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RESEARCH ARTICLE

HAS THE CIMAHI CITY GOVERNMENT IMPLEMENTED GREEN ACCOUNTING

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Abstract

This study aims to analyze the implementation of green accounting in the Cimahi City Government. The background of this research is the global environmental crisis, including waste accumulation, which requi res solutions from the public sector. Using a mixed method, research data was collected through observation, in depth interviews, and docum entation. Data analysis was carried out in several stages, namely data reduction, data presentation, and conclusion drawing. The results of this study indicate that the implementation of green accounting in the Cimahi City Government has begun, but it is still limited and not yet optimal. The Cimahi City Environment Agency has categorized enviro nmental costs into several types, such as waste management, maintenan ce of green open spaces, and pollution prevention.However, the manag ement and reporting systems are still administrative in nature and do not fully refer to the environmental cost accounting framework. This study also found that environmental management in Cimahi City is not yet comprehensive and optimal, due to limited funds in the regional budget, low public awareness, and weak enforcement of environmental laws.

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Introduction:-

Currently, the world is facing a global environmental crisis. The United Nations refers to this environmental crisis as the Triple Planetary Crisis, which consists of three environmental issues, namely climate change, biodiversity loss, and pollution crisis (Ihsan et al., 2024). This crisis has a significant impact on life on earth, including human welfare and the environment (wastecinternational.com, 2024). One of the environmental crises that most affects the environment is global waste and garbage. The World Bank (2022) estimates that global solid waste generation reaches 2.24 billion tons per year and has the potential to increase to 3.88 billion tons by 2050 if there are no significant changes in management. Plastic has become a pressing issue, with around 53 million tons of plastic waste generated each year, and around 80% of unmanaged plastic waste coming from five Asian countries, including Indonesia (inilah.com, 2025). This is evident in the fact that in 2024, around 11.3 million tons of total national waste will still not be properly managed. These national-level problems are also reflected on a local scale, one example being in the city of Cimahi.Environmental issues in Cimahi City are currently a concern due to increasing environmental damage caused by environmentally unfriendly economic activities. This environmental damage is

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generally caused by human activities in meeting their daily needs (Suningsih et al., 2021). Therefore, various environmental problems such as waste, garbage, water and air pollution, and land use change must be given more attention. As stated in Law Number 32 of 2009, concerning Environmental Protection and Management, environmental management needs to be carried out systematically and comprehensively to prevent pollution and damage to the environment. Cimahi City, as one of the industrial areas in West Java, faces significant challenges related to environmental management, particularly in waste management. Based on the CimahiCity Regional Environmental Management Performance Information Document (DIKPLHD) for 2020-2024, the priority environmental issue that remains a problem is waste management.

Based on waste generation projection data, there is a significant upward trend in waste generation every year. In 2020, the volume of waste generation stood at 507,058m^3/year and continued to increase to 523,060m^3/year in 2023. This condition was evident in 2025, when the city of Cimahi faced a post-Eid al-Fitr waste emergency with an accumulation of around 500 tons of waste at 14 waste collection points. Although the Cimahi City Environment Agency (DLH) has urged the public to sort household waste, data from the National Waste Management Information System (SIPSN) in 2024 shows that wood/twigs and food waste account for more than 40% of the total waste generated. This confirms that the problem of waste management is not only the increasing volume, but also the lack of waste processing based on sorting and recycling. This is reinforced by the results of preliminary interviews with government representatives, the community, and sanitation workers, which indicate obstacles such as low public awareness, limited funds, and poor quality of environmental management, especially in waste transportation services.

