

## **Original Research Article**

### **Climate-Friendly Farming Self-Efficacy and Its Correlates among Young Farmers in Uyo, Akwa Ibom State, Nigeria.**

#### **ABSTRACT**

The Paper assessed self-efficacy of young farmers towards climate-friendly farming. It specifically examined the influence that attitude towards climate-friendly farming, knowledge of climate change and ownership of household farms could have on the climate-friendly farming self-efficacy of the respondents. Correlation analysis, chi-square, percentages and composite index technique were applied to a set of primary data collected from 200 randomly sampled agricultural science students in 4 randomly selected schools in Uyo, AKS. Findings revealed that 52% of the respondents have high climate-friendly farming self-efficacy. The respondents had positive attitudinal disposition towards climate-friendly farming. Most (48.5%) of the respondents had low knowledge of climate change. There is the need for stakeholders to translate the high climate-friendly farming self-efficacy observed among the respondents into climate smart farming through conscious effort at increasing their participation in practical farming activities both in school and home farms. There is a need to include climate change issues in secondary school curriculum so as to raise the knowledge level of the agricultural students on climate change. Students, upon the acquisition of this knowledge and skills would help in the extension of innovative and efficient farming methods to their households and communities thereby complimenting government efforts in the extension of modern and acceptable practices in farming.

**Keywords:** Climate-Friendly Farming, Self-Efficacy, Attitude, Knowledge, Young Farmers

#### **1. INTRODUCTION**

Climate-change and agriculture are interrelated processes both of which take place on a global scale. Global warming is projected to have impact on conditions affecting agriculture including temperature precipitation and glacial run-off. These conditions determine the carrying capacity of the biosphere to produce enough food for human population and domesticated animal. Small-scale farmers are among the first to feel the impacts of climate change because of their greater dependence on the natural environment. Extreme climate variability (drought, floods and frost) can destroy the economies and welfare of poor rural families because they lack technologies, social protection mechanisms (such as benefits, insurance and savings) and adequate protection for their crops and animals [1;2]

Few large farms and numerous household and other small farms including teaching and learning farms in schools and colleges characterize agriculture in Nigeria. Young farmers in secondary schools and colleges, always make effort, with guidance from their instructors/teachers, to demonstrate their ability to apply what was learnt in the class at the field in what is referred to as practical agriculture in most school and colleges. Prominent cropping systems adopted by the farmers include mixed cropping and intercropping. This is in addition to the sole cropping and mixed farming sparingly

44 practiced [3]. Secondary school students embark on various cultural practices that lead to the  
45 production of various crops and in few cases livestock.

46 Agricultural production must increase if the global food supply is to keep pace with population growth.  
47 Yet at the same time, it is clear that if the world is to meet its targets for reducing greenhouse gas  
48 emission and mitigating climate change, agriculture must become “climate friendly/smart”. Agricultural  
49 production system managed in a climate-friendly way, emit lower greenhouse gases, create  
50 significant carbon sinks, and at the same time become more productive and more resilient in the face  
51 of climate change [4]. The adaptive capacity of a family is also of importance. The current livelihood of  
52 a family may be highly exposed to climate change, but if they have the capacity to adapt, their overall  
53 vulnerability may not be high [5]. If a family accustomed to growing maize, has experience in  
54 producing sorghum in dry years, they may be better prepared to make a more permanent change if  
55 conditions become drier. Again, the capacity to adapt varies considerably between families even  
56 within the same community. The most important characteristics for the capacity to adapt are human  
57 knowledge and access to social institutions where this knowledge can be shared [5].

