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| RESEARCH ARTICLE

The Recognition, Measurement and Disclosure of Biological Assets of Selected Agritourism Farms in Region IV-A, Philippines

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| ABSTRACT

The accounting standard for agriculture was introduced to harmonize the accounting procedures of entities engaged in agricultural production. This accounting standard for agriculture specifies the accounting treatment for biological assets and their biological transformation as well as how it must be reflected in the financial statement. However, there has been little awareness of applying the standard, especially in the agritourism industry. Agritourism is a young industry in the Philippines and is seen as a profitable revenue-generating investment. Therefore, education on financial management and recordkeeping must be given importance. This study assessed the accounting practices of selected agritourism farms in Region IV-A, Philippines, in accordance with the Accounting Standard for Agriculture, 41. The International Accounting Standard 41 and Philippine Accounting Standard 41 cover the recognition and measurements of biological assets and the presentation and disclosure of biological transformation. Interviews were conducted with 17 farms and their financial records were reviewed. The results show that most farms do not recognize and measure their biological assets per accounting standards. The recognition and measurement of biological assets are based on their current practices and are not influenced by the provision of the standards. Moreover, the type of business registration, i.e., corporation or sole proprietorship, affects the accounting practice of the farm. Their records do not accurately reflect the presentation and disclosure of biological assets and biological transformation. Thus, it is recommended that training, seminars, and workshops on IAS/PAS 41 must be conducted, and an application guideline must be developed to improve the accounting practices of agritourism farms and their compliance with the accounting standard.

| KEYWORDS

IAS 41, PAS 41, accounting, biological assets, compliance, agritourism.

| ARTICLE INFORMATION

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1. Introduction

The Philippines Republic Act no. 10816 defines agritourism or farm tourism as the "practice of attracting visitors and tourists to farms areas for production, educational, and recreational purposes." It is the integration of agriculture and tourism into one. Agritourism farms offer different agricultural activities such as crop and livestock production, aquaculture, and floriculture. These agricultural activities involve the initial purchase of living animals and plants, their biological transformation, harvesting, and sale of agricultural produce. Managing these farm resources (living animals and plants) is very important because it helps the farms keep track of their assets and value.

The importance of managing farm resources lies in enabling farms to strike a balance between optimizing the productivity of their available resources and minimizing the overuse of those resources. Effective management of resources is essential to achieve high levels of productivity that will result in higher income (Mäkinen, 2013).

However, as farms are converted to agritourism sites, there has been little awareness of managing the farm's biological assets (living animals and plants), particularly how these assets must be recognized, measured, presented, and disclosed in the farm financial records. If biological assets are not accounted for in the financial statements, it may lead to misstatements that may result in overstatement or understatement of the company's assets and profits. Because biological assets are the primary source of income for agritourism farms, it is crucial that these assets are adequately managed and recorded.

The International Accounting Standard (IAS) 41, a standard that specifically covers accounting for the agricultural sector, aims to prescribe the accounting treatment and disclosures related to agricultural activity. Biological assets represent living animals or plants, and the agricultural produce represents the harvested product of these assets (IAS 41:5). On the other hand, biological transformation comprises the process of growth, genetic transformation, production, and procreation of biological assets (IAS 41:5).

The accounting standard for agriculture must be used as a guide in recording and valuing the farm's biological assets. It is necessary that a system be established for record-keeping that will track not only the cost, resource use, and income but also for planning and budgeting, which are very critical in attaining sustainability in farm operations. It will also help create policies to develop further agricultural accounting, farm tourism, and farm products.

This study aims to assess the accounting practices of selected agritourism farms in the Philippines and harmonize their accounting practices to make a comparable financial record that decision-makers could use. Moreover, this study was conducted to address the research gap and limited studies on applying IAS/PAS 41 in the agriculture sector specifically in the agritourism industry in the Philippine setting.

2. Literature Review

2.1 Agritourism in the Philippines

Agritourism, also known as farm tourism, is a form of tourism activity conducted in rural areas (RA 10816, Section 3) to showcase different agricultural activities that can be done within the farm. It may involve any agricultural activity that attracts farm visitors especially those from the urban areas who want to experience rural life by engaging in different agriculture-related activities for relaxation, enjoyment, and education (Zacal et al., 2019 ;Tugade, 2020; Wojcieszak-Zbierska et al., 2020).

Agritourism is the practice of farm owners opening their farms to visitors for educational and recreational purposes. Various agricultural activities entice visitors to experience and be educated and trained in agricultural or fishery-based operations or activities while having outdoor recreation and relaxation (Ohe, 2020; Salarda, 2021). Found to be a niche industry within the agriculture and tourism sector, agritourism uncovers a new approach toward inclusive and sustainable agricultural and rural development (SEARCA, 2017; Hossein et al., 2014).

Agritourism in the Philippines is a young industry that is still growing and developing (SEARCA, 2017), and its popularity is increasing in both developed and developing countries (Prukop & Golian, 2017; Zacal et al., 2019; Cantero et al., 2022). A Farm Tourism Strategic Action Plan is being drafted to support the Farm Tourism Act's implementation. It covers investment, promotion, financing, market research and information, accreditation of agritourism camps, market promotion and development, research, development and extension, institutional and human resource development, and infrastructure support (R.A. 10816, Section 4). Through this, agritourism can help balance agricultural development, economic growth (Bernardo et al., 2004), and environmental conservation relevant to achieving sustainable agriculture and farming. It can offer a path to rural development as it provides social, economical, and relational inclusivity (Carada, 2017).

Agritourism as a profitable revenue-generating investment (Barbieri, 2013; Hung et al., 2016; Prukop & Golian, 2017; Bhatta & Ohe, 2020), and its performance as an enterprise is affected by different factors (Hung et al., 2016) such as farm resources, farm business model, management strategies, and key entrepreneurship capabilities of the farm owners (Rogerson & Rogerson, 2014; Hung et al., 2016; Comen, 2017). The farm owner's education level or the farm manager representing their entrepreneurship capability has a significant and positive association with farm performance (Hung et al., 2016). The level of awareness of accounting and financial management also affects an agritourism farm's success as an enterprise (Fedie, 1997, as cited by Comen, 2017). Recognition and allocation of resources, financial planning, record keeping, and monitoring of the external environment must be managed to sustain the business of the farm.

2.2 Accounting for Agriculture

Harmonizing the financial reports of any entities, including those in the agritourism sector, is very important because it allows the direct comparison and faithful representation of the financial performance and financial position across different farms (Rahman et al., 2002; Wang, 2014). The assets, liabilities, equity, income, and expenses are communicated by being presented and disclosed

in the financial statement and need for external use, such as when looking for new investors or acquiring loans from financial institutions (Pratt, 1996; Schipper, 2007; Mirza & Ankarath, 2012).