Green Accounting or environmental accounting is here to help reduce environmental problems and improve management efficiency by assessing environmental activities from a cost and benefit perspective (Sahrah et al., 2025)). Green Accounting can be a strategic solution that helps agencies identify, record, and report costs related to environmental impact management (Rahmawati & Anita, 2025). Therefore, the Cimahi City Government needs good budget planning as a form of environmental accounting implementation. This study is in line with the gaps in previous studies which show that the implementation of environmental accounting in local governments is still very lacking. Research by Sahrah et al. (2025) found that its application is still not presented in detail, while Anakotta&Lambtombar, (2024), showed that BUMDES has not implemented environmental accounting. Another study by Hartikayanti et al., (2024) showed that local government commitment to public services actually has a negative influence on the success of environmental management. The strongest impact stems from the poor quality of services experienced directly by the community, particularly because programs such as urban planning have proven to be inflexible and slow to respond to environmental complaints. Another study conducted by Atikah et al., (2024) shows that green accounting, environmental performance, and liquidity together have no effect on profitability. Another study conducted by Paramita &Indiyanti (2017), shows that the implementation of environmentally-friendly green school management has been carried out well.

Literature Review:-

The theory of legitimacy was first proposed by Dowling & Pfeffer (1975), focusing on the interaction between companies and society. According to Ogunode, (2022), this theory asserts that companies have an obligation to meet social expectations and requirements while respecting the demands, cultural values, and norms that apply in society. This legitimacy theory is used to provide a basis for how and why companies should pay attention to environmental performance and its function in reporting environmental performance (Sisdianto, 2025). Meanwhile, according to Fuadah et al., (2018), this theory is based on the concept of organizational legitimacy and emphasizes that there is a gap between the implementation of social and environmental responsibilities in line with community expectations and the financial performance achieved by the organization, as well as the reputation that the community expects from the organization. From the above definition, it can be concluded that legitimacy theory emphasizes that an organization's activities must be in line with the values, norms, and expectations of society. Organizations must demonstrate social and environmental responsibility in order to remain accepted and trusted by the public.Green accounting or environmental accounting is a term that refers to the integration of environmental costs into the accounting practices of companies or government agencies. According to the International Accounting Standards Committee (IASC) (1990), green accounting is a contemporary concept in accounting that supports the green movement in companies or organizations by recognizing, measuring, and disclosing the contribution of the environment to business processes. According to Almunawwaroh et al., (2022) green accounting is an accounting method that focuses on financial, social, and environmental transactions as a whole to produce accounting data that is useful for users in the decision-making process. The concept of environmental accounting aims to identify, record, and report costs arising from company activities related to environmental aspects, such as the use of natural resources, waste management, and

carbon emission control (Suyudi et al., 2020). From this definition, it can be concluded that Green Accounting is a modern accounting approach that not only focuses on financial aspects but also integrates environmental costs and benefits into reports and decision-making.

Green accounting serves as a strategic tool to improve an entity's transparency and accountability regarding its environmental impact. The purpose of green accounting is to improve the effectiveness of environmental management through the evaluation of environmental activities from an environmental and economic perspective (Wara et al., 2023).

According to Almunawwaroh et al., (2022), there are nine principles of cost classification for environmental control, namely:

1.Pollution Prevention Costs
2.Environmental Protection Costs
3.Environmental Restoration Costs
4.Management/Administration Costs
5.Social Promotion Activity Costs
6.Research and Development Costs

Hansen & Mowen (2007) classify environmental costs into four categories:

Environmental prevention costs:
Which are costs incurred to avoid contaminants or waste that can damage the environment, such as supplier evaluation and employee training.

Environmental detection costs:
Which are the costs of determining whether products, processes, and activities comply with relevant environmental standards, such as environmental audits and pollution testing.

Internal failure costs:
Which are the costs of activities carried out because contaminants or waste have been produced but not yet disposed of in the environment, such as the treatment of toxic waste.

External failure costs are costs:
Incurred after releasing waste into the environment, such as cleaning up polluted lakes. These costs are divided into realized costs (paid by the company) and unrealized costs or social costs (paid by external parties).

Environmental management in Cimahi City is based on national and regional regulations. The regulations referring to such control are contained in 13 paragraph 3 of Law No. 32 of 2009, which stipulates that the control of pollution and/or environmental damage shall be carried out by the government, local governments, and those responsible for businesses and/or activities in accordance with their respective authorities, roles, and responsibilities. The pollution control referred to includes (a) prevention, (b) mitigation, and (c) recovery. Furthermore, Cimahi City Regulation Number 6 of 2019, Article 11, paragraph 1, stipulates that the local government is obliged to carry out waste management, which includes (a) waste sorting, (b) waste collection, (c) waste transportation, (d) waste processing, and (e) final disposal.

