

Urgency and Impact of Green Taxes Implementation in Encouraging Green Business Post Covid-19

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ABSTRACT

This study aims to examine the urgency, impact and strategy of Green Taxes in encouraging Green Business after the Covid-19 pandemic. This study uses a qualitative approach with a comparative descriptive type of research, in which the application of Green Taxes in various countries for the purpose of encouraging Green Business is compared to the conditions in Indonesia. The results of the research show that environmental damage due to industrial activities that occur in Indonesia can harm the country because, coupled with the COVID-19 pandemic, the end of which is not yet known, it will increase the state's health spending. It. Many countries have successfully implemented Green Taxes and changed their business patterns to be environmentally friendly, although the negative impact of the green tax implementation, i.e. a decrease in net profit in the business sector, can result in layoffs and a decrease in tax revenue in several sectors. The application of Green Taxes in Indonesia is still at the level of the domestic tax function, which can be seen in the increasing target and realization of Green Taxes each year. The government must be more assertive in enforcing Green Taxes and be transparent in the use of the funds. Supervision in the implementation of the green tax policies must also be improved so that the expected goals can be achieved.

1. INTRODUCTION

The World Health Organization (WHO) has released the results of an investigation into the origin of the coronavirus that caused the COVID-19 pandemic. There are four possible causes: First, the coronavirus is acquired through direct contact with the host species; second, the coronavirus is transmitted from bats through other animals (intermediate species); third, transmission of the coronavirus occurs through imported frozen food; and the last possibility is the leak of the SARS-CoV-2 virus at the Wuhan Institute of Virology. Until today, WHO is still investigating the origin of the Coronavirus Covid-19 (Sumartiningtyas, 2021). Of these possibilities, transmission of the virus from bat animals to humans through other animals is the most likely thing to happen. The virus, which first appeared in Wuhan-China at the end of 2019, continues to spread throughout the world. The spread of the coronavirus is still increasing every day. The total confirmed cases of Covid-19 in the world until May 2, 2021 reached 153 million cases with the death toll of more than 3 million people. (Worldometer, 2021).

The high rate of transmission of this virus has had an impact on various sectors, especially health. There are many negative impacts that arise, including hospitals being overwhelmed in handling the increasing number of patients, health workers at high risk of contracting COVID-19 if they do not get proper Personal Protective Equipment (PPE) when dealing with COVID-19 patients, patients feeling depressed because no clear cure has been found to cure the disease and there are many cases of death, and many still have a stigma towards health workers as they are considered to be carriers of the virus from hospitals where COVID-19 patients are treated. Basically the transmission of the corona virus can be prevented by maintaining health and hygiene. WHO has recommended basic prevention of corona virus transmission, including regularly washing hands with soap, covering nose and mouth especially when sneezing or coughing, and cooking meat or eggs well. WHO also recommends avoiding direct contact with people who show symptoms of COVID-19, such as shortness of breath, coughing and sneezing. Each individual is also expected to be able to increase their body's immune system so that it is not easy to contract the corona virus. This of course needs to be supported by a healthy environment.

The impact of the COVID-19 pandemic has also greatly affected the world's economic and social sectors. The three major impacts on the economy that are felt are the weakening level of consumption or purchasing power, uncertainty about when the pandemic will end and the impact of investment levels that can have implications for the cessation of a business, and falling commodity prices. These prompted the government to take swift action to address the problems. Several things that the government has done are creating a national economic recovery program, promoting vaccination programs, providing direct cash assistance to eligible citizens, and providing business capital assistance for SMEs/MSMEs (Fikri, 2021).

The uncertainty caused by the COVID-19 pandemic has forced the government to focus more on policy making. The number of affected business sectors also requires special attention from the government. One of the long-term policies that can be applied to resolve the economic crisis and environmental sustainability is the implementation of Green Taxes. Green Taxes is one of the real steps from the government to respond to the issue of environmental damage. With the implementation of Green Taxes, every company or industry that causes environmental damage will be subject to mandatory levies (the polluter pays principle). This will certainly cause controversy in the corporate sector, considering that Green Taxes cause companies' production costs to increase, their profits to decrease and several other effects. However, this must be done so that the business sector participates in preserving the environment. Once implemented, Green Taxes will gradually encourage companies to run Green Business where in addition to seeking profits, companies are also encouraged to continue to innovate in limiting the use of chemicals. Some concrete steps in Green Business implementation are the use of environmentally friendly chemicals, the application of 3R (reduce, recycle, recover) in the implementation of the production process, the use of low-carbon technology, reducing the amount of waste, using water wisely and empowering competent human resources. Although currently there are companies that implement Green Business, the government still has to make a policy to continue to encourage an increase in number of Green Business in Indonesia.

