A REVIEW OF CLIMATE CHANGE FINANCE POLICY IN INDONESIA

Rafii Diaz Rasendriya¹

^{1,2,3,4,5}Faculty of Law, Universitas Muhammadiyah Surakarta, Indonesia Email: c100190034@student.ums.ac.id¹

Abstract

Climate change has caused negative impacts in various sectors, including the environment, health, and the economy. The government is trying to deal with these impacts with mitigation and adaptation efforts, such as reducing greenhouse gas emissions in a sustainable manner. However, to achieve the emission reduction target in accordance with the NDC, the Government of Indonesia needs a large source of funding. Although the budget from the state budget is still insufficient, the government needs to find additional funding sources, such as loans, grants, cooperation with business entities, donations from international organizations, issuing green bonds, and involving the private sector through CSR. In addition, the government will implement the Value of Carbon Economy (NEK) such as carbon trading, carbon levy, RBP, and other mechanisms, which are expected to support climate change mitigation and adaptation efforts. All of these are expected to help the government achieve the GHG emission reduction target in accordance with the NDC document.

Keyword: Corporate Social Responsibilities, Grants, Economic Value of Carbon, Performance-based Payment, Climate Change.

INTRODUCTION

In Indonesia, sustainable development is also an important focus. With a large population, rich natural diversity and vast territory, Indonesia has challenges and opportunities in achieving sustainable development. Sustainable development can be briefly defined as continuous development which aims to maintain the quality of life of the community without destroying the environment and taking into account existing resource reserves for the future as explained by Saputri et al.1. Therefore, as an effort to implement sustainable development, a new paradigm in sustainable development is needed which refers to the welfare of society and nature in the future.

The discussion about sustainable development itself has received international attention, this is proven by the inauguration of the Sustainable Development Goals (SDGs) at the United Nations summit on sustainable development in 2015. Sutopo et al2 explained that the Sustainable Development Goals (SDGs) themselves are an agenda for change that will restarting global development with the aim of providing benefits to future generations. As a global agenda, the SDGs are of course a guideline for all international countries that implementing development must be accompanied by responsibility for the welfare of humans and nature.

In Indonesia, issues related to sustainable development are very important to be realized considering that so far there have been many problems in development, especially in the spatial planning sector, one example of spatial planning problems in Indonesia, among others, is related to land use that does not pay attention to sustainability aspects, this cannot

be separated. because population growth and rapid urbanization in Indonesia present challenges in sustainable spatial management. The government is faced with pressure regarding the development of urban infrastructure, affordable housing, adequate transportation, but this is often not in line with the principles of sustainable development. For this reason, the implementation of the Sustainable Development Goals is considered important in preparing spatial planning in Indonesia. Bangswan et al3 are of the opinion that considering that Indonesia also has a Basic Agrarian Law (UUPA) as an answer to various problems such as eradicating agrarian problems, improving community welfare through the food sector, alleviating poverty by opening up job opportunities and many more, including sustainable development.

The aim of conducting this research is, among other things, to find out how SDGs convergence can influence spatial planning policies, apart from that, this research is also to find out what challenges influence the success of SDGs convergence to achieve inclusive Spatial Planning.

RESEARCH METHODOLOGY

This research uses qualitative methods because the data required are mainly in the form of theories and descriptions of specific phenomena. This approach is in accordance with Sugianto's explanation (2022) which explains that qualitative research aims to understand phenomena in depth by collecting comprehensive data. Data collection is done through literature studies or literature reviews that include books, journal articles, reports, news, and relevant documents. These data are then analyzed using descriptive analysis techniques, namely by describing each data and phenomenon revealed

RESULTS AND DISCUSSION

Climate Change Financing Needs in Indonesia

To meet the 2030 GHG emission reduction target, the government, particularly the MoEF, has carefully assessed its funding requirements, particularly focusing on mitigation strategies. These funding needs are outlined in the Biennial Update Report (BUR), which is submitted every two years. The latest report, the Third Biennial Update Report (Third BUR), submitted by MoEF to the UNFCCC, illustrates the total funding required from 2018 to 2030 to reduce GHG emissions, estimated at USD 281 billion or approximately IDR 4,002.4

trillion rupiah when converted at an exchange rate of IDR 14,250/USD. A detailed breakdown of these funding requirements is provided in table 1.