Research conducted by Agrawal et al., (2022), shows that although environmental governance has broadened its perspective by involving non-state actors, norms, incentives, and market mechanisms, this approach is still limited because it only highlights environmental issues in a narrow sense, thus requiring a shift towards better governance. Research conducted by Zhao & Madni, (2021), shows that reforms in China have resulted in conflicts between economic growth and environmental protection goals. Meanwhile, research by Sahrah et al., (2025) shows that the SidenrengRappang Regency Environment Agency has implemented environmental accounting principles, but the reports presented are still general, not detailed, and have not been classified according to specific environmental activities. In addition, research conducted by Rahmawati & Anita, (2025), shows that the Community Health Center in Cipageran, Cimahi City, has implemented accounting stages such as identification, recognition, measurement, recording, and presentation of environmental costs. Meanwhile, research by Kustinah, (2022), concluded that the implementation and enforcement of sustainable development goal indicators require significant efforts from relevant institutions in each country to obtain statistical information on environmental aspects in order to implement the best

decisions made by the government and its institutions. Another study conducted by Jayanti, (2022), related to green accounting shows that environmental performance and environmental cost disclosure do not have a significant effect on profitability, but environmental performance has a significant positive effect on company value.

Methodology:-

The research method used in this study is the Mixed Method. According to Tashakkon and Craswell in Sugiyono (2023), the mixed method is a method in which researchers collect and analyze data, integrate findings, and draw inferential conclusions using two research approaches, qualitative and quantitative, in a study. The purpose of this study is to obtain in depth that can provide knowledge about the implementation of green accounting in the Cimahi City Government.

The data collection techniques used are as follows:

Observation:

In the research region, scientists make direct observations on processes and activities pertaining to financial and environmental management in order to grasp current circumstances and events happening on site.

Interviews:

Interviews were conducted with relevant key informants, such as staff or officials in the Cimahi City Government involved in environmental management and accounting.

Documentation:

Researchers collected data from various documents, such as financial reports, local regulations, and performance reports from relevant agencies, to support and supplement the data obtained from observations and interviews.

The data analysis method used is based on the Miles and Huberman model, which includes three maininterrelated activities:

Data Collection:

Data collection in qualitative research is conducted through observation, in-depth interviews, and documentation. Data collection will be carried out over several days, approximately one month. Therefore, the data collected will be varied and extensive.

Data Reduction:

Data reduction is the process of summarizing key and important data obtained from the field. Researchers will perform this reduction every time they obtain new data.

Data Display:

Data Display in qualitative research is done in the form of tables, graphs, pictograms, and the like, or in other words, briefly described, charts of relationships between categories, flowcharts, and/or the like.

Conclusion Drawing/Verification:

Conclusion Drawing is the culminating/final stage of data analysis. Conclusions are credible if the data display presented is supported by strong data

Results and Discussion:-

Regulations on Environmental Management in Cimahi City:-

Environmental management in Cimahi City is based on various regulations that refer to national and regional policies. The main national regulation used is Law No. 32 of 2009 concerning Environmental Protection and Management. As a derivative of national regulations, the Cimahi City Government has established Cimahi City Regional Regulation Number 6 of 2019 concerning Waste Management, which regulates the obligations of local governments in implementing the selection, collection, transportation, processing, and final disposal of waste. In addition, in the context of spatial planning and environmental sustainability, the Cimahi City Government also adheres to Law Number 13 of 2014 concerning the Management of Green Open Spaces in the City of Cimahi**.** Based on interviews with informants, it appears that local governments consistently strive to align all environmental policies with national regulations, as stated by the Secretary of the Cimahi City Environment Agency: "We refer to Law No. 32 of 2009 concerning Environmental Management, which was later revised in the Job Creation Law, resulting in its derivative

in local government regulations. In this case, we must comply with it, so for its implementation in Cimahi City, we disseminate information about the regulations every year and convey them to stakeholders, especially business actors."This statement shows that environmental management regulations in Cimahi City are in line with and directly refer to national regulations or Law No. 32 of 2009. The Cimahi City Government, through the DLH, also regularly conducts outreach to stakeholders, particularly business actors, so that all parties understand and carry out their environmental responsibilities in accordance with applicable regulations.

