



JAMD
Journal of Agricultural
Management & Development



E-ISSN: 3141-2297
Volume 1 Issue 1, April, 2026

ISSN 3141-2297



9 773141 229005

Published by:

**CAERSE | College of Agricultural Economics,
Rural Sociology & Extension**

**MICHAEL OKPARA UNIVERSITY OF AGRICULTURE, UMUDIKE
ABIA STATE, NIGERIA**

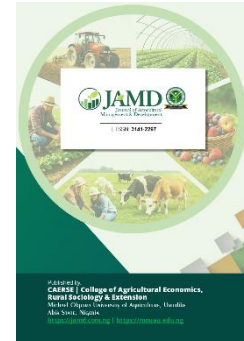
<https://jamd.com.ng> | <https://mouau.edu.ng>



Journal of Agricultural Management & Development

E-ISSN: 3141-2297

Volume 1 Issue 1, April, 2026



Assessment of the Training Needs on Climate Smart Agriculture by SIWES Students in Michael Okpara University of Agriculture, Umudike, Abia State

Ekweanya, N.M., Igbokwe, N.I. and Ekwe, K.C.

ARTICLE INFO

Author(s) Affiliation(s):

Department of Agricultural Extension and
Rural Development, Michael Okpara
University of Agriculture, Umudike, Abia
State, Nigeria

Correspondence:

Email: amakahyginus7@gmail.com
nobleigbokwe111@gmail.com
Phone: +2348069603859

Keywords: *SIWES, Climate Smart, Training
Needs,*



This is an open access
article under the CC BY
license

(<https://creativecommons.org/licenses/by/4.0/>)

ABSTRACT

This paper seeks to assess the climate smart technology training needs of SIWES students of Michael Okpara University of Agriculture Umudike, Abia state. The specific objectives described the socio-economic characteristics of the SIWES students in MOUAU Abia state; ascertained SIWES students training needs on climate smart agriculture in MOUAU Abia state and identified the constraints to training activities in climate smart agriculture by SIWES students in MOUAU Abia state. The hypothesis testing was that there is no significant relationship between the socio-economic characteristics of SIWES students and their training needs. A random and purposive sampling methods was used to sample 120 SIWES students from whom data was collected using a structured questionnaire. Data was analysed and interpreted using descriptive and inferential statistics. Findings from this study revealed that the majority of the students (51%) were males between the age of 21-30 years (96.67%), were single (90.83%) and were from CASAP college (39.17%). Further results showed that the majority of the students needed training on the use of drought resistant crops ($\bar{x}=4.48$) and limited collaboration between the university and external agricultural organizations was a major constraint to having effective training on CSA. The hypothesis testing showed that at $P < 0.05$, age (2.968) was significant and positively associated with the training needs of SIWES students. The study concludes that SIWES students in MOUAU need more training in CSA and recommends collaborations between the university and external agricultural organizations to improve the quality of training received by the SIWES students.

Introduction

The world's climate is changing, and its widespread effects are becoming a global reality. This poses a significant threat to sustainable agricultural production and food availability in Nigeria (Ekweanya, Anyanwu, Onuoha, and Onu, 2021). Crop and livestock production are particularly vulnerable to climate variability due to their heavy dependence on climatic variables (Mashi, Inkani, and Oghenejabor, 2022). The increasing concentration of greenhouse gases, such as carbon dioxide, is projected to double by 2030, leading to a substantial rise in global temperatures (IPCC, 2019).

Recognizing these challenges, there is a global effort to promote climate-smart agriculture (CSA) as a strategy to mitigate and adapt to the impacts of climate change (Barasa Botai, Botai, and Mabhaudhi, 2021). CSA offers solutions for bolstering food production, enhancing farmers' resilience, and mitigating greenhouse gas emissions. For Nigerian agriculture, which relies heavily on smallholder farmers, CSA practices are vital for achieving resilience and sustainability under changing climatic conditions (Barasa *et al.*, 2021).

The integration of climate-smart agriculture into the Students Industrial Work Experience Scheme (SIWES) is essential for preparing agricultural students to address climate-related challenges in their future careers. Exposure to CSA practices during industrial training equips students with innovative strategies to enhance resource efficiency, reduce emissions, and foster sustainable agricultural practices. This preparation enables students to align their practical skills with global efforts to combat climate change (Santosh, 2024).