Agricultural activities involving biological assets (living animals and plants) in agritourism farms cannot be detached from the operational processes (Van Biljon & Scott, 2019) that involve the initial purchase of the living animals and plants, their biological transformation, harvesting, and sale of agricultural produce. Transactions involving such resources must be accounted for appropriately to allow agriculturists, investors, creditors, and other farm records users to conduct comparative reviews and analyses (Van Biljon & Scott, 2019). Moreover, having reliable and timely information increases confidence among decision-makers and enables them to make sound business decisions directly affecting growth, profitability, and risk (Miranda et al., 2017).

2.2.1 International Accounting Standard 41, Agriculture[1]

The International Financial Reporting Standards (IFRS) aim to unify and make comparable financial statements (Dékán & Kiss, 2015). The International Accounting Standard (IAS) 41 is the first accounting standard that applies to the accounting for the agricultural sector. It prescribes the accounting treatment, financial statement presentation, and disclosures related to agricultural activities that include biological transformation and harvest of biological assets for sale or conversion into agricultural produce or another biological asset (IAS 41:5).

As defined in the standard and shown in Figure 1, biological assets are living animals or plants. Its qualitative and quantitative changes caused by the process of growth, degeneration, production, and procreation are defined as biological transformation. It is grouped into consumable and bearer biological assets. Consumable biological assets are those harvested as agricultural produce and sold, such as livestock for meat production and held for sale. In contrast, bearer biological assets are those other than consumable biological assets, such as livestock for milk production and fruit-bearing trees (IAS 41:43). These biological assets are measured using the fair market value less cost to sell, except for cases that fair value cannot be measured reliably. Moreover, the agricultural produce harvested from the entity's biological assets shall be measured at its fair value less costs to sell at the point of harvest (IAS 41:12-13). There is a presumption that the fair value of the biological assets can be measured reliably. However, it can be rebutted if, on its initial recognition, the market prices are not available. In this case, the biological assets must be measured at their costs, less any accumulated depreciation and any impairment losses (IAS 41:30).

Each biological asset undergoes a biological transition that alters its value. Any gain or loss arising on the initial recognition of a biological asset at fair value less costs to sell and from a change in fair value less costs to sell of a biological asset shall be included in profit or loss for the period in which it arises (IAS 41:26). In addition, any gain or loss arising on the difference between the changes in the fair value of the agricultural produce due to harvest and the fair value less cost to sell shall also be included in profit or loss for the period it arises (IAS 41:28).

According to IAS 41:34, government grants pertaining to biological assets that farms receive must be calculated at their fair value less cost to sell and must be recorded in profit or loss. However, if the government grant is conditional, the farm shall recognize the grant in profit or loss when the condition is fulfilled (IAS 41:35).

Biological assets should be measured at fair market value less cost to sell unless the fair value cannot be measured reliably. The concept of fair value refers to the monetary amount obtained from the sale of an asset or the payment made for the transfer of a liability in an orderly transaction between market participants at the measurement date (Cavalheiro et al., 2019). However, challenges occur in determining the fair market value for biological assets due to the lack of an active market (Maina & Wingard, 2013), the nature of biological assets, difficulty in applying valuation methods (Cavalheiro et al., 2019), and the potential manipulation or bias of fair value measurements by the management (Tan & Geat, n.d.).

The adoption of IAS 41 standards by companies in different countries supports the comparability of the position of the biological assets and performance within the industry (Scott et al., 2016) and its usefulness in decision-making (Argiles & Slof, 2003; Jana & Marta, 2014; Miranda et al., 2017; Van Biljon & Scott, 2019). However, recognizing, measuring, and disclosing biological assets using this accounting standard poses problems and prospects because of the departure from the historical cost accounting model that considers the initial price paid by an entity (Jaijairam, 2012). In the study of Elad (2004), Scott et al. (2016), and Tang et al. (2013), they mentioned that the application of IAS 41 is still debatable because of the following reasons or challenges: (1) it includes non-use of historical costs in cases where fair values can only be ascertained at excessive estimates and subjective judgement by practitioners in establishing estimates, (2) onerous and expensive annual revaluation of biological assets, (3) inclusion of unrealized gains or losses that are based on the accretion concept (Aryanto, 2011), (4) inconsistencies with provisions

[1] IAS 41, Retrieved from https://www.ifrs.org/issued-standards/list-of-standards/ias-41-agriculture/#about

(Argiles & Slof, 2001), (5) implementation bottlenecks as observed in the Australian standard AASB 1037, and (6) difficulty in implementation in the forestry industry, (7) lack of templates or application process in respect to the accounting policy.

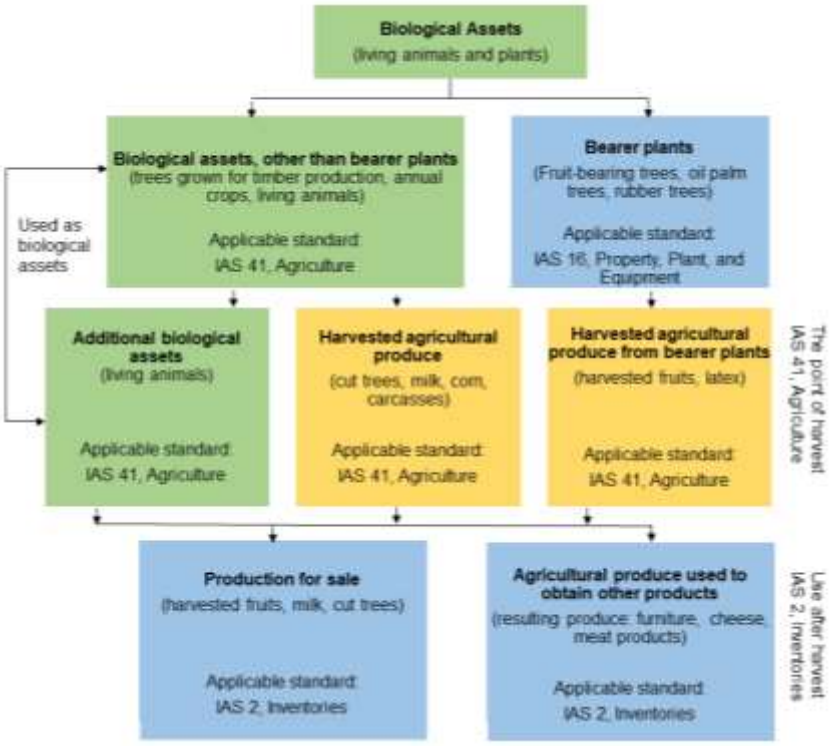

Figure 1. Classification of Biological Assets and Applicable Provisions
Source: *Adapted from Gughea and Iordache, 2017*

Implementing IAS 41 aims to provide a common accounting language (Bostan, 2008) and improve the comparability of financial statements in the agricultural sector (Feleagă et al., 2012). However, the implementation of the accounting standard is more on the conceptual level (Argiles & Slof, 2010). Moreover, its adoption is affected by the unique characteristics of biological assets, agricultural produce, and differing measurement methods used by farms leading to issues of lack of comparability, potential manipulation and reduced investor confidence (Kurniawati, 2013; Mates et al., 2014).