Analysis of the data in table 1 underscores the substantial funding required for Indonesia's climate change mitigation efforts. On average, annual funding requirements reach up to IDR 307.87 trillion, roughly 10 percent of the total state expenditure outlined in the state budget. However, the average budget allocation for climate-related initiatives, which includes both mitigation and adaptation, only amounts to around IDR 102.65 trillion per year between 2018 and 2020, as per the Ministry of Finance (2020). This suggests that APBN spending can only fulfill about one-third of the calculated funding needs specified by MoEF. As a result, it is clear that relying solely on APBN spending is insufficient to achieve Indonesia's GHG emission reduction target. Therefore, the government must seek diverse funding sources and alternative mechanisms to bridge this funding gap.

Efforts to Prevent the Crime of Smuggling Imported Used Clothes

Efforts to avoid criminal acts of smuggling of imported used clothing are considered important in law enforcement because before the smuggling of used clothes occurs, it can eliminate losses or sanctions from smuggling cases. The existence of used clothing smuggling businesses means that the government, especially customs, must be quick and responsive in preventing and avoiding smuggling cases. Simultaneously, the government and law enforcement officials are arranging appropriate plans to avoid the crime of smuggling imported second-hand clothing. Indonesia's geographic condition is very prone to the entry of illegal goods because its territory is large and has many islands. According to Zulkifli, smuggling takes many shortcuts in various regions such as Sumatra, Java and Kalimantan as well as Indonesia's vast geographical conditions. Therefore, there is a need for cooperation between law enforcement officials and regional governments with the aim of creating a deterrent effect (Dewi, Mis Fransiska, 2023).

So that business people know that the act of importing used clothes is the same as committing a criminal act of smuggling in the economic sector, therefore strict regulations are needed to prevent smuggling of imported used clothes. Using the legal basis, the impact on the perpetrator, and the impact on the state must also be included in providing this information. If there are plans to import used clothing, business people will want to rethink this. There are several real actions that can be carried out by the government together with relevant law enforcers to prevent incidents of attempted smuggling crimes. Starting with:

First, holding socialization regarding the prohibition on importing used clothing. Inform the public, especially clothing business people, regarding the government's ban on importing used clothing. As well as the wide dissemination of this notification through customs social media accounts or by providing direct outreach by customs throughout Indonesia. Second, monitor the movements of business people when managing clothing businesses and regulate the entry and exit of goods in Indonesia. By directly monitoring movements in the field and ensuring compliance with statutory regulations by customs, the business was recognized as quite successful. You can also check transportation equipment entering Indonesian territory, so that it can be handled directly if there are suspicions about certain movements. Always prioritize preventative efforts to resolve suspicious incidets before entering the realm of litigation which is the hope of the customs authorities.

Table 1 Total Financing Needs for Mitigation Actions to Achieve 2030 NDC Targets

| Sector | Mitigation Action (Program Activity) | Financia Ineeds (billio n IDR) | Financi a l needs (billio n USD) |
|---------------|--|--|---|
| | lowering the deforestation caused by minerals | 76960 | 5.40 |
| | lowering the loss of peatlands | 801 | 0.006 |
| | lowering the deterioration of minerals | 76588 | 5.37 |
| | lowering the deterioration of peatland | 810 | 0.006 |
| Forest | Sustainable Forest Management | 1896 | 0.13 |
| and Land | Rehabilitating land without turning it around | 4373 | 0.31 |
| Use | Rotational land rehabilitation | 13892 | 0.97 |
| OSC | Development of industrial plantation forest | 125280 | 8.79 |
| | Peatland Restoration | 8253 | 0.58 |
| | Management of peat water | 156 | 0.01 |
| | Generator of Renewable Energy | 1688000 | 118.456 |
| Energy and | Renewable energy sources that are not electric | 84000 | 5.89 |
| Transportatio | coal power pants with low carbon emissions | 1619000 | 114 |
| n | City gas infrastructure and conversion of mitan to LPG | 17000 | 1.19 |
| | Energy Preservation | 92000 | 6.46 |
| | Utilizing Low Emission Types in x000 hectares of ricefields | 69.93 | 0.004 |
| Agriculture | Water-Efficient Rice Field Irrigation SystemApplication (x000 hectares) | 3186.44 | 0.22 |
| 7 ignounaic | Livestock Waste Utilization for Biogas Production(x000 hectares) | 195.13 | 0.01 |
| | Improvement of Feed Supplement (x000 farmanimals) | 37868.90 | 0.27 |