In addition to harmonizing national regulations with regional regulations, the Cimahi City Government has also begun to enforce environmental laws in practice. This is evidenced by the imposition of administrative sanctions on violators, both polluters and members of the public who violate environmental regulations in Cimahi City. According to the Regional Secretary of the Cimahi City Environment Agency, he said that: ""Environmental law enforcement in Cimahi City has now begun. The local government has imposed sanctions for environmental pollution violations by imposing fines on violators. For cleanliness violations such as littering, the government has also increased the fine to Rp 150,000 as a form of deterrent and punishment for offenders".This statement shows an increase in the commitment of the Cimahi City Government to deter environmental violations, although not yet comprehensive. The application of these sanctions is part of the supervisory and law enforcement functions of environmental management as stipulated in Article 76 of Law Number 32 of 2009, which gives local governments the authority to impose administrative, criminal, and civil sanctions on parties that damage the environment. Based on the results of interviews and documentation, it can be concluded that environmental management regulations in Cimahi City have a strong legal basis, ranging from national laws to local regulations. The Cimahi City Government's Environmental Agency plays an important role as the main implementer of these policies by ensuring alignment between policies and local conditions through socialization and the preparation of work programs from DIKPLHD. However, despite the existence of regulations on environmental management in Cimahi City, implementation in the field still faces challenges, particularly in terms of low public awareness of environmental management.

When linked to Dowling & Pfeffer's Legitimacy Theory (1975), the environmental management policies or regulations implemented by the Cimahi City Government are an effort to gain social legitimacy from the community through compliance with and enforcement of the law. The government seeks to demonstrate its responsibility in maintaining a balance between economic development and environmental sustainability in order to remain accepted and trusted by the public. This finding is in line with the research by Hartikayanti et al. (2024), which states that the effectiveness of environmental policies is greatly influenced by government commitment, quality of public services, and community participation in maintaining environmental sustainability. Strong regulations without sustainability monitoring and social support from the community do not guarantee the success of environmental management performance.

Planning Conducted by the Cimahi City Government in Environmental Management:-

Environmental management planning carried out by the Cimahi City Government is an important step in determining the direction of strategies and policy priorities to be implemented by the local government. In the context of Cimahi City, environmental management planning activities are formulated in a tiered and integrated manner through the Regional Long-Term Development Plan (RPJDP), the Regional Medium-Term Development Plan (RJMPD), and the Regional Strategic Plan (Renstra). All of these plans have to fit with national and state policy direction. The Regional Environmental Management Performance Information Document (DIKPLH) is among the most vital instruments in this process. Apart from being a formal document, DIKPLH is also a planning tool that combines environmental data with public policy to enable DLH to set project priorities. such as monitoring of pollution, provision of green open space, and better garbage management.Based on interviews with informants, it was explained that the preparation of environmental work programs in Cimahi City refers to data and information from the Environmental Management Performance Information Document (DIKPLHD). This was conveyed by the Secretary of the Cimahi City Government's Environment Agency: "In developing our work program, we are guided by the Regional Long-Term Development Plan (RPJDP) and the Regional Medium-Term Development Plan (RPJMD), so the direction of development must also be in line with plans at the provincial and central levels. To determine priorities, we use DIKPLH as a basis, so from there we can see the most pressing environmental issues that need to be addressed."

The quote shows that the Cimahi City Government has implemented a planning approach based on existing environmental data. Through DIKPLHD, DLH maps actual problems. The problems addressed are referred to as

priority environmental issues. The priority issues still under discussion are water quality and quantity, air quality, waste management, land use, and environmental management policies. These priority issues are then adjusted to policy directions and budgeting to ensure they are more targeted. In addition, the aspect of funding is an important component of environmental planning. The Secretary of the Cimahi City Government's Environment Agency explained: "Funding for environmental activities does not only come from the Cimahi City Budget, but also from the West Java Provincial Budget and the State Budget. However, all program proposals must comply with the provisions of the Ministry of Home Affairs, especially those related to performance indicators and compliance with applicable regulations. If a program does not comply with these regulations, it will usually not be approved at the verification stage".

