

## **ENVIRONMENTAL ACCOUNTING IN THE PERSPECTIVE OF CEMENTATION COMPANY IN INDONESIA (SEMEN INDONESIA GROUP)**

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### **ABSTRACT**

*The research aimed to know how implementation of environmental accounting principle in cement producer in Indonesia. This study used qualitative method with interpretative paradigm. The data of this study is obtained from Semen Indonesia Group which consists of PT Semen Gresik, PT Semen Padang and PT Semen Tonasa. Data were collected using observation method, with in-depth interview and literary reviews. The research shows that the organisation realized the negative impacts and gave response by presenting sustainability report as well as implementing green economy concept and green accounting in their operational system through by external cost. It is proven by the consistence of organisations in allocating 4% from their budgeting to TJSL and PKBL programs. Besides, budgeting allocation for reclamation and revegetation exmaining area. As the implementation results, environmental management, community development, funding and partnership program, and aid support..*

**Keywords** : *environmental accounting, environmental accountability, PT Semen Indonesia Group*

### **INTRODUCTION**

Background of enviromental accounting basically requires excellent awareness from both institutions and organizations which took advantages from the environment. Using this concept is exactly expected to push institutions in minimizing environmental matters caused by natural resources extraction. The concept of environmental accounting started developing in mid 1970's in Europe. In mid 1990's, The International Accounting Standards Committee / IASC developed a concept of international accounting principle including the

development of environmental accounting and human right audits.

Purpose of environmental accounting as a tool in environmental management as well as a tool in communication with society is to increase relevant information made for those who need or able to use it. According to Arfan (2008), in reaching the goals in environmental accounting application, the institutions need to fit the institutions' evaluation towards environmental effects made by the activity. Secondly, determining company's target by identify primary factors that are affect institutions'

environment and arranging a plan to decrease the environmental effect. The third step is determining appropriate tools to examine environmental matters. After that, conducting an administrative measurement to determine target for each segment becomes the fourth step. Next, producing segmental accounting of each division measurement in the company appears as the fifth step. Finally, there will be an evaluation for the works.

This research become the first research in accounting field which focuses on the application of environmental accounting concept and more likely to environmental responsibility from the cementation institutions in Indonesia using interpretative paradigm. The sample of company used in the research are those institutions associate to Semen Indonesia. Semen Indonesia is a national cementation company which consists of four groups of company. Those are Semen Gresik, Semen Padang, Semen Tonasa and Semen Thang Long. Based on Law No. 40/2007 about Limited Company and Government Law No. 47/2012 about Social and Environment Responsibility, the member group of Semen Indonesia are responsible for social and environmental responsibility as

well as Partnership Program and Environmental Training.

Semen Indonesia group as BUMN corporate becomes the subject in Permen No.9/MBU/07/2015 dan PP No.47/2012 in which each of them have mandate of 2% before the tax from the profit, therefore in General Meeting of Stakeholders (RUPS) will determine maximum budgeting allocation for the TJSL and PKBL as 4%. The budget is used for society organizing in field of health, education, entrepreneurship, leadership training and skills, reducing dust and carbon emission, and environmental recovery.

## LITERATURE REVIEW

Social and environmental responsibility is the primary orientation of the research, specifically in company's environmental cost statement. As found by Tijani and Fakhfah (2013) that company which is using natural resources as primary material of its production has a responsibility towards natural damages as well as Celik (2007) long before it revealed that the activity using nature and involving the environment causes environmental cost. The problem is that laws and policies in Indonesia are too weak, so the focus of

the government and the society is low, while the negative effect caused is huge.

Authentically, the company exist to prosper the community as the community exist to help continuance of the company invice versa. Both sides are interesting to observe, that was the first assumption of researcher's perspective while trying to present a theme of environmental cost justice, but the mining activity and raw materials exploration, etc which affect the environment significantly.

Suparmoko (2008) cited Ronald Coase's statement, is the author of *The Problem of Social Cost*. Roland describe how the externalized cost works. Externalized happens if an activity causing advantages and or cost for the activity or other party excluding project's executor without any payment. Environmental pollution matter which become significance of this study is trying to see this way. Ronald Coase took an example of activity that causes negative impact and harm many parties. For example, a factory which produce smoke that pollute and interfere environment around.

