

Student's Perspective, Interest, and Awareness Towards Organic Agriculture Farming

Jinky E. Bisenio^a, Jeffrey E. Moreno^b, Cherry Love B. Montales^c, Gladys May A. Recaña^c

jinky.bisenio@cbsua.edu.ph
jeffrey.moreno@cbsua.edu.ph
cherrylove.montales@cbsua.edu.ph
gladysmay.recana@cbsua.edu.ph

Central Bicol State University of Agriculture, San Jose, Pili, Camarines Sur

Abstract

This study investigates the interest and awareness of organic agriculture among Senior High School students enrolled in the Technical Vocational Livelihood (TVL) track, specifically within the Agriculture strand, in Baao, Camarines Sur, Philippines. Utilizing a qualitative research approach, data was collected through focus group discussions and key informant interviews, revealing students' perceptions, motivations, and challenges related to organic farming. Findings indicate that while students recognize the environmental benefits of organic agriculture, their awareness is often limited, and many express hesitance towards pursuing agriculture as a career. Hands-on experiences significantly enhance their interest, yet a disconnect exists between their agricultural activities and future aspirations. The study emphasizes the need for integrating organic agriculture into educational curricula at earlier stages and developing engaging resources to foster a deeper understanding and appreciation of sustainable farming practices among youth, ultimately contributing to the sustainability of the agricultural sector.

Keywords: Organic Agriculture; Perspective; Interest; Awareness

1. Main text

Organic Agriculture Act of 2010 (Republic Act No. 10068) - An act that provides for developing and promoting organic agriculture in the Philippines and other purposes was enacted last April 6, 2010. Subsequently, it was declared as the policy of the State to promote, propagate, develop further, and implement the practice of organic agriculture in the Philippines. Also, the farmers and experts realized the fundamentals of organic farming when they saw the negative impacts of conventional agriculture in different parts of the community. These areas include the environment, the use of farmlands, and the farmers' health and socioeconomic conditions (Landicho, 2014).

In line with these efforts, the Philippines is promoting the TESDA Organic Agriculture Production program, which equips individuals with the competencies needed to produce organic farm products, including chicken and vegetables, as well as organic supplements like fertilizers and concoctions. This implies that short-term courses for Organic Agriculture will address the needs of farmers, practitioners, and interested individuals to learn different aspects of organic agriculture (Homillano, 2023).

However, a concerning trend has emerged in agricultural education throughout the Philippines, where enrollment in agriculture and related courses has seen a significant decline. The Philippine government-hosted Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA) confirmed that enrollment in agriculture and related courses has been declining by an average of 1.5 percent yearly. (Climate Tracker. Organic Agriculture in the Philippines 2022) To address this concern, the Philippine government advocates for agricultural education in the country to become more focused on creating business opportunities from agriculture and developing students' technical and entrepreneurial skills. This leads the University to create short-term courses accessible to everybody who wants to learn basic organic agriculture skills, knowledge, and practices. (Padin, 2015)

Williams and Dollisso (1998) advanced that the discipline of agricultural education (teaching and learning in agriculture) should become "an active partner in achieving the goals of a sustainable agriculture industry. Marshall and Herring (1991) believed that sustainable agriculture should be integrated into the curriculum. Integrating the technical and scientific elements of sustainable agriculture would help upgrade the high school agricultural education curriculum to meet the needs of students preparing to enter the workforce of the 21st-century food and fiber system (NCAE, 1995).

Sustainable agriculture requires a long-term perspective and continuing activities over several generations. Therefore, the performance and behavior of current agricultural students as agriculturists and professionals will ensure the sustainability of agriculture in the future. In this context, since attitudes, norms, and values are important determinants of human behaviors and performance, in the long run; attitudes become especially important because they provide direction and purpose to behaviors and performance (Hyytia and Kola, 2005). Thus, a better understanding of students' attitudes toward organic farming would aid the development of teaching and learning initiatives in this area.

To enhance students' knowledge about organic farming, it is important to develop a curriculum familiarizing students with organic farming practices and concepts such as ecological equilibrium, agroecosystem sustainability, new technology, Indigenous knowledge, nutrition value, human safety, favorite yield production, soil structure improvement, erosion reduces, etc. The economic, social, and extension aspects of organic farming are additional factors of student's awareness that is related to their interest. (Golzardi, 2012).

