

**SELECTED FACTORS INFLUENCING GIRLS IN CHOOSING OF AGRICULTURE  
SUBJECT IN POST-PRIMARY EDUCATION IN GUSII COUNTIES, KENYA**

**BY**

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**AUGUST, 2023**

## DECLARATIONS AND RECOMMENDATIONS

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This thesis is wholly original with no submission for degree at any other universities.

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### RECOMMENDATIONS

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## **DEDICATION**

With God's love, I dedicate this work to my cherished wife Pauline and my children:

Becky, Beryin, Madelyn and Jayden

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I thank God for his mercies, tenacity, good health, mental capacity and patience for allowing me complete the full course. The study effort was greatly aided by having Dr. Judith Odhiambo and Dr. Martha Nyang'au as my supervisors; they provided essential suggestions and encouragement. On occasion, their suggestions and intellectual input helped this work reach its ultimate form.

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## ABSTRACT

Kenya's economy is based on agriculture; even though it is optional, the subject has been incorporated into secondary school curricula to instill skills and knowledge. This is a significant challenge for a nation that is working to achieve food self-sufficiency and provide employment for thousands of high school and college graduates. The objective of the study was to determine the impact of a few factors on females' decision to pursue agriculture in post-primary institutions in Gusii counties, Kenya. Specifically, the study was to assess the influence of peer pressure, category of post-primary institution, socioeconomic factors and school factors on the decision of females enrolled in post-primary education in Gusii counties, to pursue agriculture. The research used a descriptive survey approach. The study focused on 9,000 form three girls who take agriculture, 545 agriculture teachers and 470 post-primary institutions with both mixed and pure girl student populations. Therefore, 9,545 respondents made up the target population. 368 girls from form three classes who were studying agriculture and 109 agriculture teachers made up the sample. Simple random and purposeful sample approaches were used to do the sampling. Data from form three girls enrolled in agriculture and agriculture teachers was gathered using questionnaires. Pilot testing was used to determine the instruments' validity and dependability. SPSS version 21 was used to analyze the data while graphs, means, frequencies and standard deviations were used to present the results. Data analysis was done using the Pearson's correlation coefficient with a 0.05 level of confidence. The study found that the main factor influencing females' decision to pursue agriculture was the availability of sufficiently qualified agriculture teachers. There is sufficient acreage of land for agricultural activities, teachers who have taught agriculture for the KCSE are affable and inspiring and the necessary facilities are available to study agriculture. The girls' decision to study agriculture was most influenced by county schools, followed by sub-county, extra-county and then national schools. The girls' decision to study agriculture was primarily influenced by their peers who pursue the subject. Other considerations included statements from friends that agriculture is "simple and easy to pass" and finally "girls' friends" value agriculture. The girls' decision to study agriculture was most influenced by their parents' or guardians' advice. Additionally, jobs in agriculture subject instruction by parents. In Gusii counties, factors including family income and "girl's parents'/guardians' academic level" influenced girls' decision to study agriculture. In order to encourage girls to choose agriculture as an examinable subject, the study suggests that the Teachers Service Commission hire enough trained agriculture teachers in all Kenyan post-primary education, the school administration provide enough teaching/learning materials and career masters provide guidance to girls on their career choices so that they are adequately informed about their subject of choice. This research's findings will aid in the creation of girl-targeted agricultural policies by the Ministry of Education. Additionally, it will assist the Ministry of Education in comprehending the obstacles preventing more girls from choosing agriculture as a learning area.

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## **LIST OF ABBRIVIATIONS AND ACRONYMS**

CDE	County Director of Education
FAO	Food and Agriculture Organization
GoK	Government of Kenya
GPA	Grade Point Average
IFAD	International Fund for Agricultural Development
KCSE	Kenya Certificate of Secondary Education
KICD	Kenya Institute of Curriculum Development
KNEC	Kenya National Examination Council
KNBS	Kenya National Bureau of Statistics
KUCCPS	Kenya Universities and Colleges Central Placement Service
MoE	Ministry of Education
NACOSTI	National Commission for Science, Technology and Innovation
SPSS	Statistical Package for Social Sciences
SSA	Sub-Saharan Africa
STEM	Science, Technology, Engineering and Mathematics
USA	United States of America
YFCs	Young Farmers Clubs

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background Information

Agriculture is no longer an ancient farm practice as thought out by most people, but a cutting-edge technology with a broad field rather than an outdated practice, (Kamau & Orodho, 2014). The human population needs agriculture for their sustenance, the learners can as well use skills and knowledge attained in learning institutions to assist them in improving the country's food basket and sustainable agriculture issues. Traditionally, the study of agriculture aids in resolving concerns with food and health for the expanding population (FAO, 2014). Strong agricultural education and training systems, according to Kruijssen (2009), are essential for building human resource capacity and achieving the increase in agricultural productivity required for economic growth and the eradication of poverty in less developed nations. According to Temu (2003), agriculture has a key role in advancing socioeconomic and cultural development. The agriculture industry thus benefits greatly from both global and local levels of support.

In order to improve food sustainability, emphasis is placed on agricultural education at all levels, particularly in developing nations and more so in Sub-Saharan Africa (SSA), where populations are growing quickly (Macalla, 2000). Agriculture education is highly regarded and taught as a mandatory discipline in the curriculum in industrialized countries like the USA, China, and Brazil (Mustapha et al., 2002), but it has not yet been declared mandatory in many poor countries. With the exception of South Africa, where agriculture has been made a compulsory discipline in secondary schools giving it greater importance, many SSA countries, including Kenya and Nigeria, have made the study of agriculture an optional subject chosen alongside others like business studies, home science, french, and woodwork (Ajidagba, 2010).

Due to more employment prospects and food security, studies have indicated that nations who have made agriculture a mandatory subject in their curricula have prospering economies (Mustapha et al., 2002). For instance, Egypt, although being a desert, produces enough food for itself thanks to the allocation of resources to agriculture education, particularly on elements of irrigation farming and endowed with cutting-edge knowledge of soil conservation and water management (Alabu, 2001).

According to the Kenya Institute of Public Policy Research and Analysis (KIPPRA), 2009, the agricultural industry in Kenya produces between 70 and 80 percent of the country's gross domestic product (GDP), more than 60 percent of its exports, and 19 percent of all formal jobs. Additionally, the sector provides raw materials for industry, ensures food security and generates foreign exchange. It is imperative to note that women manage the majority of small-scale agriculture, which is the sector of the agriculture industry that fuels Kenya's economy. The improvement of the agriculture sector, according to the Government of Kenya (2007), strongly correlates with the growth of the nation's economy. Kenya must improve its citizen's general knowledge and abilities in agricultural production if it is to meet its targets for agricultural growth. Consequently, it is necessary to teach agriculture. As a result, agriculture has to be taught at all levels of education with a focus on women's participation (Kamau & Orodho, 2014).

Since women are the mainstay of the economy and make up the majority of small-scale farmers in many developing countries, it is crucial that girls learn about agriculture in secondary schools (Verveer, 2011). In many countries, women play a critical role in agricultural and rural economies (International Fund for Agricultural Development [IFAD], 2011). Women are significantly involved in all facets of a nation's agricultural economy, from crop cultivation to livestock husbandry, in addition to their daily home duties including cooking, cleaning, and caring for children (Jamali, 2009). In addition to taking on their primary role as housekeepers and homemakers, women continue to make up a sizeable share of the family's income and



dominate the food processing industry, backyard cattle, and vegetable cultivation (Satyavathi, Bharadwaji, & Brahmanand, 2010).

Mathematics, English, and Kiswahili are the only disciplines that are mandatory in Kenyan secondary schools (Kenya Institute of Education, 2002). To achieve the KNEC requirement, students are supposed to choose at least seven and at most nine subjects from a total of twenty three learning areas, including agriculture. According to a research by Ngesa (2006), agriculture was the fifth most popular optional subject, and as a result, enrolment has increased recently (Kenya National Examinations Council [KNEC], 2013). Since student admittance to Kenyan universities depends on cluster subjects for particular courses, it is crucial to correlate these selected subjects with the requirements of Kenya Universities and Colleges Central Placement Service (KUCCPS).

Secondary school agriculture's goals are to encourage students' interest in agriculture, raise awareness of career prospects in the field, show how profitable farming operations can be, and ensure that schools play a proactive part in rural development (Saina et al., 2012). Post-primary agriculture broadens farmers' capabilities, enhancing their productivity, independence, resourcefulness and ability to solve farming issues. According to Kamau and Orodho (2014), school agriculture aims to instill in students the values, attitudes, and knowledge necessary to increase agricultural output. Additionally, it enables students to understand the value of agriculture in contributing to economic growth (Ngugi et al., 2002). The accomplishment of these goals is in line with Kenya's vision 2030, the Big 4 agenda and MDG 1 of poverty eradication (Government of Kenya, 2017). Although school agriculture is not a mandatory topic in Kenya's secondary education curriculum, it was nevertheless seen as a significant part of this education.

Agriculture, along with Metalwork, Home Science, Computer Studies, Business Studies, and Power and Electricity, is included in the fourth of Kenya's five subject groupings (KNEC, 2012). Any technical subject may be chosen by the student for the exam. The percentage of students

enrolling in agriculture has largely been constant at 39.9%, with girls making up barely 40% of this group on average (Table 1), despite the fact that overall secondary school enrolment in KCSE has been rising with improved gender parity index (Mumiukha et al., 2015). As a percentage of all KCSE candidates, Kamau and Orodho (2014) also looked at the trend in student enrolment in agriculture between 2009 and 2014. Between this period, they noticed a drop in the overall population of applicants enrolling in agriculture, which went from 41% to 32%. In general, despite agriculture's critical role in the economy, less than 50% of KCSE students choose it.

*Table 1: National Enrolment Trends in Agriculture; 2015-2020*

Year	Total KCSE Candidates	Enrolment in Agriculture	Enrolment of boys in agriculture	Enrolment of girls in agriculture	Percentage of girls (%)
2015	525,802	206,127	125,737	80,390	39
2016	557,223	228,443	134,781	93,662	41
2017	615,773	247,265	148,359	98,906	40
2018	660,204	278,658	169,981	108,677	39
2019	697,222	289,315	176,482	112,833	39
2020	752,602	285,987	177,454	108,987	38
Total	3,148,622	1,535,795	932,794	603,455	39

Source: Kenya National Examination Council (2020)

This enrolment pattern has been seen throughout Kenya, especially in the Gusii counties, where fewer girls than boys (on average 40%) select agriculture as an examinable learning area (Table 1). The most concerning trend is the sharp decline in agricultural enrolment that has been occurring since 2015 while the gender gap score has remained the same (Figure 1). Even among students that choose agriculture as an examinable subject, performance is subpar when compared to other learning areas based on the mean score. Aside from 2015, when girls only barely

outperformed boys, girls' performance in agriculture in the KCSE has regularly lagged below that of boys. The tendency is the same for the Gusii counties (Figure 1). There are a number of variables that have been shown to affect pupils' performance.

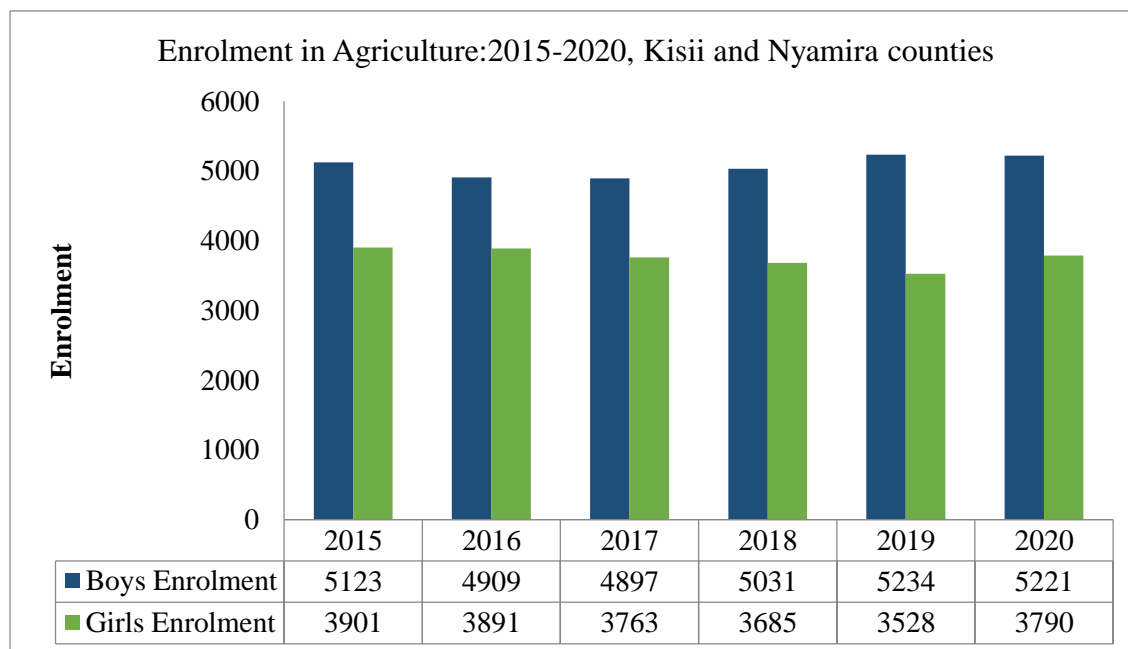


Figure 1: Kisii and Nyamira counties form three agriculture enrolment: 2015-2020

Source: Kisii and Nyamira counties education office, Kenya (2020)

Sereno (2004) discovered a similar effect of inadequate parental income, family structure, and constrained government financing on students' academic achievement. Due to difficulties in accessing educational resources, Eamon (2005) found a negative correlation between parental socioeconomic position and pupils' achievement. In his study, Jing-Lin (2009) found that students' social communication with their countrymen and the perceived importance of learning achievement to a family were significant determinants of academic performance in agriculture.

Verveer (2011) contends that agriculture plays a vital role in economic growth when women are taught the most effective methods for cultivating and growing wholesome food that they can use to feed their families and resell in the marketplaces. However, this is only feasible if girls have a good education in agriculture. In light of this, it is crucial that girls enroll in large numbers in Post-primary agriculture. Due to the low enrolment of Post-primary girls in agriculture, an

investigation of the state of agriculture in secondary schools is now necessary. Understanding how girls view the subject can assist secondary schools better implement their agriculture curriculum.

### **1.2 Statement of the Problem**

Given that they make up a sizable majority of Kenya's small-scale farmers, women play a critical role in ensuring food security. Through their participation in various agricultural pursuits, they are also essential in providing for the family's financial needs. In addition to supplying food, these agricultural operations are essential for enhancing family livelihoods. In order to address concerns with hunger, health problems associated to food scarcity, and improving the quality and quantity of food and other agricultural products for the expanding human population, females in post-primary education need quality agricultural training. Less girls choosing to study agriculture in secondary school, however, is a serious worry. Eventually, fewer girls choose it as a job or occupation than the boys. Their poor enrolment in the subject could translate in the future to limited agricultural practices, which could obstruct Kenya's 2030 aim for food security. Since studies done have not separated girls from boys, it is unknown what influences girls' decisions to pursue careers in agriculture. Therefore, the purpose of this study was to investigate how certain factors may have an impact on girls' decision to study agriculture in post-primary education.

### **1.3 Significance of the Study**

The Ministry of Education (MoE), may consider these research findings helpful in establishing key policy areas necessary for boosting the study of agriculture in secondary schools. These results might spur the MoE's research division to do additional research on the variables influencing girls' choice of agriculture as a secondary school learning area in Kenya, adding to the body of knowledge on agricultural education. Curriculum designers at the Kenya Institute of Curriculum Development (KICD) will also find these study results pertinent and instructive when revising the school curriculum to make agriculture courses more interesting to girls.

The study will assist school administrators in encouraging and assisting girls in choosing the appropriate subjects because they affect their professional advancement. The findings might also pique career teachers' interest in looking for deeper, more pertinent resources and training that will help them better assist females in making career and subject choices, ultimately encouraging more girls to study agriculture. Finally, the results of the study will spur teachers of agriculture to refine their methods of instruction, making the field more appealing to female students.

