Biodiversity Discourse in Accounting Standards: A Case from Indonesian Accounting Standards for Forestry and Agriculture

ABSTRACT

Based on the Fairclough's Critical Discourse Analysis (CDA) (2015), the paper analyses how the relevant accounting standards capture the biodiversity loss in the Indonesia. The forestry sector in Indonesia used to follow the PSAK 32 for Forestry as the guidance for their accounting practice. Despite the contradictions existed in this PSAK that cause its revocation and the issuance of the PSAK 69 for Agriculture, the PSAK 32 has better engagement with the biodiversity issue through conservation as part of the main business activity notion. The paper shows that the shift of accounting standards depicts the struggle between the environmentalist and economist ideologies that persist and shape the business practices. Our analysis further reveals that how the improvement of accounting standards could challenge its understanding on the biodiversity discourse.

Keywords: biodiversity, forestry, agriculture, accounting standards

Biodiversity Discourse in Accounting Standards: A Critical Realism Perspective

1. Introduction

Biodiversity forms the foundation of the ecosystem which contributes to human well-being. The engagement with the biodiversity discourse is a global priority, an issue to be adequately addressed by the accounting professions worldwide. Despite its importance, the engagement of accounting towards the biodiversity loss seems to be restricted (Jones and Solomon, 2013). Jones (1996) argues that the non-existence of the market price of the environmental factors creates more costs rather than increasing income which make environment aspects excluded in the traditional accounting. The limited research on biodiversity accounting focuses on the reporting matters (Rimmel and Jonäll, 2013; Liempd and Busch, 2013; Boiral, 2013; Diouf and Boiral, 2017), internalisation of biodiversity value using accounting technology (Jones, 1996; Houdet and Germaneau, 2014; Davies, 2014) or the 'offset' practices (Tregidga, 2013; Cuckston, 2013; Ferreira, 2017; Sullivan and Hannis, 2017), and left the area of accounting standards and its relationship with this discourse understudied.

The biodiversity resources 'are vital to the humanity's economic and social development' (Convention on Biological Diversity, accessed 28 December 2017). Human activities are the important factors that trigger the biodiversity loss, and Jones (1996) argues that organisations are morally responsible for their contribution to the loss. In terms of accounting with its role in providing information, the engagement with the biodiversity discourse is important to lead to the more responsible business practices through more responsible decisions with multi-disciplinary point of view (see Jones, 1996; Maunders and Burritt, 1991). Accounting academics and professional bodies need to engage more with global environment targets[i] in a way to foster the multi-disciplinary perspectives to embed the policy and actions to achieve it (Bebbington and Unerman, 2017). Insofar, the innovation in accounting techniques that involve multi-disciplinary perspective such as natural inventories (Jones, 1996, 2003; Siddiqui, 2013) biodiversity offsetting program (Tregidga, 2013), the inclusion of biodiversity aspect in financial accounting calculations by using the carbon market mechanism (Cuckston, 2013), the development of accounting model based on REDD+ framework (Khan, 2014) and biodiversity reporting (Liempd and Busch, 2013; Rimmel and Jonäll, 2013; Samkin, et.al., 2014) become evidences of the accounting attempts to engage with the biodiversity discourse. However, Atkins et al., (2015) argue that the prior engagements are limited to a traditional approach that grounded on the

financial and social science paradigms. Freeman and Groom (2013) argue that the conventional financial accounting conventions in valuing long-term liabilities are not suitable for biodiversity and environmental sensitive costs and benefits. They suggest that alternative accountability and governance mechanisms are important, but not limited by pre-existing perceptions of accounting roles. Since the accounting standards provide the accountability mechanism for the organisations through the production of accounting information, we argue that accounting for biodiversity need to be addressed from the perspective of accounting standards.

Professional accounting body plays important roles in the standard-setting process that will shape the accounting practice, particularly in developing the social and environmental reporting (Mădălina, Nadia and Cătălin, 2011). However, in a real world scenario, the professional accounting body's role in addressing the social and environment issues in accounting practice is narrow (Dumitru and Guşe, 2017; Lusher, 2012; Lovell and Mackenzie, 2011). This may be due to the lack of continuous interaction between accounting and society, which limits the ability of professional accounting body in internalising the biodiversity discourse, which is crucial in reshaping the companies' stewardship role towards nature (Lusher, 2012; Houdet et al., 2009), and capturing the enhanced significance of biodiversity influence on human well-being (Bartkowski, Lienhoop and Hansjürgens, 2015).

The majority of studies upon professional accounting bodies are related to the ethical issues and its lobbying effort in the standard-setting process (Bakre, 2007; Jeppesen, 2010; Reuter and Messner, 2015) or the attempt to align internationally (Samsonova-Taddei and Humphrey, 2014). There are not many studies that focus on how the professional accounting bodies could set the discourse of accounting practice in a specific issue, such as climate change as discussed in Lovell and Mackenzie (2011). This study depicted that setting the specific discourse could lead to the proper awareness and appropriate 'technical aspect'.

One other aspect, we noted is that there are not many studies on biodiversity accounting in emerging economies. In one of the early attempts to operationalise biodiversity accounting in a developing country context, Siddiqui (2013) finds that biodiversity accounting may provide a legitimate basis for the government in allaying concerns regarding environmental stewardship and assist in negotiations with powerful stakeholder groups on important issues such as financial assistance after natural disasters and claims to the global climate change fund. Furthermore, the results of the study indicate that application of Jones' natural inventory model is feasible in

countries such as Bangladesh. Since accounting is socially constructed, it is important that relevant accounting standards need to capture and accommodate the biodiversity loss. Thus, we examine *how the relevant accounting standards can capture the biodiversity conservation discourse as an attempt to halt the biodiversity loss,* which is the central question in this paper.

