



ENVIRONMENTAL ACCOUNTING: EXTERNALITY PLANNING MODEL FOR PALU SPECIAL ECONOMIC AREA (SEZ)

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Article Info

Article history:

Received Oct 13, 2023

Revised Nov 18, 2023

Accepted Dec 02, 2023

Keywords:

Environmental Accounting

Externalities

Sustainability

ABSTRACT

The sustainability of the externalities of the Palu Special Economic Zone (KEK) provides legitimacy for managers, especially negative externalities, such as economic, social, environmental, legal and governance dimensions. Social dialogue really needs to be carried out to produce social license. As a result, the social license that has been obtained will become an important note as a reference and evaluation in assessing the performance of companies operating in the regional area. The role of environmental accounting for the sustainability of the externalities of the Palu Barus Special Economic Zone (KEK) focuses on processes that exert control over the impact of the company's production activities so that various negative externalities can be handled or minimized. Therefore, Estate managers must realize that they must increase profitability and take care of everything related to their survival in society directly or indirectly. This awareness produces a solution to the concept of sustainable development. Therefore, the managers of the Palu Special Economic Zone (KEK) and company owners operating within the area ensure that every decision is directed towards sustainability. Management accounting and control play a major role in creating information and therefore need to be considered as society seeks a transition to sustainability. Environmental accounting also plays an important role in trying to identify externalities, such as determining what is the subject of the account (the company's production activities, products produced by all companies operating within and outside the regional area, determining which externalities will be identified. The potential for negative externalities to occur if there is dialogue social services are not implemente

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1. INTRODUCTION

Nature provides all human needs, so that natural resources and environmental services are considered abundant and have almost no price. However, with the increasing population and high levels of people's income, the amount of natural resources including their quality continues to decrease, so that a scarcity is felt. This scarcity creates prices and encourages consideration of the environment as an economic good. Suparmoko (2011), said that the main role of the environment is to support life by providing natural resources as raw materials to be processed into finished goods or for direct consumption, as an assimilator that processes waste naturally and as a source of pleasure. As an assimilator, the environment is able to process waste naturally. natural, so that environmental pollution no longer occurs.

Material balance for an economy is seen as a general balance to show how the economy and the environment

interact in a complex manner as an integrated system. Balance analysis generally focuses on all the effects of each economic variable. One of the market failure variables is caused by external factors. Externalities are any impact on the level of welfare of a third party that arises due to someone's actions without compensation or payment (Karl and Rey 2006, Suparmoko, 2014).

Furthermore, Muhlis (2009:192) said that natural and environmental aspects are important factors in achieving economic growth and sustainable development. According to Chad J. Mc Guire (2014:58) environmental problems originate from the environment itself, humans often be reactive; humans often deal with the consequences of each action and change behavior to reduce future harm.

Desiree (2006), says that environmental goals and corporate goals can be integrated through market mechanisms, where companies recognize strategic competitive advantages and better end results are available from better management accounting for the environment.

Stefan (2002), environmental protection activities carried out by companies will result in increased economic success. Environmental categories and environmental cost reporting are important activities and worthy of practice; environmental costs cannot be separated to keep companies growing and able to survive in global competition in the future; environmental accounting is a prerequisite for sustainable development (Rob Gray et al.1998, Maria et al 2012, Goswami Manoj 2014).

The importance of disclosing environmental information by companies is a fundamental need and has a strong influence in the business world (internal and external parties), so that it does not cause side effects from the actions of economic actors on other economic actors. As stated by Kokubu Katsuhiko (2002), disclosure of environmental accounting information has a strong influence on the classification of environmental costs which is an element of environmental accounting. Furthermore, environmental accounting reporting places more emphasis on external functions than the company's internal functions, namely developing environmental accounting for the company's internal management. Amallah Handayani Tri (2010), social accounting is needed by companies as a form of corporate social responsibility towards their environment

Regarding financial performance and environmental performance, company management must actively record every cost incurred in connection with these environmental activities. These costs are referred to as environmental costs or costs incurred by the company to minimize environmental damage. This pattern of recording environmental costs in financial report accounts and annual reports is referred to as *green accounting*. *Green accounting* generally implemented by companies that have attention and interest in environmental sustainability, sustainability (*sustainability*), environmental effectiveness (*ecoeffectiveness*), environmental efficiency (*ecoeficiency*), and apply it directly with many marketing tools in management strategy (Cohen and Robbins, 2011: 190).

Maria, at all (2017:40-41) The environmental performance of a company is an important measure of business success. According to Peter Fisk (2010; 2), green is not enough. It takes a business approach to do more than fix, but also rethink social and environmental issues as more important than ever. Peter Fisk (2010; 2) further said that for the business environment social and environmental problems represent some of the greatest opportunities to find new markets, profitable growth, more durable and attractive sources of competitive advantage, and more effective ways to reduce costs. and risk.