## RESEARCH METHOD

This research takes data from the members of Semen Indonesia group. The data collected is secondary data and obtained from literary review which based on social and environmental responsibility report as well assustainability report. The result of this review is compared to observation result and direct interview using structural questionare tool.

The research use qualitative-descriptive with interpretative approach. Philosophical base of the interpretatives can be found in the work of Immanuel Kants entitle *Critique of Pure Reason* in 1781 states that human interpret their experience before make interaction with outer world (Willis et.al, 2007:6). Interpretative approach is trying to find explanation of social events based on subjective experience and detail look by observation (Newmann, 1997:68). The experts think that human is influenced by subjective perception that is built on environment and their subjective reality, and according to Wilhelm Diley, the primary goal of social science is to dig life experience of the human (Willis et.al, 2007:6).

Interpretative approach is adopted from practical orientation and associates to qualitative method, such as case study,

interview, and observation (Willis et.al, 2007:7). Based on the explanation above, it can be concluded that interpretative approach is exactly suitable to analyze Social and Environment Responsibility (TJSL) appliance which has been written in sustainability report and actual condition in the environment surrounding the company through perception of the society who become the object of TJSL.

## RESULT AND ANALYSIS

### Company Perspective on Environment Accounting

Natural resources and environment management is naturally motivate human to revolute development paradigm that is done, even to the basic matter in lifestyle. This change causes appearance of slogan or jargon to a pro-environment position. The jargon is named *green economy* which is the main topic of national and even international discussion (Djajadiningrat, 2014). *Green economy* is a development paradigm which based on resources efficiency, sustainable consumption and production patterns as well as internalized environment and social cost.

The concept of green economy is expected to be in line with green accounting that is presented in the soul of

environmental accounting. Environmental accounting is become a great need for company and stakeholder nowadays. It is a field of accounting functioning to identify, to measure, to calculate and to report environment accounting. According to Celik (2007) environmental accounting is a general term for the combination of information and environmental cost in accounting practice and become an effort in looking for relation of accounting and ecology. Bengu and Chan (2009) are also stated that environmental accounting is used to identify company's advantages obtained as the cause of using natural assets, and producing cost as the cause of using it.

Furthermore, Borzozadeh (2012) states that the relevance environmental cost information is an effective tools to reach competitive superiors and increase company's credibility and social relation. Besides, Heba et.al. (2014) said that company needs from environment utilization, as well as accounting works have a practical potency that emerge visibility of environmental activity and so toward government and society. The existence of environmental accounting approach in company's operation according to Tanch and Kadir (2015) is also give competitive advantages and

additional value of the company, and it is also an effect of social responsibility concept. From the various statements above, the writer thinks that there is a need to make a framework to present a guide in environmental cost because environmental accounting helps all stakeholders to make decision of environmental responsibility value, especially for the cementation institutions in Indonesia that are said to be the actors of carst damage and air pollution.

Generally, economists agree that the factory which causes pollution should be responsible in preventing pollution or pay tax as big as the damage caused, or even move the factory out of habitant. This way of thinking according to Ronald Coase is suitable to the polluter pays principle. But, he notes that this is not exactly agreeable.

Actually, there is a vise-verse relationship in producing significant effect, because it is basically crucial to find out the value of each activity or commodity to compare what is gained and what is spent in obtaining the advantages. It can be imagined when the cementation company such as PT Semen Tonasa plan to open up a new area for production needs, there are a lot of organism to be sacrificed. Besides, there will be negative

impact for the environment and society around the area. With or without awareness, company has changed social construction in the society itself.

Deforestation and raw material exploration will destroy the soil's fertility, increase erosion rapidly and flood risk. So, apart from the cost of each activity that should be paid by their own (internal cost explicit cost), the company actually creates cost which should be carried by others (*external cost*). Therefore, environmental cost is real and should be calculated in developmental activity. Hansen and Mowen (2007) state that environmental cost is the costs created by the existence of bad quality of environment or its possibility to exist. Environmental cost is related to creation, detection, recovery, and prevention of environmental degradation.