Climate-smart technologies, which encompass solutions like renewable energy systems and precision farming, aim to enhance resilience and promote sustainability while mitigating greenhouse gas emissions. These technologies foster food security, resource conservation, and economic growth, supporting the transition to a low-carbon, climate-resilient future (Zilberman, Lipper, McCarthy, and Gordon, 2017; The World Bank, 2021). By gaining knowledge of CSA through SIWES, students can become advocates for environmentally responsible practices, thereby contributing to Nigeria's climate goals and sustainable development efforts (Santosh, 2024).

The Students Industrial Work Experience Scheme (SIWES) plays a crucial role in bridging the gap between theoretical classroom knowledge and practical agricultural experiences. However, the rising impact of climate change on agricultural productivity necessitates incorporating climate-smart agriculture training into SIWES programs (Adefalu, Ahmed, Aliyu, and Ajibade, 2021).

Given the dynamic climate conditions affecting agriculture, it is imperative for SIWES students to receive training on climate-smart technologies. This training prepares them for real-world challenges by imparting knowledge and skills related to resilient farming practices, sustainable methods, and technological solutions for enhanced agricultural efficiency (Santosh, 2024).

Practical training under SIWES should include climate-resilient agricultural practices such as adopting drought-resistant crops, efficient irrigation methods, and sustainable soil management. Additionally, students should learn adaptation strategies like adjusting planting schedules and selecting climate-resilient crops, as well as mitigation practices such as conservation tillage and agroforestry (Santosh, 2024). Integrating technology, including precision farming and innovative agricultural solutions, is another essential component of their training.

Recent studies have explored the training requirements of various agencies, particularly extension agents, across different areas. Danladi, Burabe, Manga, and Bako (2023) conducted a study on the Evaluation of Training Needs among Agricultural Extension Agents regarding Information and Communication Technologies in Kaduna State Agricultural Development Programme, Nigeria, Tafida *et al.* (2021) examined the Evaluation of Training Needs and Competency Levels of Extension Workers in Kano State, Nigeria, Eremi, Hilda, Eremi, and Evey (2023) investigated the Analysis of Training Needs of Agricultural Extension Workers on Agroforestry in Cross River State, Nigeria, Anyanwu, Ekumankama, and Onwukwe (2021) conducted a Comparative Analysis of the Training Needs and Job Performance of Extension Agents in Abia and Akwa Ibom States ADPS of Nigeria, Additionally, Adefalu, Ahmed, Aliyu, and Ajibade (2021) studied Assessing Agricultural Students' Attitudes towards Farm Practical Training in Selected Universities in Kwara State, Nigeria, closely related to the subject. However, there's a gap in the literature concerning the detailed examination of the training needs of Students Industrial Work Experience Scheme (SIWES) agricultural students in the context of climate-smart technology. Therefore, this study aims to fill this gap by providing valuable insights into the training requirements of SIWES agricultural students regarding climate-smart agriculture, contributing to the existing knowledge in this specific area.

Therefore, this study assessed the climate smart agricultural training needs of SIWES students of Michael Okpara University of Agriculture Umudike. The specific objectives are to; (i) describe the socio-economic characteristics of the SIWES students in MOUAU Abia state; (ii) ascertain SIWES students training needs

on climate smart agriculture in MOUUAU Abia state and; identify the constraints to training activities in climate smart agriculture by SIWES students in MOUUAU Abia State. the hypothesis testing was there is no significant relationship between the socio-economic characteristics of SIWES students and their training needs.

Methodology

The study was carried out in Michael Okpara University of Agriculture (MOUUAU) Umudike in Ikwuano Local Government Area of Abia State (Ebube, Miracle, Onyinye, Blessing, 2023). MOUUAU is located at latitude 5°40' and 6°4' north, and longitude 7°1' and 7° 34' east of Ikwuano local government area. The climate is purely tropical with wet and dry seasons. The rainy season goes from March to October while the dry season is from November to February. The mean daily rainfall and relative humidity are 146.5 mm and 80% respectively. The mean daily temperature ranges from 21.9 °C to 31.5 °C (Ebube *et. al.*, 2023). The university consists of twelve (12) colleges but this study will focus on the four (4) Agricultural Colleges namely College of Agricultural Economics, Rural Sociology and Extension (CAERSE), College of Animal Science and Animal Production (CASAP) and College of Crop and Soil Sciences (CCSS).