58 For Africa and Nigeria in particular, there is the looming threat of food insecurity [6; 7]. Arable lands  
59 are dwindling, climate change is taking a toll on agricultural practices, the farming population is aging  
60 and going extinct, famine is ravaging the Horn of Africa [8]. This should be of urgent concern to all  
61 stakeholders and getting young person’s to invest in or practice agriculture is a way of translating the  
62 threats to opportunities. Ultimately, it is the world farmers, Agricultural Students inclusive, who have  
63 the largest role to play in making agriculture both climate-friendly and more productive. Agricultural  
64 science students are relatively young; this category of people ought to be active, inquisitive and willing  
65 to learn to add to their knowledge [9]. Both the female and male students should be better informed  
66 about climatic changes and how it affects agriculture since they have been learning about it. They  
67 should always be willing and ready to personally seek for information on climate change which will  
68 give them good level of familiarity with climate change issues. These students upon the acquisition of  
69 this knowledge and skills would help in the extension of innovative, climate-change-adaptation  
70 strategies and efficient farming methods to their households and communities thereby complimenting  
71 government’s effort in the extension of modern and acceptable practices in farming.

72 Therefore, it is important to understanding what affects students’ willingness to engage in climate-  
73 friendly farming. According to [10], people’s judgment of their capabilities to organise and execute  
74 courses of action required to attain designated types of performances strongly influences the choices  
75 people make, the effort they expend, and how long they persevere in the face of challenges.

76 People’s judgement of their capabilities to organise and execute courses of action required to attain  
77 designated types of performance is what is referred to in the literature as self-efficacy. Self-efficacy is  
78 therefore based on self-perceptions regarding particular behaviours. It can be defined as the belief a  
79 person has about his ability to perform a particular task or behaviour [11]. It can also be referred to an  
80 individual's confidence in their ability to complete a task or achieve a goal [12]. Self-efficacy is  
81 therefore domain or task specific. Self-efficacy is an important psychological construct which requires

82 attention in research as it influences (i) the choice of activities that an individual takes part in; (ii) the  
83 amount of effort they will expend in performing a task and (iii) how long they will persevere in the face  
84 of stressful situations in completing that task [11].

85 [13] explains that self-efficacy determine how people think, feel, motivate themselves and even how  
86 they behave. He further explains that people with a strong sense of self efficacy view challenging  
87 problems as tasks to be mastered, develop deeper interest in the activities in which they participate,  
88 form a stronger sense of commitment to their interest and activities, and recover quickly from  
89 setbacks and disappointments. People with a weak sense of self efficacy avoid challenging tasks,  
90 believe that difficult tasks and situations are beyond their capabilities, focus on personal failures and  
91 negative outcomes and quickly lose confidence in personal abilities. [14] submits that high self-  
92 efficacy can enhance motivation. He further submits that people with high self-efficacy set themselves  
93 higher goals, invest more efforts, show more resilience and persist longer than those with low self-  
94 efficacy. Research on self-efficacy theory has powerful effects which are embedded in social cognitive  
95 theory, positing that confidence in completing behaviours of interest will lead to achievement of those  
96 behaviours [10]. It is believed that self-efficacy will influence climate-friendly agricultural practices  
97 among the students in the study area.

98 Another factor that is viewed by the researchers to be capable of influencing students' climate-friendly  
99 farming is their attitude. Attitude as a psychological concept is relative. It could be viewed as the way  
100 one reacts towards an object or situation. It could be favorable or unfavorable. [15] asserts hat  
101 attitude is a desire or tendency to approach or avoid something” He stated further that attitude of an  
102 individual can be either positive or negative. When it is positive, the individual approaches the object.  
103 When otherwise, the object is avoided.

104 Literatures and opinions of climate scientists suggest that there is much uncertainty as changes in  
105 climatic condition unfolds. Though positive and negative scenarios are being speculated, many  
106 concerns are paid towards more risk for the farmer with respect to productions. Agricultural students  
107 in Akwa Ibom State may not understand the driving force of climate change but it is certain that the  
108 direction of climate change will definitely alter the cropping and soil management system and cause  
109 many diversification strategies in order to mitigate and adapt to unfolding condition. Definitely, income  
110 and other livelihood activities are at risk as majority are already living below the World Bank poverty  
111 line of two (2) dollars per day.

