

Agri-tourism as Strategic Intervention for Tourism Education: Lessons learned from Central Luzon State University, Philippines

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ABSTRACT

This study identified and analyzed agri-tourism as a strategic intervention for tourism education using related programs, projects, activities, achievements, and initiatives of the Central Luzon State University (CLSU), Philippines. The agri-tourism landscape of CLSU as input resources to SUC-tourism education was determined and described through government and industry standards and education policies. Also, an innovative tourism education design platform in relation to community education development was created considering factors like faculty complementation, community empowerment, course development programs, and linkages and industry networks. The potentials and status of CLSU Income Generating Projects (IGPs), as agri-tourism education platform, were done based on qualitative data and narratives, analysis, and interpretations complemented by contextual, historical analysis, and key informant interviews related to the establishment of CLSU's agri-tourism and programs. Agri-tourism-related programs in the university stand for a holistic system corresponding to community-based tourism development and trends, which allows for a strong and effective tourism education.

Key Words: Tourism Education, Agri-Tourism, Community Development, State Universities and Colleges

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1. INTRODUCTION

Tourism and hospitality education in the Philippines is both challenging and rewarding (Bian & Aquino, 2016). The increase in receipts mean more opportunities for the country and the people, while the demands of time require focus and attention to survive and thrive. According to Wong, Pine and Tsang (2013), sustainable business complements with effective teaching vis-à-vis balanced learning accessibility and balanced experience styles. Notably, agri-tourism's meaningful visitor offerings come from educational and recreational activities like farm lodging in Italy and England, food and drinking experiences in Alberta, Canada, and business at a working farm in Clackamas County, Oregon, USA (Moore, 2017).

In the Philippines, the Commission on Higher Education (CHED) is the education governing body. It is followed by Higher Education Institutions (HEIs) including State Universities and Colleges (SUCs) in curriculum development, operations, monitoring, and evaluation. CHED provides policy standards and guidelines (PSGs) known as CHED Memorandum Order (CMO). CMO No.30, series of 2006

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guided HEIs in offering a degree in tourism and hospitality management (THM) and other related fields. Solis (2012), identified challenges in preparing industry-ready professionals like language proficiency, international experiential training and exposure, inadequate laboratory facilities among offering schools and universities, and inexperienced administrators and non-experienced educators. Now, CMO No.62, series of 2017 sets the legal basis and guide in keeping THM curricula at par with global set up, standards, and competition.

Moreover, the government has promulgated and updated a set of accreditation rules and regulations from agri-tourism to farm tourism. Executive Order No. 292 (2004), otherwise known as Administrative Code of 1987 or the Rules and Regulations to govern the Accreditation of Agri-tourism/Farm Site, was used by the Department of Tourism (DOT) to recognize agri-tourism sites in the country up to August 2018. Republic Act 10816 (RA 10816), otherwise known as the Farm Tourism Development Act of 2016, is on its way to developing specific policies for its Implementing Rules and Regulations (EO 292, 2004, RA 10816, 2016 and DOT, 2018). Both EO 292 and RA 10816 strongly imply that instruction, research and extension are major responsibilities of Higher Education Institutions particularly State Universities and Colleges (EO 292, 2004 and RA 10816, 2016).

Agri-tourism is also referred to as school tourism because people are trained to become specialists in different fields and in the perspectives of culture and community development, business, and leisure (Petroman et al., 2015). Academic and tourism experts are tapping the potential of agri-tourism to alleviate poverty and promote agriculture courses in schools and universities (Aquino, 2010). Integrated and varied methodologies are used in learning as reflected in the site's holistic and integrated sustainable agri-tourism policy as described by Saima Ashraf Awan & Abdullah Rahan ul Haque Saeed (2016), with inclusive of environmental preservation, resource protection through income, and livelihood resolving community challenges. Relatedly, organic, nature-friendly, and health and wellness farms are among the world's top farm destinations ("The Philippines is now among the world's top agri-tourism destination", 2019). These popular farms are sample sites that are considered schools because of the learning opportunities they offer.