Nowadays, Semen Indonesia Group based on PP No.47/2012 is mandated to allocate budget as 2% from previous year's profit and result of General Meeting of stakeholders (RUPS) to determine maximum budgeting allocation for TJSL and PKBL as 4%. The budgeting allocation is expected to recover the environment and social development. On the other hand, exploration activity, development, and

construction, production and processing are managed in Prinsip Standar Akuntansi Keuangan Nomor 33 (PSAK 33) about general mining accounting and 64 (PSAK 64) about exploration and mineral resource evaluation. The guides are expected to be able to minimize environmental matters caused by exploitation process and nature exploration by company in Indonesia.

Reclamation program and revegetation are activities of environment recovery. The program which are mentioned in company's master plan can be said as a concrete effort taken by the company in recovering the environment. The company is now responsible to allocate special cost for environment. Conceptually and operationally, estimated cost for the environment damage which is believed to be hard is possible to identify a number of primary components cost included in accounting system. The following explanation describes reclamation and revegetation program of Semen Indonesia Group in period of 2015-2017.

Semen Gresik Ltd.Co was officially reactivated by Semen Indonesia Ltd.Co (Persero) Tbk on January, 10<sup>th</sup> 2014 in Gresik, East Java. PT Semen Gresik focused on primary field which are production and distribution. PT Semen

Gresik is working on partnership program and environmental training. Along 2015 Partnership Program had distributed funding support in forms of financial credit, funding and other training for their partners. There are several field that is supported by the institution, which are trading, motor spareparts, foods and clothes, building materials, design, farming, batik crafts and other kinds of textile, logging industry, printing, snack productions and even, beauty shops.

There are four pillars in implementing CSR at PT Semen Gresik as following: (1) SGcare, which focuses on social and economic program, (2) SG prime, which works in alliance with marketing units and research and development program, (3) SGpreserve, which focuses on environmental program, and (4) SG smart for educational program. Strategic goal of the company is to develop reputation and credibility of the company through integrated social development into business strategy. One of the stages to reach the goal in environmental responsibility is creating a good environmental management by doing several efforts, which are (1) reducing B3 and/or non-B3 residue, (2) making contribute to anticipate global warming

effect, (3) preventing air, water, and soil pollution, (4) water conservations, and (5) biodiversity protections.

PT Semen Gresik applies 5P harmonization in the process of sustainable development, which are people, planet, prosperity, peace and partnership. The harmonization will later be foundation for environmental recovery such as reclamation and revegetation. Around 200 Ha ex-mining area of Semen Gresik is turned to be productive forest and collaborative area of social development of the society there. As stated by mining reclamation manager of PT Semen Gresik, Eko Purnomo (cited from company's official website), the result of the post-mining reclamation program is not only eco-friendly, but also gaining profits for the society around.

Furthermore, he explained that on Friday, December 28th 2017, PT Semen Gresik conducted an activity named The Introduction of Green Industrial and following by tree planting by a number of members from various community as well as element of publishing media from Kota Garam. Eko Purnomo said that the reclamation process of ex-mining area of PT Semen Gresik Tuban had already started eight years ago, and the result is a productive forest which now contains

43.000 of various trees such as mahogany, hardwood tree, trembesi tree, johar tree, cajuput, kalengkeng, mango, and even sukun. Between those area, villagers also planted vegetables which are fully managed by society there freely.

Not only that, Eko stated, arboretum area of Bukit Daun and the productive forest are now become new tourism destinations spot in Tuban. Various level of pre-school students make the ex-mining area as their educational area.

"In conclusion, we would like to make the company profitable for the society", Eko said. Today, there are 26 village in Tuban area whose villagers manage CSR fund. Contribution of Semen Gresik CSR is increasing annually, which started from Rp 22 billion in 2014, Rp 24 billion in 2015, Rp 25 billion in 2016 and Rp 27 billion in 2017. It shows strategic position of community development in certainting successfull business of Semen Gresik", Primary Director of Semen Gresik, Gatot Kustiyadji, said (cited from Sindonews, August 23rd 2017).