## **1.4 Objectives of Study**

### **1.4.1 General Objective**

The study sought to assess the influence of selected factors influencing the girl child in choosing of agriculture subject in post-primary education in Gusii counties, Kenya

### **1.4.2 Specific Objectives**

Specific objectives were:

- i. To assess the influence of school factors on the choice of agriculture subject among girls in post-primary education in Gusii counties.
- ii. To establish the influence of category of post-primary institution on the choice of agriculture subject among girls in post-primary education in Gusii counties.
- iii. To determine the influence of peer pressure on the choice of agriculture subject among girls in post-primary education in Gusii counties.
- iv. To assess the influence of socio-economic factors on the choice of agriculture subject among girls in post-primary education in Gusii counties.

## **1.5 Hypotheses**

The null hypotheses were:

- H<sub>01</sub> There is no significant relationship between school factors and choice of agriculture subject among girls in post-primary education in Gusii counties.

- H0<sub>2</sub> There is no significant relationship between the category of post-primary institution and the choice of agriculture subject among girls in post-primary education in Gusii counties.
- H0<sub>3</sub> Peer pressure has no significant relationship on choice of agriculture subject among girls in post-primary education in Gusii counties.
- H0<sub>4</sub> Socio-economic factors have no significant relationship on the choice of agriculture subject among girls in post-primary education in Gusii counties.

### **1.6 Assumptions of the Study**

- i. The form three girls enrolled in agriculture and teachers of agriculture understood the questions as presented in the questionnaire.
- ii. The respondents who participated in the study gave reliable and accurate information.

### **1.7 Limitation of the Study**

The researcher experienced constraints travelling from one public school to another due to long distances between them. To gather data, the researcher did, however, sample the schools. The researcher encountered agriculture teachers who were critical of the study and believed that they should be rewarded for the data needed. The researcher assured them that the information given would be treated with uttermost confidence and that the study was being done for educational purposes.

### **1.8 Delimitations of the Study**

The study's focus was on the variables influencing females in Gusii counties 'Post-primary education' decision to major in agriculture. Category of post primary institution, Peer pressure, socioeconomic and school-related variables were the main areas of concern. The study, which was restricted to the Gusii counties, was used to generalize the dynamics impelling females' choice of agriculture learning areas in secondary schools, but not at any higher levels of education or training. Since the schools were in different geographic regions, data was only gathered from the sampled ones, and broad conclusions were drawn from the sampled responses.

## **1.9 Theoretical Framework**

Two concepts were considered in the study as indicated below;

### **1.9.1 Donald Super's Self-Concept Theory**

The self-concept theory is grounded on the idea that a person's self-concept is a major factor in his professional decisions. According to these thinkers, adolescents are when people first begin to develop a self-concept for their careers. Although theorists contend that self-concept evolves with age, people typically select careers that align with their self-perception or that highlight their interests, values, and talents (Santrock, 2001). These thinkers proposed that the five stages of career development-growth, exploration, establishing, maintenance, and declining could serve as the foundation for occupational attitude and behaviour. As a result, choosing a profession entails matching one's self-perception, which forms the basis of one's self-concept, with the real requirements of the employment under consideration. This study was found to be helpful in identifying a few variables impacting females in Kenya's Gusii counties' decision to major in agriculture.

### **1.9.2 Motivational Theory Of Learning**

According to Skinner (1985), a student's motivation to complete a task is predicated on the projected benefit they will receive. Positive reinforcement encourages pupils to work hard and achieve more, while negative reinforcement fosters a bad attitude and poor performance. Therefore, if a student anticipates a favorable reward, such as strong performance, which would lead to a brighter future employability, he will be driven to pursue a specific course. Students' indications may include their past achievement in the subject, the availability of qualified teachers, and the teacher-student connection when determining whether there would be a future positive reward. As these factors are the subject of this study, this theory was chosen to lead the investigation.

## **1.10 Conceptual Framework**

The conceptual framework is a step in a scientific approach where a specific notion is distinguished by a quantifiable attribute or by associations that give the concept life. Additionally, it provides an example of how dependent, independent, and intervening variables relate to one another. Girls' choice of agriculture subject will be a dependent variable based on the findings of this study. Peer pressure, socioeconomic characteristics, and school-related variables will be the independent variables for girls in post-primary education (Figure 2). A greater proportion of girls will take agriculture as a result of the improved choice of course. Together with a growth in agriculture professionals, the workforce in this industry will grow. The agricultural industry will generate jobs and new prospects.

Even with outside influence from parents, the category of post-primary institution will encourage or dissuade a learner to take or not take an agriculture topic. Peer pressure and socioeconomic issues will also influence or lessen the desire to study agriculture. A positive preference for agriculture among girls will have a major bearing on learning levels and the number of females enrolling in secondary agricultural classes, among other consequences.



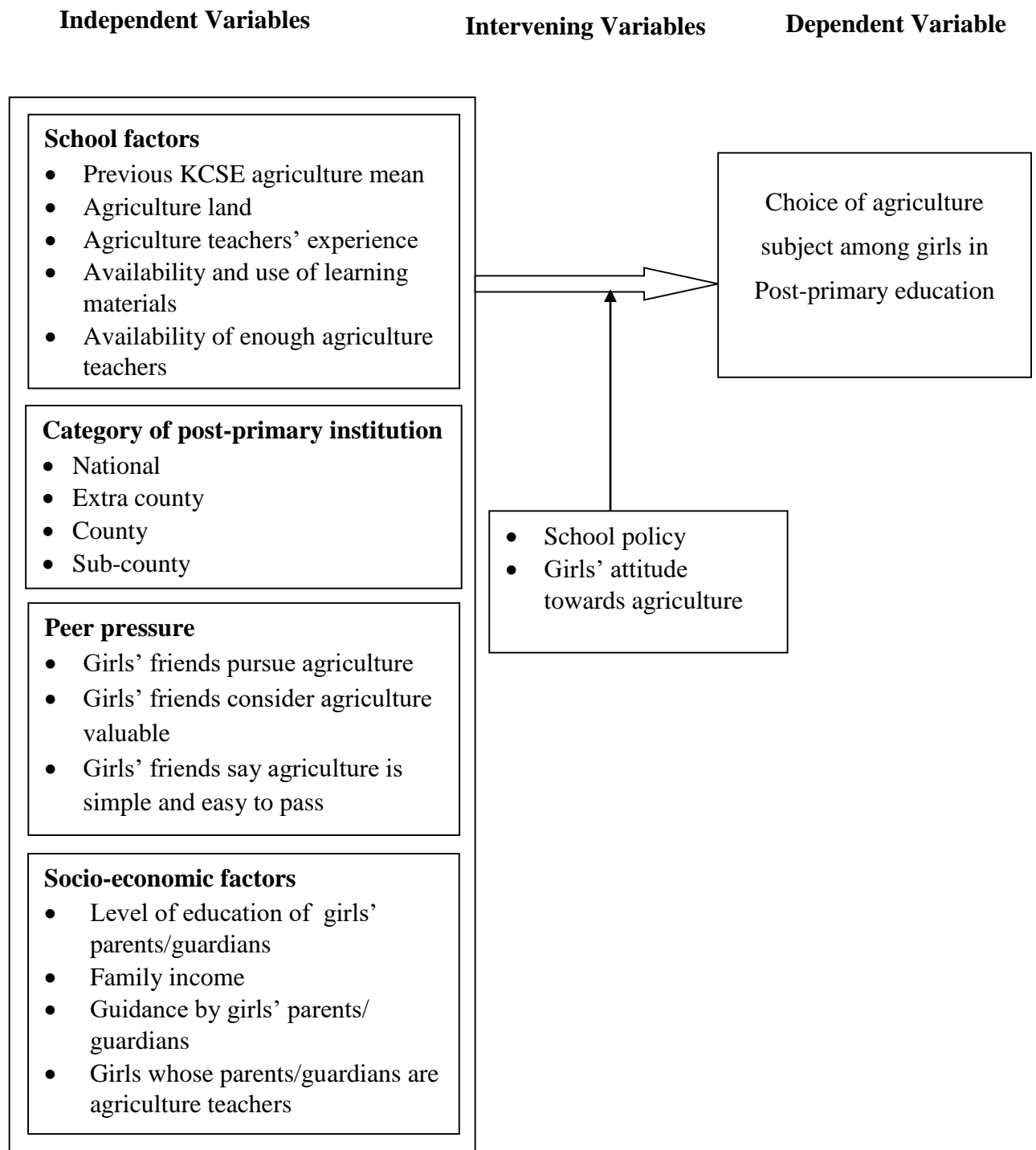


Figure 2: Conceptual Framework.

### **1.11 Defination of Operational Terms**

**Agriculture subject-** This study focuses on a technical subject taught in post-primary education in Kenya that equip students with knowledge of animal husbandry, crop production, farm equipment and machinery, farm buildings, and agricultural economics.

**Choice** -refers to a choice made by females in form three of the post-primary education in the Gusii counties to take agriculture over numerous other options.

**Gusii counties-** relates to the Kenyan counties of Kisii and Nyamira, which are found in the South Nyanza area.

**Subject choice** - refers to a chance offered by the school during the academic year where girls carefully choose school-taught subjects for their studies.

**Parental influence-** How parents influence girls' decision to study agriculture in post-primary education.

**Peer Influence-** How peers with similar interests, such as girls in the same class, support or oppose the subject or course that interests them.

**Post-primary Education** -This exclusively refers to secondary schools within the study areas that happen to offer agriculture as technical subject

**School factors-** Refers to school-based conditions within the school that influence girls' academic performance. The term was used in reference to previous KCSE agriculture mean, previous performance of agriculture subject, land for agricultural activities, agriculture teachers' experience, teaching and learning facilities for teaching agriculture and availability of enough teachers teaching agriculture subject.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1. Introduction**

Chapter two reviewed literature that is pertinent to the investigation. It is divided into the following subheadings: selection of agriculture as a secondary school subject, agriculture instruction in Kenya's secondary schools, and particular variables impacting girls' choice of the subject, as well as a summary of the examined literature.

#### **2.2. Agriculture Subject in Post-Primary Education**

According to Schultz et al. (2008), lectures in the agriculture subject include topics like irrigation farming, animal husbandry, conserving water and soil, and growing crops. Food production is another aspect of the agriculture topic that helps farmers increase their domestic and export output, which improves the quality of life for everyone. In order to provide learners with the individualized academic and professional skills required for success in STEM, China's agricultural schools had begun putting strategies into practice and improving their vocational curricula (People's Republic of China Ministry of Education, 2018). In general, China's autonomous areas, provinces and municipalities collectively have about 360 agricultural schools. They are residential institutions that help students pass the required entrance exams (Chen, 2000). All agricultural institutions are subject to regulation and macro management by the ministry of agriculture. Due to the prominence of agriculture in their educational curricula, these economies have advanced.

In Cuba, the growth of the economy has a major impact on educational policy. From basic to higher levels of education, all have included agricultural education. All learning levels include participatory instruction and practice where students engage in agricultural activities like gardening in primary schools. The primary school curriculum requires students to complete 480

hours of "labour education" over the course of six years, 5,680 hours to improve their positive attitudes toward work, and one year of charitable farming once they complete their secondary education. Cuba's economy, which among the nations of Latin America has good food security and economic management, has greatly benefited from participatory education, particularly in agriculture. For secondary school education in Africa, there are a number of goals, according to Miller & Dlamini (2007). In Swaziland, junior secondary agricultural education aims to improve learners' understanding of and attitudes toward agriculture. The senior school, on the other hand, arranges for interested learners to enroll at the University of Swaziland's College of Agriculture. According to Dlamini, Ngwenya, and Dlamini (2004), female Swaziland high school students prefer to specialize in agriculture for a variety of reasons, including monetary, social, educational, familial, and individual ones. Since it influences people's future jobs and boosts their economy, agriculture is a key issue in these countries.

According to Apori et al. (2003), each learner's socio-economic background influences their decision to study agriculture. The learner's decision to study agriculture is also influenced by parents, peers, and agriculture colleges. Despite Kenya's commercial and subsistence agricultural potential, few females participate in agriculture studies because it is not required in the school curriculum. According to Tom (2009), agriculture education in the majority of Sub-Saharan African nations appears to be mostly unresponsive to the rapidly changing forms of student demand. Secondary school curricula, syllabi, and timetables are typically overstuffed with theory classes at the expense of practical application. The study goes on to claim that the majority of subjects that are likely to encourage students to consider professions in agriculture, such as agriculture entrepreneurship, profit making activities, and agricultural processing and marketing are overlooked thus, low girl child enrolment.

South Africa's economy and agricultural productivity have grown as a result of the inclusion of agriculture in secondary school curricula (Dlamini, Ngwenya, & Dlamini, 2004). In spite of its

desert environment, Egypt has managed to become self-sufficient in agricultural production thanks to its strong emphasis on irrigated farming, soil preservation, and water management.

Despite Kenya's reliance on agriculture for its economic survival, secondary school curricula do not mandate agriculture education. African communities mainly relied on agriculture, and the Phelps Stokes commission first brought up the subject in 1924, recommending Africans to pursue employment in the industry (Kyule et al., 2016). Agriculture was covered in both the elementary school curricula and the primary teacher certification programs during the colonial era. Later, it was incorporated into the Beecher report (1949) and Binns report (1952). It offers the chance to advance and is extremely practical (Muchiri et al., 2013).

In an effort to vocationalize its educational curriculum, Kenya developed the 8-4-4 system of education in 1985 (Ngesa, 2006). One of the learning area that required a lot of practicals was agriculture. However, it appears that practical instruction has been abandoned in secondary schools. Because the theory and practice of teaching are complementary, there is a discrepancy in the Kenya Institute of Curriculum Department (KICD) report from 2002 (Kamau & Orodho, 2014). In an effort to advance the practical side of agriculture, the Kenyan government revised the primary school curriculum in 2002 and removed agriculture as one of the practical disciplines. In secondary schools, it was kept as an elective subject, though. This has resulted in a smaller basis and a weaker foundation for the subject enrolment of all students in secondary education. Agroforestry, crop production, soil and water conservation, animal production, and agricultural economics are only a few of the topics covered in secondary school agriculture (Ngesa, 2006). These themes are too wide to be effectively covered within secondary school's time constraints, but they still seem important in spite of this, causing variances in the subjects that the students choose to study.

Young Farmers groups and other agricultural groups in secondary schools are essential components of Kenya's high standard of living. Only a small number of girls participate in club

activities, aside from agricultural exhibits and exam projects (Ngesa, 2006). This study was driven by the desire to learn how female secondary school students' subject choices have been impacted by this. Universities like Jomo Kenyatta University of Agriculture and Technology, Egerton University, Bukura College and Kabete School of Agriculture and Veterinary Science among others, take the teaching of agriculture seriously and emphasize its practical application to create qualified professionals for the labour market. Mwiria (2005) reports that in secondary schools in Kenya, less girls are selecting agriculture, down from 70% in early 1990s to 40% presently.

### **2.3. Overview of Girls in Post-primary Education who Choose Agriculture as a Subject of Study**

Several dynamics that impact secondary school girls' decisions to select agriculture as an examinable subject have been found by a few research. These factors include the student's behaviour upon entry, the parent's employment status, the parent's level of education, the location of the school, the availability and use of teaching and learning resources and the students' prior performance on the KCSE in agriculture (Konyango & Asienyo, 2015). Tradition has suggested that men should pursue careers in engineering, medicine and agriculture while women should pursue careers in education, nursing and secretarial work, claims Bamidele (2009). In addition, women's traditional role as full-time housewives and societal conventions place restrictions on their ability to enroll in STEM-related courses (Abdullahi et al., 2015).

According to Kikechi et al. (2013), the category of school, peer pressure, parents' occupations, the location of the school, and whether or not students were informed of the subject objectives, were key elements of girls' choice of STEM subjects. However, Muchiri et al. (2013) found no substantial distinction between students who lived in rural and those who lived in urban areas in their study of students' perceptions. Fgatabu (2012) identified institutional elements that affect secondary school pupils' enrolment in technical studies. He stated that the prime difficulties in

enrolling students in agriculture classes were lack of useful agricultural resources, a lack of qualified teachers, inadequate school infrastructure and school policy.