SUCs involvement as stakeholder-partner in agri-tourism development in the Philippines is recognized under the CHED 's role in EO 292 (2004) and RA 10816 (2016). The University of the Philippines' Asian Institute of Tourism (UP – AIT) worked with the DA and DOT on a manual that identified agri-tourism sites in the country (DOT, 2002). The agri-tourism course of the University of the Philippines at Los Baños (UPLB) has been contributing to the integration and coordination of Philippine agricultural resources for technology promotion, commercialization, enterprise development, and entrepreneurship since 2012 (Lesaca, 2012). Aquino (2010), as cited by Padilla (2012), said that the Bureau of Agricultural Research (BAR) has likewise recognized the efforts of Benguet State University (BSU) in developing processing technologies and marketing strawberries to continuously promote the province of Benguet as the Salad Bowl of the Philippines. The Central Bicol State University of Agriculture (CBSUA) started offering the Bachelor of Science in Agri-ecotourism Management [BSAETM] (CBSUA BSAETM Curriculum, 2014). As agri-tourism continue to progress in education perspectives, it remains as a professional course in CMO 62, 2017. It is noteworthy, that Viernes, Aquino & Garcia (2020) published the operational model for HEIs in implementing agri-tourism development programs including the Asia Pacific Network for Sustainable Agriculture Food and Energy (SAFE Network) recently launched its Virtual Farm Academy last 06 July 2020, hosted and implemented by CBSUA, supported by the Indonesian Education and Culture, Maejo University, in Chiang Mai, Thailand, and CHED (Hidalgo, 2020).

The Central Luzon State University (CLSU), in the Science City of Muñoz, province of Nueva Ecija is a Level IV, 654.05-hectare State University and declared Cultural Property of the Philippines (PH-03-0027) due to its historical, cultural, academic, and agricultural importance to the country (CLSU Profile, 2016). It is designated by CHED as a Center of Excellence in Agriculture, highlighting its strength in science and technology, proactive to agro-industrial development, and people empowerment. A significant agri-fishery contribution, CLSU's Daerrys (coined Dana and Terry) Tilapia Ice Cream is an awardee to the world's largest food and beverage exhibition network – Salon International de L'Agroalimentaire (SIAL) ASEAN Manila in 2016 (Zuraek, 2016). CLSU Public Affairs Office (PAO), on the other hand, manages and maintains a record of its visitors through its Agri-tourism and Administrative Fees Form (CLSU-PAO Form, 2016).

In 2001, CLSU was declared as a Model Agri-tourism Site for Luzon by the Philippine Agri-tourism Program jointly implemented by DOT and Department of Agriculture (DA) in coordination with the University of the Philippines Asian Institute of Tourism [UP-AIT] (CLSU Marker, 2001). Both EO 292 and RA 10816 recognize sites over destinations. Moreover, according to the Chief of the Public Affairs Office (PAO) of CLSU, Ms. Julieta P. Burnot, a marker stands as the sole proof of the model grant and CLSU has not renewed its accreditation (Burnot, personal communication, 28 February 2020). SUCs establish Income Generation Projects (IGPs) ready to support tourism and hospitality education and as a criterion for levelling (Department of Budget and Management (DBM)-CHED Joint Circular No. 1, 2016). CLSU have agri-tourism related IGPs that are used for tourism purposes, may be arranged and requested for interactive activities (Burnot, personal communication, February 28, 2020). However, no IGP at CLSU is an accredited project/site (DOT, 2018). These are great attainments that can be taken advantaged of as agri-tourism learning sites packaged for a course program or degree offering.

Specifically, this research determined the agri-tourism resources, its utilization implications and benefits, and sustainability prospects used and experienced by CLSU for a tourism education development model. This was done to present potentials pertinent to the establishment and identification of more schools to offer agri-tourism. Moreover, this may be another lead for CHED to eventually issue a separate and exclusive set of policies, standards, and guidelines for agri-tourism degree program offering. All of these were described to form the agri-tourism landscape, identify development and influencing factors, and serve as baseline and/or additional information for tourism education in SUCs leading it as a strategic intervention for Tourism Education Platform.

This study looked into the CLSU agri-tourism potentials as strategic intervention for tourism education. Specifically, it determined the agri-tourism landscape of CLSU as input resources to SUC-tourism education as regards government and industry standards and education policies. Moreover, an innovative tourism education model was designed and developed in relation to community education. Factors considered were faculty complementation, community empowerment, course development programs, and linkages and industry networks.

2. CONCEPTUAL FRAMEWORK

2.1. Agri-tourism as a fast-growing enterprise

Philippine agri-tourism, and its global recognition, incrementally grew as an industry through significant contributions of stakeholders (Ichimura, 2019). Key officials from the government and the industry support the promotion and development of agri-tourism. The recorded foreign agri-tourists of 3.177 million is 10.24 percent higher than the previous year from January to May 2018. There are 76 DOT-accredited sites, which proves that it is a growing industry (DOT, 2018).

