



ACCOUNTING TREATMENT OF BIOLOGICAL ASSETS FOR AGRICULTURAL COMPANIES IN JEMBER AND BONDOWOSO

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Abstract

Application of IAS 41-Agriculture in developed countries contrast with agricultural entities conditions in developing countries especially for Indonesia. The adoption of IAS 41 makes DSAK-IAI issue PSAK 69 Agriculture intended for agricultural entities so that they can measure and record related biological assets of a company. However, the application of PSAK 69 to agricultural companies also facing problems such as changes in accounting treatment especially for accounting method which are changed from historical value to fair value.

The purpose of this study is to provide an overview of accounting treatment of biological asset in Jember plantation companies in state-owned plantation companies in Jember and Bondowoso regencies, namely PTPN 12 and PTPN 11 (PG Pradjean). The metode used was descriptive qualitative. The researchs showed that differences in biological assets of each company can cause differences in the recording of biological assets. The differences between the two companies are in terms of plant type, plant age and costs incurred in each type of plant. However, in other cases, the accounting treatment of biological assets in PTPN 11 (PG Pradjean) and PTPN 12 has similarity on recording biological assets at acquisition cost method. This study shows that currently both companies are still used accounting records with a historical value approach that accumulates all costs incurred from the nursery process until the plants are transformed into yielding crops.

Keywords: biological assets, definition, disclosure, measurement, recognition

JEL Classification: M41, M48, N55

INTRODUCTION

One of the agricultural sectors which contributed greatly to the income of the people in the Jember Regency and Bondowoso areas was plantations. Data on plantation area and

total plantation production in the two districts for 2016 can be seen in Tables 1a and 1b below:

Table 1a. Size Crops in Jember and Bondowoso, 2016

District	Plant Size (in hectares)						
	Rubbe <i>r</i>	Coconu <i>t</i>	Cloves	Coffee	Sugarcane	Cocoa	Others
Kab. Jember	13,795	18,230	1,117	9,5172	2,807	4,029	10,688
Kab. Bondowoso	-	4,246	110	12,798	4,341	95	5,168

Source: BPS East Java Province Data Year 2018

Table 1b. Total Production Plantation in Jember and Bondowoso, 2016

District	Total Production Plant (in tonnes)						
	Rubbe <i>r</i>	Coconu <i>t</i>	Cloves	Coffee	Sugarcane	Cocoa	Others
Kab. Jember	14,299	13,795	246	10,863	47,218	2,921	14,664
Kab. Bondowoso	-	3,516	5	8,670	21,840	17	4,348

Source: BPS East Java Province Data Year 2018

The two tables above show that companies that manage plantations in Jember Regency and Bondowoso have quite a lot of assets in the form of crops and production and great value. Becoming one of the problems for plantation companies in Jember and Bondowoso to be able to recognize assets in the form of plants and production results in their financial statements. The reason was the agricultural industry, in this case the plantation, had unique characteristics that distinguish it from other industries. According to Wigrha (2018), these unique characteristics are due to assets in the agricultural industry in the form of animals or live plants and the existence of management activities and biological transformation of plants to produce products that will be consumed or further processed.

Farida (2013) stated that because of its unique characteristics, companies engaged in agriculture tend to convey information that is more biased than companies engaged in other fields, especially in terms of recognition, measurement, presentation, and disclosure of biological assets. According to Tang *et al.* (2013), the absence of financial reporting standards for accounting for biological assets will cause problems in the form of a variety of disclosures, so that financial information cannot be compared and mislead financial report users.

Biological assets are unique assets, these assets are unique because they can experience biological transformations that include processes of growth, degeneration, production, and procreation that cause qualitative and quantitative changes in animal and plant life (Farida, 2013). Biological assets can produce new assets that are realized in agricultural products or in the form of additional biological assets in the same class. The existence of a growth transformation on biological assets has an impact on the need for measurement that can show fair value in accordance with its contribution in generating a flow of economic benefits for the company. In the event of an incorrect allocation of costs, the identification of the value of biological assets has the potential to experience errors that result in the information being made irrelevant and unreliable.

Based on the background described above, this study aims to explain how the accounting treatment of biological assets of plantation companies in Jember and Bondowoso regencies. The results of this study contribute to the compilers of standards related to biological assets in seeing how the practices of accounting treatment have been carried out by plantation companies so far.

LITERATURE REVIEW

Asset

Conceptual Framework Indonesian Financial Accounting Standards Financial Reporting (IAI, 2016) states that assets are resources controlled by the company as a result of past events and from which future economic benefits are expected to flow to the company. Hanafi and Halim (2016: 13) define assets as resources that have the potential to provide economic benefits to companies in the future where these resources are able to generate cash inflows or the ability to reduce cash outflows.