For this study, random and purposive sampling methods were utilized. Specifically, three colleges—College of Animal Science and Animal Production (CASAP), College of Crop and Soil Sciences (CCSS), and College of Agricultural Economics, Rural Sociology, and Extension (CAERSE)—were selected because of their involvement in the B.Agric. SIWES program (2022/2023 SIWES year). From each of these colleges, 40 B.Agric. Students were chosen randomly, resulting in a total sample size of 120 SIWES students.

Objective 1: which seeks to describe socio-economic characteristics of the SIWES students in MOUUAU was analyzed using frequency count, means and percentage.

Objective 6: which seeks to access the areas were training is needs in climate smart agriculture by SIWES students in MOUUAU was realized using a 4-point Likert-type scale of strongly agree-5, agree-4, Undecided – 3, disagree-2 and strongly disagree-1. A midpoint was obtained thus; $1+2+3+4+5 = 10 \div 5 = 3.0$. The mean score greater than 3.0 implies a positive and a mean score less than 2.5 implies a negative.

Objective 7: which seeks identify the constraints to training activities in climate smart agriculture by SIWES students in MOUUAU was realized using a 4-point Likert-type scale of strongly agree-5, agree-4, Undecided – 3, disagree-2 and strongly disagree-1. A midpoint was obtained thus; $1+2+3+4+5 = 10 \div 5 = 3.0$. The mean score greater than 3.0 implies a positive and a mean score less than 2.5 implies a negative.

Model specification

Hypothesis

There is no significant relationship between the socio-economic characteristics of SIWES students and their training needs was analysed using multiple regression analysis:

$$Y = a + b_1 X_1 + b_2 X_2 + b_3 X_3 + \dots + b_9 X_9 + u \quad (1)$$

Where,

Y – Training needs

X₁- sex (male – 1 female – 0)

X₂- Age (in years)

X₃= Marital status

X₄= Academic level

X₅= College

X₆= Access to ICT resources

a– constant

b₁-b₃ – Regression coefficient

u– error term

Results and Discussion

Socioeconomic Characteristics of the Students

Table 1 presents the result of the distribution of the students according to their sex. The result reveals that majority of the students were male (51.67%) while 48.33% represented the females in the population. The

result suggested that there were more males in the sample population than females but the slight marginal differences also indicates that females had a good representation in the study.

Table 2 presents the distribution of the students according to their age. The result reveals that the majority of the students (96.67%) fell within the 21-30 age range, indicating that most of the students were young adults. This result agrees with the findings of Ekweanya, Mbah, Odoh and Nwankwo, (2019) which also state that the B. Agric students within the study area were also young adults. A smaller proportion of the students, representing 1.67%, were in the 10-20 age range, and an equally small percentage (1.67%) were aged 31-40.

The mean age of the students was 25 years, suggesting that the typical student in the sample is in their mid-twenties. Despite the slight marginal representation of both younger and older age groups, the study population was predominantly composed of students in the 21-30 age bracket

Table 3 presents the distribution of students according to their marital status. The result reveals that the overwhelming majority of the students were single, (90.83%). This suggests that most students are likely focused on their studies without the added responsibilities of marriage. The single students implies that the majority may have fewer personal obligations outside their studies, which could positively influence their academic availability and focus. The result also shows that 12.22% of the student were married, indicating that a few students are balancing both academic and marital responsibilities. There were no students reported as divorced or widowed in the sample.

Table 4 presents the distribution of students according to their respective colleges. The results show that the majority of the students (39.17%) were from CASAP. This indicates that a significant portion of the study population is focused on animal science and production-related disciplines. The result also revealed that 31.67% of the students were from the College of Agricultural Economics, Rural Sociology, and Extension (CAERSE) which highlights another substantial group with an interest in agricultural economics and rural development.