Handling of environmental issues has not been optimal, even though Indonesia as an archipelagic country, where natural resources are abundant and has high biodiversity in tropical areas, has a position that is vulnerable to environmental damage. The government's vision for 2020 is Towards a Green Indonesia (MIH). Based on the Minister of Environment Regulation No. 1 of 2012 concerning the MIH program, the principles of sustainable and environmentally conscious development must pay attention to the three pillars of sustainable development in a balanced manner, namely economic growth, social development and environmental preservation.

External costs are costs that people influence through environmental degradation (Hansa Jain 2017:1). Fredrik Hartwiq, at.all (2019) argue that externalities should be recognized in financial statements and propose ways to expand traditional balance sheets and income statements with information about environmental, social, and economic impacts. Ziolo M.at.all (2019;2)As stated by R. Suparmoko and Maria Ratnaningsih (2011: Page 21) that poor groups are groups that often suffer as a result of environmental damage; because poor people are unable to spend large amounts of money on investment in controlling pollution in air, water and land, because they are unable to set aside a large portion of their income as savings which are then invested in pollution control.

The development of the Special Economic Zone continues to progress according to the expected targets, the following is the Palu SEZ activity plan:

Table 1. Activity Plans and Achievements Palu Special Economic Zone (KEK).

No	Activity plan	Plan Investment
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1	Land acquisition	300.000.000.000
2	Construction of 20 km of road infrastructure	400.000.000.000
3	Baku WATER Infrastructure Development (Wombo River Intake and Piping along 4 km)	10.000.000.000
4	In-area waste processing (IPAL)	20.000.000.000
5	Fire Fighting Facilities in the Area	10.000.000.000
6	Construction of a 150 KV capacity substation	
7	5 point Waste Facilities	3.500.000.000

Based on table 1.1, the Palu Special Economic Zone (KEK) manager has seven activity plans. Currently, there are four activities that are still in the implementation stage, namely Land Acquisition, Construction of Road Infrastructure along 20 km, Construction of Baku WATER Infrastructure (Wombo river intake and pipeing along 4 km), and Construction of a mains substation with a capacity of 150 KV. There are three planned activities that have not been implemented, namely waste processing in the area (IPAL), fire extinguishing facilities in the area, and 5 point waste facilities.

Currently there are around 20 tenant companies registered in the Palu Special Economic Zone (KEK), several companies are already operating and have even been selling since 2017 until now. For more details, see table 1.2, the following is the number of tenant companies to date:

Table 2. Tenant companies in the Palu Special Economic Zone (KEK).

No	Renter Company Name	Type of Business
1	PT. Asbuton Jaya Abadi	Wholesale trade in solid, liquid and gas fuels
2	PT. Kaili Industrial Rattan	Processing of finished and semi-finished goods from rattan, bamboo and wood
3	PT. Hongtai International	Pine Sap Processing
4	PT. Tata Kokoh Abadi	Processing of finished and semi-finished goods from the production of clay/ceramic bricks, wholesale trade roof tiles, bricks, tubers and the like from clay, lime cement or glass
5	PT. Karya Sampaga Biru	Material processing dangerous and poisonous
6	PT. Utilization of Wanhong Nonferrous Recycling	Copper Processing

7	PT. Makmur Jaya	Articles of cement and lime for construction
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8	PT. Panca Sentosa Investama	Seaweed processing capacity 80 tons
9	PT. Sofi Agro Industry	Charcoal trade, copra, coconut oil, dried grated coconut and dried grated coconut juice
10	PT. Triwiharso Pillar of Success	Light steel 10,000 m3
11	PT. Brilliant Successful Hero	Processing industry Others and Preservation of Water Biota
12	PT. Alfa Mandiri Industry	Coco feat and coco fiber activated carbon processing
13	PT. Sula Kor Energi	Power plants 33MW
14	PT. Nasana Mitra	Realstate and wood industry, goods made from wood and gas cylinders (excluding furniture) and woven goods from bamboo rotan dl.
15	PT. Harvard Cocopro Palu	Flour Industry and coconut pellets
16	PT. Indo Manganese Industry	Smelter Mangan
17	PT. Sarana Dwima Jaya	Light Steel Production
18	CFHI	KSO
19	PT. British Mining Export and Import	Large trade in iron processing



	Resouces	products and metal precious
20	PT. British Bullion Investment and Resources	Basic Metal Industry
21	PT. Hashimoto Glorious Indonesia	Pellet Industry

Table 1.1 and Table 1.2 can be concluded that several companies have been operating and making sales since 2017 until now. The problem that is happening now is waste disposal which is very disturbing and disturbing to the people around the Palu Special Economic Zone (KEK), where up to now there has been no action taken by the KEK so that the waste is stored behind a hill. The waste is released at night, the impact of this waste is very disturbing from a health perspective, such as very severe respiratory tract infections. In table 1.2, the number of officially registered companies is around 20 companies, meaning that the more companies operate, the more environmental, social and economic externalities will have an impact on sustainability.