The tax policy that has been implemented in Indonesia so far refers to the budgetary function, while the implementation of tax as a regulatory function is still not optimal. Many countries have implemented Green Taxes. The European Environment Agency noted that the contribution of green tax in 2003 to total tax revenue was as follows: Denmark (10.27%), Netherlands (8.93%), United Kingdom (7.57%), Canada (3.99%), France (4.91%), Germany (7.44%), Japan (6.58%), Norway (6.86%), Sweden (5.84%), and the United States (3.46%). The government will face difficulties in implementing a policy related to the environment without Green Taxes. Indeed, the main key in tackling environmental problems is cost, and Green Taxes is one of the most effective steps to reduce environmental pollution and its management costs (Makmun, 2009).

Several companies in Indonesia have implemented Green Business and have helped reduce the amount of pollution they cause. Here are 10 companies that have made eco-friendly strategies:

Table 1. Ranking of Eco-Friendly Companies in Indonesia

| No | Company Name | Climate Risk |
|-----|----------------------------|--------------|
| 1. | Unilever | 2,31 |
| 2. | L'Oreal AS | 2,57 |
| 3. | Danone | 3,28 |
| 4. | Nestle | 3,59 |
| 5. | Colgate-Palmolive Co. | 3,93 |
| 6. | Henkel AG | 4,32 |
| 7. | Anheuser-Busch InBev NV | 4,43 |
| 8. | PepsiCo Inc. | 4,59 |
| 9. | Diageo Plc | 4,65 |
| 10. | Reckitt Benkiser Group Plc | 4,97 |

Source: CDP, Bloomberg

From the data above, it can be seen that Unilever is a pioneer in efforts to reduce emissions and maintain the stability of natural ecosystems to prevent climate change in Indonesia. The climate risk represents how ready the company is to address the climate risk; the smaller the score, the more ready the company is (Adinda, 2019). Human survival on this earth is strongly influenced by environmental conditions. If environmental conditions are damaged, humans cannot live comfortably and will

experience difficulties, especially in terms of health. Human life is certainly expected to last for a long time. However, if the earth continues to be damaged, then the share of human life on earth will also decrease. The 2017 National Environmental Quality Index (IKLH) shows a tendency for fluctuating Air Quality Index (IKU) and Water Quality Index (IKA) values. In the last six years the quality of air and water has not shown significant improvement. (Indonesia, 2017)

Previous research regarding Green Business has also been carried out previously by (Dicmonaite, 2014) where the results of this research show that the benefits of implementing Green Business are environmental greening that can be felt and the opportunity to show environmentally friendly awareness will open up opportunities to increase new income or new opportunities.

It is hoped that this business strategy can be applied by all companies to help the government preserve the environment. The importance of overcoming environmental, health and economic problems, especially after the COVID-19 pandemic requires the government to be more assertive with every policy. With or without the COVID-19 pandemic, implementing Green Taxes is an excellent step to prevent further environmental damage. The purpose of this study is to examine the urgency, impact and strategy of Green Taxes in encouraging Green Business. The low awareness of companies in implementing Green Business makes the authors interested in analyzing "The Urgency and Impact of Implementing Green Taxes in Encouraging Green Business Post-Covid-19".

2. LITERATURE REVIEW

Green Business is an organization that is committed to the principles of environmental sustainability in its operations, seeks to use renewable resources and tries to minimize the negative environmental impact of its activities (Čekanavičius, Bazytė, & Dičmonaitė, 2014). In practice, green business can take the form of environmentally friendly packaging, use of natural materials, waste reduction, eco-labelling, environmentally friendly buildings, waste segregation, and so on. Green Business agents (Čekanavičius et al., 2014) consist of customers, governments and business people.