Table 5 presents the distribution of SIWES students regarding the areas where training is needed in climate-smart agriculture. Based on a 5-point Likert-type scale, a mean score greater than 3.0 indicates that training is needed in a specific area, while a score below 3.0 suggests that it is not a priority for training. The use of drought-resistant crops achieved the highest mean score of 4.48, indicating a strong consensus among students that training in this area is essential. The high level of agreement highlights the importance of equipping students with knowledge and skills related to drought-resistant crops, especially in the face of increasing climate variability. Following closely, employing the use of irrigation systems recorded a mean score of 4.47. This result underscores the need for training in effective irrigation techniques, which are crucial for optimizing water use and enhancing crop yields in varying climatic conditions. The use of improved crop varieties also indicated a significant training need with a mean score of 4.46. This suggests that students recognize the importance of understanding and utilizing improved crop varieties to enhance agricultural productivity and resilience to climate change. Nutrient management and the use of organic fertilizers garnered a mean score of 4.37, indicating that students seek training in managing soil nutrients effectively. This knowledge is vital for promoting sustainable farming practices and enhancing soil health. Conservation agriculture received a mean score of 4.35, reflecting a strong interest in acquiring training related to practices that improve soil quality and reduce environmental degradation. This area is critical for promoting sustainable land management. Grazing management showed a mean score of 4.18, indicating that students believe training is needed in managing livestock grazing effectively. This knowledge can help optimize resource use and enhance the sustainability of integrated crop-livestock systems. Preparing compost achieved a mean score of 4.26, signifying that students recognize the need for training in composting practices, which are essential for nutrient recycling and sustainable soil management. Practice of cover cropping and agroforestry practices both recorded mean scores of 4.32. This suggests that students are interested in training related to these practices, which can enhance soil health, biodiversity, and overall sustainability in agricultural systems. The results indicate a strong demand for training across various areas of climate-smart agriculture among SIWES students in MOUAU.

Table 6 outlines the distribution of SIWES students regarding the obstacles to training activities in climate-smart agriculture (CSA). According to a 5-point Likert-type scale, a mean score exceeding 3.0 indicates that

a specific factor is perceived as a constraint, while a score below 3.0 suggests it is not regarded as such. Insufficient access to modern CSA technologies and equipment received the highest mean score of 4.20. This finding highlights a significant challenge for students in acquiring the essential tools and technologies necessary for effective training in climate-smart practices. The unavailability of modern resources hinders the implementation of CSA and limits students' practical experience. Next, limited collaboration between the university and external agricultural organizations received a mean score of 4.28. This reflects students' perception of the need for stronger partnerships with agricultural entities to enhance training opportunities and resources. Strengthened collaboration could promote knowledge sharing and access to expertise, which are vital for effective CSA training. High costs associated with implementing and maintaining CSA training programs recorded a mean score of 4.10. This finding indicates students' concerns regarding the financial implications of CSA programs, suggesting that funding and resource allocation are critical issues that must be addressed to support training initiatives. This result is in agreement with the findings of Ifeanyi-obi and Ekere (2021) who also reported in their study that funds was also a challenge to accessing training programs on climate Smart agriculture among extension agents in Abia state. The constraint of lack of trainers with expertise in CSA practices attained a mean score of 4.13. This underscores the necessity of having qualified trainers to deliver CSA education effectively. Without knowledgeable instructors, the quality of training may be compromised, which could limit students' comprehension and application of CSA principles. Difficulty in integrating modern CSA tools with traditional farming practices yielded a mean score of 4.08, signifying that students view this as a barrier to adopting CSA. The challenge lies in reconciling innovative methods with existing farming techniques, which may require additional training and support. Lastly, low levels of student interest or awareness in CSA practices achieved a mean score of 4.04. This suggests that increasing student engagement and awareness about climate-smart practices is essential for improving participation in training programs. Ekweanya, *et al.* (2023) also indicated in their study that lack of interest was also a major constraint influencing SIWES Students in MOUAU from being aware and utilizing climate smart technologies. In conclusion, the results reveal several constraints affecting training activities in climate-smart agriculture among SIWES students in MOUAU.

Table 7 presents results of regression analysis to determine the relationship between the socioeconomic characteristics of SIWES students and their training need. Four functional forms of the multiple regression model were evaluated, with the linear model being selected as the preferred equation. This selection was based on the model having the highest number of significant variables and an F-value of 4.388, significant at $P < 0.05$, indicating the overall significance of the regression line. The model's R^2 value of 0.132 suggests that 13.2% of the total variation in the dependent variable is explained by the independent variables.

The result revealed that at $P < 0.05$, age (2.968) was found to be significant and positively associated with the training needs of SIWES students at MOUAU. This indicated that that as the age of the SIWES students increases, their need for training also increases. This could imply that older students may require more or different types of training compared to their younger counterparts, possibly due to differences in experience, learning style, or career focus.