Sustainability is an agreement at the United Nations (UN) conference, where Indonesia itself is part of the UN members. Indonesia itself has issued presidential regulation No. 59 of 2017, meaning that sustainability programs will be implemented, one of which is the Palu Special Economic Zone (KEK).

The focus of this research is identifying each issue that will support the achievement of sustainable development towards the sustainability of the Palu Special Economic Zone (KEK) in the economic dimension.

2. LITERATURE REVIEW

Definition of Environmental Accounting

Environmental issues are a problem in almost every country in the world caused by unplanned economic development. The world of accounting is also always improving, one form of development in the world of accounting is Environmental Accounting, even in Japan, Environmental Accounting Standards are parallel to Financial Accounting Standards (SAK) and are applied by almost all companies in that country.

Social Accounting is often called Environmental Accounting or Socio-Economic Accounting, by Belkoui (2000), translated by Ramanathan, defined as the process of selecting corporate social performance variables, measures and measurement procedures, which systematically develops information that is useful for evaluating corporate social performance. and communicating this information to interested social groups, both inside and outside the company.

Haniffa (2002), social accounting identifies, assesses and measures important aspects of the socio-economic activities of companies and countries in maintaining the quality of life of society in accordance with predetermined goals.

According to Handry Satriago (2002), environmental accounting is an accounting process that;

1. Recognize, seek, and then reduce the negative environmental effects of implementing conventional reporting practices;
2. Separately recognize costs and income related to the environment in conventional reporting systems;
3. Take active steps to develop initiatives to ameliorate environmental effects arising from conventional reporting practices;
4. Planning new forms of financial and non-financial reporting systems, information systems and monitoring systems to better support management decisions that are not environmentally hazardous;
5. Develop new forms of performance measurement, reporting and assessment for internal and external purposes;
6. Recognize, test, search for and improve areas where conventional financial criteria and environmental criteria conflict;
7. Experiment with ways in which sustainable systems can be assessed and incorporated into organizational habits.

According to Sahid (2002), environmental accounting is a compilation of environmental data within an accounting framework. According to the United States Environmental Protection Agency or *United Environment Protection Agency* (US EPA) in Ikhsan (2008), environmental accounting is a function

which describes environmental costs that must be considered by company stakeholders in identifying ways that can reduce or avoid costs at the same time as efforts to improve environmental quality. Therefore, environmental accounting has the same meaning as environmental cost accounting, namely as combining information on environmental benefits and costs into company or government accounting practices.

Mihkel Oviir, (2010), environmental accounting provides a framework for organizing any information about, use and value of resources including environmental assets, environmental protection expenditure and resource management. Environmental information is considered important for linking environmental data with a country's economic data. Environmental information also provides policies with ecological indicators and descriptive statistics to monitor the environmental contribution of the economy and the impact of the economy on the environment. In addition, environmental accounting can serve as a tool for strategic planning and policy analysis to identify regulations, taxes, and consumption patterns on environmental sustainability and pathways for sustainable development of any particular economic activity.

According to Lindrianasari in I Wayan Suartana (2010), environmental accounting is environmental costs that are included in the accounting practices of companies or government institutions. Activities that can be carried out in connection with environmental conservation are:

1. Conservation of conditions that affect the health of living creatures and the environment originating from air pollution, water pollution, land pollution, noise, vibration, bad smells and so on;
2. Conservation of conditions that have an overall impact;
3. Conservation of resources (including water).

Based on the opinions of several experts mentioned above, it can be concluded that environmental accounting is a process of identifying, measuring and allocating environmental costs, where environmental costs will be integrated into the decision-making process by company management relating to the environment. Grouping of environmental costs carried out by companies in the environmental conservation process and company business practices. Environmental conservation will ultimately result in environmental costs so it can be analogous that the costs incurred by the company are an effort to minimize environmental damage.

Classification of Environmental Costs

According to Balley (1991) social/environmental costs: are one of several types of business costs that occur in providing services or goods to consumers.

Bringer (1994), Environmental costs and environmental performance are considered by management for the following reasons:

1. Environmental costs can significantly reduce or eliminate business decisions, for example regarding the use of technology to reduce waste.
2. Environmental costs may not be reflected in overhead costs, or even ignored.
3. Some companies have found that environmental costs can be offset by generalized income through the sale of scrap materials.
4. Better environmental cost management can result in better environmental performance with significant benefits to public health.
5. Understanding environmental performance and costs can better reflect accurate cost and price calculations and can help companies better design environmental processes in the future.
6. *Competitive advantage* can result from good environmental processes.
7. Accounting for environmental costs and performance can support company development and company operations of environmental management systems. Like the system used in establishing ISO.