112 There is doubt whether young farmers in schools and colleges are prepared for or know what  
113 constitutes environmental and climate changes and what could be the best responses to these  
114 changes to guarantee environmental and climatic friendly agriculture. Are the students' attitude and  
115 self-efficacy favorably disposed towards climate-friendly farming practices, especially in their various  
116 homes? This present study was carried out to fill in the gap by focusing on the influence of students'  
117 knowledge of climate change, students' attitude towards climate-friendly farming on the students' self-  
118 efficacy towards climate-friendly farming in Uyo Local Government Area of Akwa Ibom State.

119 Specifically, the study identified the demographic characteristics of the respondents, examined  
120 students' knowledge of climate change, assessed students' attitude towards climate-friendly farming,  
121 assessed students' self-efficacy towards climate-friendly farming and examined the influence of  
122 gender, age, knowledge of climate change and attitude towards climate-friendly farming on students'  
123 self-efficacy towards climate-friendly farming.

## 124 **2. METHODOLOGY**

125 The study was conducted in the educational zones of Uyo Local Government Area of Akwa Ibom  
126 State. Uyo Local Government lies between latitude 5.05 North and longitude 80 East. This is within  
127 the equatorial rain forest belt, which is a tropical zone that house vegetation of green foliage of trees  
128 shrubs and oil palm trees. The area is endowed with abundant mineral and forest resources, among  
129 which are gravel, silica, sand, clay, and timber. Agricultural produce include cassava, yam, vegetables  
130 and plantain. The people of Uyo Local Government Area are predominantly farmers and traders.  
131 Their area of trade is mostly on food items like palm oil and other palm produce, vegetables, plantain,  
132 banana, yam, cassava, live stocks e.g poultry, goat, sheep, cow etc.

133 The study was targeted at all the Senior Secondary School 2 (SS2) Agriculture science students in  
134 Uyo Local Government Area of Akwa Ibom State. This study adopted a multi-stage sampling  
135 technique in the selection of the respondents. There are four clans in Uyo Local Government Area Vis  
136 Ikono Clan, Etoi Clan, Oku Clan and Offot Clan and there are fifteen (15) Public secondary schools  
137 spread across the four clans. Secondary schools in Uyo L.G.A were clustered into the four clans. One  
138 (1) secondary school was randomly selected from each of the four (4) clans, thereafter, simple  
139 random sampling was used to select 50 students from each of the schools. A total of 4 schools and  
140 200 students who offer agricultural science as a subject were selected respectively. The unit of  
141 measurement for the study was the student.

142 A well designed questionnaire, developed by the researchers, was used for data collection. Kuder  
143 Richardson 20 (KR20) and Cronbach alpha formulae were used to establish the reliability and the  
144 internal consistency of sections B, C 1&2 of the questionnaire and coefficients of 0.60, 0.58 & 0.71  
145 were found respectively suggesting that the scales were quite reliable. Section B was a knowledge  
146 test designed to measure the knowledge (awareness) level of the respondents on climate change.  
147 The section contained climate change items with response format given as "Yes, No, and Don't  
148 know". Section C measured the climate-friendly attitude and self-efficacy of the respondents. It had  
149 two (2) sub-sections. Sub-section 1 measured the attitude of the respondents towards climate-friendly  
150 farming practices and had items with response format ranging from strongly agree to strongly  
151 disagree while Sub-section 2 measured the self-efficacy of the respondents towards climate-friendly  
152 farming. It had items with response format ranging from absolutely confident to not at all confident.  
153 Correlation analysis, simple percentages and frequency analysis, chi-square as well as composite  
154 index technique were deployed to analyze the data collected.

155

### 156 3. RESULTS AND DISCUSSION

#### 157 3.1 Demographic Characteristics of the Respondents

158 With regards to table 1, item 1, the researcher had more access to female respondents than males.  
 159 Hundred and nine (54.5%) females and 91(45.5%) male students were sampled for the study. Item 2  
 160 on table 1 reveals that majority (88.5%) of the respondents were between 13 to 16 years of age while  
 161 11.5% aged between 17-20 years. Majority (77.5%) made a range of between 1 – 5 persons  
 162 household, 20.5% had 6 – 10 persons household, while 2.0% of the respondents had household size  
 163 of 16 persons and above. Thus majority of the students have a household size of 1 – 5 people with its  
 164 attendance consequence on welfare. Similarly, majority (87.5%) of the respondents affirmed that  
 165 farms are available in their houses (families) while 12.5% affirmed unavailability and 80% affirmed  
 166 their involvements in household farming.