The study's main objective is to determine the perspective, interest, and awareness of Senior High School Students on Organic Agriculture Farming.

1.1 Background of the Study

The Local Government Unit of Baao has embraced this initiative by conducting training programs for Senior High School students pursuing Technical Vocational Livelihood tracks. This program empowers youth in agriculture, promotes sustainable farming practices, fosters entrepreneurship and innovation, and supports rural development and food security. Furthermore, it provides technical assistance to students, enhancing their skills and knowledge, and potentially assisting them in obtaining TESDA certification.

Despite these efforts, a significant challenge remains the limited number of youths choosing agriculture as their passion. This raises a crucial question: why are young people, not only in Baao, hesitant to embrace organic agriculture, despite the growing demand for organic products? Further investigation is needed to understand the factors influencing youth's choices and to develop strategies that effectively address these challenges and encourage greater participation in organic agriculture.

1.2 Research Design

This study employed a qualitative research approach to investigate the research question. Data was collected through a combination of methods: a focus group discussion with students and key informant interviews with stakeholders. These methods facilitated the gathering, analysis, and description of data, leading to both qualitative and quantitative insights. The study's findings provide a comprehensive understanding of senior high school students' interest in organic agriculture within the TVL track - Agriculture Strand.

1.3 Setting of the Study

The municipality of Baao, known for its active agricultural sector, was chosen as the study site due to its significant focus on youth-oriented interventions. This focus is evident in the numerous training programs offered to young individuals in various barangays and elementary, junior, and senior high school students in different schools. The study specifically focused on senior high school students enrolled in the Technical-Vocational-Livelihood (TVL) track, Agriculture Strand, located in the municipality of Baao, Camarines Sur, Philippines. This barangay, characterized by its predominantly agricultural lands, relies heavily on the cultivation of corn, coconut, banana, and vegetables as the primary source of income for its residents. According to the Office of the Municipal Agriculturist, there are a total of 199 registered farmers in the Registry System for Basic Sectors in Agriculture (RSBSA). This barangay boasts the largest number of farmers in the upland areas of the Senior High School, 25 students in Grade 12 and 24 students in Grade 11 are enrolled in the TVL track of senior high school, highlighting the municipality's commitment to nurturing the next generation of agricultural professionals.

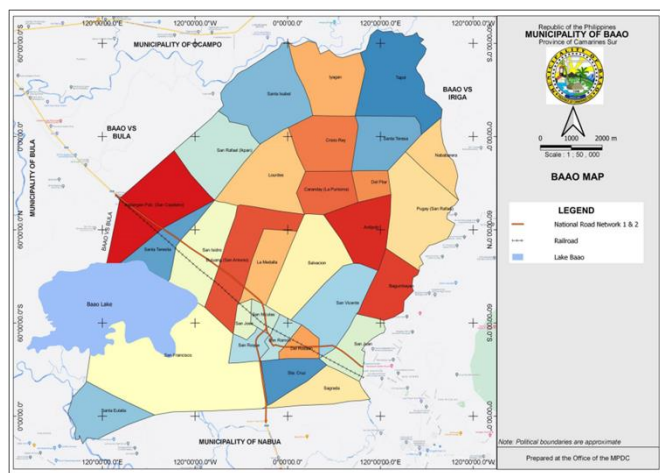


Fig. 1. Map of Municipality of Baao

1.4 Participants of the Study

This research employed a complete enumeration technique to select participants from the Agriculture Strand of the Technical-Vocational-Livelihood (TVL) track of the Senior High School. The TVL track aims to equip students with the necessary skills and knowledge for successful careers in agriculture, nurturing agricultural awareness, practical skills, and an entrepreneurial mindset. This program prepares students for diverse agricultural-related jobs and contributes to the overall development of the country's agricultural sector. The study utilized a focus group discussion (FGD) to investigate the interest of senior high school students in agriculture. The FGD participants consisted of students who had undergone training programs conducted by the Office of the Municipal Agriculturist of the Local Government Unit (LGU) of Baao. These students are primarily the children of farmers.

