



LEARNING HUB FOR SLTCFPDI INTEGRATED FARMING

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Abstract

This dissertation explores the potential of the Southern Luzon Technological College Foundation Pio Duran Incorporated (SLTCFPDI) to address agricultural challenges and contribute to local economic development in Pioduran, Albay, Philippines. It aligns with the United Nations Sustainable Development Goal of Zero Hunger by targeting the systemic issues of food insecurity and poverty among farmers and fisherfolk. Despite the Philippines' agricultural resources, existing agri-food systems fail to generate sustainable income for primary producers.

This study outlines a strategic plan for an Integrated Farm at SLTCFPDI, focusing on enhancing agricultural education and fostering development of agripreneurship among local stakeholders. The study is a cooperative inquiry involving SLTCFPDI administration and stakeholders of the school. Thus, the research design is qualitative involving documents analysis, survey, and consultative discussion with stakeholders to assess the current state of agricultural programs and identify opportunities for improvement.

The ultimate output of the study is a design of an Integrated Farm to serve as a learning site and TESDA training center, aimed at ultimately facilitating the empowerment of local

farmers through education and modern agribusiness practices. By documenting the farm's development and engaging with community partners, this study aims to contribute a model of sustainable agricultural practices and educational frameworks that can be replicated in similar contexts.

The SLTCFPDI Integrated Farm serves as a vital educational and agricultural hub in Pio Duran, Albay, initially established on a previously cultivated rice and watermelon plantation. This research paper presents a comprehensive overview of the farm's current state, governance, faculty structure, curriculum offerings, and partnerships, in pursuit of its mission of uplifting the local community's status through education and agripreneurship. The farm is equipped with essential facilities designed to enhance learning and training in sustainable agriculture. A recent consultation workshop identified various agripreneurial opportunities and necessary skills for local farmers, revealing the potential for increased agricultural productivity and value-added products. The proposed strategic plan aims to position SLTCFPDI as an Agricultural Training Institute, facilitating training programs that address local agricultural challenges while promoting sustainable practices. The ultimate goal is to empower local farmers, enhance economic growth, and contribute to the overall development of Pio Duran, establishing a

framework for future agricultural education and community engagement.

Keywords. *Agri-Business, Agricultural Education, Agripreneurial, Agri-Technology,*

Community-Based Farming, Eco-Friendly Agriculture, Farm Innovation, Integrated Farming, Learning Hub, Organic Farming, Southern Luzon Technological College Foundation, Sustainable Farming

Introduction

The United Nation Sustainable Development Goals (SDGs) recognizes Zero Hunger as one of the goals that urgently calls for action by developed and developing countries by 2030. Due to the pandemic, worldwide conflicts, climate change, and socio-economic inequalities, the number of people suffering from chronic hunger and moderate to severe food insecurity has increased dramatically since 2015. Hunger and malnutrition adversely affect man's well-being, which hinders sustainable

development and the flourishing of human potential. Food scarcity is not as dire a problem in some countries as it is in others. Evidently, there is an uneven distribution of agricultural wealth across countries in the world. The Philippines is blessed with agricultural resources that, if harnessed, can feed its population for years to come. However, the reality in the Philippines is that "the existing agri-food system has been dysfunctional in serving its basic roles in (a) generating decent

income for the sector's stakeholders; (b) ensuring sustainable use of natural resources; and (c) providing for the health and nutrition of consumers and nurturing the local food culture (PDP, 2023-2028). Ironically, the primary food producers, the farmers and fisherfolk, remain to be the poorest among the economic sectors of the Philippines. This dire situation of the food producers has gone on for years.

The Philippine government is not oblivious to the plight of the farmers and fisherfolk. There are initiatives undertaken by concerned agencies. In the immediate years ahead, sound agricultural development through holistic agri-food system measures presented in the National Agriculture and Fisheries Modernization and Industrialization Plan (NAFMIP 2021-2030) aimed at raising the level of income of primary producers, i.e. the farmers and fisherfolk, hopefully would be pursued as planned. This will not be far-

etched if the food producers themselves are engaged in the NAFMIP initiatives. The inability of the agri-food system in providing the country food security owes to the lack of scientific knowledge about sustainable farming and fishing, a challenge that can well be addressed by institutions tasked with providing scientific and technological knowledge and skills on farming and fishing, along with modernized agribusiness practices.