| | System software and hardware improvements and | 85 | 0.01 | |
|-------|---|---------|--------|--|
| | incorporating new algorithms in the control | | | |
| | system | | | |
| | that can reduce AE frequency, duration, and overvoltage | | | |
| | Co-Processing (AFR) plant installation to | 300 | 0.02 | |
| | get the clinker/cement ratio down to 75% (2030) | | | |
| | building a new factory with cutting-edge | 40-50 | 0.003- | |
| IPPU | technology | | 0.004 | |
| | Retrofit and substitution technologies | 40 | 0.003 | |
| | Technology Improvement | 350 | 0.02 | |
| | Production System Repair | 50 | 0.004 | |
| | Costs of Operating and Installing a Secondary | 45-50 | 0.003- | |
| | N20Abatement Catalyst | | 0.004 | |
| XX7 4 | Collection and Transport | 42732 | 2.999 | |
| Waste | Final Processing | 142541 | 10.003 | |
| Total | | 4002436 | 281 | |

Source: MOEF (2021)

Sources and Mechanisms of Climate Change Funding in Indonesia

Currently, there are two main sources of funding for climate change mitigation and adaptation actions in Indonesia. In its book, Bappenas (2021) states that the two main sources of funding can come from domestic funding sources and foreign funding sources as presented in Figure 1. Domestic funding sources can come from the APBN allocation mechanism and Government and Business Entity Cooperation (PPP). Meanwhile, funding sources from abroad can come from foreign loans and grants, both direct grants and planned grants. These loans and grants can be obtained through international cooperation schemes both bilateral and multilateral, donor schemes from international donor agencies, as well as through schemes from access to funding from the Adaptation Fund, Global Environment Facility (GEF), Global Climate Fund (GCF), and so on. In addition to these two sources, innovative financing is also being developed through the issuance of green bonds and/or green sharia bonds (green sukuk).

The largest and most certain funds for climate change control come from the state budget because the government is mandated by the 1945 Constitution, specifically Article 28H paragraph (1), to ensure a good living environment. The Ministry of Finance has advised the use of APBN for climate change mitigation and adaptation. It has been distributed to various ministries and organizations such as the Ministry of Agriculture, MoEF, the Ministry of Energy and Mineral Resources, the Ministry of Industry, the Ministry of Water and

Forests, and others. Details of the 2020 state budget allocation for adaptation and mitigation measures can be found in Table 2.

Table 2 Total 2020 Mitigation Budget Allocation based on 2020 State Budget (presented in billion rupiah)

| No | Sector | Sector Responsible | Needs | Allocation | Budget |
|----|------------|----------------------------|------------|------------|------------|
| | | | Budget | State | Shortag |
| | | | perYear | Budget | e |
| 1. | Forestry | KLHK | 5.524,35 | 2.094,91 | 3.429,44 |
| 2. | Agricultur | Ministry of Agriculture | 376,40 | 69,51 | 306,89 |
| | e | | | | |
| 3. | Energy | Ministry of Energy and | 318.180,00 | 40.330,00 | 277.850,00 |
| | | Mineral Resources | | | |
| | | Ministry of Transportation | | | |
| | | Ministry of | | | |
| | | Public Works and Housing | | | |
| 4. | IPPU | Ministry of Industry | 71,15 | 7,85 | 63,00 |
| 5. | Waste | KLHK | 14.251,70 | 54,33 | 14.197,00 |

