in gathering enough information for socio-economic survey, analysis and reporting. Interviews were carried out at household level using detailed questionnaires. Sampling for the villages was done prior to the field survey date. However, reliable information on their specific numbers in the village varied. A total of Three Hundred and Thirty (330), heads of households were randomly selected to the sampling design which involved a number of villages as elaborated in this section. The following villages living in the Vipingo Sisal plantations were interviewed; Vipingo Main Estate, Vipingo trading centre, Shauri Moyo, Bureni and Kambi ya Funza among others. Those surrounding Rea Vipingo Sisal Plantations that were interviewed included; Shariani, Takaungu, Timboni Trading centre, Vipingo Petrol Station, Makonde, Kabeche, Takauni,

Mukomani, Kadsinuni and the two beaches of Mwanamia and Kijanguani. Their responses concerning the proposed project were revealed through the survey as discussed in this report.

The objective was to make the total sample representative and descriptive of the distribution of the population across the villages. Upon completion of fieldwork, it was noted that one of the sampled households did not participate in the survey, i.e. *Kambi ya Funza* either because of failure to establish prior arrangements or explicit refusal to participate. This is a common feature of all household surveys and is called *"unit non-response"* but does not affect the outcome of the findings.

1.3   Socio-economic survey indicators

Socio-economic survey indicators that were used to gather information from squatters, farmers and workers included the following;

- Demographic Characteristics of the respondents
- Education Level
- Main occupation of the respondents
- Family income and expenditure
- Water sources and utilization
- Environmental issues
- Energy issues
- Housing Typology
- Public health issues
- Agricultural production
- Land tenure systems
- Livestock production and composition type
- Project benefits in terms of social, economic, health, gender and environment
- Community perception on the intended project

2 RESULTS DISCUSSION

2.1 Survey Results

2.1.1 Gender of Households head

Survey results revealed that 58.2% of the households are headed by males as represented in the Table below. Female headed households represented 37.0% while 4.8% never disclosed their status.

Table 2-1: Household head

	Frequency	Percentage (%)
Male	192	58.2
Female	122	37.0
Total	314	95.2
No comment	16	4.8
Total	330	100.0

Source: Socio-economic Survey Data

2.1.2 Age of the household head

The Table below reveals that most of the household heads are aged between 18-35 years represented by 38.5%. It is also clear that a greater number of households are headed by adults aged above 18. Unfortunately we have some few households headed by persons <18 years of age represented by 0.9%.

It is worth noting that the population is composed of young families that are capable of expanding and good in terms of labour market. Those that were between 51-65years represented 15.2% while the very elderly people (66yrs and above) represented 5.8%. This is also in line with the Kilifi secondary data review of 2014 where the population age distribution of 15- 34yrs is 33%, 35-64years 17% and over 65 years 4%.It is therefore worth concluding that the population in this region will expand tremendously and there will be enough labour force for the proposed development.

Table 2-2: Age of the Household head

Age bracket	Frequency	Percentage (%)
Below 18	3	0.9
18-35 Years	127	38.5
36-50 Years	89	27.0
51-65 Years	50	15.2
Above 66 Years	19	5.8
Total	288	87.3
No comment	42	12.7
Total	**330**	**100.0**

Source: Socio-economic Survey Data

2.1.3 Occupation

The Table below shows that people in this area have varied sources of income. Majority of the people are self-employed represented by 50.6%, those in casual labourer are represented by 20.3% while those who are formally employed are the smallest number represented by only 10%. This reflects that

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the members of these communities are not having well-structured sources of employment that are contractual in nature thereby presenting a niche within the population whose capacity can be harnessed and built. Formalization of their sources of income is very important. The Table also reveals that 19.1% did not disclose their form of employment.

Table 2-3: Occupation of the respondents

Occupation of the respondents		Frequency	Percentage (%)
	Self-Employment	167	50.6
	Casual Labourer	67	20.3
	Formal Employment	33	10.0
	Total	267	80.9
	No comment	63	19.1
Total		330	100.0

Source: Socio-economic Survey Data

2.1.4 Religion

We have two major religions represented in this area, namely Christianity and Islam. The dominant religion in this area is Christianity represented by 70.0% while Islam represents 20.6% which is in line with the Kilifi County profile 2014 where there are only two predominant religions in the area. We also have those who did not want to disclose their religion represented by either 8.5% or 0.9%. It will be interesting to see whether there will be other religions introduced after the project commences.