Agri-tourism is a productive industry stimulating dynamism in technology innovations, inclusiveness in terms of impact on people, and the capability to grow incrementally. Its vitality is made possible because the technology-based innovations in agriculture are intended to allow farmers to survive and thrive farm challenges. The study of Aquino and Battad (2014) used agri-tourism as a model for disaster-prone areas, particularly earthquake and volcano eruption affected areas. Also, their study supported the environmental standpoint of the Green Tourism and Sustainable Agriculture Development (GTSAD) model which helped people earn through innovation, and empowered them to be curators of their land in a sustainable way.

2.2. Benefits of agri-tourism

Spire Research and Consulting (2013) specified benefits of agri-tourism: economic growth from job and business opportunities, social benefits through balance in rural and urban tourism development, and heritage and ecological conservation from friendly and controlled environments. Also, agri-tourism can be a solution to rural and difficulties resonating harmoniously with socio-economic development, through strict adherence to its principles, confidence in learning the concept, and resourcefulness among people and communities (Khamung, 2015).

Awan and Zhuang (2016) likewise emphasized that agri-tourism is an incremental system of tourism ventures utilized by both industrialized and emerging countries. In China, agri-tourism benefits are economic growth and environmental protection directly related to poverty alleviation and community empowerment. United States of America's strategy for sustainability are agribusiness and farm engagements by locals (to increase 50% of food availability by 2035) and decrease in oil usage by 50% of the same year (Yee, 2013). Scheyvens and Biddulph (2017) study presented well the idea of inclusive and transformative tourism engaging marginalized groups in ethical production or consumption in sharing tourism benefits.

2.3. The functions of State Universities and Colleges (SUCs)

SUCs as educational institutions consider education as business and the students are the customer. Hence, SUCs must learn to serve students with inclusiveness (not just one group of markets but all), innovation (incorporate the new and not only the old or basic), and with excellence (competent and competitive educators). This is to sustain its operations and offer the most expensive and most famous product – education (Strategic Education Technology [SET], 2018). Because of this, national agencies particularly the Department of Budget and Management (DBM) and the Commission on Higher Education (CHED), are tasked to evaluate and monitor the performance of higher education institutions as a basis for subsidy and recognition through level standards (DBM-CHED Joint Circular No 1, 2016).

Higher educational institutions like SUCs, are evaluated based on Key Result Areas (KRAs), also known as the four-fold functions – instruction, research, extension, and business. As part of instruction, research outputs are extended as community services, which are translated as enterprises. Income Generating Projects (IGPs) are strategies to manage resources embodied in the Higher Education Modernization Act of 1997 (RA 8292, 1997). They subject themselves to excellence check to be called relevant with standards not only from their place but also with globally recognized organizations like the Association of Southeast Asian Nations (ASEAN). Like industries and private organizations, SUCs must advance through innovation, productivity, and diversification. These are the components of the Joint Circular No.1, series of 2016, also known as the Levelling Instrument for SUCs.

2.4. Transformation and reform-the change for sustainability

The concept of change becomes profound and challenging as it heads for sustainability. Both agriculture and tourism as separate industries are composed of systems that are likely made more complex put together with agri-tourism. The theory of multifunctionality makes the system more significant, given more stakeholders and key players who benefit in the industry (Aquino, 2007). Conversely, stakeholder contribution working simultaneously coupled with collaboration employing delegation, cooperation, continuous education, and transparent reciprocity of income and benefits is the key to industry growth. Sustainable agri-tourism development is still and will always be founded by balanced economic viability, social equity and cultural accurateness, and environmental soundness (Budiasa Budiasa, I Wayan & Ambarawati, I Gusti Agung Ayu, 2014). In reality, the community where the natural resources are, and the people who manage the former are the significant assets of tourism (Cruz, 2009). He mentioned that the utilization and application of resources results to change either as processes and or systems the people transform, and visible community reforms are noticeable towards sustainability. Furthermore, community-based tourism (CBT) and its impact on the people it serves is the operational site for sights like incremental learning in a whole setup, local production for global consumption, and people empowerment. It is not where authority or influence is but the start of development (Budiasa et al., 2014). Contrary to the study of Joo, Khanal & Mishra (2016), which reveals that the profile of agri-tourism farmers were older or matured, educated, and female. Although, small-scale farmers earned the most household income and return to assets.

Also, CBT is driven by the support of external and internal agencies. Political support and social order are approaches to development. The government, private businesses, and administrative bodies for larger companies are called external and internal facilitators (Mtapuri & Giampiccoli, 2014). The usual challenges on community capacity, limited budget in the provision of standard facilities, lack of promotions are government assistance programs of today.