Ansari, (1997), environmental costs are costs that arise in efforts to achieve goals such as reducing environmental costs, increasing income, improving environmental performance that need to be considered now and in the future. According to the March 2000 report (Environmental Accounting Agency Environmental System Development Study Group, Japan Developing Environmental Accounting System), "environmental costs refer to such investments and environmental maintenance costs made to minimize environmental impacts". According to the report, the classification of environmental costs can be carried out as follows:

1. Costs for controlling environmental impacts (air and water pollution prevention costs, costs for preventing noise, vibration, odor, costs for preventing landslides or other costs for preventing pollution).
2. Management Costs (costs for developing and implementing an environmental management system, costs for educating employees about environmental protection, costs for monitoring and measuring impacts on the environment, measurements of evacuated chemicals).
3. Development costs (costs to design a new product with respect to the environment).



4. Costs of social activities (costs for nature protection, reforestation, from improving ecology, supporting some local activities, organizing seminars and other social activities).
5. Damage costs (costs for land repairs, sanctions, penalties, etc.).

White and Savage, (1995) in Irawan (2001), grouping environmental costs is divided into 3 (three) types, namely:

1. *Conventional company costs and less tangible items*
2. *Less tangible items*
3. *External costs*

Sahid (2002), environmental costs are closely related to the environment. Environmental costs include land degradation costs, environmental pollution costs, water depletion costs, recycling costs, costs for paying fines, interest, and compensation costs due to environmental damage, as well as loss of flora and fauna.

Stoian M, (2003) environmental costs are divided into 4 categories, namely: damage costs, diversion costs, planning and monitoring costs and avoidance and elimination costs.

1. Environmental expenses include costs incurred to carry out environmental problem survey activities and people who prevent or repair damage caused by the company's operational activities.
2. Total costs for environmental protection compiled based on investments made for environmental damage including new or existing tangible goods purchased from third parties or produced for personal use, have a useful life longer than one year and aim to protect the environment. Includes tangible assets such as land, additions, renovations and improvements that increase the life cycle or capacity of equipment.
3. Current operational costs (utilization of current costs), maintenance and acquisition of several environmental activities, including internal current costs (for own activities) and external costs (for activities purchased from third parties).
4. The costs of not only the management entity, but also external partners are business environment. Detailed information regarding the environment, more precisely environmental costs, is usually presented in the explanation of the financial statements and in the balance sheet or income statement.

From the definitions above, it can be concluded that environmental costs are costs that occur as a result of company activities that have an impact on the environment. Companies vary in how they define environmental costs, depending on how much information they use and the scale and scope of testing.

Environmental Cost Objectives

Hansen and Mowen (2009:249) state that the aim of environmental costs is to improve environmental quality as follows:

Table 3. Goals and Measures of Environmental Costs

No	Objective	Size
1	Minimize use of hazardous substances	Type and quantity (total & per unit). Percentage of total raw material costs. • Productivity measures (input/output).
2	Minimize use of raw materials or ingredients that are still original	Type and quantity (total & per unit). Percentage of total raw material costs. • Productivity measures (input/output).
3	Minimize energy needs	Type and quantity (total & per unit). Percentage of total raw material costs. • Productivity measures (input/output).

4	Minimize residual emissions	Weight of toxic waste produced. Fluid discharge volume. • The amount of greenhouse gases produced. • Percentage reduction in packaging raw materials.
5	Maximizing opportunities for recycling	Weight of recycled raw materials. The number of components varies. Percentage of units rebuilt. • Energy produced from combustion.

Environmental Accounting in Environmental Conservation

Good environmental quality will determine the existence of living creatures in it. Various living creatures, including humans, have different levels of adaptation to environmental changes, because each living creature has different levels of vulnerability and ability to respond to environmental changes that occur as a result of the company's production process. However, it turns out that humans have limitations, according to Jacob in Fandeli et al (2006), it is mandatory that humans know more about something close to them, in the time and space of the future. This includes knowledge about the environment. Therefore, environmental management requires the development or local wisdom of local residents in managing the environment and existing natural resources.

Environmental accounting is a field of accounting science that functions and identifies, measures, assesses and reports environmental cost accounting. According to Mathew and Parrera (1996), environmental accounting is used to provide an overview of a comprehensive form of accounting that includes externalities in company accounts such as labor information, products, and environmental pollution. Pollution and production waste are examples of negative impacts from company operations that require an environmental accounting system in the form of information on environmental costs in environmental conservation activities.