Table 2-4: Religion of the respondents

Religion of the respondents		Frequency	Percentage (%)
	Christian	231	70.0
	Islam	68	20.6
	Pagan	3	.9
	Total	302	91.5
	No comment	28	8.5
Total		330	100.0

Source: Socio-economic Survey Data

2.1.5 Total Household Members

From the analysis, it was noted that 52.4% had members of the households between 1-5. A significant number of members of 6-10 were represented by 36.1%. There are also households with membership of above 11 represented by 4.8%. However, the average household size in Kilifi County is 5.6, 1.2 higher than the national household size of 4.4 *(Kilifi secondary data review of 2014).* Household membership in this region is therefore varied. However, these families are capable of expanding hence creating pressure on the present social services though they create enough manpower. This indicates that there is need for proper planning in terms of social amenities and access to basic services that are key to human survival.

Table 2-5: Total Number of household members

No. of household members	Frequency	Percentage (%)
1-5 Members	173	52.4
6-10 Members	119	36.1
11 and Above Members	16	4.8
Total	308	93.3
No comment	22	6.7
Total	330	100.0

Source: Socio-economic Survey Data

2.1.6   Education levels of household members

2.1.6.1   No Education

In terms of education level, 26.4% of the household members have no education at all. It was also noted that 34.5% did not want to disclose their education level.

Table 2-6: No Education

No. of household members	Frequency	Percentage (%)
None	87	26.4
1-5	127	38.5
6-10	2	.6
Total	216	65.5
No comment	114	34.5
Total	330	100.0

Source: Socio-economic Survey Data

Survey results revealed that households of about 1-5 members of the households interviewed have primary education representing 64.5% of the total respondents. There were 0.9% households with more than 11 members with at least primary education. This can be interpreted that it all depends on the total number of members in each household. However, according to Kilifi secondary data, majority of the population 67.5% have primary education, 7.1% Secondary education 68.2% of the county's population can read and write ranking the county at 26/47, where 8.3% at the age of 15-18 years are attending school (Kilifi secondary data review of 2014).

Table 2-7: Primary Level

Source: Socio-economic Survey Data

No. of household members	Frequency	Percentage (%)
None	26	7.9
1-5	214	64.8
6-10	24	7.3
11 and Above	3	0.9
Total	267	80.9
No comment	63	19.1
Total	330	100.0

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Equally, among the households interviewed, 40.6% of 1-5 members have at least secondary education compared to 22.1% who have none. This is a big number which shows that education will be a key factor for consideration during planning and hiring of the locals.

Table 2-8: Secondary Level

No. of household members	Frequency	Percentage (%)
None	73	22.1
1-5	134	40.6
6-10	3	.9
Total	210	63.6
No comment	120	36.4
Total	330	100.0

Source: Socio-economic Survey Data

2.1.6.2 College/University

From the data below, the majority of the households interviewed (38.5%) have none of the household members with college/university education, but only 9.7% with 1-5 members have college/university education. This indicates clearly that majority of people living in this region do not proceed to college/university level. There is therefore need to provoke the population to appreciate tertiary education as the transition rate is very low in the area.

Table 2-9: College/University Level

No. of household members	Frequency	Percentage (%)
None	127	38.5
1-5	32	9.7
Total	159	48.2
No comment	171	51.8
Total	330	100.0

Source: Socio-economic Survey Data

2.1.6.3 Impacts Anticipated on Educational Standards

The Table below shows that majority of the respondents (83.0%), expects positive impacts on the mixed-use development. They hoped that education standards will be raised in the region. However, 3.0% expects negative impacts. Some opted to reserve their expectations in terms of any progress. There is therefore need to manage the high expectations of the community members. The developer can also ride on the good will of the locals expressed by positive expectations.

Table 2-10: Impacts anticipated on educational standards

Proposed Impacts		Frequency	Percentage (%)
	Positive	274	83.0
	Negative	10	3.0
	Total	284	86.1
	No comment	46	13.9
Total		330	100.0

Source: Socio-economic Survey Data

2.1.7 Main Occupation of Household

It was revealed that members in Vipingo area do involve themselves in different occupations to make a livelihood. It is clear that a greater percentage (26%), rely on crop farming and business (16.7%) respectively. Only a smaller Percentage (7.6%) is in formal employment. Therefore it is clear that most of the members in this region are self-employment or casual labourer making it a vulnerable population to culture shocks that might be experienced due to rapid development expected in the area.