Akyina et al. (2014) found that gender is likely the most important factor influencing students' views toward STEM-related disciplines. Additionally, they stated that men had more favorable opinions about science and technology than women did. According to Kyule et al. (2016), the lack of learning materials makes it difficult for most secondary schools to adopt agriculture curricula; all respondents said they lacked an agriculture workshop, an agriculture laboratory, and agriculture movies. Makori & Onderi (2013) go on to state that this problem is exacerbated by the inadequacies and underutilization of all the teaching tools other than the agriculture textbooks, which compromises the caliber of the agricultural information and skills that these students gain at the secondary school level.

A comparable study by Mulamula (2016) found that enrolling and retaining more students in agriculture education programs is one of the main challenges experienced in Kenyan post-primary schools. Numerous strategies have been put out to increase girls' enrolment in agriculture courses, and the number of girls enrolling in higher agricultural education keeps growing. However, the learners do not have the motivation to work in agriculture sector for the remainder of their lives (Estambale et al., 2013). According to a related study by Kirimi (2015), students' choice to pursue agriculture in post-primary education in Kibirichia division Buuri sub-county, Kenya, is influenced by career awareness, guidance and counseling, as well as the instructional methods employed by agriculture teachers.

#### **2.4. Influence of Selected Factors on Girls' Decision to Study Agriculture**

The selected factors influencing girls' choice of agriculture subject can be classified into four major groups: School factors, the category of post-primary institution attended, peer pressure and socio-economic factors.

### **2.4.1. School factors**

The school factors of interest for this study include previous KCSE performance of agriculture subject, land for agricultural activities, agriculture teachers' experience, teaching and learning facilities for teaching agriculture and availability of enough teachers teaching agriculture subject.

In Swaziland, girls choose to major in agriculture in high school due to the field's historical success, according to Muchiri et al. (2013). According to Frempong et al. (2003), a student's decision to study agriculture in Ghana is influenced by a number of variables, including past performance in the subject at the national level, their knowledge of the prospects for choosing agriculture as a career, the fact that agricultural colleges only award certificates, as well as the influence of their parents, guardians and peers who value agriculture. Agriculture consistently performs poorly both nationally and in Gusii counties, and is outperformed by home science, woodwork, business studies and computer studies. High enrolment is attracted by strong achievement in any discipline. Universities and their different institutions are very concerned about academic achievement and their ongoing low enrolment.

According to Garton et al. (2002) noted that academic success predicts retention. Age, career interest, gender, study habits, and attendance all had a positive effect on students' performance in secondary school agriculture, according to Ogweno et al. (2014). Owoyele and Toyobo (2008) found that, at the post-primary education level, a combination of parental will, peer pressure and academic competency significantly predicted learners' choice of school subjects. This finding has implications for school facilities and academic achievement. While studying challenges of teaching and studying agriculture, Kabugi (2013) found out that less students were interested in agriculture compared to business studies. The primary criteria in their decision were their personal interests and their academic accomplishments, according to 64% of students who chose agriculture and 24% of those who did so for academic reasons (Kabugi, 2013).



#### **2.4.2. Category of Post-primary Institution**

Ngesa (2006) found that children who studied agriculture in provincial schools, now known as national schools, outperformed those who studied it in district schools, now known as sub-county schools, in terms of their test scores. This study contradicts with the finding that girls pick less of the topic in extra county schools despite good performance, as opposed to county schools, where choice is highly considered regardless of subject performance. The national schools, a select group of prestigious public institutions mostly found in Kenya's largest towns and which instruct agriculture philosophically, are the best schools. The conceptualization of the subject is not guaranteed to be pertinent, which has a negative impact on the girls' subject selection. The provincial schools are located in the center while district schools, the largest and worst performing groups are those where the majority of ordinary learners are limited by a lack of subject options.

Due to their great status, just one in 100 females from primary schools choose to enroll in national institutions (Oketch & Somerset, 2010). There is an additional bed and boarding fee because the national institutes need boarding. The need of hiring new staff has been recognized by agriculture educators, and they routinely mentor students (Dlamini, Ngwenya, & Dlamini, 2004). In order to increase awareness of agriculturally linked courses, career counseling and advice must be improved. Similar to this, it's crucial to comprehend why students choose to major in agriculture in order to improve teaching methods. Students' views toward the subject, the course material, teaching methods and potential employment opportunities may all have an impact on their interest in agriculture (Oketch & Somerset, 2010).

#### **2.4.3. Peer Pressure Influence**

Child growth is influenced by peer pressure. According to a study by Ajidagba (2010), a child's interaction with their friend will either positively or negatively affect how they acclimatize to the subjects they learn in school. Peers have a variety of effects on one another. Peers play a number

of roles that affect a girl's ability to assess her performance, understand her place in the group, and take on these tasks. It happens frequently in agriculture, particularly when girls labor in groups, as it does in the case of the Young Farmers Clubs (YFCs). Second, peers assign one another certain responsibilities and each tries to adopt the attributes that go along with those roles. Each group member is given the chance to excel at what they do best. Thirdly, peers evaluate one another's performance in class by comparing it to others'. As a result, these pals may choose to study related topics. Girls' topic preferences could also be influenced by peer expectations or educational standards. Hoxby et al. (2003) also recognized the influence of peer groups on girls' academic achievement.

Girls in secondary schools are not yet mature enough to make their own selections; the majority of them think about the immediate advantages of their options when selecting their courses. Girls from various backgrounds can easily influence one another's opinions on both the positive and negative aspects of the topic they chose. The way that students view agriculture affects their interest in the topic, claim Camp, Broyles, and Skelton (2014). The girls from the rural area think it's "dirty" and can remind them of their previous way of life. Girls may push one another to pick disciplines other than agriculture because they are more likely to pursue white-collar careers than blue-collar ones. Another typical characteristic of girls at this age is mob psychology. They are easily able to persuade one another to stick with the organizations. Although they may not feel the same way, most of them choose not to major in agriculture because their friends think it is boring, time-consuming, and has no future. It demonstrates how friends can affect one another's decision about agriculture. Lesley (2015) asserts that peer pressure to choose a particular subject may not be beneficial for girls. Girls might influence one another based on their past or present experiences. For example, students from rural areas who have studied agricultural production may find the topic boring and persuade their peers not to major in the field. Conversely, people who must succeed in agricultural endeavors and who, as a result, want to progress them more might persuade their friends to choose it. According to Hardre, Sullivan, and Crowson (2009),

these experiences may influence the girls' decision to pursue a career in agriculture. More importantly, urban girls lack knowledge about agriculture, which influences their classmates to choose the subject. Therefore, the purpose of this study was to determine how peer pressure influences females in Gusii counties to choose agriculture as a subject.

#### **2.4.4. Socio-Economic Factors**

Parents' socio-economic characteristics significantly influence a students' choice of technical subjects (Okeke, 2000). Through their social contacts with them, parents have a bigger impact on the advancement and future decision-making of their children (Mabunda, 2002). It is believed that the family environment affects the curriculum and how efficiently schools operate. Additionally, the socio-economic status of the family influences the social environment in which the girls first and foremost engage before selecting their occupational specialties. According to Merlin & Dack (2019), some parents raise their kids with a specific set of values in mind. Such a force encourages students to select disciplines they can successfully complete in order to live up to family expectations. According to Mohd et al. (2010), family members can either directly or indirectly supply advice and information to impact a young person's profession decision. Girls' professional options and strong belief in the greatest vocations are influenced by the career choices of their family members quickly when great entrepreneurial role models are present.

Parents have a significant impact on the elective topics that females choose in secondary school. Most parents would lead their girls in this route because they want their daughters to pursue careers that they themselves aspired but never reached. The parents also urge their daughters to seek more advanced fields in business and the job market since they are aware of the outside world. Most parents reportedly discourage their children from choosing agriculture because they believe it won't help them grow in other job sectors or have a better future, according to Chee and Leong-Yong (2011). Parents that have high expectations for their children may have an

impact on whether or not they choose to study agriculture as a subject that will probably have an impact on their future career.

In Gusii counties, parents are believed to have some influence over their kids' decision to study agriculture in high school. According to Young (1985), kids see their parents as role models, and parental acceptance or disapproval influences their choice of disciplines, including agriculture. In Gusii counties, this study aims to better understand how parental influence influences girls' decision to pursue agriculture. Children of farmers would be encouraged to pursue careers outside of agriculture by their parents. The advantages and early exposure in the field may influence students to pursue agriculture. The majority of males decide for agriculture to advance their parents' domestic agricultural pursuits. Due to the agricultural nature of Gusii counties, commercial agriculture is a very important endeavor, even for young people, so parental assistance in subject selection is crucial.

According to Sue (1990), parents' careers are strongly correlated with the professional choices of their children, which means that most parents want their children to major in topics that will prepare them for the careers they are engaged in. Parental success in fields connected to agriculture inspires their kids to pursue such fields as well, potentially persuading them to select agriculture, as in the case of a successful family farm. According to Kariuki (2006), some students opt to leave disciplines that they are good at in order to appease their parents, who have pressured them to pursue particular vocations.

Since most parents work in agriculture, they discourage their kids from going into agriculture by encouraging them to pursue better-paying professions instead. Malgwi et al. (2005) made the additional claim that parents are more likely to have an impact on students' topic decisions than other stakeholders like instructors, guidance counselors, and teachers. It also applies to parents who choose agriculture as their children's career since they have other plans for them. Tenenbaum & Callanan (2008) claim that parents want their kids to select classes that will help them succeed.

It is the responsibility of parents to get their kids ready for school. Mabunda (2002) asserted that parents have a bigger impact on their children's growth and future professional decisions in their task of career guiding. Because of this, Ozioma (2011) noted that students' levels of interest and parents' social status occasionally influenced students' interest in studying vocational topics, which this current study relates to parents choosing certain subjects for their children.

## **2.5. Research Gap Identification**

In Kenya, a few studies have been conducted on students' decision to study agriculture as a technical subject. For instance, Kirimi (2015) looked at the factors that influence secondary school students in Kenya's Kibirichia division and Buuri sub-county to pick agriculture as a technical subject. The study discovered that professional knowledge, teaching methods, advice and counseling, as well as students' home and social circumstances, all have an impact on their decision to choose agriculture as an examinable subject. Similar to this, Mulamula (2016) investigated the perceptions of secondary school students in Kenya's Kisii and Nyamira counties regarding the variables influencing their choice to enroll in agriculture classes. His study examined how students' perceptions of taking agriculture classes were affected by teaching methods, agricultural curriculum, instructional materials and students' job prospects. In a separate study, Makori et al., (2019) discovered that teaching methods, gender, student attitudes and school financing all contributed to why secondary school students in Gusii counties, Kenya, were more likely to pursue agriculture. The bulk of studies, however, did not differentiate between boys and girls when figuring out what variables led people to select agriculture as their area of study. This study was designed to find out how peer pressure, socioeconomic issues, and school-related factors influence girls' choice of agriculture subject in post-primary education in Gusii counties, Kenya.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1. Introduction**

The presentation of this chapter describes of research techniques applied. These include: the design, area of study, target population, sampling procedures and sample size, data collection, instrumentation and analysis.

#### **3.2. Research Design**

Descriptive survey approach was used. The design is useful when collecting data to address inquiries about the current state of phenomena. Orodho (2009) defines descriptive survey design as a method of data gathering by using interviews with questionnaires to a predetermined sample of interviewees. As a result, it is the method mostly used to gather information on people's beliefs, attitudes, skills, routines and other societal concerns relevant to education. The descriptive study design was suitable for the investigation since it enabled the study to collect pertinent and accurate data from form three girls and agriculture teachers. This strategy is adaptable and allowed the researcher to get data from a sizable sampled group. As a result, one gets more accurate information.

#### **3.3. Description of the Study Area**

The study was done in Kisii and Nyamira counties of Kenya. The geographic location of the Gusii counties is between latitudes 0° 351' and 1° 883' south and 34° 038' and 35° 051' east. According to the 2019 KNBS, Gusii counties occupy an area estimated to be 2214.3 Km<sup>2</sup> and a population of about 1,879,800 people. The poverty rate for this group is approximately 67% (GoK, 2019). Within the boundaries of the two counties, there are fifteen educational sub-counties: Kisii Central, Gucha South, Marani, Kenyenyia, Masaba South, Kisii South, Etago, Gucha, Nyamache, Sameta, Nyamira North, Masaba North, Manga, Nyamira South and Borabu.

The fifteen administrative sub-counties in Gusii counties have a total of 534 secondary schools. According to Ministry of Education (2022) data, there are roughly 150,000 secondary school students enrolled in the counties. According to estimates from GoK (2019), enrolment rates for boys and females were 89 percent and 93 percent, respectively, while dropout rates were 15 and 20 percent. There is a need for additional investment in agriculture because more than 75% of the residents relies on agriculture for their livelihood. Tea, coffee, maize farming, dairy farming and brick manufacturing are some of the region's primary economic activities.

### 3.4. Target Population

A population is an entire collection of unique cases that may be distinguished from other cases by specific features (Mugenda & Mugenda, 2003). The 470 pure girls and mixed post-primary schools in the Gusii region were the study's target population. The schools had a total of 9,000 form three females who were studying agriculture, this made up the target population of this study (MoE, 2018). This choice was made mostly because these girls have been in school for a longer time and have therefore been exposed to agricultural activities, which may have helped them reply to the questionnaires adequately. The target group included 9,000 form three girls studying agriculture at the 470 post-primary education in Gusii counties and 545 agricultural teachers. The study targeted 9,545 respondents distributed as shown in Table 2.

*Table 2: Target Population*

School category	Institutions	Agriculture teachers	Form three agriculture girls
National	2	8	310
Extra County	18	36	1050
County	76	112	2732
Sub County	374	389	4908
Total	470	545	9000

### 3.5. Sample Size and Sampling Procedure

#### 3.5.1. Sample Size

The study covered sub-county, county, extra county and national schools; as a result, the study obtained the sample size depicted in Table 3.

*Table 3: Sample of form three girls and agriculture teachers from different categories of schools*

School category	Sampled schools	Sampled form three girls	Sampled agriculture teachers
National	2	32	6
Extra county	7	67	21
County	11	105	28
Sub-county	27	164	54
Total	47	368	109

The recommended sample size (n) for girls was calculated using Kathuri and Pals (1993) formula. The study used 9,000 form three girls enrolled in agriculture in the chosen post-primary institutions as the population. On the presumption that the researcher was aware of the population's size (N).

$$n = \frac{X^2 N P(1-P)}{d^2(N-1) + X^2 P(1-P)}$$

In the formula, n is the sample size, P is the population proportion and N is the supplied population size of form three females enrolled in agriculture in Gusii counties (9,000). The sample size is shown by the degree of accuracy, which is .05, and the chi-square table value for the degree of freedom, which is 3.841. As a result, when the aforementioned figures were added to the equation, 368 respondents were obtained.

$$n = \frac{3.841 \times 9000 \times 0.5(1-0.5)}{0.05^2(9000-1) + 3.841 \times 0.5(1-0.5)}$$

$$n = 368 \text{ girls}$$



The 368 females were dispersed among the chosen secondary schools in the Gusii counties proportionate to their size. Although studies have recommended at least 100 respondents for a representative sample, Kathuri and Pals (1993) found that 368 is sufficient to account for attrition. Mugenda and Mugenda (2003) assert that for a sizable population, a minimum of 10% and a maximum of 30% are acceptable. As a result, for post-primary education that were both mixed and exclusively for females, 10% of 470 produced 47 schools, and for agriculture instructors, 20% of 545 produced a population sample of 109 teachers. The study's sample size included 109 agriculture teachers in Gusii counties and 368 girls in form three.