167

168 **Table 1: Frequency counts and Percentages of the Demographic Characteristics**  
 169 **of the Respondents.**

Item	Variables	Frequency	Percentages (%)
1	<b>Gender</b>		
	Male	91	45.5
	Female	109	54.5
2	<b>Age</b>		
	13 – 16	177	88.5
	17 – 20	23	11.5
3	<b>Family Size</b>		
	1 – 5	155	77.5
	6 – 10	41	20.5
	16 and above	4	2.0
4	<b>Availability of Household Farms</b>		
	Yes	175	87.5
	No	25	12.5
5	<b>Involvement in Household Farming</b>		
	Yes	160	80.0
	No	40	20.0

170 **Source:** Field survey, 2018

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#### 172 3.2 Respondents Level of Knowledge on Climate Change

173 Table 2 indicates that 48.5% of the respondents have low knowledge of climate change issues, 42.0%  
 174 have average knowledge while only 9.5% of the respondents have high knowledge of climate change.  
 175 Climate change awareness involves creating knowledge, understanding and values, attitude, skills  
 176 and abilities among individuals and social groups towards the issues of climate change for attaining a  
 177 better quality environment. Climate change specialists have repeatedly pointed out that a solution to  
 178 climate change problem will require climate change awareness and its proper understanding. The  
 179 research found that a good number of the sampled students still have low knowledge of climate

180 change. Most of the sampled students did not know the difference between climate and weather; they  
 181 did not know the atmospheric layer of gas; they did not know what greenhouse gases are, how the  
 182 gases act in the atmosphere and the effects of these gases on agricultural production. The students  
 183 did not know that deforestation, bush burning, continuous tillage, animal rearing, rice cultivation,  
 184 desertification, fertilizer use and fuel intensive farming can cause climate change. Hence, to develop  
 185 farming strategies that adapt to climate change might be difficult.

186 However, the study also found that a sizeable number of the sampled students are averagely  
 187 knowledgeable about climate change issues, but much effort need to be exerted by the research  
 188 institutions and government agencies in encouraging the inclusion of climate-change issues in the  
 189 Secondary school curriculum so as to raise the knowledge level of the student-farmers for mitigation  
 190 and adaptation. This of course will have implication on the level of knowledge and adaptation of the  
 191 farmers who benefit directly from the information.

192 The findings of this study tends to corroborate the findings of [16] who discussed how school age  
 193 children were confused about climate change and ozone layer depletion. Result also agrees with the  
 194 findings of [17] who emphasized how Swedish students in grades 9 and 12 ( $15 \pm 16$  and  $18 \pm 19$   
 195 years old respectively) explain the greenhouse effect and how they think the reduction of CO<sub>2</sub>  
 196 emissions would affect the society. The study strongly supports the work of [18] who examined similar  
 197 ideas among students of various age groups and aimed at proposing strategies for education in  
 198 climate change.

199 **Table 2: Distribution of Respondents on Level of Knowledge on Climate Change**

Level	Respondents	Percentage (%)
Very low knowledge of climate change	5	2.5
Low knowledge of climate change	92	46.0
Average knowledge of climate change	84	42.0
High knowledge of climate change	19	9.5
<b>Total</b>	<b>200</b>	<b>100.0</b>

200 **Source:** Field survey, 2018

### 201 **3.3 Respondents' Attitude towards Climate-Friendly Farming**

202 Results in tables 3a & 3b provide insights to attitudinal dispositions of the respondents towards  
 203 climate-friendly farming. The frequency distributions, percentages in table 3a show the pattern of  
 204 agreement of the respondents with the climate-friendly farming statements. It can be seen from the  
 205 table that majority of the respondents either strongly agreed or just agreed to most of the statements.  
 206 The mean scores of the responses on attitudinal statements were also calculated. Any statement that  
 207 had a mean score of 2.5 and above was regarded as positive or favorable attitudinal disposition of  
 208 that particular statement since the maximum response score for each item was 4 and minimum was 1.  
 209 The mean score distribution shows that almost all the statements attracted a mean score above 2.5  
 210 leading to the revelation, as shown on table 2b, that majority (87.5%) of the respondents had  
 211 favorable or positive attitudinal disposition towards climate-friendly farming. They agreed that use of  
 212 water channels in the farm as draining system is advisable to all farmers to check flooding, that