Table 2-11: Main Occupation

Main occupation	Frequency	Percentage (%)
Crop Farming	88	26.7
Livestock Farming	15	4.5
Formal employment	25	7.6
Businessman	55	16.7
Formal employment working in sisal plantation	25	7.6
Others	38	11.5
Total	246	74.5
No comment	84	25.5
Total	330	100.0

Source: Socio-economic Survey Data

2.1.7.1 Farming Activities

It was revealed that farming is the major economic activity in this area where most of them (38.2%) practice subsistence farming but a small number (0.3%) are involved in weaving. Therefore, even if the main economic activity is farming, it is done in a small scale just for family survival and cannot be translated to commercial purposes unless a lot of money is injected to the families for other activities.

Table 2-12: Farming Activities

Main activity		Frequency	Percentage (%)
	Subsistence crop	126	38.2
	Livestock	8	2.4
	Weaving	1	.3
	Total	135	40.9
	No comment	195	59.1
Total		330	100.0

Source: Socio-economic Survey Data

2.1.7.2 Form of Employment

Among the employed individuals, the data below revealed that most respondents are casually employed (sisal cutter, brush rooms) represented by 10%, it can further be interpreted that majority (53%), who never commented are also casual labourers who are not in formal employment and act as sisal cutters though they did not want to reveal. This translates to a population that does not have a stable livelihood or not very well grounded in a particular source of income. Teachers, Clerical workers and machine operators represent a small percentage as shown in the Table. Again, it reveals that there will be a lot of labour for any proposed development.

Table 2-13: Forms of Employment

	Frequency	Percentage (%)
Teacher	8	2.4
Clerical work	5	1.5
Machine operator	5	1.5
Priest	2	.6
Others (sisal cutter, brush rooms)	33	10.0
Total	53	16.1
No comment	277	83.9
Total	330	100.0

Source: Socio-economic Survey Data

2.1.7.3 Type of Business

The survey revealed that business was the second major source of income after crop farming in this region. The majority 8.2% of the business persons are vendors, as quite a good number own Retail shops, practice hawking, tailoring or owning a butchery in that order as shown in the Table below.

Table 2-14: Type of Business

	Frequency	Percentage (%)
Retail Shop	13	3.9
Butchery	1	0.3
Tailoring shop	3	0.9
Rental houses	2	0.6
Vendor	27	8.2
Hawking	5	1.5
Others	25	7.6
Total	76	23.0
No comment	254	77.0
Total	330	100.0

Source: Socio-economic Survey Data

2.1.7.4 Growing of Crops

From the Table below, it is clear that majority of the members in this region grow crops (63.0%), while 29.7% do not. This was attributed to lack of land, money and other engagements. Those who grow crops mentioned of maize as the main crop they grow followed by cow peas.

Table 2-15: Growing of Crops

Do you grow crops?		Frequency	Percentage (%)
	Yes	208	63.0
	No	98	29.7
	Total	306	92.7
	No comment	24	7.3
Total		330	100.0

Source: Socio-economic Survey Data

2.1.7.5   Livestock Farming

Livestock farming is also one of the economic activities in this region. Almost half of the respondents (44.5%), own livestock though in small numbers. However, livestock farming within the mixed-use development need to be looked into as it cites need of vast grazing land that can prohibit development expansion and be a source of conflict between the grazing communities and the mixed-use developers. It can also be an opportunity for Vipingo development to tap that venture. This was evident from the neighbouring daily farm which does very well in terms of livestock farming.

Table 2-16: Livestock Farming

		Frequency	Percentage (%)
Valid	Yes	147	44.5
	No	152	46.1
	Total	299	90.6
	No comment	31	9.4
Total		330	100.0

Source: Socio-economic Survey Data

2.1.8   Estimated Family Income per Month

From the Table below, it is clear that the majority of the respondents earn between Ksh. 10,000-20,000 represented by 37.9%. A good number also earns below Ksh. 5,000 represented by 19.4% and very few respondents earn above Ksh. 40,000 represented by 0.6%. This clearly shows that the majority of people in this area have very low family monthly income. Most of them are living below the poverty index of One dollar a day.