### **3.5.2. Sampling Procedure**

The sampling techniques applied in this investigation were simple random sampling and purposeful sampling. Using purposive sampling technique, the girls' national schools in the sub-counties of Kisii Central and Nyamira South were selected. Simple random sampling technique was used to choose girls from extra county, county and sub-county schools in Kisii county (Gucha South, Gucha, Masaba South, Kisii Central, Kenyena and Marani sub-counties) and Nyamira county (Borabu, Masaba North and Nyamira South sub-counties) in order to facilitate data collection and representation. These schools were chosen based on their category, how well they performed on the national test in agriculture, how long they have given agriculture as a subject and how many females take it. The straight forward random sample method made, guaranteed that all respondents had an equal chance of being chosen while reducing categorization error. Additionally, the strategy only required frame-level information about the population, which made data interpretation extremely simple.

### **3.6. Instrumentation**

The study employed questionnaires to gather factual data as regards to the variables influencing girls' decision to study agriculture. Both form three agriculture girls and agricultural teachers were asked to complete the surveys. Using a 5-point Likert scale, respondents checked in the

brackets their extent of agreement or disagreement with the statements given. (1 'Strongly Agree', 2 'Agree', 3 'Neutral', 4 'Disagree' and 5 'Strongly Disagree'). The questionnaires had two parts: part A dealt with the respondents' personal details, and part B concentrated on selected factors and how they affected girls' decisions to study agriculture.

### **3.7. Pilot Study**

The researcher piloted the study in five schools in Migori County. Ten agriculture teachers and fifty girls responded to the poll. The pilot study identified survey items that respondents felt were unclear before the final questionnaires were distributed. These items were then clarified and adjusted. The pilot study helped the researcher become comfortable with how to operate the equipment. Additionally, piloting assisted the researcher in making the necessary corrections prior to the final questionnaire and adding extra items in response to feedback from the pre-test to guarantee that the final instruments produced the data required for the research.

### **3.8. Validity and Reliability of Instruments**

#### **3.8.1. The Validity**

Orodho (2009) asserts that a tool is trustworthy if the findings accurately depict the circumstances surrounding the subject under investigation. In this study, the content validity index (a ratio of pertinent items to the total number of items in the question) was used to appraise the instrument's validity. The score given to the pertinent items in the data collection tool based on their relevance and clarity in light of the aims to construct this index was divided by the total number of questions contained in the questionnaire (Wynd, 2003). The content validity index for this study was 0.72, which was in line with Wynd's recommendation from 2003 that a content validity score of 0.6-0.77 is satisfactory.

### **3.8.2. The Reliability**

The Cronbach's alpha was employed to ascertain the questionnaires' consistency of the questions. In order to establish a suitable reliable index for the questionnaire, a pilot study was conducted in Migori county with 50 form three girls and 10 agriculture instructors who were not going to be part of the study region. The aim of the pilot study was to detect potential flaws with the questionnaire. The questionnaire is regarded as consistent if it has a Cronbach's coefficient of 0.70 or higher, according to Mugenda & Mugenda (2003). The reliability coefficient for the study came out to be 0.8278.

### **3.9. Data Collection**

The introductory letter from Kisii University, postgraduate school authorizing NACOSTI to issue research permit to the researcher was given. The permit enabled the researcher get permission from the county commissioners and CDEs of Kisii and Nyamira counties to collect data from their jurisdictions. The researcher went to the selected schools and secured the administrators' agreement before distributing the questionnaire to the girls and agriculture instructors. Sampling of form three girls was done with the help of agriculture teachers and questionnaires provided for data collection.

To guarantee equitable and fair participation, data was gathered a week or so before girls took their second term internal exams. Techniques for gathering primary and secondary data were also used. To increase answer diversity and reduce question fatigue, structured and open-ended surveys were used as the main data sources. The information from the responses could be expanded upon and clarified by comments made in response to open-ended questions. Additionally, they helped the researcher acquire insightful perspectives on the influence of particular elements on females in post-primary education in the Gusii counties of Kenya choosing agriculture as their area of study.

Important information that was gathered included socio-demographic data about the respondents, a few aspects (learner-related, institution-related and socio-economic), perceptions of females and barriers encountered to enrolling in agriculture. Interviews and concentrated group discussions with sampled instructors in the chosen post-primary institutions were utilized to supplement these information. Secondary data, however, was discovered through literary searches in books on agriculture, school reports, Ministry of Education files and published publications.

### **3.10. Statistical Data Analysis**

Data analysis entails the process of analyzing and organizing the data that has been gathered in order to draw conclusions (Kombo & Tromp, 2006). Descriptive and inferential statistics were used for the study of quantitative data, which was coded and entered into SPSS version 21. Using a five-point Likert scale of 1 'strongly agree', 2 'agree', 3 'neutral', 4 'disagree' and 5 'strongly disagree', the completed surveys were scored and the results calculated. Data were presented statistically by percentages, means, graphs as well as frequencies.

The researcher was able to view the results, spot trends and show the connections between the results thanks to the frequency and percentage tables (Gay, 2009). To test the specific hypothesis using inferential statistics, the study employed Pearson's correlation coefficient at the alpha level of 0.05. The four objectives' data analysis was achieved by using the following statistical approaches; percentages, frequencies, standard deviations and means.

### **3.11. Ethical Considerations**

When visits are conducted to collect data, ethical considerations act as checks and balances to dispel concerns. In order to obtain accurate and reliable information, the study stated that the questionnaires should be filled out openly and freely. The researcher made sure that all respondents were cognisant of the aim of the study during data collecting process and that they were not to write their names or the names of their institutions on the questionnaires. This ensured

maximum secrecy of the data collected from form three girls and agriculture teachers. Form three girls were informed that the questionnaires were exclusively for the research project and were not a component of the exams. The researcher credited the sources of the data from other people's work in order to avoid plagiarism.

## CHAPTER FOUR

### RESULTS AND DISCUSSION

#### 4.1. Introduction

This chapter presents results based on the objectives of the study.

#### 4.2. Response Rate of the Questionnaires

The survey included a target group of 477 respondents, including 109 agriculture teachers and 368 form three girls who chose agriculture as their subject. 350 girls responded to the study, representing a response rate of 95.1%, and 90 agriculture teachers, representing a response rate of 82.6%. According to Mugenda & Mugenda (1999), a response rate of 70% or more is outstanding. For data processing and reporting, the study's response rate was remarkable.

#### 4.3. Demographic Information of the Respondents

Form three girls' and agriculture teachers' demographic data, which included their age, gender, school category, academic background and work experience was obtained.

##### 4.3.1. Age groups of Form Three Girls Taking Agriculture Subject in Post-primary Education of Gusii Counties

The age bracket of form three girls taking agriculture subject in post-primary education of Gusii counties was sought by the researcher. The responses are presented in figure 3. This was to find out whether the girls of this age group are able to make informed decisions on subject choice.

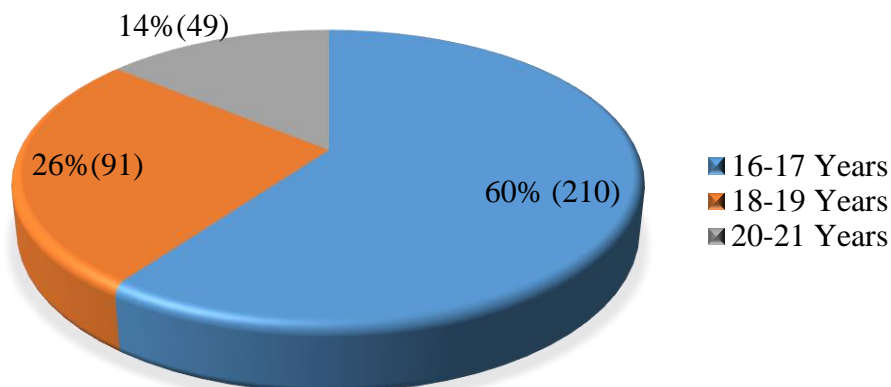


Figure 3: Age groups of form three girls taking agriculture subject in Gusii counties

About 60% of the girls were between the ages of 16 and 17, while 26% were between the ages of 18 and 19. Additionally, it is revealed that 14% of the girls were between the ages of 20 and 21. The study submits that the bulk of girls who chose agriculture as a learning area were able to decide on careers in agriculture after doing their research. The study agree with the findings of Nyabengi (2014), who discovered that girls at this age were capable of making independent judgments about the career they wanted to pursue and the subjects that were prerequisite for that career.

#### **4.3.2. Distribution of Girls studying Agriculture Subject in Gusii Counties by School Category**

The study sought to establish the category of post-primary institution in Gusii counties as indicated by form three girls. Table 4 displays the outcome.

*Table 4: Distribution of girls studying agriculture subject in Gusii counties by school category*

School category	Frequency	Percentage (%)
National	29	8.29
Extra county	68	19.43
County	102	29.14
Sub-county	151	43.14
Totals	350	100

According to the findings, the majority (43.14%) of the females attended sub-county schools, followed by county schools (29.14%), extra county schools (19.43%), and national schools (8.29%). According to these results, compared to other categories of schools, sub-county schools were attended by the majority of girls. The findings support Gathaiga's (2012) observation that the bulk of the students came from district day schools, also known as sub-county schools. This is a characteristic of most rural settings, including the one where this study was done. The study also concur with Cheruiyot (2018), which revealed that national schools had the lowest number of girls who had chosen agriculture followed by extra-county and county schools while sub-county schools had the highest number.

### 4.3.3. Level of Education of the Parents/Guardians of the Form Three Girls

The goal of the survey was to determine the parents' or guardians' greatest degree of education.

Table 5 displays the outcome.

*Table 5: Education level of the parents/guardians of the form three girls*

Level of education	Frequency	Percentage (%)
Primary	101	28.86
Secondary	163	46.57
Tertiary	59	16.86
University	27	7.71
Totals	350	100

Table 5 indicate that majority of the girls (46.57%), had parents who had attained secondary education, followed by 28.86% who indicated that their parents had primary education. In comparison, 16.86% of the girls indicated that their parents had tertiary education, while 7.71% indicated that their parents had university education. The implication is that all the parents accessed formal education and were literate hence able to guide their daughters on subject selection. The results concur with those of Farooq et al. (2011), who established that parents of high academic achievers frequently get more interested in their kids' academics, which results in better subject choices. Students whose parents had higher academic achievements were more likely to mentor their kids and give them the information they need to make wise subject selection judgments.

### 4.3.4. Occupation of Parents/Guardians of the Form Three Girls Taking Agriculture

The study sought to establish the occupation of the girls' parents/guardians in Gusii counties;

Table 6 provides the information.



Table 6: Occupation of parents/guardians of the form three girls taking agriculture

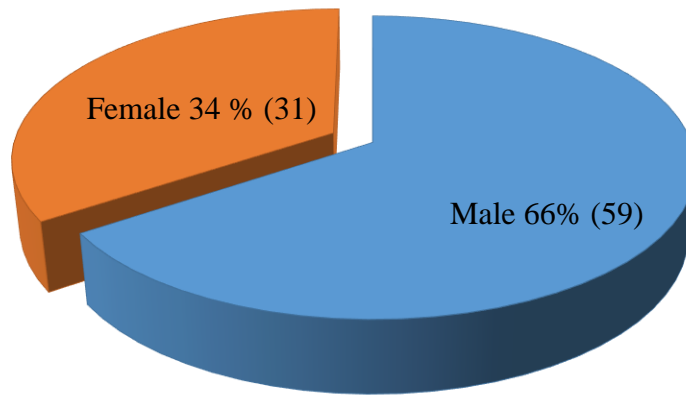
Parents' occupation	Frequency	Percentage (%)
Agriculture teacher	49	14.00
Extension officer	9	2.57
Businessman/woman	107	30.57
Farmer	127	36.29
Police officer	25	7.14
Clinical officer	33	9.43
Totals	350	100

Majority of the girls (36.29%) indicated that their parents/guardians were farmers, another 30.57% of the parents/guardians were traders, 14% were teachers, while 9.43% indicated that their parents/guardians were medical officers and 7.14% were police officers. While, 2.57% of the girls indicated that their parents were extension officers.

According to the findings, each of the parents engaged in economic activity that served as a source of income, as indicated in Table 6. The aim of the study was to establish whether the girls' subject choices were influenced by their parents' or guardians' careers. According to Handre et al. (2009), parents typically want their children to choose majors that will lead to the careers in which they are engaged. This is because parents' careers are directly related to the jobs that their children choose to follow. Parental success in agro-related industries encourages and inspires children to pursue goals that are similar, which leads them to choose agriculture, such as a prosperous family farm business.

#### **4.3.5. Gender of Agriculture Teachers**

This study sought to determine the gender of agriculture teachers, and their responses are indicated in figure 4.



*Figure 4: Gender of Agriculture Teachers*

Figure 4 indicates that whereas 34% of agriculture teachers were female, 66% of them were male. This suggests that there are gender gaps in the agricultural education workforce. Having more men teach the subject will probably discourage girls from choosing it since they may view it as a field reserved for men. These results concur with those of Ojiambo & Shafat (2013), who discovered a gender gap in institutional management and teaching. The study concurs with Eshiwani (2001), who claimed that the low enrolment of girls in mathematics was due to a lack of role models. The majority of the country's schools have fewer female teachers than male teachers, which has caused some students to have an unfavorable opinion of girls who choose to pursue agriculture as a post-primary career.

There are a number of different causes for this gap in teaching and school management, according to Mugera, Achoka, and Mugeshe (2012). It might be attributable to the unequal academic attainment of men and women, where boys typically outperform girls in primary and secondary school, as shown by national exams. The outcome is consistent with the conclusions of the government about gender disparities (GoK, 2010).

#### **4.3.6. Working Experience of Agriculture Teachers**

The study sought to determine the teaching backgrounds of agriculture teachers. This was done to determine whether the answers provided by the agriculture teachers were grounded on experience. The outcomes are tabulated in Table 7 below.

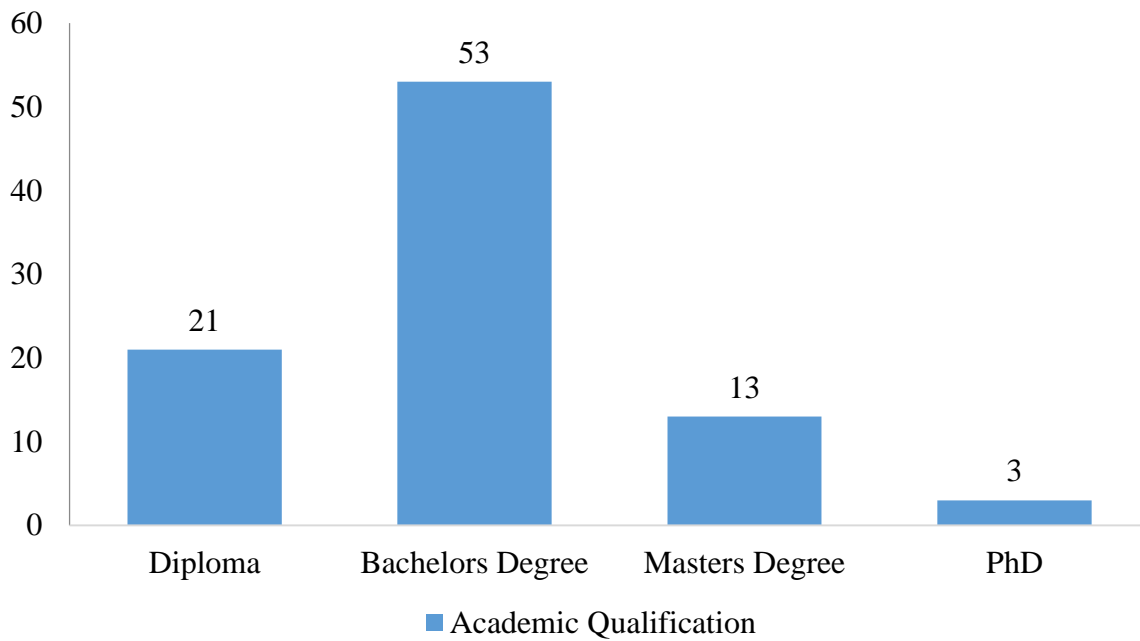
*Table 7: Working Experience of Agriculture Teachers*

Working Years	Teachers of Agriculture	
	Freq.	Percentage (%)
Less than 1	10	11.11
2-4	18	20.00
5-7	25	27.78
Above 8	37	41.11
Totals	90	100.00

About 41.11% of agriculture teachers had more than eight years of classroom experience. It was shown that 27.78% of agriculture teachers had 5-7 years of experience in the classroom, 20% had 2-4 years whereas 11.11% had less than a year of experience. This suggests that the majority of agricultural teachers had more than a year's worth of professional experience, making them qualified to guide and advise girls interested in a future in agriculture. Since it significantly improves their knowledge, abilities and output, a teacher's expertise is a vital aspect in the success of girls in agriculture. Robinson (2009) asserts that there is a correlation between teacher's expertise and the girls' subject preferences. However, during the first few years of teaching, the influence of experience is greatest; thereafter, marginal returns decline (Rice, 2010). Since their performance tends to level off after the first few years of employment, teachers demonstrate their highest productivity improvements during this time.