One of the geographical areas with huge untapped agricultural potential at the local level is the Municipality of Pio Duran. Formerly known as Malacbalac, Pio Duran is

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a coastal municipality of Albay. It has a land area of 133.70 square kilometers or 51.62 square miles which constitutes 5.19% of Albay's total area. Its population as of the 2020 Census was 49,070. This represents 3.57% of the total population of Albay province, or 0.81% of the overall population of the Bicol Region. Based on these figures, the population density is 367 inhabitants per square kilometer or 951 inhabitants per square mile. As shown in Figure 1, Pioduran

The Pio Duranons are gradually becoming aware of this wealth just as they are aware of the challenges they face in addressing their condition. Education is touted as Out of 49,070 total population within the total area of 133.70 square kilometers, only 4,849 are registered farmers

The engine of economic growth, and the Pio Duranons are cognizant of this. There are higher educational institutions (HEIs) in Pio Duran that can provide the education that could break the cycle of poverty for the Pio Duranons. However, presently, there are only a limited number of educational programs

Cognizant of the geo-demographic situation of Pio Duran and the need to develop the food production sectors to generate more quality jobs and competitive products, the Southern Luzon Technological College Foundation Pio Duran Incorporated (SLTCFPDI), a higher education institution (HEI) in the locality, has seen the great

Imbued with the purpose of contributing more to the development of the municipality, SLTCFPDI has expanded its current curricular program offerings in higher education – Bachelor of Science in Computer Science (BSCS) and Bachelor of Secondary Education, major in English and major in Mathematics – to include Agriculture. While preparing for a tertiary education degree

namely 33 Barangays, they are Agol, Alabangpuro, Banawan, Barangay 1, Barangay 2, Barangay 3, Barangay 4, Barangay 5, Basicao Coastal, Basicao Interior, Binodegahan, Buenavista, Buyo, Caratagan, Cuyaoyao, Flores, La Medalla, Lawinon, Macasitas, Malapay, Malidong, Mamlad, Marigondon, Matanglad, Nablangbulod, Oringon, Palapas, Rawis, Salvacion, Santo Cristo, Sukip and Tibabo.

and only 10.44 square kilometers are utilized for agricultural purposes. The municipality has a long stretch of coastline which provides livelihood to fisherfolk. Further, fine beaches dot the coastlines open to local tourists, and before long, to foreign tourists as well. The municipality's potential for tourism is great.

offered by these HEIs that cater to the needs of the Senior High School graduates, who can ill-afford to attend colleges and universities outside of Pio Duran. Likewise, there is no one program that could harness the potential of the Pio Duranon's agriculture and agribusiness sector.

potential of the development of the municipality by harnessing its local resources, primarily, its vast agricultural land and the great number of farmers who, if equipped with adequate knowledge of modern farming, can lift themselves out of the poverty most of them are mired in.

program in agriculture, the President-Chief Executive Officer (CEO) of SLTCFPDI, Ms. Rosemarie Quinto-Rey, along with Mr. John Carl J. Quinto as School Administrator and Mr. Lindsey M. Datos as the Assistant Administrator, acquired a piece of land to put its proposed agricultural school in. The 7,873 square meter farm, formerly planted to rice and watermelon, was acquired by SLTCFPDI

in January 2021 from Mr. Edwin and Mrs. Veronica Co. There now stands a school building ready for occupancy. A training room, holding area, wash area, comfort room, and tool room are among the facilities at the farm. It is now an Integrated Farm developed and managed by a Farm Manager, Ms. Melissa O. Bajamundi, equipped with appropriate training to run the farm

Histories of educational institutions generally are written retrospectively, that is, looking back in time. This dissertation intends to write the genesis of the Integrated Farm as it develops. Because this is an academic undertaking, the historical

Rationale

Philippine agriculture is undergoing a structural transformation owing to the observed low productivity, limited diversification, and high poverty among farmers and fisherfolk. This observation is contained in a report aimed at providing policy and investment options to promote a more diversified, resilient, inclusive, competitive, and sustainable agriculture and food system in the Philippines. The report covered a review of the Department of Agriculture's programs and expenditures, a comparative analysis of international experiences with agricultural transformation, and a consultation process with various

The Philippine Development Plan (PDP) 2023-2028, Chapter 5 presents the challenges, outcomes, and strategies for modernizing agriculture and agribusiness in the Philippines. According to PDP the challenges facing the agri-food system are several inefficiencies along the value chain, such as low productivity, weak export performance, inadequate infrastructure, fragmentation of agricultural lands, and high vulnerability to multidimensional shocks.