Presenting the theme of "Synergize to build Nation", the CSR programm of PT Semen Padang divided into four pillars, which are Semen Padang Camping Nagari, Semen Padang Pandai

Nagari, Semen Padang Peduli Nagari and Semen Padang Elok Nagari. The strong commitment hold by the program's vision is to organize community by optimizing resource in increasing figure and value of company through sustain, ecological knowledge. The CSR conducted by Semen Padang is covering some fields due to community needs, as stated by Director of Semen Padang, Benny Wendry (cited from *Republika*, December 7th 2015) including economy, primarily for financial credits, scholarship for elementary school to university students, education and training, religious sites/building funds, infrastructure and facilities, natural preservation, health care, and post-disaster aids.

PT Semen Padang is doing a green movement in the area of company. It is done by planting endemic trees in reclamation areas (golf field), as explained by PT Semen Padang's Director, Benny Wendry. According to him, the movement is continued not only in the company area, but also in community's area. Besides, there is a reclamation garden situated in Kelurahan Indarung Kecamatan Lubuk Kilangan Kota Padang, which was a clay-soil ex-area. The garden was planted with protecting trees such as mahogany,

akasia, trembesi and other plants which are liked by birds such as myrtle and flowers.

There are two steps that will be done to recover mining area's function. Those are land reclamation that is no longer used and mine closing. For the mine closing, according to Head of Public Relation Bureau of PT Semen Padang, Nur Anita Rahmawati, there will be a plan for reforestation of mining area completed with supporting facilities like dam and space organizing to avoid erosion. Estimated plants and trees will be 1.305 minimum logs in total. Now, Semen Padang successfully done a river flow zone rehabilitation as 251,51 Ha with 806 logs/ Ha in average, she mentioned.

PT Semen Padang has done reclamation efforts in forestation, gardening and green spot facilities for sport, covered by a solid revegetation. On the ex-mining area, there is an endemic conservation of West Sumatera, as said by Prime Director of PT Semen Padang. Various programs are done by the organization in order to maintain a good working of environmental management from time to time. Some of the works are the following activity. First, PT Semen Padang supporting the effort to solve the problem of B3 residue. PT Semen Padang

has an innovation program in conservation which had already implemented and done successfully. The program is the optimization of B3 and non-B3 residue as raw materials and alternative fuel.

Slogan of PT Semen Tonasa is "Natural and local culture synergize in leading into qualified cementation institution in Asia" is attracting to study. The five primary pillars of the institution are directly in contact with community and nature to be seen as a real form of institution's responsibility. The pillars are autonomous Tonasa, smart Tonasa, healthy Tonasa, simple Tonasa, dan Green Tonasa. The fifth pillars are then become primary target of the institution's program of TJSL and PKBL. TJSL program especially in PT Semen Tonasa is changed into Social and Environmental Responsibility / TJSL.

The implementation of TJSL as settled in blueprint is collaborated institutional partners and government of Pangkep Regency, related departments, research institutions, non-government organisation, another institutions in Pangkep and community collaborator. As an operated and developed institution in community, Semen Tonasa is also responsible to trigger community

development based on seven primary principle as following: (1) transparency dan accountability, (2) local wisdom, (3) honesty and trust, (4) self-supporting, (5) justice, (6) partnership and equality, (7) autonomy.

Scoop of Partnership Program and Environmental Training based on TJSL blue print of PT Semen Tonasa according to ISO 26000 Sr and support MDGs program with five pillars, which are autonomous Tonasa, smart Tonasa, healthy Tonasa, simple Tonasa, and green Tonasa. Partnership Program is in relation with the pillars and environmental training program. The program is based on Permen BUMN No.9/MBU/07/2015 (recent law) consists of (1) financial credit and/or dan atau pembelian aktiva, (2) loan and UMKM organizing and (3) training responsibility in training, marketing, promotion, etc. PK and BL program including the activities such as; education, environmental responsibility, K3 management, human rights, general facilities, economic activity, and aids.

After that, the strategy in the TJSL program are (1) priority affected area, (2) operation impact management, (3) focusing on power conservation program in supporting sustainable food, (4) mutual

advantages and sustainability and (5) effective promotion and publication. This strategy is differentiated from institution's goal which is increasing reputation and credibility of PT Semen Tonasa through integrated TJSL with business strategy.

Environmental training program's cost is distributed in the following forms (a) post-disaster aid, (b) educational and/or training fund, (c) health development fund, (d) facilities development fund, (e) religious facilities fund, (f) natural preservation fund, (g) social fund in eliminating poverty, and (h) educational, training, internship, marketing, promotion fund, and others related to the effort in increasing capacity of partners in the program.