#### **4.3.7. Academic Qualification of Agriculture Teachers**

Agriculture teachers were requested to list their highest academic qualification. The information was captured in figure 5.



*Figure 5: Academic Qualification of Agriculture Teachers*

According to figure 5, the highest academic degree held by 23.33% of the agriculture teachers was a diploma. The average academic degree held by agriculture teachers was a bachelor's degree, or 58.89% of them. Additionally, the highest degree held by agriculture teachers was a master's, with 14.44% of them having one, and a Ph.D. by 3.33%. The outcome suggests that the majority of agricultural teachers met a basic standard to teach and oversee the agriculture department. The academic background has an impact on how students are inspired and guided in picking their subjects, thus it can successfully direct girls in this decision. Muchiri et al. (2013) also noted this, regardless of their prior teaching experience or professional training, the majority of agricultural teachers form favourable opinions of secondary school agriculture during their initial training. In their investigation of students' arithmetic achievement, Attah and Adebayo (2018) found a substantial correlation between instructors' preparation and student achievement.

The choice of agriculture among girls in post-primary education may have been influenced by the educational background of the agriculture instructors. It suggested that agriculture teachers had the necessary credentials to impart the subject matter in an efficient manner. These findings contradict those of Ngesa (2006) and Mwiria (2005), who found that less than half of agriculture

teachers lacked the necessary credentials. The outcome may be linked to the fact that teachers recently advanced themselves by acquiring additional education.

#### **4.4. Influence of School Factors on the Choice of Agriculture Subject among Girls in Post-primary Education in Gusii Counties.**

In all the four objectives the study used a five-point Likert scale questionnaire to capture data. Form three agriculture girls and agriculture teachers were asked to indicate by ticking in the brackets their level of agreement or disagreement with the statements provided (1-"Strongly Agree," 2- "Agree," 3-"Neutral," 4-"Disagree," and 5 for "Strongly Disagree."). The frequencies were used to calculate the mean scores where the minimum score was 1 and the maximum 5. Mean scores of 1-1.4 denotes 'Strongly Agree', 1.5-2.4 'Agree', 2.5-3.4 'Neutral', 3.5-4.4 'Disagree', 4.5-5 'Strongly Disagree'.

In the first objective, it was determined whether or not girls and agricultural teachers concurred with the assertions made on the impact of school factors on the decision to study agriculture.

##### **4.4.1. Mean Ratings of Form Three Girls on the Influence of School Factors on Choice of Agriculture Subject in Post-primary Education.**

The purpose of the study was to get form three females who were studying agriculture to comment on how much school-related variables influenced their decision. Means and standard deviations were used to analyse their responses as indicated in Table 8. Results in Table 8 indicate girls' disagreed that there are adequate facilities to undertake agriculture subject (Mn=4.11, SD=1.262), and agriculture teachers are friendly and motivating (Mn=3.64, SD=1.469). They were neutral on; previous KCSE agriculture mean is encouraging (Mn=2.73, SD=1.473), while they agreed there are enough teachers to handle the subject (Mn=1.71, SD=1.151), and there is enough land for agricultural activities (Mn=2.23, SD=1.252).

*Table 8: Mean Ratings of Form Three Girls on Influence of School Factors on Girls' Choice of Agriculture Subject in Post-primary Education.*

	N	Minimum	Maximum	Mean	Std. Deviation
Previous KCSE agriculture Mean is encouraging	350	1	5	2.73	1.473
There is enough land for agricultural activities	350	1	5	2.23	1.252
Agriculture teachers are friendly and motivating	350	1	5	3.64	1.469
There are adequate facilities to undertake agriculture subject	350	1	5	4.11	1.262
There are enough teachers to handle the subject	350	1	5	1.71	1.151

The outcomes are in line with Cheruiyot (2018), who discovered that KCSE agricultural performance affects learners' choice of subject. The study also found a negative connection that shows few students in schools with high KCSE agriculture scores choose the subject in opposition to direct proportionality. The findings are also in line with those of Dawo and Simatwa (2010), who discovered that, among other things, insufficient school facilities were impeding girls' educational opportunities. Similar to this, Uwaifo (2008) found that things like adequate educational infrastructure, textbooks and well-stocked laboratories, can affect how well girls succeed academically. Salisbury & Ruddel (2000), who contend that teachers' attitudes and behaviours influence learners' subject choices in many ways, were found to be incorrect by the study. Some female students pick a course only because they enjoyed the instructors. According to Frempong et al. (2003), several aspects, including the previous performance in the subject at the national level, affect girls' decision to study agricultural science. According to Bekleyen (2012), teachers may help create a calm learning environment in the classroom that will encourage girls to choose the topic by being polite and patient when they are listening to students.

#### 4.4.2. Agriculture Teachers' Response on Influence of School Factors on Girls' Choice of Agriculture Subject in Post-primary Education.

The teachers were asked to indicate the extent to which school factors influence girls' choice of agriculture as a learning area. Means and standard deviations were used to analyse their responses as indicated in Table 9. The findings indicate that agriculture teachers disagreed that agriculture teachers are friendly and motivating (Mn=4.64, SD .481), and that there are adequate facilities to undertake agriculture subject (Mn=4.68, SD=.470). They were neutral on there is enough land for agricultural activities (Mn=2.83, SD=1.400), while they agreed that previous agriculture mean encourages the choice of agriculture subject (Mn=1.00, SD=.000), and that there are enough teachers to handle the subject (Mn=1.11, SD= .316).

*Table 9: Mean ratings of agriculture teachers on influence of school factors on girls' choice of agriculture subject in Post-primary Education.*

	N	Minimum	Maximum	Mean	Std. Deviation
Previous KCSE agriculture mean is encouraging	90	1	5	1.00	.000
There is enough land for agricultural activities	90	1	5	2.83	1.400
Agriculture teachers are friendly and motivating	90	4	5	4.64	.481
There are adequate facilities to undertake agriculture subject	90	4	5	4.68	.470
There are enough teachers to handle the subject	90	1	2	1.11	.316

The findings by Alabu, (2001) agrees with these study that girls choose agriculture subject because of previous KCSE performance. This implies that choice of agriculture as a learning area by form three girls is influenced by the previous mean scores of agriculture in KCSE examinations and thus the girls should be encouraged to excel in the subject so as to encourage girls from lower forms to choose agriculture subject.

#### 4.4.3. Pearson's Correlation of Girls and Agriculture Teachers on the Influence of School Factors on Girls' Choice of Agriculture Subject in Post-primary Education.

The research set out to validate the following H0<sub>1</sub>: The replies from the teachers and girls resulted in a statistically significant correlation with  $p = .000$ . The alternative is upheld and the null hypothesis is consequently rejected because ( $p = .000$   $p = .05$ ): school factors affect girls' choice of agricultural subject in post-primary education in Gusii counties. The outcomes were shown in Table 10.

*Table 10: Pearson's correlation of girls on the influence of school factors on girls' choice of agriculture subject in Post-primary Education*

		Choice of agriculture subject	School factors
Choice of agriculture subject	Pearson Correlation	1	.425**
	Sig. (2-tailed)		.000
	N	350	350
School factors	Pearson Correlation	.425**	1
	Sig. (2-tailed)	.000	
	N	350	350

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

Table 10 shows a somewhat positive connection ( $r = .425$ ,  $p = .05$ ) between the influence of school parameters and girls' choice of agricultural subject in post-primary education in Gusii counties. According to the survey, girls choose agriculture as a learning area based on educational characteristics at the institution where they are enrolled.

#### 4.4.4. Pearson's Correlation of Girls on Influence of each School Factor on Girls' Choice of Agriculture Subject in Post-primary Education.

The result in Table 11 shows the Pearson's correlation of girls on influence of each school factor on girls' choice of agriculture subject in Post-primary education.



*Table 11: Pearson's Correlation of Girls on Influence of Each School Factor on Girls' Choice of Agriculture Subject in Post-primary Education.*

		Choice of agriculture subject
Choice of agriculture subject	Pearson Correlation	1
	Sig. (2-tailed)	
	N	350
Previous KCSE agriculture mean is encouraging	Pearson Correlation	.428**
	Sig. (2-tailed)	.000
	N	350
There is enough land for agricultural activities	Pearson Correlation	.605**
	Sig. (2-tailed)	.000
	N	350
Agriculture teachers are friendly and motivating	Pearson Correlation	.257**
	Sig. (2-tailed)	.000
	N	350
There are adequate facilities to undertake agriculture subject	Pearson Correlation	.196**
	Sig. (2-tailed)	.000
	N	350
There are enough teachers to handle the subject	Pearson Correlation	.775**
	Sig. (2-tailed)	.000
	N	350

Table 11 indicates that the previous KCSE agriculture mean is encouraging, There is enough land for agricultural activities, Agriculture teachers are friendly and motivating, there are adequate facilities to undertake agriculture subject and there are enough teachers to handle the subject. The Pearson's correlation (.428) indicates that previous agriculture means contributed to the choice of agriculture as a learning area by 42.8%, enough land for agricultural activities by 60.5% (.605), friendly and motivating agriculture teachers 25.7% (.257), adequate facilities to undertake agriculture subject 19.6% (.196), and enough teachers to handle the subject 77.5% (.775).

The girls felt that availability of enough teachers contributed the most to their choice of agriculture as a learning area; followed by enough land for agricultural activities, previous KCSE agriculture means, friendly and motivating teachers, and lastly adequate facilities to undertake agriculture subject.

#### **4.4.5. Pearson’s Correlation of Agriculture Teachers on the Influence of School Factors on Girls’ Choice of Agriculture Subject in Post-primary Education**

The results in Table 12 express the Pearson's correlation between agriculture teachers and the effects of school characteristics on girls' choice of agriculture in Post-primary education.

*Table 12: Pearson’s correlation of agriculture teachers on the influence of school factors on girls’ choice of agriculture subject in Post-primary education*

		Choice of agriculture subject	School factors
Choice of agriculture subject	Pearson Correlation	1	.526**
	Sig. (2-tailed)		.000
	N	90	90
School factors	Pearson Correlation	.526**	1
	Sig. (2-tailed)	.000	
	N	90	90

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

With a moderately positive correlation ( $r=.526, p=.05$ ), Table 12 shows a statistically significant connotation between school variables and girls' choice of agriculture subject in Post-primary education in Gusii counties. As a result, the teachers advise the girls to select agriculture as a learning area based on the factors of the school where they are enrolled.

#### **4.4.6. Pearson’s Correlation of Agriculture Teachers on Influence of each School Factor on Girls’ Choice of Agriculture Subject in Post-primary education.**

The results in Table 13 provide the Pearson’s correlation of agriculture teachers on influence of each school factor on girls’ choice of agriculture subject in Post-primary education.

*Table 13: Pearson's Correlation of Agriculture Teachers on Influence of each School Factor on Girls' Choice of Agriculture Subject in Post-primary Education.*

		Choice of agriculture subject
Choice of agriculture subject	Pearson Correlation	1
	Sig. (2-tailed)	
	N	90
Previous KCSE agriculture mean is encouraging	Pearson Correlation	. <sup>a</sup>
	Sig. (2-tailed)	.
	N	90
There is enough land for agricultural activities	Pearson Correlation	.594**
	Sig. (2-tailed)	.000
	N	90
Agriculture teachers are friendly and motivating	Pearson Correlation	.305**
	Sig. (2-tailed)	.003
	N	90
There are adequate facilities to undertake agriculture subject	Pearson Correlation	.283**
	Sig. (2-tailed)	.007
	N	90
There are enough teachers to handle the subject	Pearson Correlation	.860**
	Sig. (2-tailed)	.000
	N	90

Table 13 indicates; there is enough land for agricultural activities ( $p=.000$ ), agriculture teachers are friendly and motivating ( $p=.003$ ), There are adequate facilities to undertake agriculture subject ( $p=.007$ ), there are enough teachers to handle the subject ( $p=.000$ ) were significant ( $p$  values  $\leq p=.05$ ). Pearson correlation (.428) indicated a moderate positive correlation that previous agriculture means contributed to the choice of agriculture as a learning area by 42.8%, enough land for agricultural activities by 59.4% (.594), friendly and motivating agriculture teachers 30.5% (.305), adequate facilities to undertake agriculture subject 28.3% (.283), and enough teachers to handles the subject 86.0% (.860). The replies from the girls and teachers resulted in a statistically significant connection with  $p = .000$ . The alternative is upheld and the null hypothesis is consequently rejected because ( $p=.000$   $p=.05$ ): school factors influence girls' choice of agriculture subject in post-primary education in Gusii counties.

The teachers felt availability of enough teachers contributed the most to girls' choice of agriculture as a learning area, followed by enough land for agricultural activities, previous KCSE agriculture mean, friendly and motivating teachers, and lastly, adequate facilities to undertake agriculture subject. The girls felt availability of enough teachers contributed the most to their choice of agriculture as a learning area. The finding is in contrary to Kabugi (2013), which showed agriculture attracted few girls compared to Business studies due to girls' interests. The second most prevalent factor contributing to the students' choice of agriculture as a learning area was the availability of enough land for agricultural activities, which was in line with Owoyele and Toyobo (2008), who found that school facilities and academic achievement, parental/guardian influence, peer pressure and academic capability, when combined, significantly projected learners' choice of school subjects at the senior secondary school level. Other factors that affect the choice of agriculture as a learning area included; previous agriculture mean, friendly and motivating teachers, and lastly adequate facilities to undertake agriculture subject.

The study found out that enough land for agricultural activities, previous KCSE agriculture means, friendly and motivating teachers, and adequate facilities to undertake agriculture subject influenced the girls' choice of agriculture as a learning area.

#### **4.5. Influence of the Category of Post-primary Institution on the Choice of Agriculture Subject Among Girls in Gusii Counties.**

The second objective was to ascertain the degree to which agricultural teachers and girls agreed or disagreed with the statements made on the impact of the category of post-primary institution on the decision to study agriculture.

#### 4.5.1. Mean Ratings of Form Three Girls on Influence of the Category of Post-primary Institution on Girls' Choice of Agriculture Subject in Gusii Counties.

The study sought the responses from girls on the influence of the category of post-primary institution in the choice of agriculture as a learning area among the girls in post-primary education of Gusii counties. Means and standard deviations were used to analyse the responses as indicated in Table 14. The results indicate girls disagreed that national, extra-county and sub-county schools influenced the choice of agriculture subject (Mn=4.49, 3.98, and 3.88; SD .845, 1.341, and 1.431). They were neutral on county schools (Mn=3.40, SD=1.499).

*Table 14: Mean Ratings of Form Three Girls' on the Influence of the category of Post-Primary Institution on their Choice of Agriculture Subject.*

	N	Minimum	Maximum	Mean	Std. Deviation
National	350	1	5	4.49	.845
Extra-county	350	1	5	3.98	1.341
County	350	1	5	3.40	1.499
Sub-county	350	1	5	3.88	1.431
Valid N (listwise)	350				

The results in Table 14 support those found by Oketch & Somerset (2010), who found that learners who studied agriculture in provincial schools performed considerably better in the subject than learners who learnt it in district schools. This finding contrasts with the finding that, despite extra county schools' excellent performance, students' choice of the subject is lower than it is in sub-county schools, where the choice is higher.

#### 4.5.2. Mean Ratings of Agriculture Teachers' on the Influence of the Category of Post-primary Institution on Girls' Choice of Agriculture Subject.