This paper is structured as follows. After the introduction, the second part is regarding the explanation of the importance of the biodiversity discourse and its relationship with the accounting field. The third part of this paper explains the philosophical stance and the theoretical framework that the authors employed in this paper. The fourth part of this paper is about the data and findings. The fourth part starts with the explanation of the methodology strategy and then followed by the explanation of the context of the case study. Following the context of the case study explanation are the journey of the relevant accounting standards that divided into two parts, the explanation of the Statement of Financial Accounting Standard (*Pernyataan Standar Akuntansi Keuangan,* hereafter, PSAK) number 32 and 69, and the explanation of the shifting from the PSAK 32 to the PSAK 69. The fifth part of this paper is the discussion and conclusion, which discuss the case study based on the Fairclough's CDA.

2. Biodiversity and Accounting

Regarding the fundamental ecosystem services to support the sustainable development and human well-being, biodiversity has an important role in supporting human life and also reducing the risks of natural disasters. As the forest is an ecosystem with the most biological-diverse one, it is important to fight against the 'deforestation' and 'forest degradation' (United Nations Department of Economic and Social Affair, 2017). Sustainable Development Goals (SDG) put forest and biodiversity as central concerns particularly in goal fifteen, which is "Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss" (United Nations, 2015). Further, the Convention on Biological Diversity (CBD) emphasise the importance of any action to foster the conservation as the important effort to halt the biodiversity loss (Secretariat of the Convention on Biological Diversity, 2005).

As the forest also brings benefits extrinsic values that support the human well-being economically, it is important to foster the forest conservation and to manage economic activities that utilise or bring impact to the forest (Park, 1992). There is a stewardship role that attached to

the business, which makes companies are demanded to protect the ecological sustainability. It means that companies need to be held accountable for all resources used. In this matter, general accounting is not capable of serving the business in carrying the stewardship role (Jones, 2014). On the other side, Mădălina, Nadia and Cătălin (2011) explain that professional accountants need to adapt to the sustainability issue as integral part of the accounting practices and as the key for the long-term business performance. Therefore, we argue, it is important for relevant accounting standards to capture the biodiversity discourse in order to direct the business in conducting the stewardship role. However, we realise that the accounting standards existence is to provide accountability mechanism for broad stakeholders and not only to serve the social and environmental issues, including the biodiversity loss. Nevertheless, we believe that it needs to be able to capture the global problem that influences the human well-being as part of its role in supporting the achievement of both social and economic development.

Based on the Global Biodiversity Outlook 4, the awareness of the society towards the biodiversity and its importance is increasing in both the developed and developing countries, although it is still considered at the low level. Coherent, strategic and sustained communication efforts to increase the awareness are still highly needed as well as strengthening the partnerships in the business world to promote more accountable and transparent business practices that engaged with the biodiversity issue. In reducing the pressures upon the biodiversity loss, the efforts to overcome the deforestation and foster more efficient agricultural practices are the key potential actions that embedded in the policy making process and technical actions (Secretariat of the Convention on Biological Diversity, 2014). We believe that this portrait of the global biodiversity can be the proper motivation for the accounting professions around the globe to capture the biodiversity discourse as part of the multi-perspectives in the way accounting view the global challenge in humanity.

This paper's purpose is to investigate whether the existing accounting standards for forestry and agricultural sectors are able to capture the biodiversity discourse. By investigating this accounting standard and the relevant government laws and regulations as the context of the case study, this paper is not only studying the empirical and events domains regarding the biodiversity phenomenon but more to the real social structure that causes the company engagement with the phenomenon.

3. Critical Discourse Analysis

Discourse is not just a language, but it is a part of social process or social life (Fairclough, 2015). Moreover, language itself is a form of social practice. Fairclough further explains that discourse involve social conditions that relate to the social environment in which the discourse occurs from the situation level up to the society as a whole level. Hence, the relationship between discourse and social structures are not a one-way relationship. The discourse contributes to the achievement of social continuity and social change, and the social structures define the development of discourse. It is also a part of the interactions in a routine social process that involved: discourse, power, social relations, material practices, institutions (and rituals), and beliefs (values, desires) (Harvey cited in Fairclough, 2015). Rajandran and Taib (2014) analyses how the discourse of CSR in the Malaysian business environment brings impact to the business practices and how it is represented through CEO statements. The study describes the power of the legislation in the context of the Malaysian business and the social relations between the corporations and the society help the shaping and reshaping the CEO statements as the communication media to disseminate what the companies have done in carry out its social responsibility.

The power in the discourse exercised by the more powerful participants to control of constraint the contributions of the less powerful ones (Fairclough, 2015). The constraints could be regarding the contents, relations between people and subjects or ‘subject position' that certain people could occupy, e.g. in the professional world of accounting. This power in the discourse does not only exist in face-to-face discourse but also hidden in media which is more one way relational. Power in the discourse shape and reshape the social life and is affected by the ideology. The power in the discourse consists of some aspects. The standardisation or the standard language dimension is the first one, in which the codification of the standard as the crucial part in the process to minimise the variation in the interpretation. The second aspect is the discourse type, which the use of certain discourse type is important in exercising the power within the discourse. The last aspect is the access; where the more powerful party impose and enforce certain constrain to limit the access to the discourse itself. Van Dijk, (1993) argue that the understanding of the social power and dominance is crucial in critical discourse analysis. Further, Van Dijk explains that power and dominance are usually organised and institutionalised. Accounting studies such as Lovell and Mackenzie (2011), McPhail and Adams (2016), Bakre (2007), and Jeppesen (2010) show the examples of power within certain discourse. The study by