213 breeding of drought and heat resistant crop varieties can help lessen the effect of climate change on  
 214 crop production and that mulching can conserve soil moisture in the face of rising temperature to  
 215 mention but a few.

216 **Table 3a: Distribution of Respondents on Attitude towards Climate-friendly Farming**

S/N	Items	SA	A	D	SD	Mean
1.	I feel climate-friendly farming is an interesting area of discussion	88 (44.0)	73 (36.5)	23 (11.5)	16 (8)	3.16
2	Use of water channels in the farm as draining system is advisable to all farmers to check flooding.	99 (49.5)	57 (28.5)	29 (14.5)	15 (7.5)	3.20
3	Farmers should use organic manure to conserve soil nutrient	78 (39.0)	92 (46.0)	12 (6.0)	18 (9.0)	3.15
4	Planting of cover crops should be recommended to farmers as a means of reducing the harmful effect of climate change	74 (37.0)	74 (37.0)	32 (16.0)	20 (10.0)	3.01
5	Mixed cropping practices are the best approaches to responds to uncertainties in crop yield occasioned by climate change.	45 (22.5)	81 (40.0)	43 (21.5)	31 (15.5)	2.70
6	Every farmer should be told to plant pest and disease resistant crops.	66 (33.0)	67 (33.5)	37 (18.5)	30 (15.0)	2.84
7	Mulching can conserve soil moisture in the face of rising temperature	83 (41.5)	75 (37.5)	21 (10.5)	21 (10.5)	3.10
8	Farmers should ensure regular weeding to avoid breed of some insects pest	100 (50.0)	56 (28.0)	22 (11.0)	22 (11.0)	3.17
9	Breeding of drought and heat resistant crop varieties can help lessen the effect of climate change on crop production.	51 (25.5)	83 (41.5)	43 (21.5)	23 (11.5)	2.81
10	Farmers should know how to conserve soil moisture through appropriate tillage operation.	61 (30.0)	85 (42.5)	28 (14.0)	26 (13.0)	2.90
11	I feel intimidated to talk about climate change	42 (21.0)	47 (23.5)	55 (27.5)	56 (28.0)	2.37
12	Afforestation should be encouraged at all times	75 (37.5)	64 (32.0)	28 (14.0)	33 (16.5)	2.90
13	Proper conservation of seeds should be encouraged at all times	75 (37.5)	65 (32.5)	28 (14.0)	32 (16.0)	2.91
14	Farmers should be encouraged to reduce the use of generators for electrification	51 (25.5)	58 (29.0)	47 (23.5)	44 (22.0)	2.58
15	Regular practice of crop rotation can reduce the harmful effect of climate change on crops	59 (29.5)	69 (34.5)	37 (18.5)	35 (17.5)	2.76

217 **Source:** Field survey, 2018. **Note:** Percentages in parenthesis and values outside  
 218 parenthesis are the Frequencies

219 **Key:** SA=Strongly Agree; A=Agree; D=Disagree; SD=Strongly Disagree

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225 **Table 3b: Distribution of Respondents based on Attitudinal Disposition towards**  
 226 **Climate-friendly Farming Index (ADCFF)**

Index range of ADCFF	ADCFF Index Interpretation	Respondents	Frequency
0.00 – 0.59	Unfavorable disposition	attitudinal 25	12.5
0.60 – 1.00	Favorable disposition	attitudinal 175	87.5
<b>Total</b>		<b>200</b>	<b>100.0</b>