The assertions made regarding the impact of the category of post-primary institutions on girls' choice of agriculture as a learning area were given, and the agricultural teachers were asked to indicate their extent of agreement or disagreement with each statement. As shown in Table 15, the responses were examined using means and standard deviations. According to the results in Table 15 (Mn=3.91, 3.52; SD=1.312, 1.463), agricultural teachers did not agree that sub-county and county schools affected students' decision to study agriculture. They had no opinion on public and private schools (Mn=3.12, 2.77, SD=1.381, 1.594).

*Table 15: Mean Ratings of Agriculture Teachers' Response on the Influence of Category of Post-Primary Institution on Girls' Choice of Agriculture Subject.*

	N	Minimum	Maximum	Mean	Std. Deviation
National	90	1	5	2.77	1.594
Extra-county	90	1	5	3.12	1.381
County	90	1	5	3.52	1.463
Sub-county	90	1	5	3.91	1.312
Valid N (listwise)	90				

The study contradicts Ngesa (2006), who discovered that students' decisions to study agriculture were influenced by their performance in the topic in national schools as opposed to sub-county ones. However, the findings are in line with a study by Ahmed, et al., (2018) that discovered no connection between students' ability in both day and boarding secondary schools and a substantial difference in single gender schools' performance in agriculture and biology. This shows that a learner's success may be more influenced by how they acquire their own information than by the category of school they attend.

#### 4.5.3. Pearson's Correlation of Girls and Agriculture Teachers on the Influence of the Category of Post-primary Institution on Girls' Choice of Agriculture Subject.

The study's goal was to investigate  $H_0$ , which asserted that there was no connection between the category of post-primary institution and the choice of agriculture among girls in Gusii counties. A .05 significance level and Pearson's correlation were used in the analysis. There was a statistically significant correlation between the teachers' and the girls' responses, with  $p = .000$ . The alternative is accepted, and the null hypothesis is disproved because ( $p = .000$   $p = .05$ ), which indicates that a girl's choice of agricultural sciences in post-primary institutions in Gusii counties is influenced by the category of school she attends. The results are displayed in Table 16.

*Table 16: Pearson's Correlation of Girls on the Influence of the Category of Post-primary Institution on Girls' Choice of Agriculture Subject.*

		Choice of agriculture subject	School Category
Choice of agriculture subject	Pearson Correlation	1	.250**
	Sig. (2-tailed)		.000
	N	350	350
School category	Pearson Correlation	.250**	1
	Sig. (2-tailed)	.000	
	N	350	350

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

According to Table 16, among girls enrolled in post-primary education in Gusii counties, there is a statistically significant correlation between the category of Post-primary institution and the choice of agriculture subject ( $r = .250$ ,  $p = .05$ ). According to the study, the girls' choice of secondary school agriculture depends on the category of post-primary institution they attend.

#### 4.5.4. Pearson's Correlation of Girls on the Influence of each Category of Post-primary Institution on Girls' Choice of Agriculture Subject.

Table 17 presents results on Pearson's correlation of girls on the influence of each category of post-primary institution on their decision to choose agriculture subject in Gusii counties, Kenya.

*Table 17: Pearson's Correlation of Girls on the Influence of each Category of Post-primary Institution on Girls' Choice of Agriculture Subject.*

		Choice of agriculture subject
Choice of agriculture subject	Pearson Correlation	1
	Sig. (2-tailed)	
	N	350
National	Pearson Correlation	.169**
	Sig. (2-tailed)	.002
	N	350
Extra-county	Pearson Correlation	.212**
	Sig. (2-tailed)	.000
	N	350
County	Pearson Correlation	.297**
	Sig. (2-tailed)	.000
	N	350
Sub-county	Pearson Correlation	.217**
	Sig. (2-tailed)	.000
	N	350

It is evident that National ( $p=.002$ ), extra-county ( $p=.000$ ), county ( $p=.000$ ), and sub-county ( $p=.000$ ) were significant ( $P\text{-values} \leq p=.05$ ).

The Pearson's correlation (.169) indicated very weak positive correlation that national schools contributed to the choice of agriculture as a learning area by 16.9%, extra-county 21.2% (.212)



while county and sub-county 29.7% (.297) and 21.7% (.217) respectively. The girls felt county schools had the most influence on the choice of agriculture as a learning area, followed by sub-county, extra-county, and finally national schools. This is in contrast to the observation that, despite extra county schools' students' good performance, the choice of the subject is lower than it is in sub-county schools, where the selection of agricultural science by girls is higher irrespective of performance.

**4.5.5. Pearson's correlation of Agriculture Teachers on Influence of the Category of Post-primary Institution on Girls' Preferences in Agriculture Subject.**

Results from a Pearson correlation between agriculture teachers and the category of post-primary institution on females' choice of agriculture subject are displayed in Table 18 below.

*Table 18: Pearson's Correlation of Agriculture Teachers on the Category of Post-primary Institution on Girls' Choice of Agriculture Subject.*

		Choice of agriculture subject	School category
Choice of agriculture subject	Pearson Correlation	1	.627**
	Sig. (2-tailed)		.000
	N	90	90
School category	Pearson Correlation	.627**	1
	Sig. (2-tailed)	.000	
	N	90	90

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

Table 18 indicates a statistically significant relationship in the influence of the category of Post-primary institution on the choice of agriculture subject among girls in Gusii counties with a moderate positive correlation ( $r=.627, < p=.05$ ). Therefore, the teachers indicate that the girls choose agriculture as a learning area depending on the school they are learning.

**4.5.6. Pearson’s Correlation of Agriculture Teachers on Influence of each Category of Post-primary Institution on Girls’ Choice of Agriculture Subject.**

Table 19 presents result on Pearson’s correlation of agriculture teachers on influence of each category of post-primary institution on girls’ choice of agriculture subject in Gusii counties.

*Table 19: Pearson’s Correlation of Agriculture Teachers on Influence of each Category of Post-primary Institution on Girls’ Choice of Agriculture Subject in Gusii Counties*

		Choice of agriculture subject
Choice of agriculture subject	Pearson Correlation	1
	Sig. (2-tailed)	
	N	90
National	Pearson Correlation	.705**
	Sig. (2-tailed)	.000
	N	90
Extra-county	Pearson Correlation	.623**
	Sig. (2-tailed)	.000
	N	90
County	Pearson Correlation	.508**
	Sig. (2-tailed)	.000
	N	90
Sub-county	Pearson Correlation	.417**
	Sig. (2-tailed)	.000
	N	90

Table 19, indicates that national ( $p=.000$ ), extra-county ( $p=.000$ ), county ( $p=.000$ ), and sub-county ( $p=.000$ ) were significant ( $P\text{-values} \leq p=.05$ ). The Pearson correlation (.705) indicated a positive strong correlation that national schools contributed to the choice of agriculture as a learning area by 70.5%, extra-county 62.3% (.624), county 50.8% (.508), sub-county 41.7% (.417). The teachers felt national schools had the most effect to girls’ choice of agriculture as a learning area; followed by extra-county, county and finally sub-county schools. The girls’ and teachers’ responses produced a statistically significant relationship of  $p = .000$ . Since ( $p=.000 \leq$

$p=.05$ ), the null hypothesis is thus rejected and the alternative upheld, implying that the category of post-primary institution influences selection of agriculture subject among girls in post-primary education in Gusii counties.

The girls felt county schools had the most effective choice of agriculture as a learning area, followed by sub-county, extra-county, and finally national schools. The study goes against Ngesa's (2006) finding that pupils' choices of subjects were influenced by their performance in agriculture in national schools as opposed to sub-county schools. Although this is true, the teachers believed that national schools, followed by extra-county, county, and then sub-county schools, had the best option of agriculture as a learning area. Only one in 100 females from primary schools enroll in national schools because of their prestige (Oketch & Somerset, 2010). The results of this study and those of Oketch & Somerset (2010) are comparable, showing that the category of school has a significant influence on the decision to study agriculture.

#### **4.6. Influence of Peer Pressure on Choice of Agriculture Subject among Girls in Post-primary Education in Gusii Counties.**

The third objective was to find out how much agricultural teachers and girls agreed or disagreed with the assertions made regarding the effect of peer pressure on choosing to pursue agriculture.

##### **4.6.1. Mean Ratings of Form Three Girls on the Influence of Peer Pressure on their Choice of Agriculture Subject in Post-primary Education.**

Girls indicated their level of agreement or disagreement with the statements made on how peer pressure affected their decision to study agriculture, and their responses were collected using a Likert scale. As shown in Table 20, the responses were examined using means and standard deviations. According to Table 20's results, females don't all think that agriculture is important ( $Mn=3.61$ ,  $SD 1.477$ ). They expressed no opinion; however, the girls' acquaintances who study agriculture claim that it is an easy topic to pass ( $Mn=3.02$ ,  $2.63$ ;  $SD=1.458$ ,  $1.505$ ).

*Table 20: Mean Ratings of Form Three Girls on Influence of Peer Pressure on Girls' Choice of Agriculture Subject in Post-primary Education*

	N	Minimum	Maximum	Mean	Std. Deviation
Girls' friends pursue agriculture subject	350	1	5	3.02	1.458
Girls' friends consider agriculture valuable	350	1	5	3.61	1.477
Girls' friends say agriculture is simple and easy to pass	350	1	5	2.63	1.505
Valid N (listwise)	350				

The study was meant to determine whether the respondents' peers valued agriculture by viewing it as a valuable subject. The results show that the girls' peers did not consider agriculture to be an interesting subject (Mn=3.61, SD 1.477). This is a stunning mean given that agriculture is the mainstay of the economy of most developing countries. Due to their improper attitude towards the topic, this may imply that they are unaware of its importance. The study agrees with a research conducted by Mangal (2009), which found out that many youths view crop and livestock production as unclean and a tough job with low self-esteem. If the girls' friends and classmates think the subject is useful and the majority of them are registered in it, it is also possible that the girls' perception of the subject will be mediated by the group's perspective (Caldwel, 2012). Lesley (2015) discovered that student peer groups with high career expectations have an impact on the group and influence participants' decision-making for future career alignment and the employment market, a field like agriculture, is supportive of these findings.

#### **4.6.2. Mean Ratings of Agriculture Teachers on Influence of Peer Pressure on Girls' Choice of Agriculture Subject in Post-primary Education.**

Regarding the claims made concerning the effect of peer pressure on girls' choice of agriculture as a learning area, the teachers indicated whether they agreed or disagreed with the statements

given. Means and standard deviations were used to analyse their responses as indicated in Table 21.

*Table 21: Mean Ratings of Agriculture Teachers on Influence of Peer Pressure on Girls' Choice of Agriculture Subject in Post-primary Education*

	N	Minimum	Maximum	Mean	Std. Deviation
Girls' friends pursue agriculture subject	90	1	5	2.09	1.411
Girls' friends consider agriculture valuable	90	1	5	2.20	1.384
Girls' friends say agriculture is simple and easy to pass	90	1	3	1.62	.680
Valid N (listwise)	90				

Table 21 indicates that teachers agreed that girls' friends pursue agriculture subject, girls' friends consider agriculture valuable, and girls' friends say agriculture is simple and easy to pass, influence selection of agricultural subject by form three girls (Mn=2.09, 2.20, 1.62; SD 1.411, 1.384, .680).

#### **4.6.3. Pearson's Correlation of Girls and Agriculture Teachers on Peer Pressure on Girls' Choice of Agriculture Subject in Post-primary Education.**

The study was out to prove H0<sub>3</sub>, which claims that girls in Post-primary education in the Gusii counties have no major influence over their choice of agriculture subject. The analysis was conducted using Pearson's correlation and a .05 significance level. The replies from the teachers and girls resulted in a statistically significant connection with  $p = .000$ . The alternative is supported and the null hypothesis is consequently rejected because ( $p = .000$   $p = .05$ ): peer pressure affects girls' choice of agriculture subject in Post-primary education in Gusii counties. The outcomes were presented in Table 22.

*Table 22: Pearson's Correlation of Girls on Peer Pressure on Their Choice of Agriculture Subject in Post-primary Education*

		Choice of agriculture subject	Peer pressure
Choice of agriculture subject	Pearson Correlation	1	.369**
	Sig. (2-tailed)		.000
	N	350	350
Peer pressure	Pearson Correlation	.369**	1
	Sig. (2-tailed)	.000	
	N	350	350

\*\* . Correlation is significant at the 0.05 level (2-tailed).

According to Table 22, there is a statistically significant correlation between peer pressure and the girls' decision to study agriculture in post-primary education in the Gusii counties ( $r=.369$ ,  $p=.05$ ). It demonstrates how a girl's choice of subject agriculture depends on the companions she keeps.

#### **4.6.4: Pearson's Correlation of Girls on Influence of Peer Pressure on Girls' Choice of Agriculture Subject in Post-primary Education**

The findings from Table 23 show how peer pressure affected girls' choice of agriculture as a topic in Post-primary education.

Table 23: Pearson's Correlation on Girls' Choice of Agriculture Subject in Post-primary Education

		Choice of agriculture subject
Choice of agriculture subject	Pearson Correlation	1
	Sig. (2-tailed)	
	N	350
Girls' friends pursue agriculture subject	Pearson Correlation	.438**
	Sig. (2-tailed)	.000
	N	350
Girls' friends consider agriculture valuable	Pearson Correlation	.262**
	Sig. (2-tailed)	.000
	N	350
Girls' friends say agriculture is simple and easy to pass	Pearson Correlation	.378**
	Sig. (2-tailed)	.000
	N	350

\*\* . Correlation is significant at the 0.05 level (2-tailed).

Table 23, Indicates a significant relationship for; girls' friends pursue the agriculture subject, girls' friends consider agriculture valuable, and girls' friends say agriculture is simple and easy to pass ( $p=.000 \leq p \leq .05$ ). The Pearson correlation (.438) indicated moderate positive correlation that girls' friends who pursue agriculture subject contributed to the choice of agriculture as a learning area by 43.8%, girls' friends consider agriculture valuable by 26.2% (.262), girls' friends say agriculture is simple and easy to pass 37.8% (.378). The girls felt 'girls' friends pursue agriculture subject' contributed the most to their choice of agriculture as a learning area; followed by girls' friends say 'agriculture is simple and easy to pass' and finally 'girls' friends consider agriculture valuable. Similarly, Bennars et al. (2014) found that the child's interaction with their friends will definitely influence how they adjust to the learning areas they are enrolled in school as evidence for these findings. Inferred from this is the fact that peers can have a big impact on one another.

#### 4.6.5. Pearson's Correlation of Agriculture Teachers on Peer Pressure on Girls' Choice of Agriculture Subject in Post-primary education

Results of the Pearson's correlation between agriculture instructors and peer pressure on girls' choice of agriculture in Post-primary education are displayed in Table 24.

*Table 24: Pearson's Correlation of Agriculture Teachers on Peer Pressure on Girls' Choice of Agriculture Subject in Post-primary Education*

		Choice of agriculture subject	Peer pressure
Choice of agriculture subject	Pearson Correlation	1	.822**
	Sig. (2-tailed)		.000
	N	90	90
Peer pressure	Pearson Correlation	.822**	1
	Sig. (2-tailed)	.000	
	N	90	90

\*\* . Correlation is significant at the 0.05 level (2-tailed).

Table 24 shows a highly positive correlation ( $r=.822$ ,  $p=.05$ ) between the influence of peer pressure and selection of agriculture topic among girls in post-primary education in Gusii counties. As a result, the teachers opine that the girls' choice of subject-agriculture-depends on the friends they hang out with.

#### 4.6.6. Pearson's Correlation of Agriculture Teachers on Influence of Peer Pressure on Girls' Choice of Agriculture Subject in Post-primary education

Results from a Pearson correlation of agriculture teachers on the influence of peer pressure on girls' choice of agriculture in Post-primary education are shown in Table 25.