2.2.2 Agricultural Accounting Practices in the Philippines

The International Accounting Standard (IAS) 41 was adopted (Fajardo, 2008) by the Philippines in January 2005 as Philippine Accounting Standard (PAS) 41, Agriculture. It has the same objective of establishing a standard for agriculture - the management of the biological transformation of biological assets (living plants and animals) into agricultural produce (harvested product of the enterprise's biological assets).

Recording of agricultural activities is present in the country; however, the application of the standards for biological assets was not vastly implemented, as discussed in the study of Chavez, Mendoza and Piguing (2011). In that study, poultry and livestock firms were surveyed to know the level of compliance with PAS 41, and it was concluded that those companies have a low level of compliance with PAS 41 because not all companies measured biological assets using the fair market value due to its difficulty in measuring biological assets using the active markets and such companies failed to provide extensive disclosure requirements as prescribed by PAS 41.

Clavano's (2004) and Kakalta's (2014) studies revealed that the valuation of biological assets may depend on commodity nature. The bearer biological assets, such as banana and coconut plantations have proven fair valuation methods, while for the consumable biological assets like piggery, poultry, and other livestock companies, the historical cost approach was still preferred. Moreover, the choice of valuation method for biological assets is significantly associated with firm size and the company auditor's perspective. The level of compliance with PAS 41 mandatory disclosure requirements of banana and coconut plantations was high, while for poultry and livestock, the level of compliance was low.

In the study of Miranda et al. (2017), it is evident that cattle farms' accounting practices depend on the size of the operation, form of business organization, and nature of the business. Commercial farms that are Securities and Exchange Commission (SEC)-registered have a high level of compliance with PAS 41 requirements because they are required to submit financial statements prepared in accordance with the accounting standards. Virador (2019) studied the compliance of selected agritourism farms in Bohol, Philippines with PAS 4. The study showed that the level of compliance with PAS 41 is low because they have no knowledge and are not aware of such standards.

The vast range of enterprises that employ biological assets presents a notable challenge to the implementation of standardization. Different enterprises require different methods for recognizing and measuring biological assets. However, the exclusion of biological assets in the financial records may result in subjectivity, misrepresentation, and a decrease in state control (Suk & Suk, 2014; Carolina et al., 2020). Conversely, the omission may also impact decision-making, market comparability, and introduce greater volatility and unpredictability to financial indicators (Van Biljon & Scott, 2019; Ardiana & Agustina, 2021). However, given the importance of accounting, the worldwide implementation of International Accounting Standard 41 has the potential to serve as a catalyst for achieving greater harmonization in accounting practices (Kimura & Ogawa, 2007; Agca & Aktaş, 2017).

3. Methodology

The study covered the agritourism farms in Region IV-A, Philippines, consisting of five provinces: Cavite, Laguna, Batangas, Rizal, and Quezon. The agritourism sites were selected based on the following criteria: (1) conduct agritourism activities which include day tours or farm stay and (2) manage biological assets and use them for production and agritourism-related activities. There are a total of 42 accredited farms in Region IV-A from 2019 to 2022. The study aimed to survey all these farms; however, only 17 farms agreed to be interviewed, hence purposive sampling was used. Qualitative and quantitative research designs consisting of descriptive and frequency analyses were utilized to present the profile and accounting practices of agritourism farms in the region.

Primary data on the farm profile and accounting practices were collected using semi-structured survey questionnaires. Nine farm owners, 6 farm managers, one farm supervisor, and one farm finance and administrative officer were interviewed. Moreover, secondary data such as financial statements, inventory and production reports were also obtained and examined. The financial statements were accessed from the Securities and Exchange Commission. The International Financial Reporting Standard (IFRS) Core Tool Disclosure checklist was also used to assess the compliance of the surveyed farms with the accounting standard.

4. Results and Discussion

4.1 Farm Profile

Table 1 shows the profile of the selected agritourism sites in the region. Thirteen farms are registered as corporations to the Securities and Exchange Commission (SEC), while four farms are registered as sole proprietorships to the Department of Trade and Industry (DTI). The agritourism farms are engaged in various agricultural activities including livestock and crop production, beekeeping, and floriculture. A total of 14 farms (82.4%) raised domestic animals or livestock, including native pigs, dairy cows, goats, chickens, ducks, and geese. Fourteen farms (82.4%) also produced crops such as fruits and vegetables. Beekeeping was practiced on two farms (11.8%). Additionally, two farms (11.8%) grew flowers such as chrysanthemums, roses, petunias, pansies, begonias, torenia, and sunflowers.

There are two types of agritourism destinations in the Philippines: day farms and farm stays. According to the Department of Tourism and Department of Agriculture (DOT-DA) joint memorandum circular 2020-002, day farms are those that are ideal for day trips and offer activities like pick-and-pay, farm tours, and farm restaurants, while farm stays provide lodging for visitors who want to participate in interactive on-farm activities to enhance their experiences of farm life. Furthermore, day farms must have a farm size of at least 1,500 square meters, whereas farm stays must have a farm size of at least 3,000 square meters. The average size of the farms studied is 5.43 hectares, with the smallest agritourism farm measuring 4,400 square meters and the largest measuring 17 hectares. All farms offer farm tours; however, only 13 (76.5%) provide accommodation and on-farm entertainment. Additionally, two farms (11.8%) offer outdoor activities, including hiking and camping. All farms were active in both agriculture and tourism. Nine (52.9%) of the 17 farms also provide training/seminar events centered on agricultural production. The Agricultural Training Institute of the Department of Agriculture accredits these farms.

Since the farms are diversified, their revenue may come from different sources. Agricultural production is still the major source of revenue for most of the farms (47.1%), followed by farm tourism (23.5%), training (17.6%), a combination of agricultural production and tourism (5.9%), and a combination of farm tourism and training (5.9%).