In the Environmental Accounting Guidelines (2002), the basic elements of environmental accounting which include environmental conservation costs, environmental conservation benefits and economic benefits related to environmental conservation activities and their relationship to environmental conservation activities are as follows:

- a. Environmental conservation costs.
- b. Benefits of environmental conservation..
- c. Economic benefits from environmental conservation activities.

Fredrik Hartwiq, et al (2019) believes that the advantage of including externalities in the balance sheet is that it provides an overview of:

- 1.) Accumulated company obligations to society when there are negative externalities, and
- 2.) Accumulated claims on society when there are positive externalities at the end of the period

Environmental Financial Report

Environmental cost reports are important if an organization is serious about improving its environmental performance and controlling its environmental costs. The first step that needs to be taken before making an environmental costs report is to provide details of environmental costs according to classification, then enter the details of these costs into the environmental costs report and accompany them with percentages for each classification. This percentage comes from environmental costs compared to operational costs.

- a. Environmental Prevention Costs (*environmental prevention cost*).
- b. Environmental detection costs (*environmental detection cost*)
- c. Internal failure costs (*internal failure cost*).
- d. External failure costs (*eksternal failure cost*).

According to Hansen & Mowen (2008) Ecoefficiency suggests a modification for reporting environmental costs. In particular, in addition to reporting environmental costs, it is a good idea to report environmental benefits. In a certain period there are three types of profits, namely income, current savings, and cost avoidance. The profits that companies obtain from environmental management will provide quite large profits if they recycle company waste. Waste and environmental management carried out by the company will provide savings and income benefits for the company, but on the other hand the company will experience processing difficulties and limited data in tracing the total savings made by the company (Ina Setyaningtyas and Fidelis Arastyo Andono 2013).

Understanding Externalities

Externalities arise when a person or company takes action that has an effect on the person or company, this effect is not paid for by the individual or company acting, Cornes R. and Sandler T. (1996:39). Cullis and Jones (1992) state



that externalities occur when an individual's utility not only depends on the goods and services consumed by the person concerned, but is also influenced by the activities of other individuals. Meade (Corner and Sandler, 1993) defines economic externalities (*diseconomies*) as an event that gives quite a big advantage (gives a big loss) to several people who do not participate fully in decision making. Fisher (1996) said that externalities occur when one economic actor's activity (both production and consumption) affects the welfare of other economic actors and the event occurs outside the market mechanism.. According to Rosen (1998), externalities occur when the activities of one entity affect the welfare of another entity which occurs outside the market mechanism (*non market mechanism*).

Hyman (1999) states that externalities are costs or benefits from market transactions that are not reflected in prices. When externalities occur, third parties other than buyers and sellers of a good are affected by its production and consumption. Hyman further stated that the market prices that occurred did not accurately reflect *marginal social cost (MSC)* nor *marginal social benefit (MSB)*. Imam Mukhlis (2009; 192) in a theoretical perspective, externalities occur because of differences between *marginal social* and *private cost* an item. In the case of the environment, it will give rise to negative externalities, which are caused by the absence of costs or the exclusion of social costs from the components of the price of final goods. Shiva Raj Adhikari (2016;1) externalities are the consequences of economic activities experienced by unrelated individuals or communities, which refers to the impact of an activity on other people.

Externalities are costs (negative externalities) or benefits (positive externalities), which are not reflected in free market prices. Externalities are sometimes referred to as by-products, spillover effects, environmental effects, third party effects as externality producers, either producers or consumers, or both, impose costs or benefits on others who are not responsible for their effects. The key feature of externalities is that they are initiated and experienced, not through the operation of the price system, but outside the market (<http://www.sanandres.esc.edu.ar/>)

Characteristics of Externalities

The implications of the definition of externalities above have two implications, namely: *First*, Externalities occur when the activities of one agent affect other agents, without reflecting the effects of this influence internally *price signal* (Mishan, 1971); *dankedua*, *necessary condition* for the situations *social optimum* *pareto optimality condition*) violated (Mas-Coll, *et al* 1995.). The characteristics of externalities can be explicitly formulated as follows:

- a) Externalities can be generated by both producers and consumers.
- b) Events that occur outside the market price mechanism.
- c) There is a reciprocal relationship in the externality aspect.
- d) Externalities can be positive and negative.
- e) The event that occurs has no relationship between one party and another party (*interdependency in action*).

Events that occur both individually and institutionally.

Types of Externalities

According to Pearee and Nah 1991, Bohn 1991, externalities can occur from four economic interactions as follows: 1) The impact of a producer on other producers

- 2) Impact of Producers on Consumers
- 3) Consumer Impact on Other Consumers
- 4) Consumer Impact on Producers

Factors Causing Externalities

The factors causing externalities are as follows:

- 1) Existence of Public Goods.
- 2) Shared Resources.
- 3) Market Imperfections.
- 4) Government Failure.