operation. The farm is envisioned to become a Learning Site for Agriculture (LSA) and a TESDA farm school to offer Agriculture courses. The initial steps have been taken. Much more needs to be done towards the achievement of becoming an agricultural doubling as an entrepreneurial institution. This dissertation aimed to chart the agripreneurial future of the farm.

narrative has to stop at some point. In the case of this paper, the design of a Five-Year Strategic Plan concludes the paper but the writing of the Integrated Farm's trajectory will be progressive.

stakeholders. The measures taken by the Philippine government to mitigate the impact of COVID-19 on the agri-food sector included keeping the supply chains open, ensuring access to inputs and services, and providing emergency support to farmers and fishers. Drawing on the international experiences and lessons from other countries that have undertaken policy reforms and achieved agricultural transformation, the long-term recovery and rebuilding of the agricultural sector to make it more resilient, inclusive, competitive, and environmentally sustainable was planned. (The World Bank & Llorito (2020).

The Philippines, based on the PDP 2023 – 2028, pursues four outcomes to address the challenges, namely: (a) enhancing the efficiency of agriculture, forestry, and fisheries (AFF) production; (b) expanding access to markets and AFF-based enterprises; (c) improving the resilience of AFF value chains; and (d) strengthening agricultural institutions. Strategic frameworks are proposed like a whole-of-society approach that emphasizes the role of both the

government and private sector in achieving the outcomes.

The whole-of-society approach to the country's development programs requires the participation of both public and private institutions. There are government institutions mandated to lead the country's agricultural development. They, however, can do so much more if they collaborate with

The Situs of the Study. Southern Luzon Technological College Foundation Pio Duran Incorporated (SLTCFPDI) as a higher education institution (HEI) in Pio Duran holds a great potential for helping the community rise from poverty through technology and agriprenueurship. Anchored to its aim of establishing an educational institution with technological services that offers and maintains affordable quality degree and short-term courses in Computer Technology, Arts and Sciences, Technical

In its initial years as an educational institution, SLTCFPDI, has been authorized by the Technical Education and Skills Development Authority (Region V) to offer programs in Computer Hardware Servicing NC II (356 hours) and Programming NC IV (252 hours) on the 4th of May, 2009. On June

Being an active participant in the endeavors of TESDA, SLTCFPDI was then given all rights and privileges in the Association of Private Technical-Vocational Institutions of Albay (APT VIA), having been given a certificate of membership on August 27, 2010. As it continues its flight towards its goal of providing quality services to the community, SLTCFPDI has expanded its programs to respond more to the needs of the community. Thus, on March 16, 2011, a

The continuing expansion and success of the school have been made

partners in the community, especially in matters pertaining to education and training of human power. This is where support of educational institutions is needed given that development hinges to a large extent on the level of education of the country's manpower.

Courses and Livelihood Programs, SLTCFPDI has expanded its services to neighboring towns promoting its advocacy of uplifting the lives of less privileged Bicolanos through education. As approved by the Securities and Exchange Commission per registration no. CN201010019, SLTCFPDI has been issued with a Certificate of Incorporation in accordance with the Corporation Code of the Philippines on the 1st day of July 2010.

4, 2009, SLTCFPDI was granted authority to offer the program in Computer Hardware Servicing NC II (2576 Hours) and Programming NC IV (2250 Hours) by the authority of the TESDA Director General, Conrado G. Bares, CESO IV.

temporary permit was granted to SLTCFPDI to open and conduct the 1st curriculum year of the course Bachelor of Science in Computer Science (BSCS 1) and Bachelor of Science in Information System (BSIS 1). In the same year, a permit was also granted to SLTCFPDI to open and conduct the 1st curriculum year of the course Bachelor in Secondary Education, majors in Mathematics and English on June 30, 2011.

possible through the support of the scholarship grants given by TESDA and the

Provincial Government known as Albay Higher Education Contribution Scheme (AHECS) and Private Education Student Financial Assistance (PESFA). Although established in 2009, SLTCFPDI has rapidly evolved and is now recognized and has been awarded many times for its involvement in educational activities in Albay. Such

The strategic plan spanning 2025 to 2029, the intended results of this dissertation, provides an organizing framework for the projects and activities that the researcher will attempt to complete to achieve that goal and objectives of the Integrated Farm Program. This dissertation provides a view of how