Table 1. Profile of Agritourism Farms (n=17)

Profile	Frequency	Percentage
Business Formation		
Corporation	13	76.5
Sole Proprietorship	4	23.5
Business Registration		
SEC	13	76.5
DTI	4	23.5
Agricultural Activities*		
Raising domestic animals	14	82.4
Crop production	14	82.4
Beekeeping	2	11.8
Floriculture	2	11.8
Farm Tourism Activities*		
Education and Activities/Experience	17	100.0
Direct Agricultural Sales	15	88.2
On-farm Entertainment	13	76.5
Accommodation/Hospitality Services	13	76.5
Outdoor recreation	2	11.8
Training Activities		
Conduct training/seminar activities	9	52.9
Without training/seminar activities	8	47.1
Major Source of Revenue		
Agricultural production	8	47.1
Farm tourism	4	23.5
Training	3	17.6
Agricultural production and tourism	1	5.9
Farm tourism and training	1	5.9
Farm Size (in hectares)		
Mean	5.43	
Median	3.45	
Mode	11	

*Note:*multiple responses*
Source: Field Survey, 2022

4.2 Accounting Practices

4.2.1 Record Keeping

The accounting practices covered in this study focus on the record keeping, recognition and measurement of biological assets, and their presentation and disclosure in financial statements. As shown in Table 2, the biological assets managed by the farms are used for agricultural production as well as for the recreational activities of the farms. In addition, farms that conduct training or accredited learning sites use the same biological assets for educational purposes.

All farms maintain financial records in different forms, such as sales books (64.7%), expense books (47.1%), general journals (29.4%), and budget reports (5.9%). These records are only for internal purposes and are used to record agricultural, tourism, and training transactions.

For the financial statements, all farms registered as corporations (75.5%) prepare and submit the complete set of financial statements, including the income statement, balance sheet, statement of equity, and cash flow statements. These are the financial records that are required to submit to the SEC. On the other hand, two farms (11.8%) registered as sole proprietorships also prepare a complete set of financial statements because they use it to avail loans from banks and grants from government agencies. While

the other two farms (11.8%) only submit the income statement for tax purposes only. All farms prepare the yearly income statement and other financial statements, but one farm only prepares monthly financial statements for internal purposes.

Table 2. Accounting Practice of Agritourism Farms (n=17)

Accounting Practices	Frequency	Percentage
Purpose of holding the biological assets*		
Agricultural production (to reproduce, to harvest, to sell)	17	100.0
Entertainment and recreational	17	100.0
Research and education (training)	13	76.5
Accounting Records Maintained*		
Sales Book	11	64.7
Expenses Book	8	47.1
General Journal	5	29.4
Budget	1	5.9
Financial Statements Prepared*		
Income Statement	17	100.0
Statement of Financial Position	15	88.2
Cash Flow Statement	15	88.2
Statement of Owner's Equity/Shareholder's Equity	15	88.2
Frequency of Preparing Financial Statements*		
Yearly	17	100.0
Monthly	1	5.9

*Note:*multiple responses*
Source: Field Survey, 2022

4.2.2 Recognition and Measurement of Biological Assets

All agritourism farms utilize and manage biological assets, but only five farms (29.4%) recognize them in the financial statements. Table 3 shows that among these five farms, three farms (17.6%) disclosed the farm animals and plants in their financial statements under the account name Biological Asset and measured it using the fair market value approach (Table 4). These farms are engaged in dairy cattle raising, beekeeping, and floriculture. All three farms are aware that biological assets must be recognized and disclosed using their fair market value in the financial statements as reflected in their financial statements. One farm (5.9%) selling live goats treats its biological asset as an asset held for sale and recorded under the Inventory account. However, this farm also uses its goats to produce raw milk that is being processed into pasteurized goat milk and goat cheese. Another farm engaged in dairy cattle (5.9%) reported biological assets under the Other Asset account. In contrast, twelve farms (70.6%) are oblivious to the accounting standard for agriculture and do not report their biological assets in their financial statements.

Agricultural produce at the point of harvest must be recorded as biological assets using the fair market value less cost to sell, and then it will be reclassified as Inventories after harvest. Based on the survey, farms do not record agricultural produce at the point of harvest but record it at the time of sale under the Sales account. Thirteen farms (76.5%) value their produce based on the most recent price available on the internet and wet markets. In comparison, three farms (17.6%) used the accumulated cost and expenses in production, and only one farm (5.7%) used her own valuation. Due to the fact that the farm owner is in command of everything, the farm owner sets the price based on her preferences rather than the market price. No institution in the region regulates the valuation or pricing of biological assets. Consequently, producers have the freedom to price their products based on accumulated costs and expenses or independent valuation. For the grants, 12 farms (70.6%) receive grants and support from the government. These grants may be awarded in the form of cash or in-kind items, such as agricultural inputs, farm equipment, and training facilities. These grants are unconditional and they are not reflected in their financial statements.

Table 3. Recognition, Measurement, and Disclosure of Biological Assets (n=17)

Accounting Practices	Frequency	Percentage
Recognition of Biological Assets		
No	12	70.6
Yes	5	29.4

Table 3. Recognition, Measurement, and Disclosure of Biological Assets (n=17) (continued)

Accounting Practices	Frequency	Percentage
Measurement of Agricultural Produce		
Most recent market price	13	76.5
Accumulated cost and expenses	3	17.6
Independent valuation	1	5.9
Presentation and Disclosure in the Financial Statements		
Not disclosed	12	70.6
Biological Assets	3	17.6
Inventory	1	5.9
Other Assets	1	5.9
Government Grants		
Receive government grants	12	70.6
Do not receive government grants	5	29.4

*Note:*multiple responses*
Source: Field Survey, 2022

As stated in the IAS 41:12, biological assets must be recognized and measured using the fair market value less cost to sell. Farms B and C, both engaged in dairy, recorded their purchased assets based on the market value determined by National Dairy Authority, ranging from PhP80,000 to PhP 90,000. For beekeeping (Farm A), the amount of one good bee colony is based on the existing price in the market amounting to PhP 12,000. For Farm C, the value of the potted plants is based on the existing market value that starts at PhP50. Farm D records the goats based on their age and breed which ranges from PhP 8,000 to PhP 25,000 market price.