1.5 Methods and Procedures

This research investigates the interest in organic agriculture among senior high school students enrolled in the Technical Vocational Livelihood (TVL) track, specifically the agriculture strand, at Senior High School in the municipality of Baao. The researchers aim to identify the students' perspectives, interests, and awareness of organic agriculture practices. While many young people express hesitation towards organic agriculture due to various factors, this research seeks to address this challenge by promoting youth engagement in organic agriculture. By nurturing a deeper understanding of organic agriculture and its potential, the study aims to contribute to the sustainability and future of this vital industry.

This research employed Focus Group Discussions (FGDs) as the data collection method to attain the objectives. A semi-structured FGD guide, comprised of open-ended questions, was designed to encourage in-depth discussions. The guide explored key themes including initial perceptions of organic agriculture, experiences with the program by the Local government unit (LGU), motivations for participation, and perceived benefits and challenges. Each FGD session involved 8-10 students, ensuring a diversity of perspectives. Audio recordings and field

notes were meticulously documented to capture the discussions. These recordings were then transcribed verbatim and analyzed using thematic analysis, allowing for a comprehensive understanding of the participants' insights.

1.6 Guide Questions for the Interview

To ensure the quality and trustworthiness of the FGD instrument, a thorough validation process was implemented. The guide's content and structure were carefully reviewed and refined by experts in the field, ensuring its accuracy and relevance. Additionally, inter-rater reliability checks were conducted to confirm the consistency of thematic coding, guaranteeing that different researchers would similarly interpret the data. The feedback from both the FGD participants resulted in revisions that strengthened the instrument's face validity, content validity, and overall credibility. These measures collectively contribute to the instrument's robustness and suitability for its intended purpose.

The focus group discussion (FGD) was conducted over a single day at Senior High School in Baao, Camarines Sur, Philippines. Participants were carefully selected from senior high school students enrolled in the Technical-Vocational-Livelihood (TVL) track who had previously participated in training programs organized by the Office of the Municipal Agriculturist of the Local Government Unit (LGU) of Baao. Prior to each session, informed consent was obtained from both the participants and their parents or guardians. The FGD was facilitated by a trained moderator, assisted by a note-taker, and audio recordings were made with the participants' permission. Field notes were also taken to capture non-verbal cues and observations, providing a comprehensive record of the discussion.

1.7 Ethical Considerations

Before the research activity, all participants aged 18 years and older provided Free Prior Informed Consent (FPIC). This ensured that each participant understood the nature, purpose, and potential risks involved in the activity. Additionally, participants were informed about their right to withdraw from the study at any time without consequence. To further ensure ethical conduct, the research team obtained assent from participants who were not yet legally able to provide full consent. This process involved explaining the research in age-appropriate language and confirming their willingness to participate.

The session began with introductions by the moderator and facilitator. They presented themselves, and the research title, and provided a clear explanation of the research objectives and rationale. The moderator then introduced the discussion topic, stimulated an environment of open dialogue, and encouraged active participation from all attendees. Throughout the session, the moderator actively facilitated the conversation, ensuring that all questions were addressed thoroughly and that all participants felt heard and respected.

Summary of Findings

The salient findings of the study are as follows:

1. The Perspective of the students, Organic Agriculture Farming defines the crop as a method of applying or processing without synthetic pesticides. The students' knowledge is based on practical knowledge acquired in school, where they work together with plants. Students understand organic agriculture as an important educational opportunity that gives them useful knowledge and skills, due to a high level of interest. These abilities are thought to be helpful for their personal development as well as for sharing with their communities and families. Participant X expressed "I am proud that I acquired this knowledge and experiences, especially on planting patchay and tomato". Also, participant Y "Organic agriculture farming will be beneficial to me, especially to my family". Based on the participants' answers during the FGD, the focus of their organic agriculture farming was on the plant's practices, however, there were a lot of types of agriculture such as Crops, Poultry & Dairy, Fisheries, and Forestry that practices may be selected according to the need and choice of the underdeveloped and developing countries agriculture with the modifications of the proposed innovations as needed (Mridha, 2021).
2. The Awareness of the students, most students first encountered the concept of organic agriculture during Grade 10 in their junior high school. This initial exposure often started to have curiosity and excitement, though it was limited to specific aspects of the discipline. Also, the awareness of the participants on organic agriculture farming is limited. Osei et al., (2013) A huge majority of students received their knowledge from school, primarily in the school. The information indicates that school remains the main channel for the popularization of organic agriculture; it is imperative therefore to strengthen the teaching of organic agriculture, not only at the tertiary level but at all levels of the educational ladder. Students had claimed ignorance of the term "organic agriculture" and only confirmed their awareness after being asked some leading questions or being offered supplementary explanations. Relatively more female students could identify themselves with organic agriculture than their males. The reason for this difference is not immediately clear but perhaps it has to do with the fact that female students are more likely to cook than their male. To enhance the student's awareness of agriculture, the improvement and educating of the public, that food and farming are components of agriculture, will be beneficial to reframe the pre-formed basic mindset that early learners must have had (Venkataraman 2022).
3. The Interest of students, and the enjoyment of the hands-on planting, cultivating, and growing of the crops make the students feel fulfilled and consider organic agriculture to be an exciting and rewarding experience even though the students were working under seasonal weather conditions as the school place is upland. In addition, the experiences of the students feel a sense of pride and accomplishment, although there are few students viewed organic agriculture as less aligned with their future career plans and goals. Based on the participants' interest in organic agriculture farming, the career choice has a factor on a career path. Harbstreit et al., (2021) career selection is not merely a short-term activity carried out by a person when completing education but is a lifelong process. Dzikri et al., (2021) this implies that students' career planning does not only take place at this time but lasts until they can achieve what they expect to be by the plans they have made previously.