She Also Said:
"For certain activities, we can also request assistance from the province or central government, but the request must be in line with the program plan at the higher level. Cooperation with the private sector is possible, but the amount is not yet significant."The interviews showed that the planning process in Cimahi City applies the principle of fiscal accountability, whereby every activity must have a legal basis and performance indicators in order to be approved in the regional budgeting system. However, bureaucracy across city, provincial, and central government levels often hinders the acceleration of program implementation. In addition, the potential for collaboration with the private sector is still limited, even though such cooperation could support sustainable financing in the context of green accounting.

To support the interview results, researchers conducted observations in Central, North, and South Cimahi. Air quality in Central Cimahi is still poor due to heavy traffic and small industrial activities, while North Cimahi is better because it has many green areas. Waste management is already in place, but sorting is not yet optimal and there is still accumulation at the temporary storage site. Water quality in the Cimahi River and its surroundings shows mild to moderate pollution. Green spaces in North Cimahi, such as Kartini Park, are well maintained, but in South Cimahi and parts of Central Cimahi, they are still limited and not yet optimally utilized. The results of the observation reinforce the findings that the planning carried out by the Cimahi City Government already has a clear direction and basis, but its implementation still faces obstacles in terms of equal distribution of environmental quality between regions, limited funds, and low community participation. When linked to Dowling & Pfeffer's Theory of Legitimacy (1975), the Cimahi City Government's efforts to develop data-based planning and comply with national regulations can be seen as a form of moral and social responsibility to gain public legitimacy. By demonstrating transparency and commitment to environmental preservation, the government seeks to maintain public trust in the credibility of its policies.

Implementation of Green Accounting in the Cimahi City Government:-
To assess the degree of follow-up on environmental management planning carried out by the Cimahi City Government, green accounting is used to categorize environmental costs into many categories. Directly connected to environmental conservation and impact management is the category of activities meant to gauge the extent of public funding allotment and use. reflects the local government's commitment to sustainable development. The three main categories of environmental cost management in Cimahi City Government are trash management, upkeep cost Open space green (RTH) and pollution prevention expenses: Below is a detailed budget that was executed and achievement % over the 2020–2024 period:

Table 1: Table of Environmental Management Budget in the Cimahi City Government for 2020-2024 (In Million of Rupiah)

Year	Waste Management Costs	Green Open Space Management Costs	Pollution Prevention Costs
2020	19.212	882	991
2021	26.922	2.624	3.724
2022	28.532	1.742	2.391
2023	34.372	1.281	3.002
2024	25.969	1.628	5.104

Sources: Processed Data

According to Table 1, it is obvious that Cimahi's environmental management budget between 2020 and 2024, cities varied with an increasing trend in multiple cost categories. Especially in expenditures associated with pollution reduction and waste management. In 2020, the waste from 19.21 billion IDR to 34.37 billion IDR, management budget grew considerably in 2023 saw a rise before a small drop to IDR 25.96 billion in 2024. The rise reflects the the government's increased focus on waste and waste management, which is a a significant issue in Cimahi City; in the meantime, green area upkeep expenditures varied between years, peaking in 2021 at IDR 2.62 billion, which coincided with the implementation of the public area greening initiative for the city park. But in the the green space budget often decreased the next year owing to land restrictions and the focus of fund distribution on the waste management sector. Meanwhile, pollution In 2024, preventative spending rose dramatically to reach IDR 5.10 billion.