The government in encouraging the creation of green business can make a fiscal policy, one of which is by applying Green Taxes. Green Taxes is one of the environmental policy instruments with a Market-Based Instrument (MBI) approach, which offers economic incentives to polluters who are able to reduce pollution in any way / provide economic incentives based on market mechanisms (Singhal, 2018). More specifically, Green Taxes are a Price-Based MBI classification because the application will encourage changes in business and consumer behavior due to the final price that arises (MacEachern, 2013).

Green Taxes are taxes on environmental contaminants on goods and services whose use contributes to pollution (Carattini, Baranzini, Thalman, Varone, & Vöhringer, 2017). Green Taxes are a form of Pigouvian Tax, which is a tax levy on negative externalities for the environment due to an economic activity carried out (Selvi, Rahmi, & Rachmatulloh, 2020). Green Taxes are divided into 4 categories (European Union, 2013): energy taxes (levies on energy production and energy products such as taxes on coal, diesel, electricity, etc.), transport taxes (levies on ownership and use of motorized vehicles), pollutant taxes (levies on emissions and pollution arising from economic activities), and resource taxes (levies on the use of natural resources such as water, forests, flora and fauna). The application of Green Taxes can make the price of goods/services that have a negative impact on the environment more expensive. In economic principle, when the price increase, the demand will decrease.

3. METHOD

This study uses a qualitative approach. The type of research is descriptive comparative research, in which the researchers compare the application of Green Taxes in various countries in encouraging green business with the condition of Indonesia. Data was collected through observation and literature study. The author conducted the study by collecting data from various sources, both in previous research journals and other trusted sources. The author also conducted field observations by observing appropriate Green Taxes activities to be implemented in Indonesia. This study uses four stages, namely data collection, data reduction, data presentation and inductive conclusion drawing (Sugiyono, 2017).

4. RESULT AND DISCUSSION

The Urgency of Green Taxes in Indonesia

The government expenditure budget is inseparable from the health expenditure budget which has been calculated in the State Budget (APBN). It is known that the ratio of the health budget each year tends to increase. In 2017 the ratio of the health budget was 4.6% and increased to 4.9% in 2018. The increase in the ratio also occurred in 2019 and 2020, namely to 5% and 5.2%. This is as listed in the following table:

Table 2. Health Budget in 2015-2020 (Billion Rupiah)

| Health Budget Components | 2017 | 2018 | 2019 | 2020 |
|--|--------------------|--------------------|--------------------|--------------------|
| Health Budget Through Central Government Expenditure | 70.817,9 | 82.009,1 | 89.758,7 | 97.249,2 |
| Health Budget Through Transfers to Regions and Village Funds | 21.348,1 | 27.028,1 | 33.355,0 | 34.930,3 |
| Health Budget Through Financing | - | - | - | - |
| Total Health Budget | 92.166,0 | 109.037,2 | 123.113,8 | 132.179,5 |
| Total State Expenditure | 2.004.076,0 | 2.213.117,8 | 2.461.112,1 | 2.540.422,5 |
| Health Budget Ratio (%) | 4,6 | 4,9 | 5,0 | 5,2 |

Source: data-apbn.kemenkeu.go.id, 2021

The level of the Health Budget Ratio which tends to increase makes spending on health costs increase, too. Especially at the end of 2019 there was an outbreak of the corona virus which is now referred to as the Covid-19 Pandemic. The emergence of this virus has a direct impact on the increase in health costs. If not given special attention, the costs incurred will naturally interfere with other state expenditures. In addition to focusing on the current pandemic, the government must also not ignore other health problems that have occurred for a long time, such as air pollution due to industrial fumes and motor vehicles, etc. Air pollution has a significant impact on life and the environment. Poor air quality will interfere with health. The process of combustion activities carried out by industrial plants produce toxic fumes which are then released into the air. Massive mining and excessive use of electricity also contribute to environmental pollution. Sources of these pollutants will produce a dispersed particulate matter, sulfur dioxide, carbon monoxide, nitrogen oxides, lead, and ozone. If these pollutants enter the human body, the consequences will be fatal and interfere with health. Some of the diseases caused by air pollution are lung infections, lung cancer, asthma attacks, developmental disorders, coughing, difficulty breathing, heart disease and even death.