Conclusion and Recommendations

The study concludes that the majority of SIWES students at MOUAU were young, single, and primarily from CASAP and CAERSE colleges, reflecting a focus on agricultural disciplines. Key training needs in climate-smart agriculture included drought-resistant crops, irrigation systems, and improved crop varieties, among others, highlighting students' strong interest in sustainable farming practices. However, significant constraints, such as insufficient access to modern technologies, high costs, and limited collaboration with external organizations, hinder effective training. The regression analysis further revealed that age positively influenced training needs, suggesting that older students may require tailored training approaches.

Based on the findings of this study, the study recommends the following:

- a) Enhance Access to CSA Resources and Expertise: Universities should invest in modern climate-smart agriculture (CSA) technologies, equipment, and skilled trainers to improve the quality and accessibility of practical training for students.
- b) Strengthen Institutional and External Partnerships: Collaborations with agricultural organizations, policymakers, and funding bodies should be established to provide financial support, knowledge-sharing opportunities, and hands-on training in CSA practices.

- c) Promote Awareness and Tailored Training Programs: Awareness campaigns should be launched to engage students in CSA practices while designing training programs that cater to diverse age groups and experience levels to maximize their effectiveness and impact

References

- Adefalu L. L., Ahmed T. A., Aliyu O. S. and Ajibade, O. (2021). Assessing Agricultural Students' Attitude towards Farm Practical Training in Some Selected Universities in Kwara State, Nigeria. *International Journal of Agricultural Economics, Management And Development (IJAEMD)*. 9(1); 69-80.
- Anyanwu, U. S., Ekumankama, O. O. and Onwukwe, O. P (2021). Comparative Analysis of The Training Needs And Job Performance Of Extension Agents In Abia And Akwa Ibom States ADPs Of Nigeria. *Journal of Community & Communication Research*. 6(2): 273-283.
- Barasa, P.M., Botai, C.M., Botai, J.O. and Mabhaudhi, T.A. (2021), "Review of climate-smart agriculture research and applications in Africa", *Agronomy*, Vol. 11 No. 6, p. 1255, doi: 10.3390/agronomy11061255.
- Danladi, E. B., Burabe, B. I., Manga, T. A. and Bako, H. (2023). Assessment of Training Needs Among Agricultural Extension Agents On Information And Communication Technologies In Kaduna State Agricultural Development Programme, Nigeria. *Journal of Agricultural Economics, Environment and Social Science* 9(2):147-154.
- Ekweanya, N. M., Anyanwu, E. V., Onuoha, L. and Onu, S. E., (2021). Climate Smart Technology: A Panacea for Mitigating Climate Change Effects and Enhanced Food Production. . *Innovative Agriculture for Structural Transformation in Nigeria*. Book of Readings in Honour of Professor A. C. Nwosu. AEC-MOUAU Publications, Umudike, Nigeria. Pp. 261-269.
- Eremi, E. O., Hilda C. E., Eremi T. O. AND Evey M. H. (2023). Analysis of Training Needs of Agricultural Extension Workers on Agroforestry in Cross River State, Nigeria. *Global Journal of Agricultural Sciences*. 22,: 71-80
- IPCC (2019). Global Warming of 1.5 °C. An IPCC Special Report on the Impacts of Global Warming of 1.5 °C Above Pre-Industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response to the Threat of Climate Change, Sustainable Development, and Efforts to Eradicate Poverty; Intergovernmental Panel on Climate Change: Geneva, Switzerland,
- Santosh, G. (2024). Climate-Smart Agriculture: Investing in a Sustainable Future. Retrieved March 12, 2024, from [www.linkedin.com website: https://www.linkedin.com/pulse/climate-smart-agriculture-investing-sustainable-future-santosh-g-kxzdc/](https://www.linkedin.com/pulse/climate-smart-agriculture-investing-sustainable-future-santosh-g-kxzdc/)
- Tafida, I., Yusuf, A. K., Kabir, A. M. and Abdullahi, A. (2021). Assessment of Training Needs and Competence Level of Extension Workers in Kano State, Nigeria. *FUDMA Journal of Sciences (FJS)*. 5(1): 424 – 435.
- The World Bank. (2021). Climate-Smart Agriculture. Retrieved from World Bank website: <https://www.worldbank.org/en/topic/climate-smart-agriculture>
- Zafezeka, M.Z, Paramu, L.M, Maxwell, M. and Obert, J. (2019). Climate Change Mainstreaming in Extension Agents Training Curricula: A Case of Mopani and Vhembe District, Limpopo Province, South Africa. *J. Asian & Afri. Stu.*,55 (1),44- 57.