Impact of Externalities

Judging from the impact, externalities can be divided into two, namely:

1. Negative Externalities
2. Positive Externalities from Production.
3. Externalities in Consumption.

Private Solutions to Externalities

The existence of externalities can result in the allocation of resources carried out by the market becoming inefficient. However, so far we have only briefly reviewed ways to overcome these externalities. In practice, it is not only the government that needs this

can overcome these externalities, but also non-governmental parties, whether individuals/groups or companies/social organizations. Basically, the goals to be achieved by both the government and the private sector

(individuals and groups), with regard to overcoming externalities, are the same, namely to encourage resource allocation to approach socially optimal conditions. The following are solutions or efforts made by individuals or the private sector (*private solutions*) in overcoming externality problems.

- 1) Private Solutions
- 2) *Coase theorem*
- 3) Failure of Private Solutions

Public Policy to Address Externalities

The following will explain public policies to overcome externalities:

- 1) Regulation
- 2) Pigovian Taxes And Subsidies

Continuity

Magdalen Ziolo, at all (2019:2) Currently, sustainability is a very important theoretical framework in the scope of environmental economics. Social and financial exclusion, increasing income inequality, inefficient redistribution systems, and negative economic externalities (such as: noise, pollution, smog) are typical challenges faced by central and regional governments. At this point, the special role of sustainable development in addressing broader and more clearly dangerous, namely negative externalities, needs to be emphasized.

Magdalen Ziolo, at all (2019:4) Externalities may be positive (benefits) or negative (costs). We can also consider it in production and consumption reports and it can appear as a private or public positive or negative. Although discussions about externalities have been around for a long time, the concept remains controversial. From the point of view of sustainable development, external effects will be linked to three basic pillars: the environmental pillar, the social pillar and the economic pillar

In the report "Our Common Future" four Domains of Sustainability: economic, ecological, political, cultural are indicated. It must be remembered that sustainable development is a guarantee of a good quality of life and is a kind of way of organizing social and economic life. However, decisions made by public authorities in the area's efforts for sustainable development are driven by externalities. Magdalen Ziolo, at all (2019:7) The key to achieving environmental and sustainable development lies in overcoming obstacles to the efficient functioning of environmental market resources.

Magdalen Ziolo, at all (2019:12) Considering the general relationship between the financial pillars and the economic, social and environmental dimensions of sustainable development in the context of negative externalities, external and internal interactions can be defined as follows:

- a. The external impact of the environmental pillar on the financial pillar is observed in the scope of increasing environmental risks (climate change, disasters, etc.) and as a result the financial environment is developing;
- b. The external impact of the social pillar on the financial pillar is observed in the scope of increasing social risks (spread of disease, food crisis, income gap, social exclusion) and as a result finance is advancing, finance is responsible, microfinance is developing;
- c. The external impact of the economic pillar on the financial pillar is observed in the economic sphere of risks (bubbles, shocks, fiscal crises, etc.) and the resulting financial development develops;
- d. The internal impact of the environmental pillar on the financial environment is expressed by government policies and regulations that determine the framework for the process of "greening" financial markets; for example, the decarbonization process regulated by the European Union accelerates the development of carbon finance;
- e. The internal impact of the social pillar on the financial pillar is expressed by social or socio-economic policies and government regulations in line with this scope that determine the framework for development finance, microfinance, responsible finance, socially responsible investment, etc.;
- f. The internal impact of economic pillars on financial pillars is determined by state policies and regulations that refer to financial markets. g. The external impact of the financial pillar on the environmental, social and economic pillars of sustainable development is expressed primarily by incorporating environmental, social, governance factors into the risk assessment and decision-making processes of financial institutions and financial markets;
- g. The internal impact of the financial pillar on the environmental, social and economic pillars of sustainable development is expressed mainly by fiscal and monetary policies, especially environmental taxes and public expenditure policies.

In the current situation the government must strive to create policies that support sustainability, and in particular to achieve low levels of income inequality, low deficits and public debt as part of sustainable debt management, a



developed green tax system, green investment and support of businesses and households in access to preferential financing for modern, environmentally friendly solutions. In global terms, a common policy is needed that will help smoothly eliminate the effects of negative externalities. With financial instruments, the possibility of eliminating or mitigating the impact of negative externalities is visible, especially in the social and environmental dimensions. In global terms, periods of economic development favor environmental impacts of development through financial systems (a series of innovative instruments) and social and environmental development.

Sustainability Aspects

All countries and all stakeholders acting in collaborative partnership, will implement sustainability plans, demonstrate the scale and ambition of the new universal agenda and strive to realize human rights, achieve gender equality and the integrated and indivisible empowerment of all women and girls. The following are five important aspects that are global sustainability targets, namely:

1. People
2. Planet
3. Prosperity
4. Peace
5. Partnership

3. RESEARCH METHODS

Findings from the Externality Analysis of the Palu Special Economic Zone (KEK).