McPhail and Adams (2016) that examine the corporate constructions of human rights is one example regarding the power in the discourse. This study depicts that corporation can play as an autonomous source of power beyond the state, and the way human right discourse enter the corporate discourse depicts the significant political power reconfiguration. Moreover, this study that focuses on the guiding principles (GP) in business and human rights in 2011 for the mining, chemical and pharmaceutical industries shows that the GP has shift the human rights ideology and global governance as an attempt to the realisation of human rights in the business practices in the researched industries. The study by Lovell and Mackenzie (2011), that depicts how the accountant professions take the lead in engaging with climate change issue through the carbon accounting, while Bakre (2007) explain how the accounting profession in Nigeria engage with unethical accounting practices by its members. Other study by Jeppesen (2010) that identifies and discusses the auditing standard-setting process in Denmark that tend to be politically challenging.

Fairclough (2015) explain that ideology works most effectively if it is at least visible in the society. The ideology becomes the background assumption that leads the 'textualise' process of the world into text for the text producers and the 'interpretation' of the texts by the interpreter in a particular way. Framed by this thought, there is a struggle between the dominant discourse and the dominated ones to require and behold their legitimacy. The dominant discourse is then naturalised and become common sense, as the ideology itself is effective when it is in disguise. Common sense itself is the effect of power from the ideological dimension.

The notion of the environmental protection and caring is emerging since long time ago, even before Gray (1992) reintroduce the notion again and further depict the result of Meadows et.al work regarding 'limit to growth' (cited in Gray, 2006). Since the ecological services, including the biodiversity particularly that exist in the forest, support the human well-being through many benefits its offer (Park, 1992), institution such as United Nations or the Global Reporting Initiatives (GRI) highlight the biodiversity loss as important issue and include it into the Sustainable Development Goals (SDGs) or the GRI standards. The engagement with this sustainability discourse through actions in business (e.g. the emergence of the sustainability reporting guidelines such as GRI or Integrated Reporting – IR) is the result of business society interaction with that discourse.

Social institutions such as the government and the accounting professions then create regulations that bring the sustainability discourse, which will bring impacts to the business practices. The discourse brought by the regulations from those social institutions has the power to reshape the reality in the business world. From the business side, the engagement with the discourse will develop new practices for 'better business practices', e.g. the notion of natural inventory (Jones, 1996), or the notion of environment management accounting (Houdet and Germaneau, 2014). When Fairclough's CDA emphasises on the power, both the power in the discourse and the power behind the discourse, in terms of the biodiversity, the discourse brought by those social institutions has the power to shape and reshape the business practices. However, at the same time the social structure of those institutions also have the power that is contributing to the changes. On the other side, the social structures that exist in the society also determine the way of the interaction with the discourse based on the power they have. The 'power behind the discourse' according to Fairclough is *"that the whole social order of discourse is put together and held together as hidden effect of power"* (2015, p.83). Regarding the biodiversity discourse, the order of the discourse within the existing business discourses brought by the institutions depicts the capability it has to shape and reshape the business practices to foster the halt of biodiversity loss from economic activities. Therefore, the power of certain social group will help to reassert the engagement of the business and the biodiversity discourse. This iterative process forms the generative mechanism that cause or not cause the event, which is the effort to halt of the biodiversity loss.

This paper argues that the relevant accounting standards or PSAK (Pernyataan Standar Akuntansi Keuangan – Financial Accounting Standard Statement) are truly foster the improvement of the accounting information quality but at the same time it loses the engagement with the conservation discourse that is very important to halt the biodiversity loss. The previous accounting standard (in this case is the PSAK 32) has better engagement with the biodiversity discourse through the notion of conservation as part of the core business activity for the forestry companies. This previous standard is established in conjunction with the establishment of the other government regulations and laws on forestry. However, even the PSAK 32 contains the conservation as part of the main business notion; it also triggered contradictions with the other accounting principles and practices. The contradictions cause its revocation and the issuance of the PSAK 69 for agriculture, which is we argue only better from the accounting point of view. The journey of the accounting standards within the social and environmental context in this case study depicts the struggle of the contested idea of the ecological conservation to be considered as

the main and inevitable part of the main business for forestry and agriculture companies. We also suggest that accounting as the language of business must bring the notion of the ecological (more specific, the biodiversity) conservation as part of the main business. Hence, a generative mechanism to trigger more ecological responsible business activities can be exerted.

4. Data and findings

4.1. The methodology

To answer the research question of *'how can the relevant accounting standards capture the biodiversity conservation discourse as an attempt to halt the biodiversity loss?',* this paper is deliberately take the context of Indonesia forestry and agricultural sectors as a case study. The first reason is regarding the facts that even the Indonesia rainforests are only one percent of the global forest, but it holds 10% of the world known plant species, 12 % of mammal species and 17% of all known bird species (Rainforest Action Network, accessed 12th August 2017). Secondly, the forest area is decreasing from 65.44% of the land area in the year 1990 into only 50.24% in the year 2015. The increasing production quantity of round wood in Indonesia around 6% from the year 2007 up to the year 2016 also contributes to the deforestation (World Bank, accessed 25th August 2017). The Indonesian government regulations and laws changes also depict the journey towards the awareness of the biodiversity loss phenomena.[ii]