Gap Bridged by the Study

While many case studies of institutions and programs have been done retrospectively, the proposed study will be done prospectively, that is, documentation of the development of the Integrated Farm will be done as the events happen up to the completion of the Strategic Plan 2025-2029. The development of the strategic plan will be participatory and will involve multiple

Problem in the Field

This study was the response of the Southern Luzon Technological College Foundation Pio Duran Incorporated to the need for a higher education institution (HEI) in the locality that can provide agricultural education and/or training to the locals. Within the limits of its resources, SLTCFPDI can help the local economy by harnessing the potential of the farmers/fishers in the Pio Duran and neighboring areas. In this study, SLTCFPDI was represented by the researcher, with permission from the President of the Foundation and the School Administrator. The plan for the Integrated

activities have gradually made the school known as a performing higher education institution worthy of providing quality education to the youth of Pio Duran and the neighboring municipalities. Now, it has prepared to embark into offering another curricular field that is much needed in the community – agriculture.

successes with this proposed project may lead to a model or generalized solution to enhancing agricultural production and define how this Integrated Farm Program of SLTCFPDI may contribute to a body of literature on curricular program development in the field of agriculture.

sources of data and information. Thus, the participants in this study will be the researcher's co-researcher. This is the main difference of this proposed study to the studies reviewed by the researcher. The process of the narrative, in itself, will be the researcher's contribution to the body of literature on participatory action research.

Farm that was developed was the SLTCFPDI's contribution as an HEI to modernize agriculture and agribusiness. The Plan, was designed, was guided by transformative ideas, which will be drawn from the stakeholders in the community including representatives from relevant government agencies. The researcher will be guided by the ideas espoused in the National Agriculture and Fisheries Modernization and Industrialization Plan (NAFMIP) 2021-2023 and will be pursued with the end in view of helping raise the level of income of farmers and fisherfolk beyond the poverty threshold.

Theoretical Framework

This study is anchored to goal-oriented or objectives-oriented planning and evaluation which rests mainly on school accountability, competency, or minimum competency testing. Discussions of appropriate objectives with the stakeholders or the community being served have given

Goal-Oriented/Objectives-Oriented Planning and Evaluation. In essence, this theoretical approach to planning adopts a straightforward procedure for better

The Chinese philosopher Lao Tzu said, “A journey of a thousand miles begins with a single step.” This axiomatic statement underpins the development of a strategic plan which is the intended result of this dissertation. In order to move forward with the development of an agropreneurial plan to be integrated in the overall strategic plan of SLTCFPDI, there needs to be a process to follow, a step-by-step template or approach to use to assure that every component of the plan is well defined and properly developed. This study adopts the template of Programme Logic developed by the Organization for Economic Co-Operation and Development

OECD creates policies, exchanges best practices and expertise, and finds answers to global economic and social problems. The researcher used the OECD program logic model for performance assessment and evaluation in this study for the following reasons. The OECD employs program logic models, performance measurement, and evaluation to enhance the efficacy and efficiency of development interventions. Program logic models provide clarity and focus by outlining the intended outcomes and necessary steps, ensuring all stakeholders have a shared understanding of program goals. Performance measurement and evaluation foster accountability, allowing

objectives-oriented evaluation the appeal of face validity – the program, after all, being held accountable for what its design said it was going to accomplish, and that is obviously legitimate. It emphasizes clearly defined outcomes as the basis for judging the program.

achievement of goals and objectives; determine the success or failure; and justify improvements, maintenance or termination of program activities.

(OECD) permission to reproduce for which was sought from the Rights Department of OECD (See Figure 2). The OECD (Organization for Economic Co-operation and Development) is a forum and knowledge hub for data, analysis and best practices in public policy. It was established in 1961 as an intergovernmental organization with 38 member nations with the goal of promoting global trade and economic advancement. It allows member nations to compare policy experiences, look for solutions to shared issues, find best practices, and coordinate their national and international policies.

programs to be assessed against clear indicators and benchmarks, and supporting continuous improvement by identifying strengths and weaknesses. These tools facilitate evidence-based decision making, ensuring resources are allocated efficiently and effectively. Additionally, they promote transparency by offering stakeholders insights into program performance, which can build trust and support. Lastly, evaluations assess the long-term impact and sustainability of its agriculture programs, ensuring benefits persist even after the program concludes. These practices align with the OECD's commitment to optimizing the impact of development interventions.