Table 2-17: Estimated Family Income per Month

Estimated family income per month		Frequency	Percentage (%)
Valid	Less than Kshs. 5,000	64	19.4
	Kshs. 5,000-10,000	125	37.9
	Kshs. 10,000-20,000	70	21.2
	Kshs. 20,000-30,000	29	8.8
	Kshs. 30,000-40,000	6	1.8
	Above Kshs. 40,000	2	0.6
	Total	296	89.7
	No comments	34	10.3
Total		330	100.0

Source: Socio-economic Survey Data

2.1.9 Water Resources and Utilization

Generally, people in this area use water from various sources for different purposes as shown in the Table below. Most households use water from wells/borehole and tap water. It is clear that ocean water is only used for recreation, irrigation and fishing. River water is used for various purposes but on small scale. The most common source of drinking water is tap water represented by 61.2% followed by Wells/borehole water. This clearly indicates that clean drinking water is not a major problem in this area. Emphasis should be placed on provision of safe water for human consumption as the development is expected to grow and pressure will be placed on the current sources of water. Roof catchment as a source of clean safe water is an area that can be exploited. This is in line with the County data that the main source of water for drinking/domestic include pans, dams, pipelines, seasonal rivers, shallow well and boreholes *(Kenya county Fact sheet by CRA 2014).*

Table 2-18: Water Resources & Utilization

Source	Domestic	Recreation	Drinking	Cooking	Washing	Irrigation	Fishing
Ocean		4.2				0.6	3.6
River	0.6	0.6	0.6	0.6	0.6		0.3
Tap water	43	10.9	61.2	50	37.6	1.2	0.9
Wells/ borehole	46.4	8.5	27.6	38.2	50.9	3.0	
Dam	0.9						
Roof catchment					1.2	1.8	
Runoff							
Water vendors	2.7	0.3	3.9	3.9	2.9		

Source: Socio-economic Survey Data

2.1.9.1 Impacts Anticipated on Water Resources

Table below shows the impacts of the proposed Vipingo master plan on water resources as per community opinions.

Table 2-19: Impacts Anticipated on Water Resources

		Frequency	Percentage (%)
	Positive	206	62.4
	Negative	51	15.5
	Total	257	77.9
	No comment	73	22.1
Total		330	100.0

Source: Socio-economic Survey Data

2.1.9.2 Reported Cases of water Contamination

Respondents were asked whether there are reported cases of water contamination. A greater percentage (77.9%) of the respondents did not report cases of water contamination whereas 15.5% reported such cases. Therefore, water contamination is not a major issue in this region as the most sources of water used seems to be tap water which is less contaminated. However, with population

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growing and the proposed mixed-use development, contamination might occur hence calling for a strategy to take care of the existing sources of water through proper protection.

Table 2-20: Reported Cases of Water Contamination

		Frequency	Percentage (%)
	Yes	51	15.5
	No	257	77.9
	Total	308	93.3
	No comments	22	6.7
Total		330	100.0

Source: Socio-economic Survey Data

2.1.10 Health

2.1.10.1 Type of Disease Experienced in Households and its Frequency

In terms of frequency, malaria is the most frequent disease in the region represented by 23.6% compared with other diseases. It is clear that safety measure must be put in place. From the data below majority reported that Typhoid, Diarrhoea and Cholera as not frequent diseases in the area represented by 40.0%, 37.0% and 36.1% respectively.

Table 2-21: Type of Disease Experienced in Households

Disease	Very frequent %	Frequent %	Not frequent %	No comment %
Malaria	23.6	26.4	29.7	20.3
Bilharzias	.3		32.7	67.0
Diarrhea	3.6	12.1	37.0	47.3
Typhoid	3.3	7.0	40.0	49.7
Cholera	1.5	5.8	36.1	56.7
Eye Infection	.6	3.0	34.8	61.5
Anemia	.3		30.6	69.1
Skin Diseases	4.5	13.0	31.5	50.9
Respiratory diseases	.6	5.5	33.6	60.3
Tuberculosis	.3	.6	32.1	67.0
AIDS (HIV)	.3	1.5	31.1	67.0
Ulcers	.6	2.7	31.1	66.1
Measles	.3		30.9	68.5
Pneumonia	1.8		30.9	67.3

Source: Socio-economic Survey Data

2.1.10.2 Sanitary Facilities

From the Table below, most of the residents of this area use pit latrines to dispose body wastes as represented by 68.2%. Only 8.2% of the respondents use flash toilets. Surprisingly, there are also quite a good number of people using bush and dug holes as represented by 7.3% and 3.6% respectively. However small the number is, it is risky to the environment as it may result to various diseases listed above. With the development of the proposed mixed use development coming up in the region, there is need to develop proper sanitation facilities.