In the context of Indonesia, the Institute of Indonesia Chartered Accountants or Ikatan Akuntan Indonesia (IAI) is the only professional body in accounting recognised by the Ministry of Finance. IAI[iii] has the responsibility in setting the accounting standards, as stated in regulation of minister of finance number 25/PMK.01/2014 regarding state-registered accountant. The accounting practice in Indonesia is in the process towards convergence with the IFRS (Ikatan Akuntan Indonesia, 2017a). The main data from IAI are the PSAK 32 for the Forestry and 69 for the Agriculture. The other accounting standard, such as the PPSAK 1 for the revocation of PSAK 32, PSAK 16 for the Fixed Assets, PSAK 19 for intangible asset, PSAK 25 for accounting policies, changing in accounting estimates and errors, PSAK 48 for impairment of asset, PSAK 57 for provision, contingency liability and contingency asset, PSAK 58 for Non-current asset held for sale and discontinued operations, PSAK 61 for government grants, and PSAK 68 for fair value measurement are act as supportive data. The supporting data are the survey results and other statistical data or indicators obtained from FAOSTAT and The World Bank Database. Relevant news and non-academic articles are taken from National Geographic, Mongabay Organisation, the Guardian, the Telegraph, the Independent and the Rainforest Action Network.

To analyse the data, this paper refers to the Fairclough's CDA explained in 'Language and Power' (2015). There are three stages in conducting this framework, the description of the text, the interpretation, and the explanation stage. The description of the text stage is the stage that attempt to investigate on the properties of the text. This stage tries to discover the values that the textual features have in respect to the interaction (including the struggles) between the producers of texts and its audiences. The interpretation stage is to discover the relationship between text and interaction, which means in this stage the texts are seen as the products of text production process, and at the same time are seen as the source of interpretations. The explanation stage investigates the relationship between interaction and social context (Fairclough, 2015).

The PSAK 32 and 69 are the centre of the analysis in this paper, supported by the other relevant texts. During the analysis of the texts, it is important to gain the fresh ideas to capture the reality within the data (Corbin and Strauss, 2008) and keep the balance between prior theorising and gaining fresh ideas (Charmaz, cited in Ryan and Bernard, 2003).

Following the CDA work by Fairclough (2015), in the first stage, we analyse the vocabulary, grammar and the textual structures of the main documents (the PSAK 32 and 69). For the vocabulary, we analyse the experiential, relational and expressive values and the metaphors used in the texts. For the grammar, besides the values, we study how the sentences linked together as well. For example, the structure within the PSAK 32 and 69 demonstrates the element of logic and important values of accounting information reliability that the IAI wants to emphasise to its members. In this stage, the theoretical base about forests and conservation from (Park, 1992) and documents on the biodiversity and ecosystem from United Nations and its organs.

In the second stage, the interpretation, the main question provided by Fairclough to guide the analysis is about finding the problems arise in the process of production through mismatch between the resources and the analysis of the situation. Further, we analyse the novel combination of discourse type generated to resolve the problems. To find the problems arise, we analyse mainly the related news and survey results regarding the forestry and agricultural sectors to capture the factual condition that shapes the reality in Indonesia forestry and agriculture sectors in the time range of the period of the implementation of the PSAK 32 and 69, which is since the year 1994 onwards. The next is to analyse the situational context of the PSAKs by finding out what is going on in the PSAKs, who is involved and in what relations, and what is the

role of language in what is going on in the PSAKs. The next is analysing the situation, which includes analysing the social order. In this part, we analyse the state acts and government regulations in correlation with the result of the interpretation of the PSAKs text.

The third stage is the final stage in the analysis process based on Fairclough's CDA. The guiding question provided by Fairclough is what institutional processes does the discourse belong to and how it is ideologically determined and determinative. Hence, we explain the biodiversity discourse as part of the social process in Indonesia forestry and agriculture sectors. The relationship between the documents and the other social reality gathered from the news and survey results become the focus to help to formulate the answer to the research question and reach the conclusion.

4.2. The context of Indonesia forestry and agriculture sectors

Table 1 illustrates the increase in land use for agriculture and the decrease of forest area in Indonesia. Between 1990 to the year 2000, the forest area drops 10%, while the increase in the area for agricultural is not as significant as the forest lost area.

Table 1. Land area for agriculture and forest in Indonesia

	1990	2000	2010	2011	2012	2013	2014	2015
Agricultural land (sq. km)	450,830	471,770	556,000	565,000	565,000	570,000	570,000	..
Agricultural land (% of land area)	25	26	31	31	31	31	31	..
Forest area (% of land area)	65	55	52	52	51	51	51	50
Forest area (sq. km)	1,185,450	994,090	944,320	937,476	930,632	923,788	916,944	910,100

Source: The World Bank database (World Bank, accessed 25th August 2017)

This forests condition is becoming worse with the significant burned area as shown in table 2, which describes the burned area of the forest since 1990 up to 2014. Table 2 also depicts the scale of the crucial problem faced by the Indonesia's forests have. On the other side, even the total production of round wood drops as well, from 212,479,168 meter cubic in 1970 into only 122,317,741 meter cubic in 2016 (FAO, accessed 25th August 2017), the fact that forestry and agricultural sectors are among the significant contributors to deforestation is inevitable (Buergin, 2016; Hughes, 2017; Chemonics International Inc., 2013). The other factors that contribute to forest degradation are illegal logging, shifting cultivation and some government programs such as transmigration and infrastructure developments even-though the impact is not as severe as the commercial logging (ibid.).

Table 2 Burned area in Indonesia – in hectares

	1990	2000	2010	2011	2012	2013	2014
Humid tropical forest	747,979	90,972	21,572	348,476	376,878	275,251	1,123,306
Organic soils	261,855	39,759	6,826	159,552	160,722	155,494	485,366
Other forest	11,479	5,321	2,211	6,836	17,156	5,230	14,848

Source: FAOSTAT (accessed, 25th August 2017)

The agricultural sector output in Indonesia has an average increase of 3.6% per year between 1961 and 2006.