Table 3 Examples of Planned Overseas Grant Projects in Indonesia

| No | Fundin gSource | Yea r | Budget Allocation (thousand USD) | Locatio n | Sector |
|----|------------------------------------|----------|----------------------------------|---|---------------------------|
| 1 | GEF v i a UNDP | 2016 | 1,880.00 | National | Water |
| 2 | KfW | 2016 | 15,282.0 0 | Prov. Central Sulawesi (around LoreLindu National Park, Palu City, and Poso District) | Water |
| 3 | KfW | 2018 | 27,715.9 0 | Prov. West Sulawesi (Kab.Mamasa) | Water |
| 4 | South Korean Governme nt | 2019 | 3,000.00 | Prov. Central Java (Semarang City) | Water |
| 5 | Islamic Developme nt Bank | 2019 | 500.00 | Prov. West Java (Kab. Subang; Kab.Cirebon); Prov. Central Java (Kab. Magelang) | Agricultur e |
| 6 | Asian Developme ntBank | 2019 | 30,000.0 0 | Prov. DKI Jakarta | Water, Agricultur e |

| 7 | Adaptation Fund mealui Kemitraa | 2020 | 5,972.60 | Prov. | Jawa Tengah (Kota Pekalongan) | Kelauta n dan Pesisir |
|---|--|------|----------|-------|----------------------------------|-----------------------------|
| | n Indonesi a | | | | | |

Source: Bappenas (2021)

As funds from the state budget are insufficient for Indonesia's climate change needs, the government looks for other mechanisms, such as planned foreign grants. This includes examples of projects that have been implemented in Indonesia under this scheme.

| No | Sector | Sector Responsible | Needs Budget | Allocation State | Budget Shortag |
|----|------------|-----------------------------|-----------------|---------------------|-------------------|
| | | | perYear | Budget | e |
| 1. | Forestry | KLHK | 5.524,35 | 2.094,91 | 3.429,44 |
| 2. | Agricultur | Ministry of Agriculture | 376,40 | 69,51 | 306,89 |
| | e | | | | |
| 3. | Energy | Ministry of Energy and | | 40.330,00 | 277.850,00 |
| | | Mineral Resources, | 1 | | |
| | | Ministry of Transportation, | | | |
| | | Ministry of | | | |
| | | Public Works and Housing | | | |
| 4. | IPPU | Ministry of Industry | 71,15 | 7,85 | 63,00 |
| 5. | Waste | KLHK | 14.251,70 | 54,33 | 14.197,00 |

Source: Ministry of Finance (2020) and MoEF (2021), processed.

Based on the data in Table 3, most of the foreign grants in Indonesia come from developed countries and international donor agencies, in accordance with the Paris Agreement. This agreement encourages Indonesia to receive more grant funds for climate change mitigation and adaptation. Besides grants, Indonesia also receives foreign loans from various parties such as JICA Japan, World Bank, ADB, EDCF Korea, KEXIM, China, AFD France, KfW Germany, Islamic Development Bank, and others. However, these loans are not considered as direct support under the Paris Agreement as they have to be repaid. Therefore, relying on foreign loans is not recommended. The Indonesian government also accesses funding from international organizations such as GCF and GEF, usually in the form of grants, but also through the Result Based Payment (RBP) mechanism if it can demonstrate GHG emission reductions. An example of funding through RBP can be seen in the forestry sector, especially the REDD program. Documents from KLHK and

the Ministry of Finance show that Indonesia has undertaken five funding partnerships, listed in Table 4.

Table 4 RBP Cooperation in Indonesia

| No | Cooperation | Reference Period | Payment Period | Scal |
|----------|--------------------|----------------------|---------------------|--------------------|
| | Partner | | | e |
| 1 | FCPF-CF | 2007-2016 (10 Years) | 2020-2025 (5 Years) | Sub Nasional |
| | | | | Kalimantan |
| | | | | Timur |
| 2 | FCPF-BioCF | Fase Preparation: | 2026-2030 (5 Years) | Sub Nasional Jambi |
| | | 2019 - 2021 | | |
| | | Years | | |
| | | Fase Pre- | | |
| | | Investment: 2021 – | | |
| | | 2025 Years | | |
| 3 | Bilateral-Norwegia | 2007-2016 (10 | 2017 (1 Years) | Nasional |
| | | Years) | | |
| 4 | RBP-GCF | Before 2013, | 2013-2018 (5 Years) | Nasional |
| | | maximum 20 years | | |
| 5 | RBP-GCF | 2014-2016 Years | 2021-2025 (5 Years) | Nasional |
| D | • ,• | | | |