Table 4. Summary of Valuation Methods of agritourism farms that recognize Biological Assets (n=5)

Farm	Biological Assets	Agricultural produce	Classification of Biological Assets	Recording in the Financial Statement
A	Bees	Honey	Bearer animal	Biological Assets
B	Dairy Cattle	Dairy Cattle, Raw Milk	Bearer animal	Biological Assets
C	Potted plants	Potted plants	Consumable plant	Biological Assets
D	Dairy Cattle	Dairy Cattle, Raw Milk	Bearer animal	Other Assets
E	Goats	Goat, Raw Milk	Bearer animal	Inventory

Farm	Measurement of biological assets	Method of determining the fair market value	Record of the biological transformation	Method of determining the FMV of agricultural produce
A	Fair market value	Most recent market price	At the period it arises	Most recent market price
B	Fair market value	Most recent market price	At the period it arises	Most recent market price
C	Fair market value	Most recent market price	At the period it arises	Most recent market price
D	Fair market value	Most recent market price	At the period it arises	Most recent market price
E	Lower of cost or net realizable value	Based on the acquisition costs	At the period it arises	Most recent market price

Source: Field Survey, 2022

4.2.3 Presentation and Disclosure

Tables 6 to 9 show a sample of how farms present and disclose their biological assets and their related transactions in their financial statements. Out of the 17 farms surveyed, only five farms were considered in analyzing the presentation and disclosure requirement since they recognize biological assets in their records.

Table 5 shows the comparison of the presentation and disclosures practiced by these five farms. Among these five farms, only three recognize biological assets and disclose them in their financial statements per IAS/PAS 41 under the account of Biological Asset. The biological assets of these three farms (60%) are measured using the fair market value method; however, only one farm (20%) recognizes and measures the changes in fair market value resulting from biological transformation during the initial recognition and remeasurement at the end of the year. The biological transformation includes the birth of new biological assets for livestock, growth, and degeneration of the livestock. According to the standard, biological transformation may result in initial gains and losses when new biological assets are created, whereas variations in the fair value minus the cost to sell represent the difference in value between periods. These gains and losses were reflected in the Income Statement of Farm B. As shown in Table

7, Farm B conducts remeasurement of biological assets (dairy cattle) at the end of its calendar year, and it is recorded in the Income Statement.

As prescribed in the standard, biological assets must be classified under consumable or bearer assets, which must be disclosed in the financial statements. Based on the results, only one Farm C disclosed the nature of their biological assets as bearing plants for the flowers and miscellaneous for the chickens. Farms A, B, D, and E are noncompliant with this provision.

Farms B, D, and E receive government grants or support in the form of farm tools, farm equipment, and inputs. All these grants are related to biological assets; however, it is not disclosed in the financial statements.

Table 5. Comparison of the Presentation and Disclosures of Farms that Accounts Biological Assets (n=5)

Disclosures	**Farm A**	**Farm B**	**Farm C**	**Farm D**	**Farm E**
Agricultural Production	Beekeeping	Dairy Cattle raising	Floriculture and poultry	Dairy Cattle raising	Goat production
Recognition	Yes	Yes	Yes	Yes	Yes
Account used	Biological Asset	Biological Asset	Biological Asset	Other Assets	Inventory
Accounting standard used	PAS 41	PAS 41	PAS 41	PAS 41	PAS 2
Description of the biological assets	No	No	Yes	No	No
Measurement	FMV	FMV	FMV	FMV	Lower of Cost and NRV
Gains and Losses	No	Yes	No	No	No
Receive government grants	No	Yes	No	Yes	Yes

Notes: FMV = Fair Market Value, NRV – Net Realizable Value

Table 6. Financial Presentation of Biological Assets

Farm B
Statement of Financial Position
As of December 31

(in PhP)	**2017**	**2018**
ASSETS		
Current Assets		
Cash On Hand and in Bank	5,719,201.00	10,162,889.00
Total Current Assets	**5,719,201.00**	**10,162,889.00**
Noncurrent Assets		
Property, Plant and Equipment		
Land Improvement	492,906.00	792,906.00
Building and Cottages	-	2,554,010.00
Farm Tools and Equipment	-	754,100.00
Office Furniture and Fixtures	-	154,200.00
Kitchen Tools and Equipment	-	54,500.00
Other Property, Plant and Equipment	648,431.00	-
Total Noncurrent Assets	1,141,337.00	4,309,716.00
Less Accumulated Depreciation	-	861,943.00
Total Property, Plant and Equipment, NET	**1,141,337.00**	**3,447,773.00**
Land	2,755,000.00	2,755,000.00
Construction in Progress	-	758,200.00
Biological Assets	-	3,081,000.00
Intangible	-	2,500,000.00
Investment in Micro Finance	-	6,000,000.00
Total Noncurrent Assets	**3,896,337.00**	**18,541,973.00**
TOTAL ASSETS	**9,615,538.00**	**28,704,862.00**

Source: Securities and Exchange Commission Disclosures, 2022

Table 7. Statement of Financial Performance and Financial Presentation of Gains and Losses on Fair Market Value

FARM B
Income Statement
As of December 31, 2018

Revenue	-
FV Gain or Loss on Initial Recognition of Biological Assets	314,000.00
FV Gain or Loss on Remeasurement of Biological Assets	338,910.00
Net Sales	652,910.00
Less: Cost of Sales	404,804.00
Gross Profit	248,106.00
Less: Operating Expenses	353,782.00
NET INCOME	(105,676.00)

Source: Securities and Exchange Commission Disclosures, 2022

As presented in Table 8, Farm D recognized biological assets in the Year 2018 and used a fair market value approach; however, starting in the Year 2019, the farm reclassified the biological assets to Other Assets. These other assets were also valued using the fair market value approach. However, the owner did not specify the reason for the reclassification.

Table 8. Financial Presentation of Biological Assets and Other Assets

FARM D
Statement of Financial Position
As of December 31

(in PhP)	**2018**	**2019**	**2020**
ASSETS			
Current Assets			
Cash	2,955,710.00	654,977.00	835,892.00
Trade and other receivables	50,000.00	1,702,970.00	1,702,970.00
Inventories	504,119.00	-	340,395.00
Total Current Assets	**3,509,829.00**	**2,357,947.00**	**2,879,257.00**
Noncurrent Assets			
Property, Plant and Equipment	11,302,760.00	25,792,854.00	22,560,056.00
Other Assets		5,202,008.00	3,111,033.00
Biological Assets	2,958,901.00		
Total Noncurrent Assets	**14,261,661.00**	**30,994,862.00**	**25,671,089.00**
TOTAL ASSETS	**17,771,490.00**	**33,352,809.00**	**28,550,346.00**

Source: Securities and Exchange Commission Disclosures, 2022

Table 9. Notes to Financial Statements (Biological Assets and Other Assets) of Farm D

Other Assets (in PhP)	**2020**	**2019**
This account consists of:		
Livestock Inventory	1,224,500.00	3,299,561.00
Feeds Consumption	774,496.00	1,318,690.00
Medicines Consumption	1,112,037.00	583,757.00
TOTAL	2,111,033.00	5,202,008.00

Biological Assets (in PhP)	**2018**
Inventory Livestock	1,910,727.00
Feeds Consumption	601,780.00
Medicines Consumption	**446,394.00**
Carrying Value - Biological Assets	2,958,901.00
Total Other Assets	**2,958,901.00**

Same components but use different accounts

Source: Securities and Exchange Commission Disclosures, 2022

On the other hand, Farm E, engaged in goat production, records biological assets under the Inventory account using the lower of cost and net realizable value. However, the carrying value of these assets will be reduced to its selling price if there is any impairment. This accounting policy was presented and disclosed in the financial statements.