3. METHOD

This case of CLSU agri-tourism landscape in designing its tourism education development model, as cited by Yeboah, Owens, Bynum & Okafor (2016), is presented as the basis of its initiatives, limitations, and processes undertaken. The potentials/status of CLSU IGPs, as agri-tourism site, were done based on qualitative data and narratives, analysis, and interpretations complemented by contextual, historical analysis, and key informant interviews related to the establishment of CLSU's agri-tourism and programs.

Secondary data was utilized to find the existing and combined standards and regulatory requirements by the government and industry, factors relative to Higher Education Institutions (HEIs) including SUCs. Published journals were used to address innovation adaptation, link to community development, and responsiveness to sustainability dimensions towards verifying agri-tourism development.

CLSU's condition in agriculture and tourism was selected following the 111 Higher Education Institutions (HEIs), particularly the State Universities and Colleges (SUCs) or Chartered Colleges and Universities of the Philippines (CCUs) recognized by the Philippine Association of State Universities and Colleges (PASUC). There are 56 agricultural SUCs in the country (SUC Association of Colleges of Agriculture of the Philippines [SUC-ACAP], 2019). Most importantly, there are only four agricultural development perspectives as presented in the Strategic Agriculture and Fisheries Development Zones (SAFDZ) in the country, which are all found in Luzon. These are upland, lowland, rain-fed irrigated,

and disaster-prone areas (RA 8435, 1997). The case of CLSU is analyzed for lowland ecosystem towards verification, and contextual analysis about the general provisions for tourism and agriculture industries.

The University President endorsed the study to the Chief of the Public Affairs Office (PAO) of CLSU, Ms. Julieta P. Burnot who was interviewed and assisted the researcher in gathering data. The interview guide was based on DBM-CHED Joint Circular No 1, s.2016, or the SUC Levelling Instrument. The main questions focused on the fourfold functions of SUCs: instruction, research and extension, including production, and business which are also the criteria used for leveling. Other pertinent documents and complementary documentation during visits were asked to complete the needed historical data of the study.

Moreover, the researcher obtained pertinent documents, synthesized, and validated through interviews. Also, observations through field visits and photo documentations were done to support operations of facilities, interactive activities, manual labor, products produced, and clientele involvement. All institutional and sensitive data acquired were held private and confidential, adhered to the provisions of the Data Privacy Act of the Philippines (RA 10173, 2012).

4. FINDINGS AND DISCUSSION

4.1. CLSU agri-tourism landscape input to SUC-tourism education development

Tourism development requires collaborative management towards the achievement of objectives and effective operational strategies (Damanik, 2016). CLSU as an academic and research institution works on a model of partnership between the university, government, industry, and the community (Aquino, 2019). Solis (2013) illustrated global and local responsiveness, and strong sociological and philosophical foundation in tourism education as three important ingredients to develop future leaders. Agri-tourism education in CLSU may be effectively applied and sustainable because it is reinforced by stakeholder contributions and involvement (Budiasa et al., 2014).

4.1.1. Government and industry standards: CLSU offers educational agri-tourism through the agricultural technologies, whereas both theoretical and practical knowledge are directly learned and experienced by students and visitors (Petroman et al., 2016). SUCs are input-oriented in terms of technology utilization in view of their fourfold functions: instruction, research, extension, and business, which are also used as criteria for levelling (DBM-CHED Joint Circular No 1, 2016). Values like resiliency, productivity, and efficiency are among the outcomes of innovations. Viernes, et al. (2020) added technology as a standard requirement and used as the foundation of every business enterprise in SUCs. In CLSU, the technology used in the production of tilapia ice cream alone has excellent tourism and education catchment value. This is in addition to location, facilities/amenities, and infrastructure as factors required by the DOT (EO 292, 2004). IGPs in CLSU, however, can become DOT accredited agri-tourism sites coinciding with standards prescribed by the government and the agriculture and tourism industries (EO 292, 2004 & RA 10816, 2016).

Agri-tourism teaches a student and visitor to realize it as a job and a business opportunity. An agri-tourism experience is an interactive activity created and designed through the use of facilities/amenities/equipment and infrastructures suggested by technology. Every interactive activity corresponds to a service interaction that includes job and employment generated by agri-tourism leading to community development. SUCs are avenues for engagement especially proven business operations that help individuals become productive and profitable. CLSU boasts success stories of its service

recipients in business incubation like Mr. Alvin Jay A. Gines, an organic fertilizer producer from Llanera, Nueva Ecija (CLSU AFTBI, 2020).