Table 3 provides the summary of level and composition of agricultural output in Indonesia depicts that the estate crops are increasing significantly. Moreover, the cropland as one of the agricultural input is still considered as the main factor in the increasing output, particularly for the estate cropland (Fuglie, 2010). The Fuglie findings is consistent with the facts in table 1 from the World Bank database regarding the increasing amount of land for agriculture and the decreasing forest areas.

In the early 1970s, the 'New Order' regime boosts up the economic performance (in term of the GDP) by maximising the utilisation of the forests with the state act number 5 the year 1967 as the legal basis. The paper, plantation and other increasing forest product industries are expanding aggressively afterward (Forest Watch Indonesia/Global Forest Watch, 2002). The 'New Order' regime developed the '*Pembangunan'* (development) discourse to increase the economic performance. This discourse became dominant that shape almost every aspects of the economic policy and the government strategy in regulate the industries development in the country (Arnscheidt, 2009).

Table 3 Summary of level and composition of agricultural output in Indonesia

	Average annual production (million tons of rice equivalents)		
	1961-1965	1981-1985	2001-2005
Food crops	16.3	45.0	67.0
Horticultural crops	3.7	8.9	21.6
Estate crops *)	5.2	15.4	31.3
Animal products and aquaculture	2.2	9.2	18.3
Crops, animal and aquaculture output	27.5	78.6	138.2

Source: Authors' summary from (Fuglie, 2010, p.231)

*) Estate crops consist of oil palm, coconut, rubber, sugar cane, cacao, coffee and other estate crops.

During the 1980s and 1990s under the 'New Order' government, the plywood production reached its top position. In the late 1980s, Indonesia dominates the position as the world's tropical plywood trade. It followed by the great expansion in the nation's pulp and paper industries. This situation that leads to the overcapacity of the nation's wood processing sector apparently trigger the high level of deforestation and forest degradation in conjunction with the forest clearance for agro industrial plantation (Barr, 2006). The deforestation and forest degradation drive the biodiversity loss significantly. In March 1982, the government issued the State Act number 4, year 1982 regarding the principles of environment management. Later in August 1990, the government issued the State Act number 5, year 1990 regarding the biodiversity and its ecosystem conservation. However, even with those state acts in place that operationalise by many government regulations that become the legal basis for conducting environmental protection and conservation, the efforts are not effective enough due to the lack of surveillance, monitoring and enforcement. The facts of deforestation and the biodiversity loss depict the priority that the government has upon the economic development rather than protecting the environment for sustainable development (Chemonics International Inc., 2013). Moreover, the strong cronyism and wide spread corruption practices become the rampant threats that

We argue that the above description of Indonesia forestry and agricultural context is important in the analysis of the problem that arise regarding the biodiversity discourse. This context helps in understanding the power and dominance that shape and reshape the biodiversity discourse that should be captured in the accounting standards for industries with big impacts to the biodiversity.

4.3. The related accounting standards – the PSAK 32 and 69.

In the accounting field, we argue that IAI as the standard-setter plays important part in strengthening the government discourse. The setup of PSAK 32 is a social event or actions that try to reshape the business practice of forestry companies that involving both the government and IAI.

In the preface of the PSAK 32, the background of the issuance of the standard that contains the detail of the purpose and the involved institutions and actors is clearly explained. Fairclough (2003) explains that social practices are inherently reflexive. What people do is basically shaped and reshaped during their interaction through what the representations that they make. The PSAK 32 is the result of the cooperation between the Directorate General of Forest Management from the Ministry of Forestry and IAI. This is necessary to ensure the internalization of the government discourse, '*Pembangunan Berimbang*', into the accounting field. Ir. Djamaludin, the ministry of the forestry of the Republic of Indonesia at the time is the chair of the steering committee that set up of the PSAK 32 (Ikatan Akuntan Indonesia, 1994). The government sees IAI and its accounting standards as the suitable media or vehicle to internalise the discourse within the forestry sector through the accounting practice.

In overall, there are three important things regarding the text formal features that exist in the PSAK 32. First, the experience value of the PSAK 32 demonstrates the content that is a combination between accounting and forest ecosystem management fields. Also, the experience value depicts the belief of the importance of forest conservation. Second, the relational value of the PSAK 32 depicts the relationship between IAI, the government and the constituents. Third, the expressive value of the PSAK 32 shows IAI identity as the professional body with the authority and responsibility to maintain the accounting practice in forestry sector.

The first topic that has emerged in this standard is the combination of the conservation discourse and the forestry business process characteristics. The relational values in the PSAK 32 demonstrate more about the authority between the one that held power and its constituents. The subject, in this matter is IAI, has two positions. The body with the authority and the position as

'citizen' that has the stewardship obligation toward nature. Paragraph 6 of the PSAK 32 that explains the purpose and objective of the standard: *"06 purposes and objective: By considering the business characteristics and development of forestry company within the prevailing government laws and regulatory framework, …"* demonstrate the 'citizenship' relation with the country that the IAI has. In addition, paragraph 7 contains the argument of the need for specific accounting for forestry companies. This paragraph 7, as quoted as follow: *"With the implementation of forestry accounting … a) … to foster the comparability of financial statement … c) the government will be able to monitor the improvement and financial condition of the company"*, becomes the base for the rest sentences in the PSAK 32 that in fact demonstrating the authority and the obligation to give direction to its members and the public. We argue, this part of the PSAK 32 is the description and the emphasis of the IAI position as 'citizen' of the accounting society, which means that IAI has the moral obligation to guard the quality of accounting information. These parts are closely related to the position of the discourse within the text in the social context.