If explored more deeply, the pollution that occurs mostly comes from industrial activities. Various types of waste are generated, including liquid waste, solid waste such as electronic waste, cloth residue, cables and so on, as well as waste in the form of gas molecules that will have a negative impact on the living things and the environment. Many industry players are irresponsible and do not treat waste properly. The industry players should pay fines to the state for the losses incurred. Therefore, strict regulations such as the Green Taxes policy are needed. The imposition of Green Taxes, in addition to increasing the responsibility of industry players for the resulting environmental pollution, is also expected to change the business pattern in which industry players switch to using environmentally friendly materials in their production activities and treat the waste produced properly. For example in the transportation industry, if every purchase of fuel is subject to high taxes, people will be encouraged to choose other, more affordable alternatives. People can switch to using public transportation or vehicles that use environmentally friendly fuels with low taxes. In this way, transportation industry players will be encouraged to change their business patterns to become more environmentally friendly.

So many industrial businesses in Indonesia cause air pollution and waste that damage the environment. In May 2020, the sewage pipe of PT Rayon Utama Makmur (RUM) leaked so that the waste flowed into the river that passed through residents' houses. This caused contamination of well water, and local residents experienced skin irritation and itching. The waste produced by PT RUM looks frothy, black, green, and yellow and smells bad. It also affected the river ecosystem, where many fish died. Another impact felt by residents was that they had to buy clean water for their daily needs. This certainly makes it difficult for the innocent citizens. Air pollution has also been caused by the industrial

effect of PT Bumi Mekar Hijau which in 2012 caused fires of 20 thousand hectares of land. These forest fires resulted in the destruction of habitats that lived in the forest. The smoke from these fires caused ARI, asthma, lung disease, etc. The smog caused by forest fires can interfere with transportation visibility. Global warming and climate change will also be felt due to the spread of carbon dioxide gas and other gases into the air. Other negative impacts are deforestation which results in landslides or floods, reduced clean water, and drought due to insufficient trees that accommodate water reserves.

The Ministry of Energy and Mineral Resources (ESDM) has recorded that there were 10 oil and gas companies that released tens of thousands of tons of hazardous and toxic waste (LB3) in 2018. The 10 companies are as shown in the following table:

Table 3. Ten Oil and Gas Companies Producing the Largest Hazardous Waste

| No | Company Name | Hazardous and Toxic Waste | Management Cost (US\$) |
|----|---------------------------------------|---------------------------|------------------------|
| 1. | PT. Chevron Pacific Indonesia | 30.791,00 tons | 4,64 million |
| 2. | Exxon Mobil Cepu Ltd | 194,75 tons | 52,31 thousand |
| 3. | PT. Pertamina | 18.457,00 tons | 3,56 million |
| 4. | PT. Pertamina Hulu Mahakam | 13.491,30 tons | 1,68 million |
| 5. | PT. Pertamina Hulu Energi ONWJ | 100,60 tons | 91,55 thousand |
| 6. | PT. Pertamina Hulu Energi OSES Ltd | 152,50 tons | 59,74 thousand |
| 7. | Medco E&P Natuna | 253,67 tons | 104,5 thousand |
| 8. | Conoco Philips Indonesia | 269,00 tons | 486 thousand |
| 9. | PT. Pertamina Hulu Energi Sanga-sanga | 1.483,86 tons | 166,41 thousand |
| 10 | Petro China Internasional Jabung | 5.003,67 tons | 1,44 million |

Source: Ministry of Energy and Mineral Resources, 2018

From the data above, it is known that PT. Chevron Pacific Indonesia became the company with the largest hazardous and toxic waste in 2018 in the category of oil and gas companies. The waste came from the company's operational activities in Riau. The company should pay a waste management fee of US\$ 4.64 million, with details of US\$ 3.2 million for the cost of managing petroleum contaminated soil (TTM) and US\$ 1.44 million for the cost of managing waste from the rest of the operation. The second largest producer of hazardous and toxic waste in the category of oil and gas companies is PT. Pertamina with 18,457 tons of hazardous and toxic waste in 2018. In addition to these 10 companies, there are still many companies that produce industrial waste (CNN Indonesia, 2019). Environmental damage due to this waste occurs due to the absence of strict rules on the case.