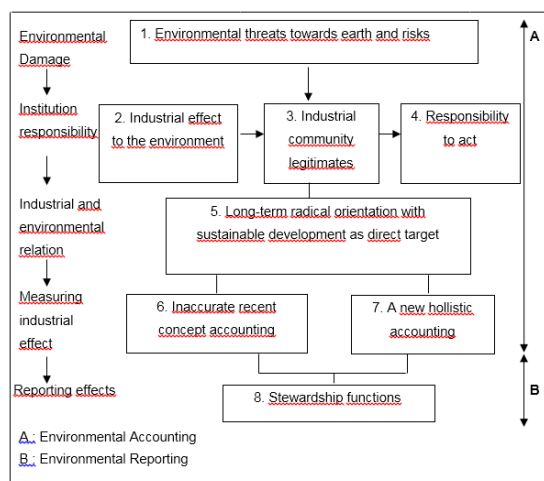
The efforts in revitalizing ex-mining area of PT Semen Tonasa according to Mr. Yasin, the person who is responsible to raw materials exploitation is applied reclamation and revegetation composed in document of implementation design of ex-mining area of raw material in 2012-2016, while environmental management is mentioned in implementation report of environmental management design (RKL), and environmental monitoring design (RPL) of environmental-effect-analysis development in PT Semen Tonasa. In the

ex-mining area like holes, PT. Semen Tonasa conduct reclamation by using two approaches, which are creating a pond (4 Ha) and planting trees (1 ha) while in the ex-mining area of karst is conducted by planting trees.

The made-pond is looked like a lake and functioning as tourism area and water sport. The place is important in increasing biodiversity in the ex-mining area, especially for land-water organism such as water and shrimp. The organisms are also profitable for community. Before filled with fish, water and conditioned soil, the pH level is measured to find out the appropriate kinds of fish to put in, Mr. Yasin said.

### **Environmental Accounting and Reports**

According to description and environmental accounting management of institution obtained by researcher as well as data and result along with interview result, the researcher refers to Jones' model (2010).



**Figure 1**  
**Environmental Accounting Model and Reports**

Source: (Jones, 2010)

Environmental accounting model and reporting consist of five elements as studied by Jones (2010) exist from cause or effect created by institution to the environment. So, the institution needs to report the effect to the stakeholders. The models are, (1) environmental damage, (2) institution responsibility, (3) industrial and environmental relation, (4) importance of measuring effect, and (5) needs to report effect. The model is integrated into a finding, environmental accounting theory and how it supposed to be act on effects caused to the environment.

First model is environmental damage caused by factory activity. Its first element is environmental threat towards Earth and its risks. PT Semen Indonesia, as commonly known, is an institution

which done karst-mining activity. The activity is consciously realized causing environmental effect and even trigger natural disaster and environmental destroys. The result of research of Okojie (2014) prove that the effect is huge towards decreasing profitability of agriculture. The research result is found by doing valuation of natural resources on the environment around the institution. The same thing happen to community near PT Semen Tonasa. Decreasing productivity is caused by dust and water as well as decreasing farming productions which is getting low at the surrounding of the institution.

Second model is institution's responsibility. The responsibility appears as effects of fabrication and distribution activities. Reclamation program, environmental management, and environmental monitoring are implementation of the institution to the nature, but it is not only to the nature, but also to the community. Permen 09/MBU/07/2015 is institution's main guide in implementing the responsibility to the environment and community.

The existence of the industrial is giving large effect to the environment. Suparmoko (2013) stated that increasing production activity produces more

satisfier tools in form of goods and services, as well as creating environmental pollution. The pollution contributes negative impacts to human's health so that will influences prosperity, so a legitimation in managing the industry is needed.

Pollution caused by the industrial process will be detected from soil, water and air quality (TUA). Along with the decreasing quality of the TUA that is getting worse, the cost of its solving process is higher too. Hansen and Mowen (2007) stated that environmental cost is created by the worse quality of the environment or its possibility. Based on the statement, every institution which manage natural resources needs to anticipate environmental effect from their activities.