In the PSAK 32, IAI wants to bring the notion of the forest protection and conservation to be the part of the main business process and important elements accounting information. This notion is depicted in paragraph 3 that explains the main forestry business process and in other paragraphs that rule the disclosure and the accounting treatment of production costs, expenses and liabilities, for example in paragraph 16 where the cost of products of timber and other forestry products must include environmental and conservation costs elements[iv]. The PSAK 32 also provides the modality of obligation as the accounting standards must be. Most of the sentences have strong directive modality such as 'must' or 'have to'.

However, we find that there are contradictions in the PSAK 32. The contradictions are not from within the PSAK 32 text itself, but it emerges from the relation with other texts. In the PSAK 32, the main message that IAI wants to deliver is the accountability on the forest protection, and conservation also defines the quality of Forestry Company accounting information. Unfortunately, it brings struggle between those two topics, which are the two important principles contradict with the GAAP and the existing practice. Fairclough (2015, p.107) stated that the ideology is basically a common sense in the service of unequal relation to power. In the PSAK 32, the unequal power exists between the accounting and forest protection and conservation common senses. This struggle is basically also describing the contested ideas that serve the interests of stakeholders and the shareholder interests. The contradictions and the

changes to the government regulations and laws regarding the forestry sector cause the revocation of the PSAK 32, and IAI issued the PSAK 69 for agricultural as the replacement. The IAI issued PPSAK 1 in the June 2009[v].

Further, the PSAK 69 is the accounting standard that copes the agriculture sector, including companies that process the forestry products. Unlike the PSAK 32, even the PSAK bears almost the same modality but the formal features of the text are different. the experiential value of the PSAK 69 is more accounting content with biological assets and transformation as the specific characteristic. The relational value in the PSAK 69 shows more about the relationship between IAI and its constituents. It is consistence with the expressive value that depicts the IAI position and identity as the professional body that has responsibility to improve the accounting practice and information to the globally accepted quality. This expressive value also depicts and emphasise IAI position as part of the international accounting community with the commitment to improve the comparability of Indonesia accounting information.

The PSAK 69 topic that emerged from the keywords is the reliability of the accounting information of the biological assets and biological transformation as the main characteristics in the agriculture sector. However, the conservation discourse as an important part to halt the biodiversity loss is no longer exists in the PSAK 69. In the PSAK 69, the recognition, measurement and disclosure of the biological assets and transformation are central. This is because of the fair value principle within the IFRS based standards. The combination of the fair value principle as the ideology of new accounting standards; and the biological assets and transformation as the unique characteristics lead to the important topic of the new agriculture accounting for its constituents. There is no more expression as ‘citizen’ anymore, even the role as ‘citizen’ still exist. It is more towards the ‘business citizen’ role that exist rather than the ‘earth society citizen’ role.

The IAI position in this PSAK 69 is stronger to its constituents compare the one depicted in the PSAK 32. The comparison of the first stage analysis between PSAK 32 and 69 is available in the table 1 below. The PSAK 69 complex sentences commonly have coordination characteristics, particularly towards the other linked accounting standards. In this PSAK 69, the domination of unique characteristics in the agricultural company shapes the accounting treatments in this sector. The PSAK 69 has the biological asset, biological transformation, agriculture activity, fair value, and reliability as the ‘overwording’ that depict the unique character of the agricultural sector.

These ‘overwording’ are also depicting the inherent risk in measuring the value of biological resources. The disclosure in detail of any conditions that could lead to the unreliable fair value measurement regarding why the reliable measurement is a must, including if the company used the cost and not fair value to measure the biological assets.

In summary, the PSAK 69 for agriculture brings the ideology of the reliability of biological asset information in accounting information.

Table 5 Feature comparison between PSAK 32 and 69

	PSAK 32	PSAK 69
Description of texts	• The relational values are depicting an authorised body among its members as well as a good ‘citizen’. • There is no euphemism, but there is one part that over emphasise the GAAP. • Strong modality in the vocabulary choices. • Complex sentences with coordination characteristic.	• The relational values are depicting as authorised body among its members and partners. • No euphemism and no statement that over emphasises clear things. • Strong modality in the vocabulary choices. • Complex sentences with subordination characteristic.
Topics	The discourse of forest protection and conservation as important part of forestry accounting. This topic is an internalisation of ‘externalities’ in accounting.	The discourse of reliability in accounting information in relation to biological assets and biological transformation.
Engagement with biodiversity	Strong	Not existence

4.4. The shift from the PSAK 32 to 69.

PSAK 32 contains contradictions with the existing accounting principles and practices. This situation leads to the revocation of the PSAK 32 and later to the adoption of IAS 41 to become the PSAK 69. In setting up the PSAK 69, the parties involved are IAI and the International Accounting Standards Board, or IFRS Foundation as the standard setter for IFRS. As the member of IFAC and AFA, IAI commits to bringing the discourse that exists within the IFRS. Insofar, we conclude that despite the contradiction that exists in the PSAK 32, both PSAKs are depicting the IAI position as a body that has the capability to shape and reshape the accounting practices. The mounting critics upon Indonesia government regarding the deforestation lead the Forestry department to address the issue properly. Programs such as the disaster prevention and reforestation are the effort of the Forestry department to address the issue and operationalise the

'balance development' discourse. However, these programs influence the business process of the forestry companies. Thus, we further argue that the cooperation between IAI and the Forestry department in formulating the PSAK 32 is the depiction of two things. First, the process demonstrates that forest conservation discourse in the PSAK 32 belongs to both institutions that base on 'balanced development' ideology. Second, the process depicts the articulation of 'authority'. Therefore, the forest conservation discourse in the PSAK 32 is ideologically determined by the power of the government and IAI as the professional body that represent the 'authority' toward their constituents. The table 6 explains the overall interpretation and explanation on both PSAKs that describe the journey of the shifting discourse.