Assets can be classified into several groups. According to its form, assets are classified as tangible assets and intangible assets. Whereas according to the useful life, assets are classified as current assets and non-current assets or noncurrent assets (fixed assets) (Kieso, 2011: 242).

Tangible assets (*tangible assets*) are all assets that have tangible manifestation physically. For example: buildings, land, and so on. Whereas for intangible assets are assets that do not have physical forms, such as goodwill, trademark, and so on.

Current assets are assets that have a useful life of less than one year. That is, these assets can be quickly converted into cash or enjoyed for less than one year or one operating cycle. Examples of current assets are cash, accounts receivable, inventories, and so on. While non-current assets / fixed assets are assets that have a useful life of more than one year. That is, these assets are not easily converted to cash in a relatively short period of time. Non-current assets can be in the form of long-term investments, fixed assets (property, plant, and equipment), intangible assets, or other assets.

Biological Asset

Biological assets are plants and animals that undergo biological transformation. As defined in IAS 41, biological assets as "a living animal or plant". Biological assets which experienced biological transformation require recognition, measurement, and disclosure using the right accounting method. The Statement of Financial Accounting Standards 69 on Agriculture is effective from January 1, 2018. But before that the International Accounting Standard Committee (IASC) has published International Accounting Standard (IAS) 41 Agriculture which regulates biological assets.

Biological assets will be recognized by an entity if they meet the following criteria: 1) controlling the asset as a past event, 2) obtain economic benefits from the asset, and 3) the fair value of the asset can be measured reliably. The scope of PSAK 69 regulates the accounting for biological assets except productive crops and agricultural products at the point of harvest.

METHODOLOGY

This research is a qualitative research. The object of the study consisted of two state-owned plantation companies in the area of Jember Regency and Bondowoso namely the PTPN 11 PG Pradjekan Bondowoso and PTPN 12 Renteng Jember.

Data sources used include primary data and secondary data. The primary data in this study is data obtained through direct observation and structured interviews with informants from PTPN 11 Pradjekan and PTPN 12 Renteng Jember. The researcher conducted an interview with the accounting department and the production division of the two companies to find out the information needed along with the company's images, especially related to the recognition and measurement of the value of biological assets. While secondary data research is obtained through documents or company archives

relating to the form of financial statements and records regarding the recognition and measurement of biological assets that support the research process.

The analytical method used is a qualitative descriptive analysis method. The research data was collected and then analyzed qualitatively, namely by reviewing, describing, analyzing, and explaining the data obtained from the research object. Based on the results of data analysis, the researcher obtained a clear and comprehensive picture of the process of recognizing and measuring biological assets in the form of crops and plantation products in PTPN 11 PG Pradjekan Bondowoso and PTPN 12 Renteng Jember to be presented in the financial statements.

RESULTS AND DISCUSSION

Definition of Biological Asset

Assets owned by PTPN 11 PG Pradjekan, namely sugar cane. Meanwhile, biological assets in PTPN 12 Renteng Garden are rubber, coffee, cocoa. The main raw material in producing sugar in PTPN 11 PG Pradjekan is sugarcane. In addition, there are also other supporting materials used in those process The products produced by PG Pradjekan are sugar and sugar cane. The following is presented in Table 1 biological assets and agricultural products.

Table 1. Biological Assets and Agricultural Products Research Object

Name of	Plant	Agriculture Product
PTPN 11 PG Pradjekan Bondowoso	Cane	Sugar Molasses
PTPN 12 Renteng Jember	Coffee Cocoa Rubber	Coffee Beans Cocoa Beans Latex Rubber

PTPN 11 PG Pradjekan cultivate sugar cane derived from sugarcane that ground alone, or so-called " Own sugarcane "by 10 percent and sugar cane from those grown on farmers' land or called" People's Sugar Cane "by 90 percent. Whereas, PTPN 12 Kebun Renteng planted their rubber, coffee and cocoa on their own land with the right to use.

PTPN 11 PG Pradjekan classifies sugar cane as a biological asset based on the planting year. This year, PTPN 11 PG Pradjekan has three types of sugarcane classification, namely Sugar Cane 17/18, Sugar Cane 18/19 and Planting This Year. Meanwhile, PTPN 12 Kebun Renteng classifies plants based on their age and ability to produce. The following data is presented in Table 2 related to the classification of plants in PTPN 12 Kebun Renteng.