Currently, the policies implemented in Indonesia are only limited to supervision. In fact, there were laws that control in detail the protection and management of living areas (PPLH). However, this provision has changed since the enactment of the Job Creation Law in 2020, which states that the use of natural energy sources, which previously required an area permit, now only requires area approval. This change resulted in the loss of stages of the area permit. Not only the loss of area permits and the EIA evaluation commission, there are also provisions that narrow the rights of residents to report comments or complaints. This creates an opportunity that allows EIA to be carried out secretly. This policy is certainly not effective in reducing environmental pollution.

Basically, the government can intervene to maintain the quality of the environment in two ways, namely cultivating behaviors that can preserve the environment such as imposing levies to finance environmental services, and correcting activities that can damage the environment by taxing parties whose economic activities have a negative impact. Thus, intervention can be done by implementing a tax policy. (Nurpratiwi, 2019). Many countries have taken into account the imposition of Green Taxes. One of the countries that have implemented a Green Tax is Israel. The Green Tax in Israel is applied to vehicle emissions. It is hoped that this will encourage people to choose low-emission vehicles. In addition, the tax is also expected to affect vehicle production activities. Currently, Indonesia also needs to make a Green Taxes policy to help reduce environmental damage and change the business pattern of industry players (Green Business).

Impact of Green Tax Implementation

Business-Environmental Aspect

The following are the positive impacts of green taxes on the environment (Rademaekers, Laan, Smith, Breugel, & Pollitt, 2011):

- a. The Netherlands and Cyprus impose taxes on the use of water resources and both countries have succeeded in reducing groundwater use
- b. The UK and Sweden apply an aggregate tax. Aggregates are rocks and gravel used in construction. This rock extraction residue has a negative impact on the environment. The UK and Sweden have succeeded in encouraging business people to recycle aggregate residue so that negative externalities on the environment are reduced.
- c. Ireland and Denmark impose a tax on plastic. Both countries have succeeded in reducing the production of plastic waste both from industry and households
- d. Denmark applies a tax on pesticide use and has succeeded in increasing the growth of organic farming in the country
- e. Austria and Lithuania impose levies on tree felling. Both countries have succeeded in reducing the rate of deforestation.
- f. Germany and France impose levies on water pollution. Both countries have succeeded in forcing the industry to treat the waste water left over from production.

Business-Economic Aspect

The following is the impacts of Green Tax implementation on the economy:

- a. Increases new sector tax revenue

Green Taxes are a new source of tax revenue for a country. In European Union countries, Green Taxes account for 6% of total tax revenue which is equivalent to 2.4% of Gross Domestic Product (Schlegelmilch & Joas, 2015). The increase in tax revenues from the environmental sector in the European Union shows that there is actually an increase in environmental damage.

- b. Lowers the net profit of the business sector

With the imposition of Green Taxes, the business sector automatically has to bear a larger tax burden, resulting in a decrease in net income in many business sectors.

- c. Causes Work termination

The imposition of green taxes in the business sector causes a decrease in the sector's income, which automatically affects the use of labor. The business sector will reduce labor in order to reduce production costs.

- d. Reduces other types of tax revenue

The decline in business sector income leads the decline in Corporate Income Tax revenues. Personal Income Tax revenue also decreases due to termination of employment. In addition, a decrease in transactions for goods/services that are not environmentally friendly also has the potential to reduce Value Added Tax revenue.

- e. Improves the environment-based business economy

The application of green taxes requires the industry to innovate to be more environmentally friendly so that the taxes paid are not too large.