Standards are taught to prepare learners of, or allow them to experience accountability. Republic Act No. 10055 or the Philippine Technology Transfer Act of 2009 (RA 10055), encourages the ownership, management, use, and commercialization of research-based technologies for the use of the public. Technology, in this case, comes in forms like know-how, skills, products, processes, services, and practices (RA 10055, 2009). There are also agricultural technologies reinforced by government laws and policies like the Republic Act No 10068 or Organic Agriculture Act of 2010 and Integrated Urban Agriculture Act of 2014.

In a study conducted by Aquino and Agrupis (2019), they noted that successful tourism education is a combination of tourism principles and concepts with good partnerships with LGU-led community-based tourism sites as noted in strengthening the SUC-LGU tourism programs partnership at the ground. An example studied is the Mariano Marcos State University (MMSU) and provincial government of Ilocos Norte (PGIN) on several tourism programs and activities. This SUC-LGU partnership served as an initiative in establishing strong involvement between and among different stakeholders/partners involved in tourism education program especially for locally managed and developed tourism destinations.

As revealed in this present study, CLSU is favorable for agri-tourism education in as much as they are expected to produce research-based technologies as part of their fourfold functions (RA 8435, 1997, RA 10055, 2009 & DBM-CHED Joint Circular No. 1, 2016). Agri-tourism is considered an opportunity for CLSU to become more efficient and effective through its IGPs, where technologies are utilized for instruction and extended to transform communities.

Agri-tourism lessons recommend that requirements set by the government and industry are useful guide for farmers and other stakeholders. These are possible learning experiences and strategies for business operations or best practices. RA 8435 (1997) explains that the government encourages the use of agricultural technologies to help farmers with their needs, hence, community development through interventions, collaboration, and cooperation.

Accordingly, standards, the collaboration between government and industry should be evident that leads to well-defined quality standards, implemented, and maintained in the different tourism services to facilitate the provision of correct and accurate information to visitors and to promote competitiveness (UNWTO, [n.d.]). In particular, agri-tourism is impactful because it shares and disseminates cultural knowledge. Such perspective results that culture as a whole is essential to be preserved and conserved. The traditional side by side with the modern parts of culture are utilized for appreciation, learning, and experience.

4.1.2. Education policies: CLSU considers agri-tourism education ready with available legal bases. Agri-tourism could be taught as a professional course in its tourism and hospitality management programs based on CHED Memorandum Order No. 62, series 2017. It may be considered as a research course that designs interactive tourism-related activities, especially for visitors and entrepreneurs. CHED is identified as a partner in the institutional capacitation through training of business tourism-related owners, involved operators, technical-vocational education and training among practitioners, formulation and implementation of competency standards and training regulations, and capability

building for promotions (RA 10816, 2016). The existing program of CBSUA or the SAFE Online Farm Academy is viewed as a guide to develop new strategies and approaches for agri-tourism.

4.2. Innovative tourism education platform in relation to community development

Tourism education is equated with professional and practical skills training, hence, innovative, experiential, and collaborative (Saner, Bahceterli & Eyupoglu, 2016). In the case of CLSU, it has developed and established agricultural – related enterprises, with products, services, and strategies, earning through tourism that led them to be awarded Model Agri-Tourism Site in 2001. The Central Luzon Agricultural Museum of CLSU is an innovative initiative and strategy to captivate visitors and guests utilizing cultural and heritage stories, learning technological innovation milestones, and create a memorable sense of place. CLSU's Hydroponics and Aquaponics Technologies, and the Living Fish Museum featuring the Tilapia Production in Concrete Tanks which has didactic exhibits added features for agri-tourism intervention. Compared with contemporary museums, these have transformed heavily with visitors as shoppers and not only spectators, a redirected focus from photo collections and usual exhibits to an incremental attention to social, recreational, and participatory experiences (Shao, Ying, Shu, Morrison, and Booth, 2019).

4.2.1. Faculty complementation: CLSU exhibits favorable faculty complements for agri-tourism education through their actualized functions, practices, and achievements.

Faculty members are a pool of competent and collaborative experts, researchers, and extensionists in the guise of disciplinary enrichment and instructional development (CLSU Academic Affairs Program, 2016 and DBM-CHED Joint Circular No. 1, 2016). These are learning activities extended well to the students and experiences to visitors and communities CLSU serve. Manpower resource, particularly educational attainment, entrepreneurial attitude, managerial capabilities, and farm orientation and competencies is considered a performance determinant in agri-tourism (Wei-Ting Hung, Hsiu-Yin Ding & Sen-Tyan Lin, 2015).