Description:

- 1. FCPF-CF: Forest Carbon Partnership Facility-Carbon Fund
- 2. FCPF-BioCF: Forest Carbon Partnership Facility-BioCarbon Fund

Source: KLHK (2020), BPDLH (2021)

As a country with vast land and forests, the RBP mechanism through the REDD+ program will greatly benefit Indonesia. It will help raise funds for climate change mitigation and adaptation actions, which cannot be fully met by APBN allocations. This funding source and mechanism is expected to help the government achieve the targets listed in the NDC documents. However, the effectiveness and efficiency of these funds are highly dependent on their good management. The government is also looking for innovative funding sources such as the issuance of green bonds or green sukuk. The funds generated from this will be used for environmental projects that fit within the green framework. A number of sectors such as renewable energy, natural resource management, green tourism, climate change resilience, green construction, sustainable transportation, sustainable agriculture, and waste management are the focus of these green bonds/sukuk.

Bank Indonesia reports that Indonesia has issued its first green sukuk in 2018 with a value of USD 1.25 billion. Details of the development of Indonesia's green sukuk issuance can be seen in Table 5. This issuance is expected to help Indonesia more effectively address climate change.

Table 5 Development of Green Sukuk Issuance in Indonesia

| Global Market | | | | |
|--|--|--|--|--|
| 2018 | 2019 | 2020 | 2021 | |
| - Imbalan 3,75% p.a - Tenor 5 year - USD 1,25 milyar - Investor spread: 18% USA, 15% Eropa, 32% Middle East, dan 35% Asia | Imbalan 3,90% p.a Tenor 5,5 tahun USD 750 juta Investor spread: 23% USA, 22% Eropa, 29% Middle East, dan 26% Asia | - Imbalan 2,30 p.a - Tenor 5,5 year - USD 750 million - Investor spread: 12% USA, 11% Eropa, 32% Middle East,5% Indonesia, dan 40% Asia | - Imbalan 3,55% p.a - Tenor 30 year - USD 650 million - Investor spread: 18% USA, 15% Eropa, 32% Middle East, dan 35% Asia | |
| | Dome | | | |
| 2010 | Mark | | | |
| 2018 | 2019 | | 2021 | |
| (not yet available) | -6.75% yield (floating with floor) - 2-year tenor - IDR 1.46 T - Total 7,735 investors - 2,908 new investors - Online Platform | - Imbalan 5,5% (floatingwith floor) - Tenor 2 year - Rp 5,42 T - Total 16.992 investor - 4.376 new investor - Online Platform | - ST008 series savingssukuk - 4.80% yield (floatingwith floor) - 2-year tenor - IDR 5 T - Total 14,337 investors - 2,776 new investors and dominated by the millennial generation - 44,09% - Online Platform | |

Source: Ministry of Finance (t.th, in Bank Indonesia, 2021)

The issuance of green bonds and/or green sukuk not only increases the source of funding for climate change, but should also encourage public participation in green development in Indonesia. This is expected to increase public awareness of environmental issues, especially climate change, which in turn is expected to accelerate the achievement of NDC targets.

Climate change funding in Indonesia comes from various sources and mechanisms that require different management. APBN, as the main source, is managed by each

Ministry/Institution according to its allocation. These allocations are processed based on their respective main tasks and functions. To ensure effectiveness and efficiency, management should focus on results that produce useful outputs. For example, KLHK managed to create 217 outputs over three years, including actions on peat restoration, waste management, and watershed management. Other ministries/agencies also produce outputs that are in line with their functions. This is important because the use of APBN must be accounted for in accordance with the State Finance Law. The management of loan and grant funds is regulated by Government Regulation No. 10/2011. The Bappenas book explains that the planned and direct grant mechanism involves a planning to implementation process, including coordination by Bappenas and the signing of grant agreements by the Ministry of Finance before being authorized in the APBN Bill by the DPR for use by the relevant K/L.