Tabel 2: Realization of Environmental Management Costs by the Cimahi City Government for 2020-2024 (In Million of Rupiah)

Year	Waste Management Costs	Green Open Space Management Costs	Pollution Prevention Costs
2020	18.187	840	816
2021	22.777	2.209	2.573
2022	25.308	1.631	2.066
2023	31.291	1.201	2.742
2024	23.674	1.585	4.920

Sources: Processed Data

Based on Table 2, it can be seen that the realization of environmental management costs in Cimahi City in 2020-2024 is quite stable, with a high level of implementation each year. The three groups of activities, namely waste management, green space maintenance, and pollution prevention, experienced reasonable fluctuations due to adjustments to financial capabilities and environmental program priorities. In general, the budget realization shows that the programs planned by the Cimahi City Government's Environmental Agency (DLH) have been implemented quite well and are in line with the environmental priority issues contained in the Environmental Management Performance Information Document (DIKPLHD) and aligned with the RPJMD. In addition, there are changes and central regulations that affect the implementation of work programs, as explained by the Technical Reviewer of the Financial Program Policy, who stated that some activities cannot be continued every year due to regulatory adjustments: “Indeed, between 2020 and 2024, not all of them have the same work program. Some are in the current year, while others are not in the following year. This happened because of changes in regulations, not because of our wishes, so we had to adjust.”The excerpt shows that each annual cost grouping is adjusted in accordance with the work program stipulated in the regulations, resulting in differences in terms of cost grouping as well as the budget and its realization.To obtain a clearer picture of the level of environmental management implementation in Cimahi City. This graph illustrates the percentage of realization and budget for management costs in the Cimahi City Government for 2020-2024. This graph shows the extent to which the programs and activities planned by the Cimahi City Government through the Environmental Agency (DLH) can be realized each year.

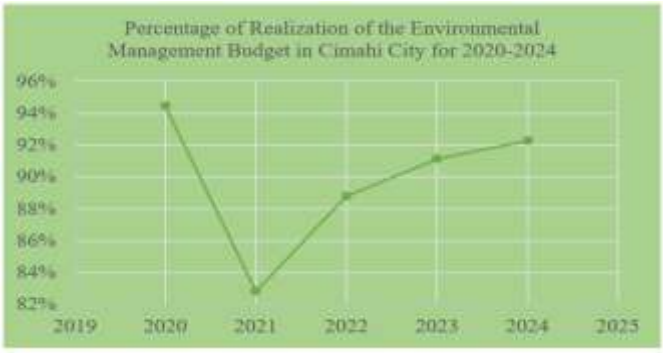

Figure 1: Graph of the Percentage of Realization of the Environmental Management Budget in Cimahi City for 2020-2024

Based on Figure 1, it can be seen that the percentage of budget realization for environmental management in Cimahi City during 2020–2024 fluctuated, but overall still showed a fairly high achievement of above 85%. In 2020, the realization rate reached around 94%, then decreased in 2021 to around 83%, which was influenced by budget refocusing due to the impact of the COVID-19 pandemic and adjustments to local government spending policies. From 2022 to 2024, the percentage of realization gradually and steadily increased again, reflecting the recovery of regional fiscal capacity and increased consistency in the implementation of environmental work programs.When linked to the theory according to Hansen and Mowen (2007), environmental costs can be grouped into four main categories, namely prevention costs, detection costs, internal failure costs, and external failure costs. Based on the cost classification conducted by the Cimahi City Environment Agency for the 2020-2024 period, it is known that local governments have begun to gradually implement Green Accounting practices through the classification of environmental costs. There are three main categories, namely:

Waste Management Costs:
These costs include waste transportation, landfill operation, and hazardous waste management. Based on Hansen and Mowen's theory, they also include prevention costs and some internal failure costs. However, observations show that waste management in Central, North, and South Cimahi is still not optimal, as evidenced by the large amount of waste piling up in waste collection points, rivers, and streets.

Green Open Space (RTH) Maintenance and Conservation Costs:
These include the costs of park maintenance, tree planting, and green area rehabilitation. This includes prevention costs as it aims to maintain environmental quality. Despite an increase in the budget, the condition of green open spaces such as Kartini Park and Cimahi Square is still less optimally maintained due to damaged facilities and accumulated waste.