4.2.4 Compliance with IAS/PAS 41

Using the IFRS Core Checklist, the areas of compliance were determined and summarized in Table 10. All farms are engaged in agricultural or farming activity; however, the majority of them are not aware of the accounting standard for agriculture and its importance. All farm managers, owners, and accountants who participated in the study agreed that PAS 41 should be used to account for their biological assets properly. However, most farms are still unsure whether they will implement the standard even after the researcher stressed its significance because they are unaware that there is a standard for agriculture.

The level of awareness and knowledge of the farm owners and managers in accounting and finance influenced the accounting practices of the farms. In addition, it can also be influenced by accountants, auditors, and industry practices. Among the 17 farms, only four farms apply the standard as recommended by their accountants and auditors. In addition, there is no established industry practices on accounting for biological assets. The interview with the respondents revealed that the training they have attended is focused on recording the sales and expenses and not on how to account for the biological assets.

Table 10. Summary of the areas of compliance based on the PAS 41 and other applicable accounting standards

Areas of compliance		Farms with a record of Biological Assets (n=5)	Farms without a record of Biological Assets (n=12)
Recognition and measurement	Is the entity involved in agricultural or farming activities with respect to living plants or animals or does it own or control any biological assets?	• All farms are engaged in agricultural activities. However, only four farms use PAS 41. • Among four farms that record biological assets, only one farm described the assets based on its classification - bearer or consumable.	• All farms are engaged in agricultural activities. • No recording of biological assets. However, some farms record an inventory count of their crops and livestock.
Measure fair value reliably	Is the entity unable to measure at initial recognition the fair value of any of its biological assets reliably?	• Fair value approach was used to measure the biological assets except for a farm that recognized an Inventory and used a cost approach. • Most farms failed to measure the change in the biological assets during its biological transformation.	• Record only the agricultural produce harvested from the assets. • Majority of the farms used the most recent price as the value of their produce.
Government grants	Has the entity received government grants, subsidies or subventions related to biological assets, agricultural activity, or farming	• Three farms received government grants but were not disclosed in the financial statements.	• Nine farms received government grants but were not disclosed in the financial statements.
Presentation or Disclosure	Did the entity operate in agricultural or farming activities with respect to living plants or animals or own or control any biological assets	• All farms engaged in agricultural activities. • However, not all follow the provisions on the classification, valuation, and gain or loss recognition.	• All farms engaged in agricultural activities and do not record any biological assets in the financial statements, • The agricultural produce harvested is recorded only when it is sold.

Furthermore, the respondents are willing to consider the application of the accounting standard. However, they believe that it will require additional human resource investment to change the current accounting procedure. They need to hire and train new personnel to handle the accounting for biological assets. To fully understand how to apply the accounting standard, they might require extra time to attend workshops and seminars that covers the recognition and measurement of biological assets and its

biological transformation. Lastly, if an accounting standard application guideline is established and can be used on the farm, they are more likely to apply it.

5. Conclusion

This study investigated how agritourism farms account for their farm's biological assets in their financial records. The majority of the farms registered as corporation prepare and submit a complete set of financial statements, while farms registered as sole proprietorship submit the Income Statement for tax purposes. Results show that agritourism farms hold their biological assets for agricultural production, entertainment, recreation (tourism), and research and education (training) purposes. However, most farms are unaware that biological assets must be recorded in their financial records using the accounting standard for agriculture (IAS/PAS 41). Thus, they have low compliance with the standard. This is also evident in the study of Virador (2019), which states that lack of knowledge and being unaware of the standard were the top reasons the farms are non-compliant with the standard. Agritourism farms have low compliance with the standard due to management's level of knowledge on accounting and awareness about the biological assets and standards. They may be knowledgeable about farm production, but they lack awareness of the farm management's accounting and finance aspects. If farms fail to record their biological assets properly, their assets are understated and the profit or loss may be understated or overstated. It will not reflect the farms' true financial performance and financial position. Moreover, they cannot utilize the advantage of having a correct financial statement in making decisions and attracting more investors.

Given the usefulness of accounting to farmers and other stakeholders, It is recommended that farm owners and managers must be equipped by attending seminars and training about the accounting for biological assets. Moreover, concerned offices such as the Department of Agriculture and Department of Tourism, in partnership with the Philippine Institute of Certified Public Accountants and universities, may offer accounting seminars and workshops to help farm operators manage their farm resources. Awareness of the standard is essential because it will guide them on how to account for their biological assets and manage these resources properly. Furthermore, it is essential to align the accounting procedures used by farms that engage in agricultural production and tourism by developing guidelines for and valuing biological assets.

5.1 Further Research

This study is limited to selected agritourism farms in Region IV-A and does not capture the accounting practices throughout the region. The financial effect of noncompliance with the accounting standard was not yet captured in this paper. It is suggested that more studies must be conducted to harmonize the accounting practices in the agritourism industry and the whole agriculture sector and see the effect of the implementation and non-implementation of the accounting standard for agriculture.