Appendix

Table 1: Distribution of students according to sex

S/N	Sex	Frequency	Percentage
1.	Male	62	51.67
2.	Female	58	48.33
Total		120	100

Field survey, 2024

Table 2: Distribution of students according to age

S/N	Age	Frequency	Percentage	Mean
1.	10-20	2	1.67	25years
2.	21-30	116	96.67	
3.	31-40	2	1.67	
Total		120	100	

Field survey, 2024

Table 3: Distribution of students according to marital status

S/N	Marital status	Frequency	Percentage
1.	Single	109	90.83
2.	Married	11	12.22
3.	Divorced		
4.	Widow/Widower	-	-
TOTAL		120	100

Field survey, 2024

Table 4: Distribution of students according to college

S/N	College	Frequency	Percentage
1.	CCSS	35	29.17
2.	CASAP	47	39.17
3.	CAERSE	38	31.67
Total		120	100

Field survey, 2024

Table 5: The areas where training is needed in climate smart agriculture by SIWES students

Climate Smart technologies	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Total	Mean
The use of drought resistant crops	73(365)	35(140)	10(30)	NIL	2(2)	537	4.48
Employing the use of irrigation systems	67(335)	50(200)	3(1)	NIL	NIL	536	4.47
The use of improved crop variety	70(350)	41(164)	5(15)	2(4)	2(2)	535	4.46
Practice of cover cropping	54(270)	54(216)	10(30)	2(2)	NIL	518	4.32
Conservation agriculture	57(285)	49(196)	13(39)	1(2)	NIL	522	4.35
Preparing of compost	54(270)	48(192)	13(39)	5(10)	NIL	511	4.26
Grazing management	46(230)	55(220)	14(42)	5(10)	NIL	502	4.18
Nutrient management/use of organic fertilizer	61(305)	49(196)	5(15)	3(6)	2(2)	524	4.37
Agroforestry practices	54(270)	52(208)	12(36)	2(4)	NIL	518	4.32

Field survey, 2024

Table 7: Ordinary least square multiple regression results of the relationship between the socio-economic characteristics of SIWES students and their training need.

Variable	Linear(+)	Exponential	Double-log	Semi-log
Constant	2.569 (5.293)***	1.032 (8.838)***	0.440 (1.256)	0.119 (0.082)
Sex (X ₁)	0.131 (1.443)	0.033 (1.519)	0.048 (1.506)	0.186 (1.417)
Age (X ₂)	0.060 (2.968)***	0.015 (2.984)***	0.319 (2.894)**	1.321 (2.885)**
Marital Status (X ₃)	0.240 (1.799)	0.053 (1.651)	0.083 (1.624)	0.374 (2.885)
College (X ₄)	-0.087 (-1.365)	-0.019 (-1.276)	-0.033 (-1.232)	-0.145 (0.199)
R²	0.132	0.130	0.124	0.126
Adj. R²	0.102	0.100	0.094	0.096
F-statistic	4.388	4.303	4.083	4.158

Field survey, 2024. H₀₁ reject at 5% level. Key: ns = not significant; ** = 5% significant; *** = 1% significant; () = t-ratios; + = lead equation

Table 6: The constraints encountered by SIWES students to training activities in climate smart agriculture

Constraints	Strongly agree	Agree	Undecided	Disagree	Strongly disagree	Total	Mean
High costs associated with implementing and maintaining CSA training programs	49(245)	49(196)	12(36)	5(10)	5(5)	492	4.10
Insufficient access to modern CSA technologies and equipment.	55(275)	45(180)	12(36)	5(10)	3(3)	504	4.20
Lack of trainers with expertise in CSA practices.	48(240)	45(180)	23(69)	3(6)	1(1)	496	4.13
Low levels of student interest or awareness in CSA practices.	48(240)	48(192)	10(30)	9(18)	5(5)	485	4.04
Limited collaboration between the university and external agricultural organizations.	60(200)	43(172)	11(33)	3(6)	3(3)	514	4.28
Difficulty in integrating modern CSA tools with traditional farming practices.	44(220)	55(220)	12(36)	4(8)	5(5)	489	4.08

Field survey, 2024