Pollution Prevention Costs:
Includes activities such as monitoring water and air quality and hygiene education. Includes detection and prevention costs according to Hansen and Mowen. Although the budget realization is above 90%, observations show that air quality in Central Cimahi is quite good and water pollution in the Cimahi River and its tributaries has not been optimally addressed.The results of the cost grouping analysis show that the implementation of Green Accounting in the Cimahi City Government is still in its early stages. Although the cost classification does not yet fully follow the formal environmental accounting system, the grouping of these three types of environmental costs already shows a clear direction towards the implementation of green accounting. Based on Dowling & Pfeffer's Legitimacy Theory (1975), this step is an effort by the government to gain social legitimacy through budget transparency and environmental cost reporting, as well as to strengthen its image as an institution responsible for the sustainability of Cimahi City.

Weaknesses and recommendations that can be provided to improve the implementation of green accounting in Cimahi City:
In managing the environment in Cimahi City and implementing green accounting, there are certainly obstacles faced by the Cimahi City Government in its implementation. Based on interviews with the Secretary of the Cimahi City Environment Agency (DLH) and technical advisors on financial policy programs, several major obstacles to the implementation of green accounting in the Cimahi City Government were identified. These obstacles include limited funding, low environmental awareness, and relatively weak enforcement of environmental laws. The most dominant obstacle in the implementation of green accounting in Cimahi City is limited access to funding outside the Regional Revenue and Expenditure Budget (APBD). Though yearly environmental cost is distributed, the DLH accepts that other sources of financing, including support from the province, the central government, or private collaborations. This was conveyed by the Secretary of the DLH of Cimahi City: “The weakness is that... funding is not really an obstacle. But, the first issue is indeed funding, and the second is that we do not have or lack access to funding sources other than the regional budget. It is easy to spend the regional budget, but we already have our priorities, which are mandatory and which are basic services.” These limitations make it difficult for local governments to expand the scope of environmental programs, especially in the areas of pollution prevention and improvement of waste management facilities. In the context of Hansen & Mowen's (2007) theory, this condition illustrates the lack of environmental prevention costs and detection costs, where preventive financing is actually the most crucial factor in reducing the costs of environmental failure in the future.

Regarding funding, informants also said that:
"Regarding funding, we could actually request assistance from the provincial or central government, but the request must be adjusted to the program plans at the higher levels. Cooperation with the private sector is possible, but the amount is not yet significant."The next weakness relates to the low level of public awareness of the importance of environmental management, particularly in sorting and disposing of household waste. The DLH secretary explained that many residents are still not accustomed to sorting waste by type, even though the government has established separate collection schedules: "Yes, not everyone knows yet. Therefore not everyone is categorizing their trash. So actually, if it has been organized, it's likely because there are scavengers."However, there is also a perception among the public that sanitation workers often mix sorted waste back together. However, the DLH emphasizes that the transportation system is actually organized based on collection days: "Actually, we already have a program for transporting organic and inorganic waste on different days. Now, on Mondays, only organic waste is transported, then on Tuesdays, inorganic waste, then on Wednesdays, organic waste again, so it's alternating. This makes it easier, because that way, they won't get mixed up." This situation indicates a gap in communication and understanding between government technical policies and practices in the field. Within the framework of Legitimacy Theory (Dowling & Pfeffer, 1975), this can weaken the legitimacy of the government because the public does not fully understand and support the policies issued. Legitimacy will be achieved when policies and public behavior are in harmony with environmental sustainability values.In addition, although the Cimahi City Government has imposed administrative sanctions for several environmental violations, their effectiveness is still considered weak because the fines are relatively small. Technical reviewers of the financial program policy say that: "There are also sanctions related to waste management, whereby littering is considered a minor offense and is punishable by a fine, but the fine is not large. Last year, the fine was 25,000 rupiah, but this year it is 150,000 rupiah."This lack of optimal law enforcement has led to frequent environmental violations. Based on Legitimacy Theory, improving law enforcement is one way for the government to strengthen public perception of its commitment to the environment. Therefore, the DLH needs to evaluate the effectiveness of sanctions and ensure that violators also undergo administrative follow-up, not just pay fines.