Conclusions

1. The students view organic agriculture as more environmentally friendly specifically in the crop production system that does not apply synthetic pesticides. This view is largely influenced by practical school activities, which emphasize practice. Students view organic agriculture as an important area through which they can gain knowledge and skills that they think will benefit them and their families and communities. Organic agriculture proved to be a fulfilling activity and one that instilled pride, although it involved hot working conditions.
2. Students' awareness of organic agriculture is usually initiated during high school, particularly in Grade 10, where the focus is usually limited to plant-based practices. This early exposure, although narrow in scope, often ignites curiosity and enthusiasm among students, laying the groundwork for deeper understanding and engagement with sustainable agricultural practices.
3. The most striking thing about organic agriculture, to most students, is that it's very thrilling and rewarding because one can interact with the crop when growing it. Most of the students feel proud and content with the whole experience since they are challenged with several things, like hard conditions under which crops must be grown in upland areas. However, some feel that organic agriculture is a lot different from their ideal expectations for their future career. Suggesting a broader opportunity in diverse aspects should ensure the interest.

Recommendation

Based on the findings and conclusions presented, the researcher suggested the following:

1. Strengthening awareness through Early Integration, integrate organic agriculture concepts into the curriculum at earlier grade levels to foster awareness and interest from a young age. Also, include diverse topics such as animal husbandry, agroforestry, and organic waste management alongside plant-based practices to broaden students' understanding of the field.
2. Develop digital resources such as videos, interactive simulations, and mobile applications to make learning more engaging and accessible. Also, utilize social media platforms and online campaigns to showcase student projects, share success stories, and promote organic agriculture as a sustainable and rewarding career path.
3. Administrators may encourage their teachers to use digital or technology programs in their lessons and to provide new ways of teaching agriculture, which will make them more effective in imparting learning.
4. To better understand the importance of organic agriculture careers, there is a need to highlight successful stories, and research should be conducted across the Philippines. This would provide valuable insights into the factors influencing career choices and the experiences of successful youth engaging in agriculture. Also, provide them with access to quality education and financial support like scholarships, grants, and subsidies to help them establish successful farming careers.
5. Future researchers may use the result of the study as a valuable reference for agriculture studies on promoting and showcasing the role of technology in the supporting educational system.

Acknowledgments

We would like to extend our heartfelt gratitude to all participants, particularly the senior high school students from the Technical-Vocational-Livelihood track in Baao, Camarines Sur, Philippines for their invaluable insights and their willingness to share their perspectives on organic agriculture. We also wish to express our appreciation to the Office of the Municipal Agriculturist of the Local Government Unit of Baao for their support of training programs that empowered these students. Finally, we would like to thank our research team and the experts who contributed to the validation of our research instruments, thereby ensuring the quality and credibility of this study.