Agri-tourism education can be offered in various CLSU ways and platforms. It can be as a course or program for students in related degrees (e.g. agriculture, tourism and hospitality management), experience to visitors, research venue, community training and competency building area, and production or business set up.

Teaching and learning are based and backed up with research-based information, extended to impact communities, and translated into tangible and intangible products. According to Bezés (2016), teaching complements research, which is practiced in CLSU and SUCs. Research reinforces and updates knowledge, an arm to realistic and practical teaching methodologies.

Relatedly, agri-tourism challenges and limitations particularly in interrelating business and teaching facilitate entrepreneurial and managerial skills development. Dr. Sofronio Kalaw, a biology professor, researcher, and head of the Center for Tropical Mushroom Research and Development (CTMRD) in CLSU, shared that being a business manager and a tour guide are among his new learning experiences (Kalaw, personal communication, February 28, 2020). Cruz (2016) corroborates with Jordan & Vogt (2017) on describing community stress as one negative effect of tourism through changed daily routines (e.g. tour guides eat their lunch earlier or later to serve tourists) and values (e.g. Entertainment activities like videoke until dawn).

CHED Memorandum Number 62 (2017) require faculty members of industry practice, relevant trainings and industry certifications/assessments, and awards and recognitions from organizations and competitions, as a minimum requirement to teach. Collaborations are made and practiced to satisfy these qualifications. According to Liburd and Edwards (2018), advanced sustainable development is the outcome of collaborative efforts since it harmonizes with diversity in values and agendas, brings out understanding, and resiliency in actions and decisions.

Agri-tourism is a collaboration of agriculture and tourism, and so with the human resources involved. The conceptualization, production, marketing and aesthetics, and continuous development of the tilapia ice cream is a collaborative effort and output of faculty members and employees from different units of the university. The concept of the ice cream product came from the President and faculty members of the hospitality management department, the tilapia as the main ingredient is produced and supplied by the Freshwater Aquaculture Center and sold by the production and marketing sites of the university. The Philippine Carabao Center (PCC) outlet, located within the campus, also sells tilapia ice cream together with the various carabeef product lines. Moreover, other colleges collaborate and involve themselves in different perspectives, like the “*AGRISIKAT! Sa AGRIKULTURA, SIKAT ka!*”, a career advocacy for grade 9 students and family engagement on agriculture and fisheries event organized by the College of Education (CED) and granted by the CHED National Agricultural and Fisheries Education [CHED-NAFES] (Javillonar, 2019). The event also highlighted activities like agri-fish camp, technology creative competition, photography and video contest and a Congress.

4.2.2. Community empowerment: CLSU’s strategic plan is centered on the theme *Excellent Service to People and Society* (CLSU Board of Regents (BOR) Resolution No. 02, 2015). One of the aggressive targets is to establish diverse platforms to lead CLSU as an education-economic zone, through learning and enterprise activities that support public service and social responsibility. Hence, the CLSU campus is one huge community ready for agri-tourism learning through its established existence and impact on the community where it is located and serves.

The researcher observed that CLSU is an all-in-one empowered campus, and so, its people. All within the campus are its own old market, hospital, postal office, food, accommodation, transportation, and ATM, among other facilities for students, employees, and visitors. According to Cruz (2014), tourism is a composite product, of primary and secondary attractions, necessary in the provision of meaningful experiences. The Alumni Food Court, for example, is a fascinating stakeholder contribution because it generates employment and business opportunity, secures food availability for extended hours, and sustainability to the destination (Cruz, 2014). Hence, CLSU may be considered a tourist destination.

CLSU extends all its projects and programs for the development of the community of the Science City of Muñoz and the province of Nueva Ecija, where it is located. It is declared as a Cultural Property of the Philippines (PH-03-0027) due to the presence of structures and initiatives of historical, cultural, academic, and agriculture impact to the community (Cultural Properties of Science City of Muñoz, 2016).

According to Viernes et.al. (2020), political systems define Higher Education Institutions (HEIs), particularly SUCs, and CLSU is one. Institutional support is a factor in the type of technology to be taken advantage of, kind and type of investment or offering, and who manages it. The natural resources and the people are the significant assets of tourism which makes up a community (Cruz, 2009). The success and challenges of tourism come from the initiatives and interventions to these assets. According to Alderton (2019), community empowerment is virtually government policy present in all levels of

management. In CLSU, the presence of a Public Affairs Office (PAO), maintenance of significant structures of historical value, and establishment of museums to preserve and share technologies to students, employees, and visitors, means that its administration supports tourism and its development. Cruz (2016) explained that the government support projects in terms of allocations and marketing.