Sustainability and sustainable development of the Palu Special Economic Zone (KEK) are key terms in identifying externality issues that occur within and outside the Palu Special Economic Zone (KEK) area. According to Matias Laine et.al (2022:11), sustainability is considered a desired state, sustainable development can be understood as a process towards getting there. Therefore

Therefore, researchers often use these two terms interchangeably, even though the transition to sustainability is complex and must be agreed upon by all parties.

As explained in Table 5.9, the dimensions of sustainable development, also known as the four pillars of sustainable development, consist of social, economic, environmental, and legal and governance dimensions. Although this concept aims for balanced sustainable development, it has several weaknesses related to the dimensions of sustainable development.

Economic Dimension Research Results

The economic dimension of sustainable development in Special Economic Zones has a close relationship with externalities, where externalities are related to the impact or side effects of the production activities of companies located in the Palu Special Economic Zone (KEK). Based on information obtained from informants who live inside and outside the Palu Special Economic Zone (KEK) area, 3 important focus area points for the economic dimension to support the sustainability of the Palu KEK are obtained and are of particular concern to KEK managers and authorized parties. These areas can be seen in Table 5.6

Table 4. Focus Area on Economic Aspects of Externalities

No	Focus Area	Key Sustainability Indicators	Information
1	Jobs and growth the economy worthy	Field Work, involvement labor,	Income society is not yet visible change.
2	Area without gaps	There isn't any yet skill, limited reception,	There is no local workforce yet special skills, not ready yet compete,
3	institutional area dynamism and culture area that	Land Prices, manager area and all elements of the cake need to sit together	Price criteria are not transparent land, the meeting of all elements cake managers and local residents.

	adapt		
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Based on Table 5.6, there are 3 areas of focus for the externality dimensions of the Palu Special Economic Zone (KEK) economy, namely:

- 1. Decent jobs and economic growth:** Decent jobs and economic growth have an important and inseparable relationship with externalities. The existence of the Palu Special Economic Zone (KEK) is expected to be able to create job opportunities for local communities or people who live inside and outside the Palu Special Economic Zone (KEK) area. This means that if people get decent work, they can contribute to sustainable development because it reduces social inequality and increases economic stability. Limited employment and the need for company personnel are obstacles to date. This means that the existence of the Palu Special Economic Zone (KEK) will be able to spur economic growth and not sacrifice social welfare. One step that can be taken is, Skill improvement and education. A skilled and educated workforce will be the key to sustainable economic growth for the current generation and which will come. Investment in education and training can help improve workers' skills and is very beneficial for needs of the world of work. Collaboration and partnership. Strong cooperation between government, traditional leaders, religious leaders, non-governmental organizations Communities (NGOs) are needed in making economic decisions

- 2. Area without gaps:** The gap in terms of lack of expertise is a problem currently experienced by the community around the Special Economic Zone (KEK) of Palu.

- 3. Dynamic regional institutions and adaptive regional culture:** The dynamic and adaptive Palu Special Economic Zone (KEK) institution has a very important role in achieving sustainable development goals. Collaboration of all elements such as local government, Palu Special Economic Zone (KEK) managers, land owners, traditional leaders, religious leaders, NGOs, need to sit together to discuss and plan concrete steps to support the sustainability of the Palu Special Economic Zone (KEK). This has never happened and is the hope of the people inside and outside the Palu Special Economic Zone (KEK). Several important points that need to be considered include: land prices, relocation of community residences, customary land, and waste management which has not been resolved to date.

Model of unbalanced economic dimensions:

One of the main weaknesses of the sustainable development dimension is the excessive emphasis on the economic dimension, often ignoring or not considering potential environmental and social impacts. Too much emphasis on economic growth has the following consequences:

- Improve skills and education:
- Decent work and economic growth:
- No Gaps:
- Adaptive Cultural Institutions:

Table 5. Observation result

Dimensions Observation	Observation result
Dimensions Economy	Improved skills and education Decent employment and economic growth Without gaps 4. Adaptive cultural institutions

Environmental Accounting: Economic Dimensions of Sustainability Externalities of the Palu Special Economic Zone (KEK).

In essence, economic inequality can be seen as a system, whereas poverty is the result of this system. *Sustainability Development Goals (SDG)* listed as different goals, although they are interrelated. In particular, SDG 1 without poverty emphasizes the need to end poverty in all its forms, while SDG 10 relates to a number of dimensions of inequality, including economic inequality.

Central Sulawesi, which is rich in natural resources and has a strategic route in welcoming the National Capital



(IKN), needs to improve its measurement of economic inequality. Regarding the existence of the Palu Special Economic Zone (KEK), it has an influence on economic inequality. The current phenomenon is that development and expansion of the area continues, company production activities in the area continue but have not had a direct impact on the surrounding community.