One of the funding supports in research area is seen as one of the environmental effects anticipation. It can be imagined while the exploited nature threatened environment and community, then the habitant of Kecamatan Bunguro, Tuban and Kecamatan Lubuk Kilang will not be able to settle their life in peace. Effects and management control is expected by the institution to be able to minimize environmental effectas caused by the institutions' activities.

According to problem above, the researcher thinks that element of community participated in industrial development is important because the relation of community and institution cannot be separated. The society need prosperity, while the institution needs to be sustained. According to Capra explanation (2014: 276), there is a need to revise concept and theory of economy which seem radical. The point is that most of recent works are producing harmful technologies and institutions towards natural and social life.

United Nation Environment Program (UNEP) suggests green economy as supporter and giving an expectation in conserving nature and community, as well as reducing poverty (Wilson, 2013). He mentions that green economy depends on the discourse of modern ecology and ethics in process of recovering economy development. The sustainable development needs a soial change which able ton change human's way of thinking that nature is more than a capital source. Therefore, the ethics can be a controller in implementing developments (Keraf, 2002).

The four elements of Jones' model (2010) are responsibility to act. It is not only a burden to government,

organizations and individuals (manager and accouter) who succeed in defend and avoid the threats, but also every single element which exist on Earth. Asset is an important part of natural environment which should be preserved to grant life existence. So, government's efforts in prevention initiates before the disaster should be obedient. Pebreni (2012), states that the cause of natural support damages comes from outside such as air pollution, factory residue and motor vehicles.

The third model is the relation between industry and environment. Government has initiate the controlling of environmental damages into several policies. PSAK no 1, PSAK 33, and PSAK 64 are products of the policies manage the issue. For example, PSAK 33 manage accounting response on exploitation, mining and constructions, production, and environmental management.

An excess anthropocentrism approach in positioning human in nature causing the existence of exploitative behaviour in exploring nature to fulfill interest and needsn should be anticipated. Moreover, once it causes damages and threats. This is one of the thing that cause the emerging of green concept. The concept as a development model of

sustainable economy with low level of carbondioxyde emission which produced into environment, natural resources observe and social justice (Barbier, 2011).

Long-term orientation for sustainable developmnet as the main target of accounting model and report by Jones is the fifth element in his study. Industrial condition in Indonesia, conmmfirmed by Industrial Minister, is ving negative impact in the fifty years of its existence especially environmental pollution, therefore the government requires eco-friendly industrial development or known as green industry.

The concept of green industry has been initiate in several international forum, and followed by various countries with a numbers of multilateral conference, such as UNIDO, RIO+20 and the 13th United Nations Conference on Trade and Development (UNCTAD). There are six characteristics of green industry. Those are consumer satisfaction, focus of environment and social, long-term oriented, significant and sustain renewal, as well as fair competition (Djajaningrat, dkk. 2014).

In contrast, Keraf (2002) said, sustainable development paradigm composed in KTT Bumi in Rio de Janeiro, Brazil in 1992 is less

implemented recently, and even not commonly known. One of the failure in the implementation is that it is seen as a work principle which defines and control the whole process of development. Political priciple in development should demand the government and all parties in designing and implementing disobeyed development. The second reason of unimplemented development concept, according to Keraf (2002) is because the paradigm creates an ideology called developmentalisme, which means the main focus of industry is economic growth and the result is natural resourse damages and exploitations.

The fourth model is measuring enviromental effects. Jones (2010) assumed the model is an important stage in measuring industrial effects in several ways. In business, one of the main measurement system is quantifying through accounting numbers. The quantification helps in understanding and measuring instiotution activities, achievements, and audit results. PT Semen Indonesia Group, generally measure their environmental effects by focusing on seven elements in environmental management implementation.

The seven elements, which are ambient quallity of air, quality of water, flora and fauna, infrastructures and facilities, traffic jams, and social-economy aspects, as well as public health. In formulating the management, instoitution focus on several aspects, those are the source of impact which means holistically look at the impacts cause, both production activity and production supports, followed by impact management. In managing impact of the two activities is also noticed in order to formulate stages for the institution to minimize environmental effect.