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Table 2-22: Sanitary Facilities

		Frequency	Percentage (%)
	Flush Toilet	27	8.2
	Pit Latrine	225	68.2
	Dug a Hole	12	3.6
	Bush	24	7.3
	Total	288	87.3
	No comment	42	12.7
Total		330	100.0

Source: Socio-economic Survey Data

2.1.10.3 Where Respondents Seek Health Assistance

The survey revealed that most of the respondents (64.8%), seek health assistance from dispensaries while others seeks health assistance from hospitals and clinic i.e. 18.5% and 8.8% respectively. It was also revealed that there are some people who use traditional herbs represented by only 0.3%. Generally, most of these residents prefer modern health care systems hence investing in health facilities is of great importance.

Table 2-23: Sources of Health Assistance for Respondents

		Frequency	Percentage (%)
	Hospital	61	18.5
	Dispensary	214	64.8
	Clinic	29	8.8
	Traditional herbs	1	.3
	Total	305	92.4
	No comment	25	7.6
Total		330	100.0

Source: Socio-economic Survey Data

2.1.10.4 Impacts Anticipated on Community Health

Majority 78.5% of the residents in this region expect positive impacts on community health from the various sources of health facilities with the introduction of the new development. Other respondents represented by 7.3% anticipate negative impacts. As noted by some of the respondents; "*We need improved health facilities in the region" retorted a 40 year old respondent*. There are a lot of expectations in terms of health facilities and generally access to basic services. It is, however, important to note that this should be affordable to this population as reflected by their sources of income.

Table 2-24: Impacts Anticipated on Community Health

		Frequency	Percentage (%)
	Positive	259	78.5
	Negative	24	7.3
	Total	283	85.8
	No comment	47	14.2
Total		330	100.0

Source: Socio-economic Survey Data'

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2.1.11 Fishing

2.1.11.1 Family Members Practicing Fishing

Most of the family members of the households living around Kilifi area do not practice fishing as represented by 73.0% of the total respondents but only 17.3% do practice fishing. This shows that fishing is not a major economic activity in this region as the majority might be involved in other activities such as farming and business. However modernizing fishing equipment in this region can spur interest and make it an avenue for income generation since it is unexploited area.

Table 2-25: Family Members Practicing Fishing

	Frequency	Percentage (%)
Yes	57	17.3
No	241	73.0
Total	298	90.3
No comment	32	9.7
Total	330	100.0

Source: Socio-economic Survey Data

2.1.11.2 Impacts to the Marine Fish Resources

It is however interesting to note that majority of the respondents expected positive impacts of the project on Marine fish resources. This provides an opportunity for exploiting this avenue by the new development.

Table 2-26: Impacts to the Marine Fish Resources

	Frequency	Percentage (%)
Positive	53	16.1
Negative	46	13.9
Total	99	30.0
No comment	231	70.0
Total	330	100.0

Source: Socio-economic Survey Data

2.1.12 Energy

2.1.12.1 Major Source of Energy for Domestic Use

In this region, the major source of energy is firewood with 67.3% followed by charcoal at 19.4% as shown in the Table below. Only very few people use gas, kerosene and electricity. it is important to note that heavy reliance on fuelwood can lead to a decrease in vegetation cover.

Table 2-27: Major Source of Energy for Domestic Use

		Frequency	Percentage (%)
Valid	Gas	8	2.4
	Charcoal	64	19.4
	Electricity	8	2.4
	Firewood	222	67.3
	Kerosene	2	.6
	Total	304	92.1
	No comment	26	7.9
Total		330	100.0

Source: Socio-economic Survey Data

2.1.12.2 Impacts anticipated from the mixed-use development on energy resources

Respondents felt that positive impacts anticipated from the mixed-use development on energy resources will be the *"use of modern sources of energy particularly lighting that will prolong the working hours"* Responded a 60 year old man from one of the villages.

Negative impacts will include *"High cost of the modernized energy sources will push people out"* Responded a 45-year old.

2.1.13 Vegetation and Forest

2.1.13.1 Importance of Vegetation and Forest

Respondents view vegetation and forest as having different importance to the environment and individuals as well. Majority of the respondents (27.6%), view forest and vegetation as important sources of rain while 13.6% attach its importance to fresh air. However, 7.0% also view forest as important for recreational purposes. From the survey, it seems that the community is quite aware of the importance of forest and vegetation.