Figure 3 shows the strategic planning flowchart. This guided the researcher with a clear visual presentation of the steps in coming up with the development of the Learning Hub for SLTCFPDI Integrated Farming. In breaking down the process into clear, sequential steps, the researcher can

follow the strategic planning process from identifying the Vision, Mission and SLTCFPDI Philosophy, going down to Core Values, Pillar of Excellence, Key Performance Indicator (KPI), Targets, Analysis and Action Plans, Implementation and Reviews.

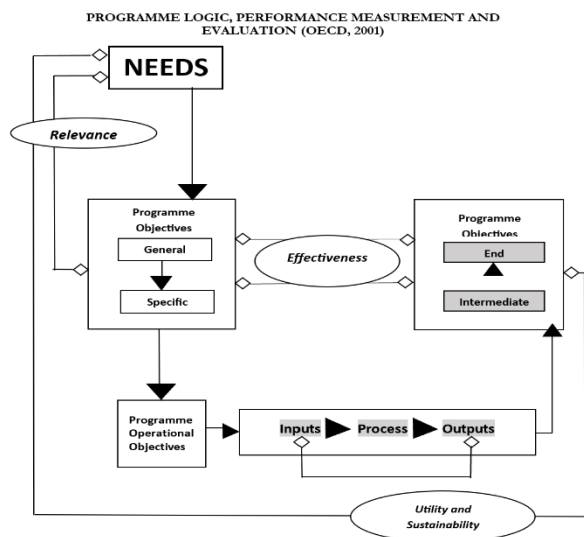


Figure 2
Theoretical Framework
(Each component of a strategic plan is currently developed and linked together to achieve optimum results)

Conceptual Framework

The researcher utilizes the system approach which shows the interplay of three important elements: Input, process and

Input. The input of this study includes the assessment of the current state of the Southern Luzon Technological College Foundation Pio Duran Incorporated

Process. It consists agripreneurial opportunities, value-added products and

Output. This refers to the development of the Learning Hub for

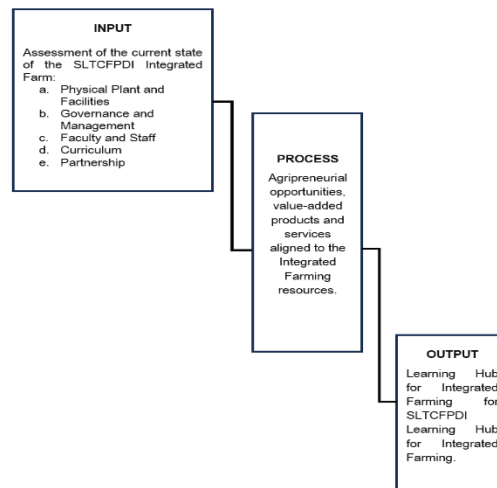


Figure 4
Conceptual Framework

output. The conceptual paradigm is presented in Figure 4.

(SLTCFPDI), in terms of a. Physical Plant and Facilities, b. Governance and Management, c. Faculty and Staff, d. Curriculum and e. Partnership.

services aligned to the Integrated Farming resources.

Integrated Farming for SLTCFPDI Learning Hub for Integrated Farming.

Objectives

The ultimate goal of this development study is to design an agripreneurial future for the newly established Integrated Farm by the SLTCFPDI in partnership with TESDA, CHED, LGU of Pio Duran, and the Department of Agriculture in the form of a 5-Year Strategic Plan: CY 2023-27. The specific objectives which the study hopes to realize are as follows:

1. To assess the current state of the SLTCFPDI Integrated Farm in terms of the following parameters:

- a. Physical Plant and Facilities
 - b. Governance and Management
 - c. Faculty and Staff
 - d. Curriculum
 - e. Partnership
2. To identify Agripreneurial opportunities, value-added products and services that are aligned to the Integrated Farming resources.
 3. To design a Learning Hub for Integrated Farming for SLTCFPDI.

THE PROPOSED SLTCFPDI INTEGRATED FARMING LEARNING HUB

In response to the dynamic landscape of agricultural education and the pressing need for sustainable development, SLTCFPDI has crafted a strategic plan based on the Consultation-Workshop conducted aimed at charting its development course towards excellence and impact. This plan is

The school aims to be a catalyst in empowering graduates of agricultural courses that could contribute to economic growth within the agricultural courses that could raise Pio Duran development standing. Pio Duran for a long time was classified as a fifth-class coastal municipality but recognized with a robust potential for development. Its economy rests on its agri-fishery resources. It has a land area of 133.70 sq. km. with scenic beaches attracting local tourists. Although this is an economic asset to

grounded in the institution's core values and guided by a vision to become a leading institution in promoting sustainable agriculture and empowering livelihood opportunities for students and the community.

be developed yet to make a dent in the municipality's economy, its richest resource is its people, if only they could be harnessed to the fullest through education and training, their economic life would be more productive. Thus, these people are envisioned to be able to contribute to the progress of Pio Duran because they are empowered. It is for this reason that this school started to offer courses to respond to development needs of the municipality and beyond.