The funds allocated for climate change mitigation and adaptation actions in Indonesia are still insufficient, so the government is looking for additional funding sources. One of the sources being considered is the Economic Value of Carbon (NEK), which is regulated through Presidential Regulation 98 of 2021. NEK can be applied through various mechanisms such as carbon trading, performance-based payments, and carbon levies, but only the RBP mechanism has been implemented. The carbon trading mechanism and carbon levy are still in the process of implementation regulations. The World Bank estimates that global revenue will increase by around USD 45 billion due to emission trading system (ETS) and carbon tax policies. Statista reported that some countries that have implemented ETS received revenue of around USD 40 billion. Details of this revenue can be seen in.

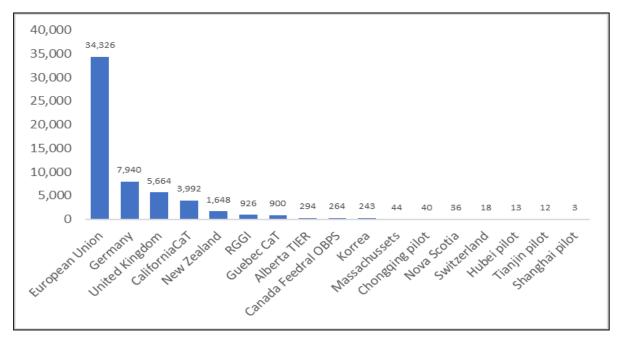


Figure 2 State Revenue from ETS in Several Countries in 2021 (in million USD) Source: Statista (2023)

According to Irama's (2020) research, Indonesia's potential revenue from carbon trading could range from IDR 51.2 trillion to IDR 189.8 trillion from 2010 to 2030, meaning around IDR 2.56 trillion to IDR 9.49 trillion per year on average. On the other hand, Halimatussadiah (2021) estimates that the potential revenue from carbon tax could reach IDR 21.3 trillion if the rate is IDR 75/CO2e. However, in accordance with Law No. 7 of 2021, the lowest carbon tax rate is IDR 30/kg CO2e, which can generate potential revenue of around IDR 8.5 trillion. Estimates from the World Bank (2020), Irama (2020), and Halimatussadiah (2021) confirm that carbon trading mechanisms and carbon taxes can reduce GHG emissions and increase state revenues. This is important because the revenue can be a source of funds for climate change mitigation and adaptation actions and GHG emission reductions.

The concept of CSR dates back to the work of Bowen (1950), who emphasized that companies should consider the social impacts of their economic activities. Since 1973, the concept evolved into CSR, expanding responsibility from social impacts to include environmental impacts. Elkington (1994) brought in the 3P theory of profit, people and planet, highlighting the responsibility of companies towards profit, social and environmental aspects. This highlights the importance of companies thinking about their impact on the people involved and the environment affected by the company's activities. ISO created a standard with ISO 26000 on social and environmental responsibility, providing guidance for businesses. However, these guidelines are voluntary, so legal regulations from each country such as in Indonesia are necessary to bind the implementation of social and environmental responsibility.

Table 6 Examples of Social and Environmental Responsibility Implementation in Indonesia

| No | Company | Program |
|----|-------------|---|
| 1 | PT Djarum | Djarum Bakti Lingkungan, in the form of a tree |
| 2 | Astra Group | Go Green with Astra in the form of forest, city, and river environmental preservation |

| 3 | Aqua Danone | All for the month of September, in the form of providing access to | | |
|---|-----------------|--|--|--|
| | | clean air | | |
| 4 | PT Bukit Asam | Partnership and Community Development Program, in the form of | | |
| | | environmental preservation and post-mining area preservation. | | |
| 5 | PT Pertamina | Pertamina Community Development, in the form of environmental | | |
| | | preservation, exhaust gas emission testing, recycle, and mangrove | | |
| | | forest rehabilitation. exhaust gas emission test, recycle, and | | |
| | | mangrove forest rehabilitation. | | |
| 6 | PT Pertamina EP | Carbon Emission Reduction Program, in the form of efficiency and | | |
| | | clean energy transition | | |
| 7 | PT HM Sampoerna | Reforestation and mangrove conservation | | |
| 8 | Sinar Mas Group | Implementing a no-burn land policy and production waste | | |
| | | minimization policy | | |
| 9 | Nestle | Carbon emission reduction programs through clean energy | | |
| | | efficiency and transition, forest reforestation programs, etc. | | |

Source: Muchtar et al. (2012)

Quantitatively, the programs listed in table 3.5 require substantial funding. For example, in 2011, PT Bukit Asam required approximately IDR 145.20 billion (Muchtar et al., 2012). The government or local government may not be able to provide such large funds due to fiscal limitations of the APBN and APBD. Therefore, the company's efforts in implementing social and environmental responsibility should be appreciated because it can help ease the burden of the APBN's limitations in reaching the areas where the programs are implemented.