Table 2-28: Importance of Vegetation & Forest

		Frequency	Percentage (%)
	Fresh Air	45	13.6
	Recreation	23	7.0
	Source of Rain	91	27.6
	Total	159	48.2
	No comment	171	51.8
Total		330	100.0

Source: Socio-economic Survey Data

2.1.13.2 Impacts of Clearing the Forest for Recreational Facilities

From the data below, it is clear that the respondents have a wide view on the importance of forest and the risk of clearing the forest for recreational purposes. Significantly, 21.8% responded that when the forest is cleared then automatically there would be no rain, while 20.0% also talked of increase in pollution when the forest is cleared. Here, very few people see recreational facilities as important. It is clearly evidenced that most of the residents of this area understands the importance of forest conservation and the possible risk of not adhering to that.

Table 2-29: Impacts of Clearing the Forest for Recreational Facilities

		Frequency	Percentage (%)
Valid	Pollution	66	20.0
	No rain catchment	72	21.8
	No recreation facilities	4	1.2
	Total	142	43.0
	No comment	188	57.0
Total		330	100.0

Source: Socio-economic Survey Data

2.1.14 Types of Houses and Housing Status

From the data below, it shows that majority of the people living in this area have either permanent (38.2%) or semi-permanent (30.3%) houses. Quite a good number also stay in temporary houses represented by 24.8%. It is, however, important to note that these people might be easily absorbed by the proposed mixed-use development hence need for co-opting them in the planning so that they are not left behind. Others, i.e. 6.7% did not want to disclose their type of house.

Table 2-30: Types of Houses for Respondents

		Frequency	Percentage (%)
	Permanent	126	38.2
	Semi-permanent	100	30.3
	Temporary	82	24.8
	Total	308	93.3
	No comment	22	6.7
Total		330	100.0

Source: Socio-economic Survey Data

A significant number of the respondents i.e. 52.1% stay in owner occupied/constructed houses and the government provides only 4.5%. This was evident because the survey was conducted in and around the Vipingo area. A good number of the houses is either employer provided, rented or inherited as represented by 12.4%, 14.5% and 9.1% respectively. Therefore, it is clear that most of the properties around are owner occupied, either by an individual, group or a private company. This calls for a lot of discussions and negotiations with property owners as the plan develops calling for establishment of proper structures for engagement.

Table 2-31 Housing Status

		Frequency	Percentage (%)
	Owner occupied/constructed	172	52.1
	Provided by the government	15	4.5
	Employer provided	41	12.4
	Rented	48	14.5
	Inherited	30	9.1
	Total	306	92.7
	No comment	24	7.3
Total		330	100.0

Source: Socio-economic Survey Data

In terms of positive impacts anticipated on houses from the mixed-use development, most respondents hoped for improved infrastructure in terms of roads but others anticipated that those with low income from Rea Vipingo sisal plantation will be pushed out.

2.1.15 Type of Land Tenure

Most of the land properties owned in this region are freehold (unregistered) represented by 34.2% while 22.7% do not know the ownership state of their land. It was revealed that 21.2% are freehold as only 0.9% own lease hold land. This may bring land issues and calls for a lot of discussions and negotiations with property owners and local government before the new development takes place.

Table 2-32: Type of Land Tenure

		Frequency	Percentage (%)
Valid	Freehold	70	21.2
	Lease hold	3	.9
	Customary/communal	22	6.7
	Freehold(unregistered)	113	34.2
	Tenancy	23	7.0
	Don't know	75	22.7
	Total	306	92.7
	No comment	24	7.3
Total		330	100.0

Source: Socio-economic Survey Data

2.1.16 cultural and religious values

Most respondents felt that *"Prices of land will go up"* which was a positive thing to the community members. However, they felt that a good number might lose their parcels to the new development. In terms of cultural status in the community, a good number felt that *"There will be erosion of cultural values" Responded a 33 years old man.* This will be due to the influx of people to the area from different backgrounds. In terms of religious values, *"I fear that religious values of the local communities will be eroded" Responded a 57 years old man.*

2.2   General Remarks

Asked to give their general remarks, *"We fear we might be forcefully evicted during the process"* responded a 59-year old as his final remarks which were shared by many. Other remarks were summarized as follows;

➢ Create more public awareness and seek opinions of all stakeholders especially the community
➢ Locals to be assured permanent employment before the project starts
➢ The project will improve people's livelihood
➢ The illiterate should be considered in the mixed-use development
➢ Locals will be displaced making life more difficult as they have nowhere to go
➢ The development is welcome because it will create more opportunities for the locals.
➢ A percentage of the profit from the development should be given to the surrounding community to improve their livelihoods.