4.2.3. Course development programs: Simplify the statement – brief, concise description. CLSU has competent and competitive programs necessary for agri-tourism education in different platforms. The teaching and learning environment is supported by corresponding internal resources, like experts and facilities, and external partners like government and non-government organizations and surrounding communities. Course development programs in agri-tourism extend from educational offerings to prepare students to survive and thrive in the profession and industry, extension projects to assist and sustain life in the community, and IGPs to back up and actualize interventions and innovations.

Online platforms are varied and available through Information Systems Institute (ISI) in CLSU. Its Virtual Learning Environment Platform was launched to provide digital and distance learning engagements (Santos, 2019). Hence, CLSU is ready even with the presence of pandemic which challenged the world in 2020.

4.2.4. Linkages and industry networks: Linkages and networks position the tourism industry to generate higher visitor number and income. CLSU partners build its presence, impact, and influence in the community, industry, international arena, and even virtual. Collaborations are believed to broaden CLSU's opportunities for advancement in terms of knowledge exchange, cultural immersion, technical/technological enrichment, faculty exchanges, and student apprenticeships (CLSU Annual Report, 2012). Among the agri-tourism-related collaborative partners of CLSU are the Department of Agriculture-Philippine Rice Research Institute (PhilRice), Philippine Carabao Center (PCC), Philippine Center for Postharvest Development and Mechanization (PhilMech), Department of Science and Technology (DOST), Phil-Sino Center for Agricultural Technology (PhilSCAT), the LGU, and provincial agriculture and tourism offices and the strong industries and organizations supporting agricultural development.

4.2.5: The CLSU tourism education model incorporating agri-tourism

Agri-tourism education may be a vital development program especially in agricultural SUCs, and CLSU is ready. Its agri-tourism related innovations and efforts of intervention in view of its fourfold functions are continuously inclusive and progressive, hence, sustainable. It is input-oriented in terms of technology development, production, and utilization, where productivity and efficiency among its people and stakeholders significantly benefit. CLSU and SUCs provide avenues for engagement like effective and efficient business operations capitalizing on community empowerment and resiliency especially in any agriculture and tourism or both endeavors. According to Aquino (2020), SUCs serve as training venues especially on capacitation and competencies build up. It is where knowledge and experiences are shared, ideas, theories, and best practices are identified, and transformation is actualized through technology and social innovations. More so, skills are enhanced to address the growing needs of the agriculture, tourism, and education services.

Sustainable development happens where collaboration, institutional support, and linkages and partnerships, transform and reform people and organizations. Figure 1 exhibits a functional and comprehensive model for agri-tourism as a favorable learning site and investment area for CLSU and other agricultural SUCs. Standards are established in the inclusion of business to tourism (e.g. EO 292,

2004 & RA 10816, 2016) and agriculture (e.g. RA 8435, 1997, RA 10055, 2009, RA 10068, 2010, Integrated Urban Agriculture Act, 2014). These policies ensure the security, stability, productivity, and profitability of related projects and programs. Moreover, SUCs operate through instruction, research, extension, and business as criteria for levelling (DBM-CHED Joint Circular No. 1, 2016). Technologies and innovations are encouraged and highlighted directly contributing performance. Strategies are also utilized and shared as practices. Community-based tourism is a great initiative and intervention to demonstrate realistic extension programs, projects, and activities. A collaborative partnership with the local government units, other agencies, and institutions is a realistic way to work with the community. Relatedly, these are the same resources needed for instruction purposes. Basically, agri-tourism suggests a realistic venues, methodologies, and platforms for learning where people can participate, are given job and business opportunities, and be empowered.