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References

[1] Ardiana, M., & Agustina, R. (2021). Depletion of Biological Assets: Treatment and Impact on Financial Statements. *Buletin Penelitian Sosial Ekonomi Pertanian Fakultas Pertanian Universitas Haluoleo, 23(1), 1-9.* https://doi.org/10.37149/bpsosek.v23i1.15179
[2] Agca, A., & Aktaş, R. (2017). First Time Application of IFRs and Its Impact on Financial Ratios: A Study on Turkish Listed Firms. Problems and perspectives in management, 5. Argilés, J. M., & Slof, E. J. (2001). New opportunities for farm accounting. *European Accounting Review, 10(2), 361-383.* DOI: 10.1080/09638180126640
[3] Argilés, J. M., & Slof, E. J. (2003). The use of financial accounting information and firm performance: an empirical quantification for farms. *Accounting and Business Research*, *33*(4), 251-273. https://doi.org/10.1080/00014788.2003.9729653
[4] Aryanto, Y. H. (2011). Theoretical failure of IAS 41. http://dx.doi.org/10.2139/ssrn.1808413
[5] Barbieri, C. (2013). Assessing the sustainability of agritourism in the US: A comparison between agritourism and other farm entrepreneurial ventures. *Journal of Sustainable Tourism*, *21*(2), 252–270. https:// doi.org/10.1080/09669582.2012.685174
[6] Bhatta, K., & Ohe, Y. (2020). A Review of Quantitative Studies in Agritourism: The Implications for Developing Countries. *Tourism and Hospitality*, *1*(1), 23–40. http://dx.doi.org/10.3390/tourhosp1010003
[7] Bernardo, D.N., Valentin, L., & Leatherman, J. (2004). Agritourism: If We Build It, Will They Come?https://www.researchgate.net/publication/237785531_Agritourism_If_We_Build_It_Will_They_Come
[8] Bostan, I. (2008). Assessing The Risk For The Agriculture Exploitation Entities And Monitoring The Liquidity And Solvency In Accounting. Bulletin of University of Agricultural Sciences and Veterinary Medicine Cluj-Napoca: Horticulture, pp. 65, 53–58. https://doi.org/10.15835/BUASVMCN-HORT:792

[9] Cantero, K.N.G., Basallo, M.L.B., Basallo, J.O. & Abad, Q. M. B. (2022). On Research Brass Tacks: A Pre-Evaluation of An Institutional-Driven Farm Tourism Site Development in Southern Philippines. *Asian Journal of Arts, Culture and Tourism 4 (1), 10-23*. https://doi.org/10.55057/ajact.2022.4.1.2

[10] Carada, W. (2017). *Farm Tourism in the Context of Inclusive and Sustainable Agriculture and Rural Development*. Lecture presented at the Exposure Workshop on Farm Tourism Practices in Southeast Asia, SEARCA, Los Baños, Philippines.

[11] Carolina, A., Kusumawati, F., & Chamalinda, K. (2020). Firm Characteristics and Biological Asset Disclosure on Agricultural Firms. *Jurnal Akuntansi Dan Keuangan*, 22, 59-71. https://doi.org/10.9744/JAK.22.2.59-71.

[12] Cavalheiro, R., Kremer, A. M., & Gimenes, R. M. T. (2017). Fair value for biological assets: an empirical approach. *Mediterranean Journal of Social Sciences MCSER*, *8*(3). DOI:10.5901/mjss.2017.v8n3p55

[13] Chavez, J. M., Mendoza, M. G. J., & Piguing, J. (2011). *A study on the level of compliance with PAS 41 agriculture of poultry and livestock corporations in the Philippines: Impact on profitability* (Unpublished undergraduate thesis), Manila: De La Salle University.

[14] Clavano, M. J. (2014). Factors that influence the valuation of biological assets and compliance with IAS 41/PAS 41 mandatory disclosures by selected agricultural companies in Davao Region. In *Proceedings of Global and Finance Research Conference* (5-6).

[15] Comen, T. (2017). Agritourism Stories Critical Success Factors for Agritourism Entrepreneurs. Paper Presented at the *2nd International Congress on Marketing, Rural Development, and Sustainable Tourism. Pinar Del Rio, Cuba June 13 – June 15, 2017*. https://cupdf.com/document/agritourism-stories-critical-success-factors-for-success-storiespdf-1-agritourism.html?page=1

[16] DOT-DA Memorandum Circular No. 2020-002. Rules and Regulations Governing the Accreditation of Farm Tourism Sites (2020). Retrieved from DOT-DA-JOINT-MEMORANDUM-CIRCULAR-NO.-2020-002.pdf

[17] Dékán, I. O. M. T., & Kiss, Á. (2015). Measurement of Agricultural Activities According to the International Financial Reporting Standards. *Procedia Economics and Finance, 32, 777-783*. https://doi.org/10.1016/S2212-5671(15)01461-6

[18] Elad, C. (2004). Fair value accounting in the agricultural sector: some implications for international accounting harmonization. *European Accounting Review, 13(4), 621–641*. DOI: 10.1080/0963818042000216839

[19] Fajardo, C. (2008). *The evolution of financial accounting standards in the Philippines*. Paper presented at the 8th Global Conference on Business and Economics, Florence, Italy. https://www.torrossa.com/en/resources/an/2431504

[20] Feleagă, L., Feleagă, N., & Răileanu, V. (2012). IAS 41 Implementation Challenges – The Case of Romania. *World Academy of Science, Engineering and Technology, International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering*, 6, 317-320. https://doi.org/10.5281/zenodo.1057361

[21] Gughea, M. and Iordache, I. (2017). Tratamentul contabil al unor operaţiuni specifice domeniului agricol, Revista Finanţe Publice şi Contabilitate RFPC, 10. https://mfinante.gov.ro/documents/35673/250949/articol_nr10_octombrie_marilena-gughea.pdf

[22] Hossein, G. O., Alipour, H., & Dalir, S. (2014). An entrepreneurial tourism project through agro-tourism farm in Iran. *Journal of sustainable development studies*, *6*(1). https://infinitypress.info/index.php/jsds/article/view/636

[23] Hung, W. T., Ding, H. Y., & Lin, S. T. (2016). Determinants of performance for agritourism farms: An alternative approach. *Current Issues in Tourism*, *19*(13), 1281-1287. https://doi.org/10.1080/13683500.2015.1037254

[24] International Accounting Standard 41, Agriculture. https://www.ifrs.org/issued-standards/list-of-standards/ias-41-agriculture/#about

[25] IFRS Core Tool Disclosure Checklist (2022). https://www.iasplus.com/en/publications/global/models-checklists/2022/ifrs-checklist

[26] Jaijairam, P. (2012). Fair Value Accounting vs. Historical Cost Accounting. *Review of Business Information Systems (RBIS)*, *17*(1), 1–6. https://doi.org/10.19030/rbis.v17i1.7579

[27] Jana, H., & Marta, S. (2014). The fair value model for the measurement of biological assets and agricultural produce in the Czech Republic. *Procedia economics and finance*, *12*, 213-220. https://doi.org/10.1016/S2212-5671(14)00338-4

[28] Kakalta, M. (2014). Evaluation of Biological Assets and Agricultural Disclosures Required by Companies in Philippines. *International Journal of Social Sciences and Humanities Research, 1(1), 83–89*. https://oaji.net/articles/2015/1828-1427653915.pdf

[29] Kimura, S., & Ogawa, H. (2007). A Model for the Convergence of Accounting Standards. Research in Accounting Regulation, 19, 215-229. https://doi.org/10.1016/S1052-0457(06)19011-6.