Therefore, issues such as how sustainable development will be taken into consideration, and how the management of the Palu Special Economic Zone (KEK) can do the same. M.L.Jhingan (2012:86)), sustainable development aims to maximize economic benefits, while maintaining the stock of all environmental assets and natural resources (physical, human and natural) from time to time. The sustainability of company development and production activities in the Palu Economic Zone (KEK) needs to pay attention to issues related to the economic dimension.

Strong economic growth tends to create new jobs and reduce unemployment rates, providing individuals with the opportunity to earn a decent livelihood and improving social welfare. With the availability of adequate employment opportunities, the level of poverty can be minimized, thereby reducing social disparities and improving the safety and prosperity of people's lives.

When the people of the Palu Special Economic Zone (KEK) have fair access to education, training and skills development, they become more skilled and qualified in contributing to the economic sector. The availability of an educated and trained workforce will reduce unemployment which in turn will support economic growth. A strong social dimension seeks to reduce social disparities more evenly in terms of economic opportunities. In a more equal society, more people can participate in the economy productively, and support safe and prosperous regional economic growth. When people feel safe, protected, and have good relationships between fellow citizens, this will create a stable environment for economic activities around the area.

As stated above, economic inequality is a sustainability issue and is a problem for the management of the Palu Special Economic Zone (KEK) and accounting. Considering that most of the economic activity in society occurs through various companies operating both within the Area and outside the Area, it is perhaps not surprising that their actions or activities have different negative externality impacts. Likewise, accounting forces still continue to assess company success and company performance.

Economic inequality is a form of inequality that is very important for organizational/company accounting and accountability. Due to increasing economic inequality in a region, this is increasingly receiving attention as a sustainability issue. Here accounting practices can have various implications for economic inequality.

1. Accounting influences how economic activities are regulated. For example, through the relationship between the organization and the workforce. 2. Wages and compensation schemes. For example, how many people in society receive income from the company. 3. The role of accounting in paying taxes. For example, the involvement of the accounting profession in the practice of tax avoidance and tax evasion by certain parties.

Other accounting practices related to economic inequality need to consider two aspects. Firstly, *organizing*. Like and accountability in society in the form of how to regulate economic activities. Internally, accounting and management control are used to assess processes, evaluate alternatives, and set targets. Externally, accounting will explain how the organization performed in the previous year and provide an overview of its financial status. Both Income and Wages. This second aspect talks about the payment of wages and compensation to employees.

5. CONCLUSION

Based on the results of the analysis explained in the previous chapter, the Special Economic Zone externality planning model (KEK) Palu is still relatively weak. Social responsibility or social accountability has not been implemented well, it does not exist direct social dialogue from KEK managers to the community. Regional Social Dialogue (DSK) aims to unify the concept of producing social legality.

However, from the issues found based on the four dimensions of sustainable development goals, a planning model was discovered. The sustainability externalities of the Palu Special Economic Zone (KEK) must support each other. Education, training and public awareness becomes the main problem. If this is done, knowledge, skills, are current needs and future needs or more known by the term *Green Accounting* (green accounting). *Green accounting* will become a strong foundation towards a green industry (*green industry*) and green economy (*green economy*).

6. SUGGESTIONS

Based on the discussion and conclusions above, suggestions are made regarding the regional sustainability externality planning model Special Economy (KEK) Palu, is as follows:

1. This research focuses more on the perspective of society such as government institutions, traditional leaders, religious leaders, the NGO Karang Taruna. Therefore, Future researchers are expected to conduct research into the study of Special Economic Zone documents such as regional master plans,

reliable, etc.

2. The next suggestion for researchers is: adding a dimension of local wisdom. Where local wisdom provides insight and skills that have been passed down from generation to generation from the people living around the Palu Special Economic Zone (KEK) for generations and have not yet been included in the sustainable goals agenda in Indonesia. Local crafts also provide insight into how to maintain local ecosystems, utilize natural resources sustainably, and develop policies according to the local climate. The local wisdom in question is the preservation of sustainable customary areas which have not been discussed more specifically in terms of sustainable development goals
3. Indonesian Institute of Accountants (IAI): develop environmental accounting standards to assess sustainable development issues such as social, economic, environmental, legal and governance dimensions of other activities.
4. Encourage the development of competent human resources in environmental accounting in the Palu Special Economic Zone (KEK). This includes supporting the development of environmental accounting capabilities through education and training available to the community and stakeholders.
5. Ensure that environmental accounting becomes an integral part of the decision-making process in Special Economic Zones (SEZs) Hammer. This includes providing access to information needed to compile and implement policies and strategies oriented on current and future environmental alignment.

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