However, the government has not fully considered social and environmental responsibility programs as a potential source of funding for mitigation and adaptation actions. The potential funding from these activities has not been fully explored by the government. In addition, sanctions against companies that do not implement social and environmental

responsibility have also not been strictly enforced (Sunaryo, 2013). If the government can better map and encourage the implementation of social and environmental responsibility, the potential for climate change funding from the private sector can be realized. Therefore, in the future, it is expected that the government will implement policies that map, encourage, and monitor the role of the private sector in implementing social and environmental responsibility.

CONCLUSION

Based on the foregoing, several key observations emerge. First, the funding required for climate change initiatives between 2018 and 2030 is substantial, exceeding the ability of the state budget to accommodate effective mitigation and adaptation measures. Second, to bridge this financial gap, a diversification of funding sources is required. This includes exploring planned grants, direct grants, domestic and foreign loans, Results-Based Payment mechanisms from international institutions, and innovative financial models such as the PPP framework, in addition to the issuance of green bonds and green sukuk. Third, despite the various avenues available, they still do not meet the overall needs, thus driving the need to scale up mechanisms that attract private sector involvement, such as the implementation of Value for Money (NEK) and Corporate Social Responsibility (CSR) initiatives. The development of various types of funding and alternative sources is expected to support the government's efforts in optimizing climate change actions, which in turn can help achieve the GHG emission reduction targets set in the NDC document.

REFERENCE

- Michael, R., Raharjo, S. T., & Resnawaty, R. (2019). Unilever Indonesia Foundation CSR Program Based on Triple Bottom Line Theory. Focus: Journal of Social Work, 2(1), 23-31.
- Muchtar, A. T., Amelia, L., Dachlan, A. N., Nur, A. I., & Bastari, G. R. (2012). Climate Change Financing in Indonesia: Mapping Sources, Channeling Mechanisms, and Beneficiaries of Climate Change Related Funds. The Indonesian Institute Center for Public Policy Research.

Rahmi, E. (2011). Environmental Standardization (ISO 26000) as Harmonization of

- Proceedings of the 1st Ikatan Mahasiswa Muhammadiyah International Conference on Environmental Sustainability and Climate Change "Achieving A Collective Awareness in General on the Threat of Climate Change and Environmental Protection" (IMMESCC) 2024
 - Corporate Social Responsibility and Legal Instruments in Indonesia. Journal of Legal Science, ISO26000, 1-14.
- Government Regulation Number 10 of 2011 concerning Procedures for Procuring Foreign Loans and Receiving Grants.
- Presidential Regulation of the Republic of Indonesia Number 98 of 2021 on the Implementation of Carbon Economic Value for Achieving Nationally Determined Contribution Targets and Controlling Greenhouse Gas Emissions in National Development.
- Ministry of Finance. (2020b). Climate Change Mitigation and Adaptation Budget Report 2018- 2020. https://fiskal.kemenkeu.go.id/files/buku/file/CBT-NATIONAL-2018- 2020.pdf
- Rahmi, E. (2011). Environmental Standardization (ISO 26000) as Harmonization of Corporate Social Responsibility and Legal Instruments in Indonesia. Journal of Legal Science, ISO26000, 1-14.
- Law of the Republic of Indonesia Number 17 of 2003 concerning State Finance. Law of the Republic of Indonesia Number 25 of 2007 on Capital Investment.
- Statista. (2023). Revenue generated by Emission Trading Systems (ETS) worldwide in 2021. Sunaryo, S. (2013). Corporate Social Responsibility (CSR) in Development Perspective