Table 2. Plant Classification in PTPN 12 Renteng Plantation

Plants	Type	Classification of Plant
Coffee	Robusta Arabica	Planting This Year Crops Plants Year to Come Plants Not Producing 1-4 Plants Produce 4-40
Cocoa	Bulk Edel	Planting This Year Year Plants Year to Come Plants Not Produce 1- 4 Plants Produce 4-40
Rubber	-	Planting This Year

		Plants Year to Come Plants Not Producing 1-7 7-25 Producing Plants
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Coffee produced by PTPN XII had two type of coffee which were robusta coffee and arabica coffee. Robusta and Arabica coffee have different characteristics and have different market share. The classification of plants for coffee includes planting this year, planting the coming year, immature plants and producing crops. Coffee plants begin to produce immature plants at the age of 1-4 years. Then at the age of 4-40 years the coffee turns into a plant.

Cocoa produced by PTPN XII Renteng Jember had two type cocoa, which were bulk and edible cocoa. Edel type cocoa has the characteristics as cocoa which has better quality than bulk cocoa. However, bulk cocoa has a relatively larger amount of harvest. In addition, bulk cocoa has a higher fat content than edel cacao. Cocoa plants begin to transform from immature plants to produce plants from the age of four to five years.

Rubber is also a product produced by PTPN XII, especially those in the Renteng garden area. Unlike coffee and cocoa, for the type of rubber planted in PTPN XII, only one type. Rubber plants begin to transform from immature plants (TBM) to plant produce (TM) at the age of 7-25 years.

In addition to classifying plants as immature plants and producing plants at different stages of life, PTPN XII also classifies the plants as Future Crops (TTAD). TTAD is a plant that will be prepared to be planted in the coming year. TTAD which is ready to be planted in the next year will change to TTI (this year's plant). Furthermore, coffee plants, rubber and planted cocoa are classified as immature plants (TBM) until they are fruitful and are classified as producing plants (TM). Unprocessed plants for rubber between the ages of 1-7 years, while for coffee and cocoa are 1-4 years. Immature plants for rubber will turn into yielding plants at the age of 7-25 years. And also for coffee and cocoa, it turns into a crop at the age of 4 years and continues to produce for the next 40 years.

Recognition of Biological Assets

PTPN 11PG Pradjekan recognizes sugar cane as its asset when it has incurred costs for planting sugar cane to be harvested for next year, for example nursery costs or the cost of purchasing seeds, fertilizer costs, watering costs and so forth. Later, when it has been harvested, the recording of the asset is transferred to the expense account.

Table 3. Summary of Biological Assets Recognition in PTPN 11 PG Pradjekan

Elements of Financial Statements Related to Assets Biological	Recognition According to PG Pradjekan	Recognition According to the SFAS	Accounting Standards
Nurseries	Fixed assets	Fixed assets	IAS 16
Deferred charges on seasonal crops	Fixed assets	Fixed assets	IAS 16
Persediaan (annuals)	Current assets	assets	PSAK 14

Nursery cost are measured at the acquisition price, which include the accumulated costs associated with the seeding of the company's sugarcane (cost of land preparation, planting, fertilizing, maintenance, etc.) and allocation of other indirect costs. It continues

until the sugarcane seedlings can be transferred to seasonal crops and allocated for 2 years. Deferred charges for seasonal crops include all costs incurred. Seasonal crops are recognized as inventories and are stated at cost, which includes the accumulated costs associated with the company's sugarcane crops such as land preparation costs, seed planting, fertilization, maintenance and allocation of other indirect costs until the time when the sugar cane can be harvested.

PTPN 12 Renteng Plantation has coffee, cocoa and rubber plants as part of its biological assets. Recognition of maintenance costs incurred is recorded based on the classification of plant age. Costs incurred include land preparation fees and nursery fees. While the costs incurred for producing crops include harvest costs and deferred costs. Deferred costs are all costs incurred until the plant is ready to be harvested.

Table 3. Summary of Recognition of Biological Assets in PTPN 12 Renteng Estate

Elements of Financial Statements related to Biological Assets	Recognition According to PTPN 12	Recognition According to PSAK	Accounting Standards Producing
Plants (rubber, coffee, cocoa)	Fixed	Fixed assets	PSAK 16
Immature plantations (rubber, coffee, cocoa)	Fixed assets	Assets	PSAK 16
Fruit of cacao and coffee beans still attached to trees	Not specifically recognized, is a unity with cocoa plants	Biological Assets	PSAK 69
Rubber latex in trees	Costs are recognized starting from the nursery process, land rent, transfer transition and others.	Biological Assets	PSAK 69
Fruit dried cocoa and coffee beans that have been dried and finished processed	Inventory	Inventories	PSAK 14
Rubber sap that has been tapped	Inventory	Inventory	PSAK 14