Southern Luzon Technological College Foundation Pio Duran Incorporated Integrated Farm is administered by Mr. John Carl J. Quinto. The farm was a former rice field and watermelon plantation before the institution bought it containing an area of 7,873 square meters. It was developed and managed by their Farm Manager Ms. Melissa

O. Bajamundi. They established a vegetable area wherein they grew different vegetables, they also have rabbits, chickens and produce stingless bees. A training room, holding area, wash area, comfort room, and tool room are among the facilities at the farm. The goals of the application to become an LSA are to: (1) disseminate information about farming,

including organic and intercrop farming, to the public; (2) enable technology demonstrations with ATI's workforce; (3) enable the farm to conduct trainings and other

agricultural interventions; and (4) enable the farm to obtain authorization from ATI Bicol to conduct such interventions.

A. Philosophy, Vision, Mission, Goals, and Objective

The overall goal of this project is to become certified as an ATI Bicol Learning Site for Agriculture (LSA) and to look for potential support to enhance the farm's capabilities and features for offering agricultural extension services to our community. Specifically, this proposal aims to:

- i. Support the ATI Bicol staff in providing agriculture extension services;
- ii. Allow local farmers to acquire new information and abilities in farming and agriculture;
- iii. Provide a technology demonstration area for farmers and other interested clients.

Our expected outputs from an integrated farm are as follows:

- a. Conduct Agriculture-related training not only for the local farmers of Brgy. Binodegahan, Pio Duran, Albay but also, for the neighboring barangays and for interested clients.
- b. Produce agricultural crops that can be supplied to the Market of Pio Duran and other neighboring municipalities.
- c. Process products like Dragon fruit Jam, Atsara and many more.
- d. Produce chickens for consumption and to be sold to customers.

- iv. Conduct Agriculture related training and other interventions;
 - v. Provide assistance to different agricultural associations, clubs, etc. that need training that can help to improve their skills in technological farming.
 - vi. Provide vegetables and seedlings that can be available for customers; and
 - vii. Provide comfortable and relaxing ambience to visitors/participants.
- Southern Luzon Technological College Foundation Pio Duran Incorporated

Integrated Farm is envisioned to produce agriculture products, not only to serve small groups of people or a single family, but the community as a whole.

- e. Produce rabbits for consumption and to sell to customers.
- f. Produce vegetable seedlings to be made available to interested customers who want to start planting, whether in their homes, offices, or local communities' barangays or schools. In compliance with the initiatives and food drives by various government organizations, like Gulayan sa Paaralan by the DepEd and Gulayan sa barangay by the LGU, among others.
- g. Produce vegetable seeds that can be sold per pack to clients.

B. Legal Basis

SLTCFPDI was duly approved as Agricultural Training Institute (ATI) by the Department of Agriculture last November 14, 2024 with Certificate number LSA-0-2023-11-283. Being recognized as the Agricultural Training Institute (ATI) by the Department of Agriculture (DA) is crucial as it establishes the institute's credibility and authority in agricultural training and extension services. This recognition enables access to government resources, funding, and support, fostering the development of comprehensive

training programs and infrastructure. It allows the ATI to influence agricultural policies, collaborate with various stakeholders, and ensure its programs meet national standards. Ultimately, this recognition empowers the ATI to significantly impact the agricultural sector by enhancing the skills and knowledge of farmers and extension workers, promoting sustainable agricultural practices, and contributing to the sector's overall growth and development.

C. Proposed Programs and Projects

The Consultation-Workshop conducted, strongly favored the establishment of the SLTCFPDI Integrated Farm. Initially, the proposed program and activities will consist of short-term training

aimed at enhancing the agricultural production of Pio Duranons. Sponsorship of the training will be sought from the Agricultural Training Institute (ATI), Region V in partnership with the LGU of Pio Duran and TESDA, Region V towards attainment of National Certification II by the trainees.

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