The calculation of pollution in national accounting system's concept, according to the writer, is not aware of human aspect. From the four aspects thsat possible to be measured, which are pollution actor's output, pollution damage, pollution control cost, and its advantages, none of them is noticing human behaviour. For example, in the research area, the institution is only 5 meters away from nearest village with high relative population and minimum knowledge of industrial impacts.

Goal and main agenda of the sustainable development in its principle contains moral value to be realized. Therefore, ecological sustain

development is needed as well as hollistic accounting perspective that preserve nature by time, environment and community in development. The ecological hollistic paradigm bargained by Capra (2014) is an objection of mechanic life perspective of Newton that is expected to be able to elaborate all components non Earth.

Ecology perspective appears in association with a very different perception of human roles in goods scheme (Metzner in Tucker and John, 2003). The influence of ecological concepts from co-evolution and simbiosys has brought awareness in the importance of evolutive to protect whole ecosystem

and preserve biodiversity. Ecology philosophy teaches biocentric and ecocentric values, where human is seen as a part of nature, not in opposite or above them.

Hollistic perspective of accounting should be on its own. It is not presented human as owner of the nature. Policies created by human in contribution to the environmental existence. The model below is a comparison between conventional accounting and environmental accounting by Lodhia (2001) which expect to be able to contribute in upgrading the accounting system.

**Table 1**  
**Comparison and contradiction of general accounting and environmental accounting**

	<i>Mainstream</i>	<i>Environmental</i>
Goal	Profit maximizing	Environmental performance
Data	Quantitative	Qualitative
Internal	Accounting management	Environmental management
Eksternal	Financial statement	Environmental sustainability report
Regulation	Yes-Based on standard of accounting for general and corporate	No-Based on environment regulation and standard, i.e ISO 14000
Audit	Financial audit	Environmental audit

Source : (Lodhia, 2001:7)

The table above gives us a view of how the environmental accounting oriented is focusing on environmental performance rather than profit oriented.

The substance of environmental accounting itself according to Gray and Bebbington (2011) includes (1) company contingent risks or obligations, (2) asset revaluation and capital projections, (3)

cost analysis in important areas such as energy, waste, and environmental protection, (4) investment assessment that takes into account environmental factors, (5) development of new information systems and accounting systems that cover all environmental performance, (6) assessment of the costs and benefits of environmental improvement programs, and (7) development of accounting techniques to uncover assets, liabilities, and costs in ecological or non-financial terminology.

The fifth model is to express and report on the impact, which is associated with the eighth element of this model, which is function of leadership. In policy, the company has an integrated management system, namely cement tonasa management system as an application of the principles of good corporate governance so that it is expected to be able to increase competitiveness and increase stakeholder confidence. Greening programs inside and outside the factory are carried out every year. This is intended to green the environment around the factory and the community environment.

At the same time, revitalization efforts on inappropriate equipment were also carried out such as repair of electronic

precipitators (EP) and installation of filter bags with better and environmentally friendly technology, said Budi, who is the section head of Jamukin / environmental quality assurance of PT Semen Tonasa. The company's sustainability strategy report contains an overview of the company's responsibility to preserve and improve environmental improvements. The company is committed to reporting sustainability reports annually. The company is aware of the environmental impacts arising from bombing and mining, so the company reclaims and revegetates, said Ibu Sukma, head of the setker section of PT Semen Tonasa.

## CONCLUSION

Organisation realized the negative impact and responses with make and showing sustainability report and their try to applied green economy concept and green accounting on their operational with external cost allocation. Deforestation and draw material exploration will destroy the soil's fertility increase erosion rapidly and flood risk so beside internal cost (operational cost) that organisation actually creates cost which should be carried by others (external cost). Therefore, environmental is real and

should be calculated in developmental activity.

Organisational income in this research is seen fairly big annually. But, if we see environmental condition can be said in contrast. Budgeting is enough, according to the executives because in practice there is only 4% budget from the organisation can realize TJSL and PKBL programm without defisit budgetary. In this stage accounting can take role to calculate external cost which is expended by organisation without depends on the 4% budgeting. It is stated by accounting experts who study environmental matters in which they conclude that accounting can minimize industrial impact. The holistic of accounting perspective presents human not as nature owner, but as contributor towards environmental sustainability where organisation is delivered to be enviroment-oriented in the work no to maximize the profit.

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