Application of Green Taxes and Green Business in Various Countries in the World

a. Green Business as Emission Reduction

Green business has been implemented in many countries. Sweden is one of the countries that has succeeded in implementing this policy, where this economic instrument is efficient in reducing emissions in the targeted area (Nyman, 1998). Not only that, the United Kingdom (UK) which helped drive green taxes also agreed that these taxes have proven effective in reducing emissions and pollution (Ekins, Summerton, Thoug, & Lee, 2011). Furthermore, the average coefficient for other European Union countries, such as Finland, Latvia, Denmark, Slovenia, Sweden, Ireland, and France which also apply Green Taxes shows positive results (Ghazouani, Xia, Jebli, & Shahzad, 2020).

b. Green Taxes as Reduction of GDP and Corporate Income Tax

Green Taxes for the economy are also a useful policy response to address environmental externalities in Canada (Arros, 2015). Ethiopia shows that the impact of the above-mentioned tax on greenhouse gas (GHG) emissions is significant, although the effect on economic activity and overall emissions is small due to the limited relevance of energy products (Labeaga & Labandeira, 2020). A slightly different fact occurs in Germany, where so far, green business has not led to a significant reduction in CO₂ emissions related to energy production and use (Weber & Cabras, 2017).

In Australia, Green Taxes are able to reduce emissions on a large scale, but the industrial and private sectors are known to have a negative impact as output levels and commodity exports decline substantially (Maxim & Zander, 2020), which ultimately leads to a 0.3% decline in real GDP – 0.4% for all scenarios (Nong, 2019). Similarly, the implementation of green business in China resulted in a 0.10% to 0.67% loss in GDP, with heavily polluted or energy-intensive sectors suffering more. However, the agricultural and service sectors will experience small output growth (Li & Masui, 2019). Other studies have also stated the same thing, where environmental taxes are conducive to environmental improvement but negative effects on macroeconomic variables appear simultaneously, such as a decrease in GDP, a decrease in corporate income, etc. (Xiao, Niu, Guo, & Xu, 2015). With income as the basis for tax calculation (Satria, 2021), a decrease in company income will have an impact on the amount of corporate income tax received by the state.

Green Taxes in Indonesia

Actually, Indonesia has indirectly implemented Green Taxes, such as Motor Vehicle Tax, Motor Vehicle Fuel Tax, Groundwater and Surface Water Extraction and Utilization Tax, and Class C Extraction Tax. However, this type of taxes only focuses on the budgetary side, not reducing the negative externalities of business activities. For example, each year the target and realization of these taxes are increasing, one of which is the Motor Vehicle Tax. The tax should suppress public consumption to own and use motorized vehicles. However, the consequence is that it is contrary to its original purpose, where motor vehicle tax revenues are increasing, meaning that the use of motorized vehicles by the public is increasing as well.

In addition to Green Taxes, Indonesia also provides Green Incentives in terms of taxation. Article 6 of the Income Tax Law stipulates that waste treatment costs are deductible expenses so that they can be deducted from income. However, because the incentives are not coercive in nature, aka only choices, the researchers consider that the program is still not effective in encouraging changes in business behavior to become more environmentally friendly.

5. CONCLUSION

The urgency of Green Tax implementation in Indonesia is related to the increasing environmental damage caused by industrial activities. Data from the National Environmental Quality Index (IKLH) in 2017 shows that the Air Quality Index (IKU) and Water Quality Index (IKA) tend to fluctuate. Over the past six years the quality of air and water has not shown significant improvement. This environmental damage is of course detrimental to the state in the short term and also in the long term because the state will be obliged to increase spending on health funds. This will be even more difficult to handle with other disasters that arise such as floods, landslides and so on.

Green Taxes have been implemented in many countries and have succeeded in changing existing business patterns to become more environmentally friendly. Australia has succeeded in reducing Real GDP from the implementation of Green Business by 0.3%-0.4% and China has also succeeded in reducing GDP 0.10%-0.67%. This in the end also has an impact on the amount of corporate income tax received by the state. However, the negative impact of implementing green taxes on the economy is also massive. There will be a decrease in the net profit of the business sector which will lead to termination of employment and a decrease in tax revenues in several sectors such as Income Tax and Value Added Tax. Meanwhile in Indonesia, Green Taxes are still at the level of the budgetary function. This can be seen from the increase in targets and realization of Green Taxes every year.

The government should be more assertive in enforcing green tax rules and transparent in the use of green tax revenues. Green tax revenues should be used to overcome negative externalities that arise, namely for environmental improvement, making supporting infrastructure for environmentally friendly businesses, providing business sector subsidies that implement green business, research and development of environmentally-based technologies.

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