References

1. Aquino, E. C. (2022). Interpreting the attitude and behavior of farmers: A case of organic agriculture adoption and information sharing in Laguna, Philippines (Doctoral dissertation, Tokyo University of Agriculture). Graduate School of Agriculture, Tokyo University of Agriculture.
2. Boateng, M. (2013). A Study of Student Perception of Organic Agriculture and Organic Foods.
3. Dzikri, F. F., & Maknun, J. (n.d.). The effect of student achievement on student interest and career choices: A systematic review. Sekolah Pasca Sarjana, Universitas Pendidikan Indonesia, Bandung, Indonesia.
4. Harbtreit, S. R., & Welton, R. F. (n.d.). Secondary agriculture student awareness of international agriculture and factors influencing student awareness. Kansas State University.
5. Homillano, M. L. M. (2023). Short-term courses in organic agriculture for home gardens: A potential approach to securing household food supply. *Asian Journal of Education and Social Studies*, 42(1), 1–8. <https://doi.org/10.9734/AJESS/2023/v42i1904>
6. Hyytia, N., & Kola, J. (2005). Citizens' attitudes towards multifunctional agriculture. *Agricultural Policy*, 8, 1–25. Department of Economics and Management, University of Helsinki.
7. Landicho, L. (n.d.). Prospects and challenges in promoting organic agriculture in the upland communities in the Philippines: Implications for food security and nutrition.
8. Maghirang, R. (n.d.). How sustainable is organic agriculture in the Philippines? University of the Philippines Los Baños.
9. Marshall, T. A., & Herring, D. R. (1991). Sustainable agriculture: An essential part of the agriculture curriculum. *Agricultural Education Magazine*, 64(1), 10–12.
10. Mendoza, C. R. C., & Garcia, R. Q. (2023). Phenomenological research on the agricultural experiences of youth in the Philippines: Practices and challenges. *Qualitative Research*, 16, Article e767. <https://doi.org/10.36367/ntqr.16.2023.e767>
11. Mridha, A. (n.d.). Student agriculture: One student, one integrated agriculture farm. King Saud University.
12. National Council for Agricultural Education (NCAE). (1995). Reinventing agricultural education for the year 2020: Executive summary. Alexandria, VA.
13. Ortega-Dela Cruz, R. A., & Quimbo, M. T. (2018). Determinants of student persistence in completing BS agriculture degrees in the University of the Philippines. *Journal of International Agricultural and Extension Education*, 25(2), 102–114. <https://doi.org/10.5191/jiaee.2018.25208>
14. Osei, S. A., Owusu, M., Poma-Yeboah, P., & Boateng, M. (n.d.). A study of student perception of organic agriculture and organic foods. Department of Animal Science, Kwame Nkrumah University of Science and Technology, Kumasi, Ghana.
15. Padin, M. G. (2015, August 26). Enrollment in agriculture courses continues to decline. *Business Mirror*. Retrieved from <https://businessmirror.com.ph/2015/08/26/enrollment-in-agriculture-courses-continues-to-decline/>
16. P. Koivisto, A. D. Vinokur, and J. Vuori, “Effects of career choice intervention on components of career preparation,” *Career Dev. Q.*, vol.59, no. 4, pp. 345–366, 2011.
17. Quijano-Pagutayao, A. S. (2024). Youth's psychosocial characteristics in agriculture: The case of Bukidnon, Philippines. Department of Agricultural Education and Extension, College of Agriculture, Central Mindanao University. <https://orcid.org/0009-0002-5615-4597>
18. Technical Education and Skills Development Authority (TESDA). (n.d.). Training regulations: Organic agriculture production NC II. TESDA. Retrieved from <https://tesda.gov.ph/Downloadables/Organic%20Agriculture%20Production%20NC%20II.pdf>
19. Venkataraman, S., & Sivakumar, G. (n.d.). A study on interest in agriculture among higher secondary students.
20. Williams, D. L., & Dollisso, A. D. (1998). Rationale for research on including sustainable agriculture in the high school agricultural education curriculum. *Journal of Agricultural Education*, 39(2), 9–15.
21. Zamora, O. B. (2009). Sustainable agriculture education and research at the University of the Philippines Los Baños: Status, challenges, and needs. *Journal of Developments in Sustainable Agriculture*, 4, 41–49.
22. Zamora, O. B. (2014). Challenges and opportunities for sustainable agricultural education in the Philippines and in the ASEAN region. *Journal of Developments in Sustainable Agriculture*, 9, 29–40.