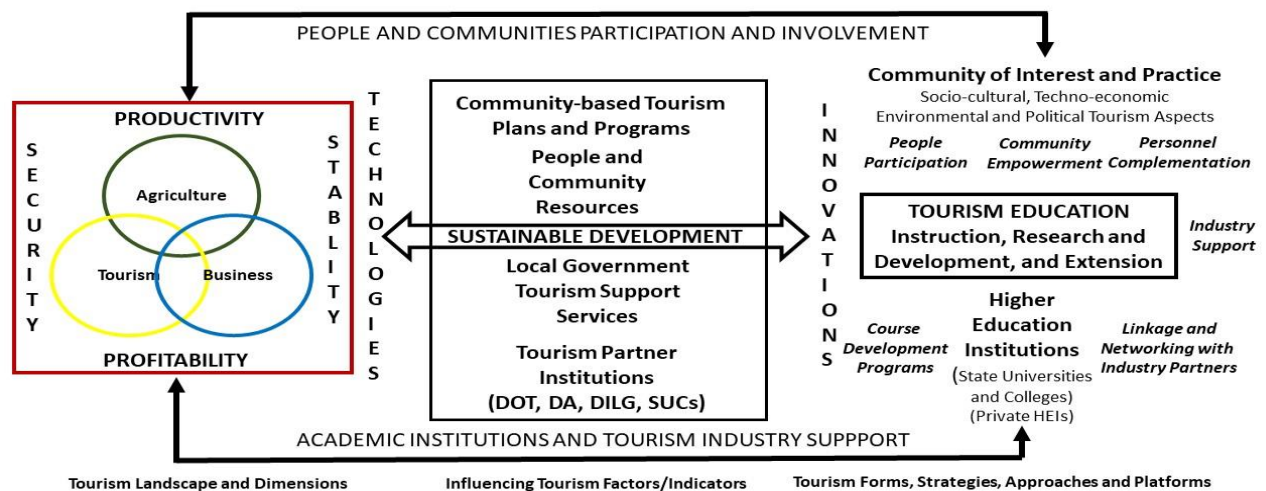


Figure 1. SUC sustainable tourism education model showing the dynamic interaction of influencing factors and parameters (Aquino & Viernes, 2020).

5. CONCLUSION

This study strongly concludes that CLSU holds high and strong potentials as an agri-tourism education venue through its programs, projects, activities, achievements, and initiatives. Agri-tourism-related programs in the university confer following a holistic system corresponding to community-based tourism development principles and practice. The university strictly adheres to the requirements set by the government to support programs and sites for agri-tourism development and management including the industry which allows universities to utilize the different models of agri-tourism or tourism business. Not to mention the education standards and policies like the EO 292, 2004 and RA 10816, 2016 for tourism, the RA 8435, 1997 and RA 10055, 2009 for agriculture, and the DBM-CHED Joint Circular No. 1, 2016 for SUCs were considered in the overall implementation and management of the tourism and hospitality education. Complementary to these policies and practices, the LGU and external partner initiatives support the input resources, requirements, and programs enabling CLSU to sustain its tourism education. According to Budiasa, et.al. (2014), agri-tourism is sustainable when requisites like economic, environmental and social dimensions are considered. Moreover, active stakeholders like the government, local community, and the academe among others strengthen and maintain its partnerships and engagements through cooperative and complementary system. Relatedly, the study of Petroman, et.al (2015) presented agri-tourism as an effective educational tool for students and visitors. The learning value comes from the actual farm experience and direct or personal training with farmers. Therefore, an

agri-tourism course or school is recommended because of the community-based farm experiences and lessons it offers. The green tourism and sustainable agricultural development model of Aquino and Battad (2014) and the concept of local community participatory learning by Siri (2017) highlight community-based innovation. Green tourism brings out values like resiliency, empowerment, and skillfulness among people under specific conditions like in disaster-affected areas. The participatory learning, on the other hand, suggests a systematic interpretation of creating and operating interactive activities for visitors. These, among others, are recommended agri-tourism experiences promoting innovation and entrepreneurship in tourism.

Notably, the university currently promotes itself as a Model Agri-tourism Site for Luzon. However, with the growing and changing trends in community-based tourism, it needs continual updating, development of interventions that are exciting and interactively-driven that are to be accredited and recognized by the Department of Tourism (DOT) and other external bodies. Through these initiatives and interventions being done by CLSU, these should be properly documented as inputs to the revitalized and renewed tourism education program.

Furthermore, CLSU is a Higher Education Institution (HEI) with an innovative tourism education platform relative to community education development adhering to the enhancement of the tourism management program as stipulated in the CHED Memorandum #62, series of 2017. Based on this, it is recommended that applied course development programs should be pertinently supported by faculty members. The actual practice and experiences of CLSU are relevant resources for agri-tourism education anchored on income generating projects (IGPs) as learning avenues, facilities, experts, practices, and the support of its leaders and administrators. Moreover, different extension programs facilitating community participation and empowerment with realistic methodologies in teaching and learning processes are other considerations.

Relatedly, the set-up of agri-tourism related IGPs of CLSU is likened to the learning centers of Maejo University (MJU) in Chiang Mai, Thailand. Agri-tourism learning centers are used as part of the strategic management practice for MJU to perform as a university and to demonstrate service quality to visitors including students. The same is also used to continuously improve the centers (Navarette, Thongma, Fongmul and Leepattana, 2019). Overall, the documented CLSU tourism education model is vital and realistic which is commendable and recommended for adaptation with similar conditions, resources and practices.

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