[30] Kurniawati, H. (2013). Tinjauan Rencana Adopsi IAS 41 Pada Perusahaan Agrikultur Di Bursa Efek Indonesia. *Binus Business Review*, 4, 461-472. https://doi.org/10.21512/BBR.V4I1.1411

[31] Maina, P., & Wingard, H. (2013). Small and medium-sized entities in the agricultural sector: Fair value reporting challenges. Agrekon, 52, 52 - 74. https://doi.org/10.1080/03031853.2013.798064.

[32] Mäkinen, H. (2013). Farmers' managerial thinking and management process effectiveness as factors of financial success on Finnish dairy farms. Agricultural and Food Science. https://doi.org/10.23986/AFSCI.8147.

[33] Mates, D., Grosu, V., Hlaciuc, E., Bostan, I., Bunget, O., Domil, A., Moraru, M., & Artene, A. (2014). Biological assets and the agricultural products in the context of the implementation of the IAS 41: A case study of the Romanian agro-food system. *Archives of Biological Sciences*, 67, 705-714. https://doi.org/10.2298/ABS140301042M.

[34] Mirza, A., & Ankarath, N. (2012). IASB Framework for the Preparation and Presentation of Financial Statements. , 13-15. https://doi.org/10.1002/9781119197102.CH2.

[35] Miranda, H. D., Mojica, L. E., Madamba, J. A. B., & Zapata, N. (2017). Accounting Practices and International Accounting Standard (IAS)/Philippine Accounting Standard (PAS) 41 Compliance of Cattle Farms: Evidence from the Philippines. *Journal of Global Business and Trade*, *13*(1), 55-77. http://dx.doi.org/10.20294/jgbt.2017.13.1.55

[36] Ohe, Y. (2020). Market for Rural Tourism and Its Characteristics. *Community-based Rural Tourism and Entrepreneurship: A Microeconomic Approach*, p. 20-21. Springer Nature.

[37] Pratt, J. (1996). Financial Accounting in an Economic Context. https://doi.org/10.2308/iace.2010.25.1.178.

[38] Prukop, B. & Golian, S. (2017). Finance and Accounting Used in Agritourism as an Element of Agribusiness Management on the Example of Holiday Farms Located in Bieszczady. *Scientific Review of Physical Culture, v. 7, n. 3, p. 65–71*. http://62.93.45.40/srpc/Articles/Volume-7/Issue-3/7.aspx

[39] Rahman, A., Perera, H., & Ganesh, S. (2002). Accounting practice harmony, accounting regulation and firm characteristics. *Abacus*, *38*(1), 46-77. https://doi.org/10.1111/1467-6281.00097

[40] Republic Act No. 10816 – Farm Tourism Development Act. Retrieved from https://www.officialgazette.gov.ph/2016/05/16/republic-act-no-10816/

[41] Rogerson, C. M., & Rogerson, J. M. (2014). Agritourism and local economic development in South Africa. *Bulletin of Geography. Socio-economic Series*, *26*(26), 93–106. DOI: 10.2478/bog-2014-0047

[42] Salarda, L. M. D. P. (2021). Agri-Farm Tourism In Region IY-A: Basis For A Proposed Development Plan. *Journal of Agriculture Systems and Technology (NJAST)*, *1*(1). https://www.ejournals.ph/article.php?id=16948

[43] Schipper, K. (2007). Required Disclosures in Financial Reports. The Accounting Review, pp. 82, 301–326. https://doi.org/10.2308/ACCR.2007.82.2.301.

[44] Scott, D., Wingard, C., & Van Biljon, M. (2016). Challenges with the financial reporting of biological assets by public entities in South Africa. *South African Journal of Economic and Management Sciences*, 19(1), 139-149. http://dx.doi.org/10.17159/2222-3436/2016/v19n1a9

[45] SEARCA (2017). Farm Tourism a path to inclusive and sustainable agriculture. https://www.searca.org/news/searca-farm-tourism-a-path-to-inclusive-and-sustainable-agriculture

[46] Suk, L., & Suk, P. (2014). Floating Biological Assets and Agricultural Produce Accounting. *Accounting and Finance,* (2) 71-78.

[47] Tan, A., & Geat, K. W. (n.d.). Putting a value on biological assets - ISCA.ORG.SG. https://isca.org.sg/media/2985/mar-46-50-putting-a-value-on-biological-assets-an-area-of-judgement.pdf

[48] Tang, Q., Gao, P., & Fu, G. (2013). Research on Information Disclosure of Biological Assets of Agricultural Listed Company in China. *Interdisciplinary Journal of Contemporary Research In Business*, *4*(11), 12-24. https://journal-archieves30.webs.com/12-24.pdf

[49] Tugade, L. O. (2020). Re-creating farms into Agritourism: Cases of selected micro-enterpreneurs in the Philippines. *African Journal of Hospitality, Tourism and Leisure, 9(1).* https://www.ajhtl.com/uploads/7/1/6/3/7163688/article_50_vol_9_1__2020_phillipines.pdf

[50] Wang, C. (2014). Accounting Standards Harmonization and Financial Statement Comparability: Evidence from Transnational Information Transfer. Journal of Accounting Research, pp. 52, 955–992. https://doi.org/10.1111/1475-679X.12055.

[51] Wojcieszak-Zbierska, M. M., Jęczmyk, A., Zawadka, J., & Uglis, J. (2020). Agritourism in the era of the coronavirus (COVID-19): A rapid assessment from Poland. *Agriculture*, *10*(9), 397. https://doi.org/10.3390/agriculture10090397

[52] Van Biljon, M., & Scott, D. (2019). The importance of biological asset disclosures to the relevant user groups. *Agrekon*, *58*(2), 244-252. DOI: 10.1080/03031853.2019.1570285

[53] Virador, Leomar B. (2019). The Extent of Compliance with International Accounting Standard (IAS) 41: The Case of Selected Agri-tourism Sites in Bohol, Philippines. International Journal of Accounting and Taxation, 7(1) 40-45. https://doi.org/10.15640/ijat.v7n1a5

[54] Zacal, R. G., Virador, L. B., & Cañedo, L. P. (2019). State of Selected Agri-Tourism Venture in Bohol, Philippines. *International Journal Of Sustainability, Education, And Global Creative Economic, 2 (1), 9-14***.** https://doi.org/10.1234/ijsegce.v2i1.50