Table 6. The shifting from the PSAK 32 to the PSAK 69

	PSAK 32	PSAK 69
The institutional process	• ideologically determined by government • Articulation of authority	• Ideologically determined by global accounting society • Articulation of authority
The societal process	• Depiction of a struggle between the environmentalist and economist • Depiction of stewardship role	• No struggle from the environmentalist, just domination by the capitalist • No longer stewardship role
Impact to the grasp upon the ecological discourse	• Internalisation of ecological discourse	• No longer existence

We argue that even the discourse does not purely emerge from the accounting arena, the discourse is successfully demonstrating the internalisation of 'externalities' as the way of the accounting profession to grasp the environmental discourse and be the part of the resolution. In PSAK 69, however, the accounting contribution to foster the stewardship role of the company towards nature is disappearing. Unlike the process in formulating the PSAK 32, in the formulation of the PSAK 69, IAI as the standard setter plays the biggest role. As the PSAK 69 refers to IAS 41, the discourse is mainly belonging to the accounting field. The social context of the PSAK 69 creation is very different compare to the PSAK 32. Arnscheidt (2009) explains that during the era of 'Reformasi' or the 'Reform era', the increasing awareness of the government to the biodiversity matter leads to the struggle of the biodiversity discourse for better position by anyone in concern, particularly by the new Forestry act in 1999 that replaces the 1967 Forestry act[vi].

However, critics upon the seriousness of the government in this matter are still high, particularly to the relatively unchanged of corruption rate in the country. Moreover, the new decentralisation governmental system leads to the higher ego of local government upon managing their natural

resources within their jurisdiction halts the betterment in biodiversity loss or biodiversity conservation discourse. We argue that in the PSAK 69, IAI has missed the opportunity to better grasp the biodiversity discourse in the social context that is much better rather than the 'New Order' era when the PSAK 32 is still in place. We further argue that the PSAK 32 depicts a clear position of both the government and IAI. The government position as the leader of the nation must create wealth and protect nature as well. IAI is the body that has the authority to shape the accounting practice and maintain the professionality of the accountants, but at the same time acts as part of the 'citizen' that has the same obligation to protect nature. This relationship between the government and IAI produce the forest conservation as vital part of the forestry business discourse, which is provide alternatives to resolve the problem caused by the deforestation. In terms of the halt of biodiversity loss, the combination of forest conservation and accounting discourse is an evidence of the better grasp of the accounting standards towards the biodiversity loss threat.

5. Conclusion

There are actions to counter the biodiversity loss phenomenon conducted by companies through corporate social responsibility programs. Companies are involving in the biodiversity offset programs to contribute in the attempt to halt the biodiversity loss. Ironically, we argue these events do not cause the decreasing of actions of damaging the biodiversity form economic activities. Lavoie (1987) stated that it is important to understand accounting as language, which it is considered as the way to see the reality in the world. Mădălina, Nadia and Cătălin (2011) explain that accountant as the profession need to engage with the social and environmental issues regarding its role in the bigger society. Further, based on Bloomfield (2008) that accounting is known as the language in business, we argue that accounting standards will construct a generative mechanism that creates the structure in the business world that cause the business actors to exert the stewardship role towards the nature. The accounting standards would be the media to drive the change in the business world to foster the attempt to halt the biodiversity loss by the companies. With this understanding regarding the accounting standards position in the business society, then it must bring the biodiversity conservation discourse as the important notion that will reshape the way companies doing the business.

Refer to the facts that biodiversity plays key roles in supporting the human well-being; this paper provides the evidence of the importance of relevant accounting standards to capture well the

biodiversity discourse. As Indonesia holds the third richest biological resource in the world, the illustration from the shifting from the PSAK 32 towards the PSAK 69 shed light of how the accounting should not lose its grasp in the biodiversity discourse. The illustration from the case study in this paper helps the reflexive process in the accounting society to uphold their role as global citizenship and the stewardship towards the nature. We believe that accounting profession has important role in developing more accountable and transparent business practice that could help halt the biodiversity loss and support the combat against the global environmental challenge.

Based on the case in Indonesia as the illustration, the shift from the PSAK 32 to the PSAK 69 is depicting the struggle of biodiversity discourse in the accounting arena. The struggle that exists between the importance of the stewardship role towards nature and the improvement of financial information through alignment with international standards, and the struggle between the environmentalist and the conventional economists (see Arnscheidt, 2009)[vii]. The shift of the PSAK 32 to 69, we argue, is depicting the persistence of the domination of conventional economists over the struggle for nature conservations. The loss of the forest conservation discourse in the PSAK 32 towards more accounting or economic value content of the PSAK 69 could trigger the change in the events related to the conservations conducted by forestry and agricultural companies. The PSAK 69 depict the IAI position very clearly as part of the 'global business society' with the obligation to maintain or increase the quality of the accounting information, regardless the existence of the biodiversity or other environmental discourses within the accounting standards. The discourse in the PSAK 69 determines by the ideology of accounting information reliability, which is translated from the ideology of the 'fair value'. Even without any doubt that the PSAK 69 provide better guidance for the agricultural companies (including the ones that process the forestry products), however we also argue that the shift of the discourse from this event reduces the capability of IAI as the professional body to reshape the accounting process. The shift of discourse within the PSAK 32 and 69 eliminates the grasp on the vital environmental discourse (the biodiversity conservation discourse).