Measurement of Biological Assets

PG Pradjekan treat biological assets for self-planted sugarcane or "Own Sugarcane" as a fixed asset. Recognition of sugar cane plants is determined based on the beginning of the planting period. For example, PTPN 11 PG Pradjekan records all expenses and costs incurred for planting sugar cane planted in 2017 and harvested in 2018 in the "Tebu 2017/2018" account and so on. At the end of 2018, the "2017/2018 Sugar Cane" account will be moved out as a burden because all sugar cane grown in 2017 in November 2018 must definitely become sugar. By the end of 2018, there is no more Sugar Cane account 2017/2018. This method was repeated for the following years.

It means that biological assets in PG Pradjekan are not measured at each stage of the plant's age, only accumulated costs at the end of the planting period or near harvest. Costs are recognized starting from the nursery process, land leasing, transitional transfers and others. It can be concluded that for sugarcane crops in PG Pradjekan, is treated as biological assets and recognized at the acquisition price. There is no accumulation of shrinkage for sugar cane, because of its relatively short age. Measurement of sugar and drops in PTPN 11 PG Pradjekan was using the sugar auction price determined by the directors. The decision to determine the auction price is carried out by the central office of PTPN XI.

PTPN 12 recognized biological assets as much as the acquisition price of rubber, coffee and cocoa plants, which is calculated by capitalizing all costs incurred since the land processing until it was ready to be sent to the center. Costs incurred to determine the acquisition price of plants include processing costs, maintenance costs and harvest costs. This research shows that PTPN 12 recognizes its agricultural products when the product has been processed. For example, rubber is recognized as a stock when rubber sap has become a rubber sheet or called a Rubber Smoked Sheet (RSS) and distinguished its account based on the quality of the rubber sheet.

Presentation and Disclosure of Biological Assets

PTPN 11 Pradjekan are plantation companies that process sugar cane into sugar. PTPN 11 Pradjekan obtains raw materials through the harvest from his own land and buys sugar cane from the community. The proportion of the acquisition of raw materials is 10 percent of the land itself and 90 percent of the sugar cane from the community. PTPN 11 Pradjeka sort the sugarcane before it is ground by measuring the quality of sugar cane to be processed in the form of yield. There is no active market to determine the fair value for sugarcane processed products. Grouping is adapted to the type of activity. Such as in samples, seeds, land leasing and others entered into the account 192. For processing the land until it will be harvested into the Future Sugar Cane account.

Based on PTPN 11's financial report published on its official website, the company does not present its biological assets in the form of sugar cane in its financial statements. This is because sugar cane is a seasonal crop where sugar cane will be milled and become sugar in less than one year. This means that biological assets in the form of sugar cane are only recorded but not presented in the financial statements. However, PTPN 11 presents its agricultural products namely sugar and drops as supplies.

In PTPN 12 financial statements, there are asset classification related to coffee, cocoa and rubber plants, namely as bearer assets. Based on the results of interviews with accounting staff, fixed assets consist of immature plants (TBM) and crops (TM). Plants that are classified as immature (TBM) plants have not experienced shrinkage, while

plants classified as producing plants (TM) experienced shrinkage according to plant age. Depreciation method is disclosed in the notes of the financial statements (CALK). Meanwhile, agricultural products are presented as inventories. Inventories are recognized as current assets. Cocoa beans and coffee beans will be valued as supplies when they have been picked and experience post harvest processes until they become coffee beans and dried cocoa. Biological assets, in the form of cocoa fruit, coffee beans and rubber latex that can still grow on trees have not been specifically disclosed in the PTPN XII financial statements, and are still assumed to be included in the plant assets.

CONCLUSIONS, LIMITATIONS, AND SUGGESTIONS

The conclusions of this study indicate that the two companies define biological assets into two, namely crops and agricultural products. Plants for PTPN XI (PG Pradjekan) are categorized as seasonal crops, namely sugar cane, with sugar and sugar cane agricultural products. While PTPN XII has plants that are categorized as perennials, namely coffee, cocoa and rubber. Agricultural products are coffee and cocoa beans, and rubber latex. Both companies also recognize the transformation of biological assets from TTI until the plants produce. The company measures its biological assets using the acquisition price method and presents the statement of financial position in the position of fixed assets and current assets (inventories) at cost.

This research is only limited to the two largest plantation companies in Jember Regency and Bondowoso. For further research should expand the research area not only in Jember and Bondowoso. It will highly recommend that future reaserach will also expand the object of research not only on biological assets for the plantation industry, but also other livestock and agricultural industries.

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