The recommendations provided and expectations of informants regarding environmental management in Cimahi City indicate that the Cimahi City Government needs to increase the frequency of environmental monitoring and expand the scope of administrative and criminal penalties to make the deterrent effect more effective. Furthermore, regarding the implementation of green accounting, the Cimahi City Government needs to strengthen its environmental cost accounting system, such as by establishing specific regulations related to green accounting in local government, so that all environmental management activities can be measured and reported in a structured manner through a standardized environmental cost system. In addition, the Cimahi City Government also needs to develop a mechanism for classifying and reporting environmental costs that is integrated with government accounting standards (SAP) and Sustainable Development Goals (SDGs) indicators. The classification of these costs should not only refer to routine administrative activities but must also be able to identify environmental prevention costs, detection costs, and external failure costs as stated by Hansen & Mowen (2007).Researchers likewise recommend using a model of cooperation Hexa Helix as a comprehensive strategy to improve execution of Green Accounting based on research findings and data analysis. This theory builds on earlier ones including Triple Helix, promoted by Etzkowitz and Leydensdroff. Zakaria et al. (2019) developed six models for environmental management in their research. This model serves not just as a pattern for cross-sector cooperation but also as a conceptual framework to increase funding, innovation, and accountability for the environment.The following are six collaboration models that can be used:

Figure 1: Hexa Helix Model

Government:-
Play a role in formulating regional regulations that explicitly regulate the Green Accounting system and environmental cost reporting mechanisms. The government needs to provide green budgeting tools and open access to inter-agency cooperation.

Education/Academic:
Play a role in providing scientific assistance, training, and developing an empirical data-based environmental cost classification system. Universities such as Jenderal Achmad Yani University can become research partners and developers of environmental accounting frameworks for the region.

Through Corporate:-
Social Responsibility (CSR) programs, the private sector can become a partner in financing and innovation, with contributions in the form of conservation funds, waste management, and the provision of green facilities. These CSR funds can be integrated into Green Accounting reports as environmental investment costs.

Community:
Acts as a driver of community-based environmental activities such as waste banks, urban farming, and water conservation activities. Community activities provide supporting data in evaluating the social benefits of implementing Green Accounting.

Mass Media:
Serves as a means of publication, education, and social control. Local media can support transparency in environmental financial reporting and increase the legitimacy of the government in the eyes of the community.

Low & Regulation:
Participating in formulating legal and policy frameworks that support the implementation of Green Accounting, including environmental permit oversight and the application of sanctions for violations. Strict regulations ensure efficient and accountable implementation.Through this collaborative approach, each component of the hexa helix supports each other in realizing sustainable environmental management. It is hoped that this method can increase the social legitimacy of local governments, because all policies taken are not only based on regulations, but also the result of cooperation with all levels of society. The implementation of Green Accounting based on the hexa helix collaboration enables the Cimahi City Government to develop an environmental reporting system that involves participation, transparency, and adaptability to regulatory changes. In this way, Green Accounting functions not only as an administrative tool but also as a strategic means to achieve a balance between economic growth, environmental sustainability, and community welfare in the city of Cimahi.

Conclusion and Future Scope:-

The results of this study indicate that green accounting has been implemented in the Cimahi City Government, but has not been fully maximized. The government, through the Environmental Agency, has grouped several environmental costs into several categories, such as waste management, maintenance of green open spaces (RTH), and pollution prevention. These efforts are a positive first step in developing an environmental accounting system at the regional level. However, environmental management in Cimahi City as a whole is still not comprehensive and has not been optimally integrated into all aspects of regional policy and financial reporting. This condition is caused by several obstacles, including limited funding sources outside the regional budget, low public awareness of waste management, inconsistency between programs due to policy changes, and weak enforcement of environmental laws. In addition, the accounting system used is still administrative in nature and does not accommodate specific environmental cost classifications in accordance with the environmental cost accounting framework proposed by Hansen & Mowen (2007), which includes prevention costs, detection costs, internal failure costs, and external failure costs.The main limitation of this study lies in the lack of access to information on environmental accounting records in the Cimahi City Government, so that the analysis of the technical aspects of green accounting implementation is still limited to policy and program implementation. In addition, the scope of the study, which was limited to one region, means that the results cannot yet be generalized. Further research is recommended to involve more detailed accounting data and make comparisons between regions in order to obtain more comprehensive results.

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