We argue that it is true that IAI as the professional body has the strong commitment to improve the accounting practice has exerts its role well. However, the improvement of accounting practice that exerted does not always in the best to capture the biodiversity discourse. IAI position and commitment to the global accounting community represented in the journey from PSAK 32 to PSAK 69 insofar eliminate the grasp toward biodiversity discourse. Therefore, with this shed of light on the process of how IAI capture the essential ecological discourse within its relevant

standards, we argue that it is vital to adopt the biodiversity protection discourse in the future accounting standard-setting process. It is a vital contribution of the accounting field to reshape the business practice towards the more ecological responsible one.

The engagement with the biodiversity as in Brown and Dillard (2013), requires a break-through that willing to challenge the existing domination of thought in social and environmental accounting (SEA). The reflection from (Deegan, 2017) also lead us to the thought that the accounting profession must not lose its grasp towards the biodiversity discourse or the other broader notions that support the halt of the biodiversity loss such as the conservations. As also indicate by (Bebbington et.al., 2017) that the involvement of accountant profession as the powerful party in business world in engaging with SEA is highly required. Learning from the PSAK 32 and 69, we argue that by prioritizing the fair value as the main vehicle in fostering the reliability in measuring agricultural assets means is the same as positioning the natural assets no more than just a commodity. We believe that we need more discourses such as the conservation discourse within the PSAK 32 to engage with the biodiversity loss challenge, otherwise it is only another way of silencing the accounting information as discussed by (Chwastiak and Young, 2003).

Hence, we suggest, that the process of the betterment of the accounting information quality must not abide the stewardship role of the business towards the nature. We argue that the biodiversity loss phenomenon is part of the serious global and therefore actions to halt the biodiversity loss must be exerted by the whole community, including the business society. The conservation programs and the biodiversity offset programs are important, but its successfulness will depend on how the business actors see the biodiversity discourse from the business point of view. It is true that accounting standard has specific purpose regarding the quality of accounting information, nonetheless it has the power to continuously reshape the business practice. Reflecting to the PSAK 32 and 69, and the work of (Chwastiak and Young, 2003), the accounting standards could deliver the important discourse to reshape the business practices to foster the halt of the biodiversity loss.

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[i] The United Nations Sustainable Development Goals (SDGs) contains global social and environmental targets that need to be achieved to answer the global challenge in combating the extreme poverty, hunger and other human well-being degradation (United Nations Development Program, accessed 6 June 2017).

The halt of biodiversity loss is one of its goals that needs to be met, considering its role in supporting the human's economic and social development.

[ii] In 1967, Indonesian government issues state act for Forestry, which become the first legal basis for forestry sector after the colonialism era. Then, since the beginning of the early 1970s, deforestation becomes a grave concern after massive timber concessions are given (Forest Watch Indonesia/Global Forest Watch, 2002). In the year 1990, the Indonesian government issues state act on Industrial Forest, which guide the management of industrial forest by the forestry companies that hold the right from the ministry of forestry. The government issues the state act for Natural Resources and its Ecosystem Conservation to strengthen the environmental management in the same year. But before that, the government issues the state act for the Basic Provisions of Environmental Management in the year 1982. In 1994 with state act number 5, the Indonesian government ratifies the United Nations Convention on Biological Diversity. In the agricultural sector, the crop production index for Indonesia is also increasing from 123.67 in the year 2010 into 139.84 in the year 2014. These indicators are illustrating the economics of Indonesia that continue to grow, and so are the agricultural production (World Bank, accessed 25th August 2017).

[iii] The Institute of Indonesia Chartered Accountants or Ikatan Akuntan Indonesia, hereafter IAI is the only professional body in accounting recognised by the Ministry of Finance of Indonesia, as stated in regulation of minister of finance number 25/PMK.01/2014 regarding state-registered accountant. IAI was formed on 23rd December 1957. Now, IAI is the member of International Federation of Accountants (IFAC) and ASEAN Federation of Accountant (AFA) (Ikatan Akuntan Indonesia, accessed 4th July 2017). IAI has two standard-setting bodies known as Dewan Standar Akuntansi Keuangan (hereafter DSAK-IAI) for the conventional accounting standards and Dewan Standar Akuntansi Syariah (hereafter DSAS-IAI) for the Islamic accounting standards. Both standard-setting bodies are under IAI as the only accounting standard setter recognised by the state. Indonesia has four groups of accounting standards as described in table 1. In case there is an accounting standards that need to be withdrawn, then the *Pernyataan Pencabutan Standar Akuntansi Keuangan* (PPSAK) is issued for the revocation of the standards. In this paper, the PPSAK 1 is the one that related to the forestry accounting and it support the explanation of the discourses shift within the PSAK 32 and 69.

[iv] The PSAK 32, paragraph 16: "16. The The cost of products of timber and other forestry products include expenses incurred in relation to activities such as planning, planting, forest maintenance, controlling fires and securing the forest, collecting the forest products, state obligations fulfilment, social and environmental obligation fulfilment, and constructions of facilities and infrastructure.
The costs that exist as the result of forest management activity … cost for other conservation activity … are assigned as the cost of production…".

[v] The PPSAK 1 (Pernyataan Pencabutan Standar Akuntansi Keuangan) is a statement that specifically for the revocation of some accounting standards. In this PPSAK 1, the standards that had been revoked are PSAK 32 for forestry, PSAK 35 for telecommunication service revenue accounting and PSAK 37 for highway company accounting.

[vi] Arnscheidt (2009) also explains that there is more space to formulate and implement biodiversity action plans since the 'Reform era' has a better capacity building regarding various relevant laws and regulation dissemination. The human right sustainable development framework also gives significant influence on the discourse as well.

[vii] Most of the ministers in the 'New Order' cabinet are having economic background, which leads to the belief that economic performance has higher priority in creating wealth for the society Arnscheidt (2009).