*Table 25: Pearson's Correlation of Agriculture Teachers on Influence of Peer Pressure on Girls' Choice of Agriculture Subject in Post-primary Education*

		Choice of agriculture subject
Choice of agriculture subject	Pearson Correlation	1
	Sig. (2-tailed)	
	N	90
Girls' friends pursue agriculture subject	Pearson Correlation	.837**
	Sig. (2-tailed)	.000
	N	90
Girls' friends consider agriculture valuable	Pearson Correlation	.781**
	Sig. (2-tailed)	.000
	N	90
Girls' friends say agriculture is simple and easy to pass	Pearson Correlation	.737**
	Sig. (2-tailed)	.000
	N	90

Table 25, indicates a significant relationship for; girls' friends pursue the agriculture subject, girls' friends consider agriculture valuable, and girls' friends say agriculture is simple and easy to pass ( $p=.000 \leq p=.05$ ). The Pearson correlation (.837) indicated a strong positive correlation that girls' friends pursue agriculture subject contributed to selection of agriculture as a learning area by 83.7%, girls' friends consider agriculture valuable by 78.1% (.781), girls' friends say agriculture is simple and easy to pass 73.7% (.737). The teachers felt 'girls' friends pursue agriculture subject' contributed the most to their choice of agriculture as a learning area; followed by 'girls' friends consider agriculture valuable, and finally 'girls' friends say agriculture is simple and easy to pass.'

Whereas, Ajidagba (2010) observed that peer pressure would positively or negatively influence each other in several ways. In the present study, the girls felt that 'girls' friends pursuing agriculture subject' contributed the most to their selection of agriculture as a learning area.

Lesley (2015) made the point that it might not be best for girls to submit to peer pressure to pursue a certain subject. Based on their shared experiences-past or present-girls may have an influence over one another. For instance, rural students who have studied agricultural production could find the subject boring and urge their colleagues not to specialize in the subject. The study also found that factors like "girls' friends say agriculture is simple and easy to pass" and "girls' friends consider agriculture valuable" affected the decision to pursue agriculture. Hardre, Sullivan and Crowson (2009) claim that these encounters might have an impact on the girls' decision to follow an agricultural career

However, the teachers in this survey believed that "girls' friends pursue agriculture subject" had the greatest impact on the students' decision to study agriculture. According to Broyles, Camp, and Skelton's (2004) research, students' interest in the topic is influenced by how they view agriculture. Teachers believed that the order in which topics were chosen was impacted by the fact that "girls' friends consider agriculture valuable" and "girls' friends say agriculture is simple and easy to pass."

#### **4.7. Influence of Socio-economic Factors on Choice of Agriculture Subject Among Girls in Post-primary education in Gusii Counties.**

In the fourth objective, it was determined if girls and agriculture teachers agreed or disagreed with the statements made on the impact of socioeconomic variables on the decision to study agriculture.

##### **4.7.5. Mean Ratings of Form Three Girls on Influence of Socio-Economic Factors on Girls' Choice of Agriculture Subject in Post-primary Education.**

The girls indicated how much they agreed or disagreed with the assertions made on the impact of socioeconomic circumstances on their decision to study agriculture. As shown in Table 26, the responses were evaluated using means and standard deviations. Table 26 indicates

disagreement for girls on; girl's parents'/guardians' academic level, family income, and parents careers teaching of agriculture subject, influenced choice of agriculture subject (Mn=4.49, 3.98, 3.88; SD .845, 1.341, 1.431). They were neutral on; Parental/ guardian's guidance (Mn=3.40, SD=1.499).

*Table 26: Mean Ratings of Form Three Girls on Influence of Socio-Economic Factors on Girls' Choice of Agriculture Subject in Post-primary Education*

	N	Minimum	Maximum	Mean	Std. Deviation
Girl's parents'/guardian's academic level	350	1	5	4.49	.845
Family income	350	1	5	3.98	1.341
Parental/guardian's guidance	350	1	5	3.40	1.499
Parents career of teaching agriculture subject	350	1	5	3.88	1.431
Valid N (listwise)	350				

These findings are at odds with the study of Kritsada (2012), which found that the family income level has one of the strongest effects on the demand for secondary and tertiary institutions as well as elementary school enrolment rates in developing nations.

#### **4.7.6. Mean Ratings of Agriculture Teachers on Influence of Socio-economic Factors on Girls' Choice of Agriculture Subject in Post-primary Education.**

The claims made regarding the impact of socioeconomic variables on girls' choice of agriculture as a learning area were delivered, and the agricultural teachers indicated their level of agreement or disagreement with the statements. As shown in Table 27, the responses were evaluated using means and standard deviations. The results in Table 27 indicates disagreement for teachers on; girls' parents'/guardians' academic level and family income, influenced the choice of agriculture subject (Mn=3.63, 3.80; SD 1.480, 1.359). They had mixed opinions on girls' parents'/guardians' jobs as teachers of agriculture subject (Mn=2.76, SD=1.582), but they firmly agreed that their

parents' or guardians' advice had an impact on their decision to study agriculture (Mn=1.38; SD=.488). The results support Mohd et al.'s (2010) finding that family members can either directly or indirectly affect a young person's profession decision by offering advice and information.

*Table 27: Mean Ratings of Agriculture Teachers on Influence of Socio-economic Factors on Girls' Choice of Agriculture Subject.*

	N	Minimum	Maximum	Mean	Std. Deviation
Girls' parents'/guardian's academic level	90	1	5	3.63	1.480
Family income	90	1	5	3.80	1.359
Parental/guardian's guidance	90	1	2	1.38	.488
Parents careers teaching of agriculture subject	90	1	5	2.76	1.582
Valid N (listwise)	90				

#### **4.7.7. Pearson's Correlation of Girls and Agriculture Teachers on the Influence of Socio-economic Factors on Girls' Choice of Agriculture Subject in Post-primary Education.**

The study set out to prove H04: Socio-economic factors have no discernible influence on girls in post-primary education in Gusii counties' choice of agriculture curriculum. The analysis was conducted using Pearson's correlation and a .05 significance level. The replies from the teachers and girls resulted in a statistically significant connection with  $p = .000$ . The alternative is supported and the null hypothesis is consequently rejected because ( $p = .000$   $p = .05$ ): socioeconomic factors affect girls' choice of agricultural subject in Post-primary education in Gusii counties. The outcomes were as shown in Table 28.

*Table 28: Pearson’s Correlation of Girls on Socio-economic Factors on Girls’ Choice of Agriculture Subject in Post-primary Education*

		Choice of agriculture subject	Socio-economic status
Choice of agriculture subject	Pearson Correlation	1	.250**
	Sig. (2-tailed)		.000
	N	350	350
Socio-economic status	Pearson Correlation	.250**	1
	Sig. (2-tailed)	.000	
	N	350	350

\*\* . Correlation is significant at the 0.05 level (2-tailed).

According to Table 28, there is a statistically significant correlation between socio-economic characteristics and girls in Post-primary education in Gusii counties choosing to study agriculture ( $p=.000 - p=.05$ ). According to the study, females' decision to pursue agriculture is influenced by their socioeconomic status. In support of these findings, Kritsada (2012) revealed that one of the most significant factors influencing demand for primary, secondary and tertiary institutions' enrolment rates in developing nations, is the amount of family income.

#### **4.7.8. Pearson’s Correlation of Girls on Influence of each Socio-economic factor on Girls’ Choice of Agriculture Subject in Post-primary Education**

Using Pearson's correlation, it was determined how each socioeconomic category affected girls' choice of agriculture in Post-primary education. Table 29, has the results.

*Table 29: Pearson's Correlation of Girls on Influence of Each Socio-Economic Factor on Girls' Choice of Agriculture Subject in Post-primary Education*

		Choice of agriculture subject
Choice of agriculture subject	Pearson Correlation	1
	Sig. (2-tailed)	
	N	350
Girl's parents'/guardian's academic level	Pearson Correlation	.169**
	Sig. (2-tailed)	.002
	N	350
Family income	Pearson Correlation	.212**
	Sig. (2-tailed)	.000
	N	350
Parental/guardian's guidance	Pearson Correlation	.297**
	Sig. (2-tailed)	.000
	N	350
Parents' career of teaching agriculture subject	Pearson Correlation	.217**
	Sig. (2-tailed)	.000
	N	350

\*\* . Correlation is significant at the 0.05 level (2-tailed).

Table 29, indicates that girl's parents' academic level ( $p=.002$ ), family income, parental/guardian's guidance, and parents' careers teaching of agriculture subject ( $p=.000$ ) were significant. The Pearson Correlation (.169) indicates very weak positive correlation that girl's parents'/guardian's academic level contributed to the choice of agriculture as a learning area by 16.9%, family income by 21.2% (.212), parental/guardian's guidance 29.7% (.297), and parents careers teaching of agriculture subject 21.7% (.217).

The girls felt 'parental/guardian's guidance' contributed the most to their choice of agriculture as a subject, followed by 'parents careers teaching of agriculture subject, family income and finally parents'/guardian's academic level of the girl. The study backs up Gichohi's (2005) claim that parents/guardians played an important role in preparing the child for school and that they had a greater impact on the child's progress and future socialization choices.

#### 4.7.9. Pearson's Correlation of Agriculture Teachers on Socio-economic Factors on Girls' Choice of Agriculture Subject in Post-primary Education

Using Pearson's correlation, the impact of socioeconomic determinants on girls' choice of agricultural subject in post-primary education as reported by agriculture teachers was examined, with the results indicated in Table 30.

*Table 30: Pearson's Correlation of Agriculture Teachers on Socio-Economic Factors on Girls' Choice of Agriculture Subject in Post-primary Education*

		Choice of agriculture subject	Socio-economic status
Choice of agriculture subject	Pearson Correlation	1	.605**
	Sig. (2-tailed)		.000
	N	90	90
Socio-economic status	Pearson Correlation	.605**	1
	Sig. (2-tailed)	.000	
	N	90	90

\*\* . Correlation is significant at the 0.05 level (2-tailed).

The findings in Table 30 show a statistically significant link ( $r=.605$ ,  $p=.05$ ) between socioeconomic characteristics and the decision to pursue agriculture among form three females attending Post-primary education in Gusii counties. According to the tutors, the girls' decision to study agriculture depends on how well-off their family is. These results concur with those from Camp et al. (2014), who revealed that learners from rural settings believe agriculture to be dirty because they associate it with a bygone way of life, while girls from urban settings know less about it because most of them aspire to white collar careers rather than blue collar ones and do not choose agriculture.

**4.7.10. Pearson’s Correlation of Agriculture Teachers on Influence of each Socio-economic factor on Girls’ choice of Agriculture Subject in Post-primary education.**

Using Pearson's correlation, the impact of each socioeconomic element on girls' choice of agricultural subject in Post-primary education as reported by agriculture teachers was examined and results indicated in Table 31.

*Table 31: Pearson’s Correlation of Agriculture Teachers on Influence of Each Socio-Economic Factor on Girls’ Choice of Agriculture Subject in Post-primary Education*

		Choice of agriculture subject
Choice of agriculture subject	Pearson Correlation	1
	Sig. (2-tailed)	
	N	90
Girl's parents'/guardian's academic level	Pearson Correlation	.448**
	Sig. (2-tailed)	.000
	N	90
Family income	Pearson Correlation	.428**
	Sig. (2-tailed)	.000
	N	90
Parental/guardian's guidance	Pearson Correlation	.619**
	Sig. (2-tailed)	.000
	N	90
Parents careers teaching of agriculture subject	Pearson Correlation	.689**
	Sig. (2-tailed)	.000
	N	90

\*\* . Correlation is significant at the 0.05 level (2-tailed).

Table 31, indicates that girls' parents'/guardian's academic level, family income, parental/guardian's guidance, and parents' careers teaching of agriculture subject (p=.000) were significant. The Pearson’s correlation (.448) indicates moderate positive correlation that girl's parents'/guardian's academic level contributed to the choice of agriculture as a learning area by 44.8%, family income by 42.8% (.428), parental/guardian's guidance strong correlation of 61.9% (.619), and parents careers teaching of agriculture subject 68.9% (.689).

The teachers felt 'parents career of teaching agriculture subject' contributed the most to their choice of agriculture, followed by 'parental/guardian's guidance, girl's parents'/guardian's



academic level and finally 'family income.' Okeke (2000), revealed that parents' behaviour play a critical role in girls' choice of technical learning areas. The girls felt 'parental/guardian's guidance' contributed the most to their choice of agriculture as a learning area, followed by 'parents careers teaching of agriculture subject, family income and finally 'girl's parents'/guardian's academic level. According to Merlin & Dack (2019), some parents raise their children with a certain set of guiding ideologies in mind, which might steer and influence students' subject choices in order to live up to their expectations. Family members can advise and guide a young person about their job options, either directly or indirectly, according to Mohd et al. (2010). Girls' professional options and strong belief in the greatest vocations are influenced by the career choices of their family members. Chee and Leong-Yong (2011) claim that most parents discourage their kids from choosing agriculture because they think it won't help them advance in other careers or have a better future. However, the instructors in this study believed that "parents' careers teaching of agriculture subject" had the most influence on the girls' decision to pursue agriculture, followed by "parental/guardian's guidance, ""girl's parents'/guardian's academic level," and "family income". Kariuki (2006), who concurs with the study, claims that females make subject decisions based on their parents' pressure to pursue particular vocations. Furthermore, it was said by Malgwi et al. (2005) that parents are likely to have an impact on subject choices made by girls. Parents anticipate that their children will select courses that will help them succeed, according to Tenenbaum & Callanan (2008).

## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 4.1. Introduction

The chapter provides a summary, recommendations and findings founded on this study's general objective, which was to assess the influence of selected factors influencing the girl child in choosing of agriculture subject in post-primary education in Gusii counties, Kenya.

#### 4.2. Summary

Girls should take agriculture related courses in post-primary institutions because they end up as the bulk of subsistence farmers in many emerging nations. Other than their regular cooking, cleaning and other household duties, women contribute significantly to agricultural and rural economies in many countries. In order to address issues of hunger and nutritional inadequacy and improve the quality and quantity of food and other agricultural products for the escalating human population, girls in post-primary education need quality agricultural training. However, less girls choosing to study agriculture in post-primary education which is a worrying trend. Compared to the males, a select handful eventually make headway with it as a career or occupation.

Specifically, the study investigated the influence of school factors (previous KCSE agriculture mean, agriculture land, agriculture teachers' experience, availability and use of learning materials, availability of enough agriculture teachers), category of Post-primary institution (sub-county, county, extra county and national), peer pressure and socio-economic factors (level of education of girls' parents/guardians, Family income, guidance from girls' parents/guardians, girls' parents/guardians career of teaching agriculture) and their influence on choice of agriculture subject among girls in Gusii counties.

A summary of agricultural studies in post-primary institutions and findings from earlier studies on the variables influencing girls' choice of agriculture subject in post-primary education were presented in the study's analysis of related literature. The study employed descriptive survey research approach to attain these goals. The survey comprised 47 schools, or 10% of the 470 pure girls' and mixed post-primary institutions in the Gusii counties. The study's sample size included 368 form three agriculture girls from Gusii counties and 109 agriculture teachers. To determine the sample size of form three girls enrolled in agriculture and agriculture teachers, simple random sampling approaches were used with purposeful sampling. A standardized questionnaire was used to gather information from agriculture teachers and form three females enrolled in agricultural classes. The data was analyzed using the SPSS version 21, and the outcomes were presented using means, frequencies, standard deviations, and graphs.

The study established that 60% of form three girls choosing agriculture were between the ages of 16 and 17, indicating that they were mature enough to choose their own subjects. Form three females who chose to major in agriculture came from sub-county schools in 43.14% of cases, county schools in 29.14% of cases, extra county schools in 19.43% of cases and national schools in 8.29% of cases. All agriculture teachers had trained and qualified to teach agriculture because all had a minimum requirement of a diploma where 23.33% of the agriculture teachers had a diploma, 58.89% a bachelor's degree, 14.44% a master's degree while 3.33% had a Ph.D. as their highest academic qualification. According to teachers' experience, 41.11% of teachers had more than 8 years, 27.78% had between 5 and 7, 20% had between 2 and 4, and 11.11% had less than a year. According to the report, male agriculture instructors were the majority at 66% while females were 34%.

This study found that girls' choices of agriculture as a post-primary subject were influenced by school conditions, the category of post-primary education they received, peer pressure, and socioeconomic variables. The study also discovered that factors such as previous KCSE agriculture mean, access to agricultural land, the experience of agriculture teachers, the adequacy

of teaching/learning materials, the sufficiency of agriculture teachers, parents' or guardians' level of education, the family's income and the advice of the parents or guardians of the girls all affect the enrolment of girls in agriculture in post-primary education.