227 **Source:** Field survey, 2018

### 228 3.4 Respondents' Self-efficacy towards Climate-friendly Farming

229 Results on tables 4a & 4b provide insights into the self-efficacy of the respondents towards climate-  
 230 friendly farming. The frequency distributions values as well as percentages on table 3a show the  
 231 pattern of confidence the respondents demonstrated towards the climate-friendly farming statements.  
 232 It can be seen from the table that majority of the respondents were absolutely, mostly and slightly  
 233 confident that they can practice most of those climate-friendly farming activities. The mean scores of  
 234 the responses on self-efficacy statements were also calculated. Any statement that had a mean score  
 235 of 1.5 and above was regarded as high self-efficacy of that particular statement since the maximum  
 236 response score for each item was 3 and minimum was 0. The mean score distribution shows that  
 237 almost all the statements attracted a mean score above 1.5 leading to the revelation, as shown on  
 238 table 3b, that majority (52.0%) of the respondents fell into the high self-efficacy towards climate-  
 239 friendly farming category. They were confident that they can monitor and provide information on the  
 240 effect of climate change on crops, that they can monitor and provide information on the effect of  
 241 climate change on livestock, that they can suggest the appropriate seed-bed that can be used for the  
 242 planting of various crops and that they can always develop measures of checking/controlling erosion  
 243 on farm land, to mention but a few.

244 **Table 4a: Distribution of Respondents on Self-efficacy towards Climate-friendly**  
 245 **Farming**

S/N	Items	Mean
1	I can monitor and provide information on the effect of climate change on livestock	1.77
2	I can suggest the appropriate seed-bed that can be used for the planting of various crops.	1.63
3	I can always develop measures of checking/controlling erosion on farm land	1.92
4	I can devote greater part of my time to carrying out climate friendly farming practices	1.58
5	I can educate people on how to check fertility and PH status of the soil before planting	1.67
6	I can educate people on breeding of new crops or livestock that are tolerant to drought	1.55
7	I can spend a whole day learning about conservation farming systems that use minimum or no-tillage	1.57
8	I can spend more time reading about various crop and	1.95



	animal diseases that are climate induced	
9	I can ensure regular weeding and pest control in my farm	2.07
10	I can monitor and provide information on the effect of climate change on crops	1.75

246 **Source:** Field survey, 2018.

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250 **Table 4b: Distribution of Respondents based on Self Efficacy towards Climate-friendly**

251 **Farming Index (SECFI)**

Index range of SECFI	SECFI Index Interpretation	Respondents	Frequency
0.00 – 0.59	Low self efficacy	97	48.0
0.60 – 1.00	High self efficacy	103	52.0
<b>Total</b>		<b>200</b>	<b>100.0</b>

252 **Source:** Field survey, 2018.

253 **3.5 Influence of Gender, Age, Ownership of Household farms, Knowledge of Climate**

254 **Change and Attitude towards Climate-Friendly Farming on Students' Self-Efficacy**

255 **towards Climate-Friendly Farming**

256 **A. Chi-square analysis of the relationship between gender, ownership of household**

257 **farms and students' self-efficacy towards climate-friendly farming.**

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259 Chi-square analysis was done to determine whether gender and ownership of household farms

260 significantly influenced the respondents' self-efficacy towards climate-friendly farming in the study

261 area. Results from the analysis shown in table 5a below reveals that ownership of household farms

262 ( $X^2 = 4.35$ ;  $P=0.00$ ) significantly influenced the respondents' self-efficacy towards climate-friendly

263 farming in the study area while sex ( $X^2=0.10$ ;  $P=0.74$ ) did not significantly contribute to the model.

264

265 **Table 5a: Chi-square Analysis between Gender, Ownership of Household farm and**

266 **Students' Self-Efficacy towards Climate-Friendly Farming**

Variables:	$X^2$ -value	df	Sign 2-tail	P-value	Remark
i Gender	0.10	1	0.74	0.05	NS
ii Ownership of farm	4.35	1	0.00	0.05	Sig

267 **Source: Field Survey 2018 Note: NS implies Not Significant**

268 **A. Pearson product moment correlation between age, knowledge of climate change,**

269 **attitude towards climate-friendly farming and respondents' self-efficacy towards**

270 **climate-friendly farming.**

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272 The table 5b below reveals that there is a very low and negative relationship between age of the

273 respondents and their self-efficacy towards climate-friendly farming in the study area,  $r = -0.046$ . This

274 means that the self-efficacy towards climate-friendly farming drops as the age of the respondents

275 increases. However, the relationship is low, the table also reveals that the relationships is not

276 statistically significant at  $r = -0.046$ ,  $P=0.516$ ,  $R^2=0.002$ , explaining that only 0.2% variation in self-

277 efficacy towards climate-friendly farming can be attributed to the variation in the ages of respondents.

278 Item 2 in table 5b presents the results of analysis on relationship between knowledge of climate

279 change and self-efficacy towards climate-friendly farming. The table reveals that there is a low and

280 positive relationship between the respondents' knowledge of climate change and their self-efficacy

281 towards climate-friendly farming. The table revealed that the respondents will increase their self-  
 282 efficacy with increased knowledge therefore, as knowledge of climate change increases, self-efficacy  
 283 towards climate-friendly farming increases as well. It may be reasonable to relate that gaining  
 284 knowledge of concept can serve as a motivational factor towards the understanding and eventual  
 285 practice or willingness to practice the concept. Research findings show that higher levels of perceived  
 286 self-efficacy correlate to greater motivational efforts like knowledge and perseverance [19]. According  
 287 to [11], computer self-efficacy has proven to be a factor in understanding the frequency and success  
 288 with which individuals use computers. Self- efficacy theory, according to [20] has emerged as an  
 289 important means of understanding and predicting a person's performance and vice versa. More  
 290 should be done to promote the young farmers knowledge on climate change issues as this has  
 291 proven effective in promoting the respondents' self-efficacy on climate-friendly farming. The table also  
 292 indicated that although there was a low relationship, it was statistically significant  $r = 0.136$ ,  $P=0.040$ ,  
 293  $R^2=0.018$  explaining that only 1.8% variation in the self-efficacy towards climate-friendly farming could  
 294 be attributed to variations in the knowledge of the respondents on climate change.

295

296 **Table 5b: PPMC Analysis between Age, Knowledge of Climate Change, Attitude**  
 297 **towards Climate-Friendly Farming and Students' Self-Efficacy towards Climate-**  
 298 **Friendly Farming in the Study Area**

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	<b>Variables: EUFSM and</b>	<b>r</b>	<b>r<sup>2</sup></b>	<b>Sign 2-tail</b>	<b>P-value</b>	<b>Remark</b>
i	Age	-0.046	0.002	0.516	0.05	NS.
ii	Knowledge	0.136	0.018	0.040	0.05	Sig.
iii	Attitude	0.062	0.0038	0.384	0.05	NS.

300 **Source: Field Survey 2018. Note: NS implies Not Significant**

#### 301 **4. CONCLUSION AND RECOMMENDATION**

302 Degree of knowledge on climate change and ownership or availability of farms in the respondents  
 303 homes were found to significantly and statistically influence the climate-friendly farming self-efficacy of  
 304 the students. Therefore, the more agricultural students, especially those that own farms in their  
 305 homes, know or read about climate change, the more confident they will be in contributing to climate  
 306 change adaptation farming practices in their various household farms and in the society at large.  
 307 However, it is logical to conclude in this study that knowledge of climate change and ownership of  
 308 farms in some ways contributes to self-efficacy towards climate-friendly farming in Uyo, Akwa Ibom  
 309 State. These present a need to include climate change issues in the secondary school curriculum so  
 310 as to raise the knowledge level of the agricultural students on climate change issues. Also important  
 311 is the need for stakeholders to translate the high climate-friendly farming self-efficacy observed  
 312 among the respondents into climate smart farming through conscious effort at increasing their  
 313 participation in practical farming activities both in school and home farms. Students, upon the  
 314 acquisition of this knowledge and skills would help in the extension of innovative and efficient farming  
 315 methods to their households and communities thereby complimenting government efforts in the  
 316 extension of modern and acceptable practices in farming.

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