The study concluded that school factors, category of post-primary institution, peer pressure and socio-economic factors influenced girls' choice of agriculture subject in post-primary education. Availability of enough agriculture teachers contributed most to the selection of agriculture subject by girls. County schools had the most effect on girls' choice of agriculture, "girls' friends pursue agriculture" contributed the most to the choice of agriculture and parental/guardians' career guidance contributed most to the girls' choice of agriculture. Based on the findings and conclusions the study recommended that MOE through Teachers Service Commission should employ enough agriculture teachers, school administration to provide enough land for agricultural activities, agriculture subject should be made compulsory for all girls in all categories of schools and girls' parents need to make a follow up in order to establish whether their girls select subjects they had been aspiring to pursue. Further research should be undertaken on factors influencing the choice of agriculture related careers in higher institutions of learning in Gusii counties, Kenya.

#### **4.2.1. Influence of School Factors on Girls' Choice of Agriculture Subject**

The girls felt availability of enough teachers contributed the most to their choice of agriculture as a learning area; followed by enough land for agricultural activities, previous KCSE agriculture mean, friendly and motivating teachers, and lastly adequate facilities to undertake agriculture subject. The teachers felt availability of enough teachers contributed the most to their choice of agriculture as a learning area, followed by enough land for agricultural activities, previous KCSE agriculture mean, friendly and motivating teachers, and lastly, adequate facilities to undertake agriculture subject.

#### **4.2.2. Influence of Category of Post-primary institution on Girls' Choice of Agriculture Subject**

The girls indicated that county schools, followed by sub-county, extra-county and lastly national schools, offered the most effective selection of agriculture as an examinable subject. Following extra-county, county and sub-county schools as the most successful options for teaching agriculture, according to the teachers, were national schools.

#### **4.2.3. Peer Pressure's Influence on Girls' Choice of Agriculture Subject**

The girls felt 'girls' friends pursue agriculture subject' contributed the most to their choice of agriculture as a learning area; followed by 'girls' friends say agriculture is simple and easy to pass', and finally 'girls' friends consider agriculture valuable'. The teachers felt 'girls' friends pursue agriculture subject' contributed the most to their choice of agriculture as a learning area; followed by 'girls' friends consider agriculture valuable', and finally 'girls' friends say agriculture is simple and easy to pass.'

#### **4.2.4. Impact of Socio-economic Factors on Girls' Choice of Agriculture Subject**

The girls felt 'parental/guardian's guidance' contributed the most to their choice of agriculture as a learning area, followed by 'parents careers teaching of agriculture subject', family income and finally 'girl's parents'/guardians' academic level.' The teachers felt 'parents careers teaching of agriculture subject' contributed the most to their choice of agriculture, followed by 'parental/guardian's guidance, girl's parents'/guardian's academic level and finally 'family income.'

### **4.3. Conclusions**

#### **4.3.1. Influence of School Factors on Girls' Choice of Agriculture Subject**

The availability of enough teachers contributed the most to girls' choice of agriculture as a learning area followed by enough land for agricultural activities, previous KCSE agriculture

mean, friendly and motivating teachers and lastly adequate facilities to undertake agriculture subjects.

#### **4.3.2. Influence of Category of Post-primary institution on Girls' Choice of Agriculture Subject**

County schools had the most effect on the girls' choice of agriculture, followed by sub-county, extra-county, and finally national schools.

#### **4.3.3. Peer Pressure's Influence on Girls' Choice of Agriculture Subject**

The girls' decision to study agriculture was largely influenced by their friends who also chose this field. Additionally, 'girls' friends say agriculture is simple and easy to pass' and 'girls' friends consider agriculture valuable' were factors in the girls' decision to study agriculture.

#### **4.3.4. Influence of Socio-economic Factors on Girls' Choice of Agriculture Subject**

'Parental/guardian's guidance' contributed the most to the girls' choice of agriculture as a learning area. In addition, the parents' jobs as agricultural teachers, the family's income and ultimately the academic standing of the girls' parents or guardians all influenced the girls' decision to study agriculture.

### **4.4. Recommendations**

The study recommended the following things:

1. All Kenyan post-primary education should have a sufficient number of agriculture teachers, thanks to the Teachers Service Commission.
2. The government should offer enough teaching/learning resources in all categories of secondary schools in order to allow a practical teaching approach to agriculture, which will in turn encourage girls to select agriculture as a learning area.
3. Ministry of Education to discontinue categorization of public secondary schools to enhance equity and inclusion through infrastructural and resource development in all schools.

4. Career masters/mistresses should ensure that females receive proper guidance regarding their career choices in order to provide them with the necessary knowledge for their secondary school subject choices, particularly agriculture, and prevent them from making decisions based solely on the opinions of their friends.
5. Teachers and education officials should educate the parents and guardians on the importance of encouraging secondary school girls to choose agriculture as a learning area during subject selection.

#### **4.5. Recommendations for further research**

In Kenya's Kisii and Nyamira counties, further study is required on the factors influencing students' decisions to pursue jobs in agriculture sector.

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## APPENDICES

### APPENDIX 1: QUESTIONNAIRE FOR FORM THREE AGRICULTURE GIRLS

Please respond to each question by checking the corresponding box [√].

#### PART A: General Information

1. How old are you ?.....years
2. What kind of institution did you attend?
3. The National  Extra-county  County  Sub-county
4. What is your parent's educational background?
5. University  Tertiary  Secondary  Primary  None
6. Are your parents employed? Yes  No
7. If so, where are they working?
8. As teachers of agriculture  Agricultural extension officer  Farmer   
Business man  police officer  any other specify.....
9. a) Is agriculture offered in your institution? Yes  No
- b) If so, what criteria are used to select the subject?
  - i) Girls are left free to choose
  - ii) Teachers guide the girls
  - iii) Using the previous grades

#### PART B: Influence of school on Choice of Agriculture

9. Do you agree that school factors influence your choice of subject?  
Yes  No

What is your degree of agreement or disagreement with the following assertions regarding the impact of previous agricultural performance on girls' decision to study agriculture in KCSE exams (1-"Strongly Agree," 2- "Agree," 3-"Neutral," 4-"Disagree," and 5 for "Strongly Disagree.").Tick (√) the statement next to your correct opinion

	Statement	1	2	3	4	5
A	Previous agriculture mean is encouraging					
B	There is enough land for agricultural activities					
C	Agriculture teachers are friendly and motivating					
D	There are adequate facilities to undertake agriculture subject					
E	There are enough teachers to handle the subject					

**PART C: Influence of Category of Post-primary institution on Girls' Choice of Agriculture Subject**

Do you agree that the category of post-primary institution influence your choice of agriculture as a subject? Yes

What is your degree of agreement or disagreement with the following assertions regarding how girls' choice of agriculture subject is influenced by kind of post-primary institution (1-"Strongly Agree," 2- "Agree," 3-"Neutral," 4-"Disagree," and 5 for "Strongly Disagree.").Tick (√) the statement next to your correct opinion.

	School category	1	2	3	4	5
A	Sub-county					
B	County					
C	Extra county					
D	National					

**PART D: Peer Pressure's Influence on Girls' Choice of Agriculture Subject in Post-primary Education**

Do you agree peer pressure influence your choice of agriculture as a subject? Yes  No

What is your degree of agreement or disagreement with the following assertions in relation to peer pressure's influence on girls' choice of agriculture subject in post-primary education (1-"Strongly Agree," 2- "Agree," 3-"Neutral," 4-"Disagree," and 5 for "Strongly Disagree.").Tick (√) the statement next to your correct opinion

	Statement	1	2	3	4	5
A	My friends pursue agriculture subject					
B	My friends consider agriculture valuable					
C	My friends say agriculture is simple and easy to pass					

**PART E: Influence of Socio-economic Factors on Girls' Choice of Agriculture Subject in Post-primary education**

Do you agree that social economic factor influence your choice of agriculture as a subject?

Yes  No

Check (√) the box next to the statement that best represents your perspective.

14. Where do you reside? Urban area  Rural area

15. Because I live in an urban or rural region, I have chosen to study agriculture.

Strongly agree	Agree	Neutral	Disagree	Strongly disagree
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

16. Your decision to study agriculture was significantly affected by the following variables

	Statement	1	2	3	4	5
A	Guardian's/Parents' academic level	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B	Income status of family	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C	Guardian's/parents' guidance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D	Careers teaching of agriculture subject for parents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## APPENDIX 2: TEACHERS OF AGRICULTURE's QUESTIONNAIRE

### PART A: General information

Tick (✓) the statement next to your correct opinion

1. Gender?                      Male                          Female                     

2. Age in years .....

3. What is your most advanced training for teaching agriculture?

Degree [ ]    Diploma [ ]    Certificate    [ ] Others, specify.....

4. What is your teaching experience?

Below 1 year                      [ ]    2 - 4 years                      [ ]    5 - 7 years                      [ ]    > 8 years                      [ ]

5. What technical courses does your institution offer?

Agriculture [ ] Home science [ ] Electricity [ ] Woodwork [ ] Business [ ]

6. If none, in (5) above why ?

i) Insufficient classrooms                      [ ]

ii) Lack of teacher to handle them                      [ ]

iii) No essential facilities like labs and workshops [ ]

iv) Lack of practical tools and equipments as well as materials [ ]

(v) Technical generally done poorly by students                      [ ]

7. a) is there any condition set aside for a student choosing agriculture? Yes [ ] No [ ]

b) If Yes, What are the conditions?

Base on prior agriculture performance [ ]

Students' career aspirations [ ]

Teacher's decision [ ]

Availability and teaching resources [ ]

Availability of trained teachers [ ]

8. Before making their academic choices, are girls guided? Yes [ ]                      No [ ]

9. Does the girls' subject choice depend on their prior success? Yes [ ]                      No [ ]

10. How many girls in grades Four and three picked agriculture

Form 4      Girls     

Form 3      Girls     

**PART B: Schools' influence on Students Choice of the Subject**

10. Do you believe that your choice of agriculture as a topic is influenced by school factors

Yes  No

11. Which of the following assertions on schools' influence on choice of agriculture? Do you agree or disagree? (1-"Strongly Agree," 2- "Agree," 3-"Neutral," 4-"Disagree," and 5 for "Strongly Disagree.")

	Statement	1	2	3	4	5
A	Previous KCSE agriculture mean is encouraging					
B	There is enough land for agricultural activities					
C	Agriculture teachers are friendly and motivating					
D	There are adequate facilities to undertake agriculture subject					
E	There are enough trained agriculture teachers to handle the subject					

**PART C: Influence of Category of Post-primary institution on Girls' Choice of Agriculture Subject**

Do you agree that the category of Post-primary institution influence your choice of agriculture as a subject? Yes  No

12. What is your degree of agreement or disagreement with the following assertions regarding how girls' choice of agriculture subject is influenced by kind of post-primary institution (1-"Strongly Agree," 2- "Agree," 3-"Neutral," 4-"Disagree," and 5 for "Strongly Disagree."). Tick (√) the statement next to your correct opinion.

	School category	1	2	3	4	5
A	Sub-county					
B	County					
C	Extra county					
D	National					

**PART D: Peer Pressure's Influence on Girls' Choice of Agriculture Subject in Post-primary Education**

Do you agree that peer pressure influence your choice of agriculture as a subject? Yes   
 No

13. Indicate your correct opinion about the statements below regarding the impact of peer pressure on girls' post-primary education choices of agriculture subjects (1-"Strongly Agree," 2-"Agree," 3-"Neutral," 4-"Disagree," and 5 for "Strongly Disagree."). Tick ( ) the statement next to your correct opinion.

	Statement	1	2	3	4	5
a	Girls' friends pursue agriculture subject					
b	Girls' friends consider agriculture valuable					
c	Girls' friends say agriculture is simple and easy to pass					

**PART E: Influence of Socio-economic Factors on Girls' Choice of Agriculture Subject in Post-primary education**

Tick (√) the statement next to your correct opinion

14. The girls' residence is? Urban area  Rural area

15. Because my house is in an urban or rural location, girls opt to major in agriculture.

Strongly agree	Agree	Neutral	Disagree	Strongly disagree

16. The following elements significantly influenced girls' decision to study agriculture:

	Statement	1	2	3	4	5
a	Academic standing of the student's guardians or Parents					
b	Income status of the family					
c	Parental or guardian direction					
d	Parents' careers as agriculture teachers					

I appreciate for your assistance.



## APPENDIX 3: RESEARCH PERMITS



### NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone: +254-20-2213471,  
2241349, 3310571, 2219420  
Fax: +254-20-318245, 318249  
Email: dg@nacosti.go.ke  
Website: www.nacosti.go.ke  
When replying please quote

NACOSTI, Upper Kabete  
Off Waiyaki Way  
P.O. Box 30623-00100  
NAIROBI-KENYA

Ref. No. **NACOSTI/P/19/39880/29611**

Date: **30<sup>th</sup> April, 2019**

Joash Omwenga Mayenga  
Kisii University  
P.O. Box 408-40200  
**KISII.**

#### **RE: RESEARCH AUTHORIZATION**

Following your application for authority to carry out research on ***“Factors influencing secondary school girls’ choice of agriculture subject: A case of Kisii and Nyamira Counties, Kenya”*** I am pleased to inform you that you have been authorized to undertake research in **Kisii and Nyamira Counties** for the period ending **30<sup>th</sup> April, 2020**.

You are advised to report to **the County Commissioners and the County Directors of Education, Kisii and Nyamira Counties** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit a **copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

  
**GODFREY P. KALERWA MSc., MBA, MKIM**  
**FOR: DIRECTOR-GENERAL/CEO**

Copy to:

The County Commissioner  
Kisii County.

The County Director of Education  
Kisii County.



**THIS IS TO CERTIFY THAT:**

**MR. JOASH OMWENGA MAYENGA**

**of KISII UNIVERSITY, 0-40202**

**KEROKA, has been permitted to conduct research in Kisii , Nyamira Counties**

**on the topic: FACTORS INFLUENCING SECONDARY SCHOOL GIRLS' CHOICE OF AGRICULTURE SUBJECT: A CASE OF KISII AND NYAMIRA COUNTIES, KENYA**

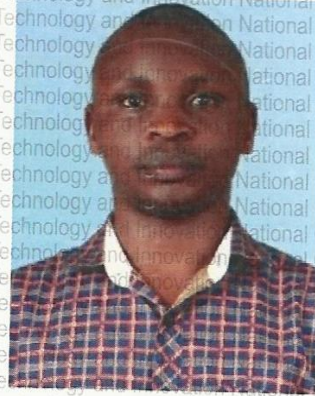
**for the period ending: 30th April,2020**

  
Applicant's Signature

**Permit No : NACOSTI/P/19/39880/29611**

**Date Of Issue : 30th April,2019**

**Fee Received :Ksh 1000**



  
Director General  
**National Commission for Science, Technology & Innovation**

## APPENDIX 4: PLAGIARISM REPORT

### SELECTED FACTORS INFLUENCING THE GIRL CHILD IN CHOOSING OF AGRICULTURE SUBJECT IN POST-PRIMARY EDUCATION IN GUSII COUNTIES, KENYA

#### ORIGINALITY REPORT

<b>20%</b>	<b>18%</b>	<b>8%</b>	<b>11%</b>
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

#### PRIMARY SOURCES

<b>1</b>	<b>ir-library.egerton.ac.ke</b> Internet Source	<b>3%</b>
<b>2</b>	<b>Submitted to Southeast Community College</b> Student Paper	<b>2%</b>
<b>3</b>	<b>Submitted to Institute of Graduate Studies, UiTM</b> Student Paper	<b>2%</b>
<b>4</b>	<b>erepository.uonbi.ac.ke</b> Internet Source	<b>1%</b>
<b>5</b>	<b>ir-library.ku.ac.ke</b> Internet Source	<b>1%</b>
<b>6</b>	<b>Submitted to Fakultas Ekonomi Universitas Indonesia</b> Student Paper	<b>1%</b>