

LEGAL ANALYSIS OF THE CARBON PRICING REGULATION IN INDONESIA¹

Linda Yanti Sulistiawati,^a Louie Buana^b

^aAsia-Pacific Centre for Environmental Law, National University of Singapore, Faculty of Law, Singapore; and Faculty of Law, Universitas Gadjah Mada, Indonesia,

^bInstitute for History, Leiden University, the Netherlands.

e-mail: lindayanti@ugm.ac.id (corresponding author); louiebuana@gmail.com

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Abstract

This paper analyses Indonesia's new regulatory framework of carbon pricing, namely Presidential Regulation No. 98 of 2021 on Carbon Economic Value (Presidential Regulation No. 98/2021). The Presidential Regulation is analysed under Law No. 12 of 2011 on the Formation of Legislation). This paper found that even though this regulation has fulfilled all the principles stated in the Law on the Formation of Legislation, many details are left to be regulated (as indeed requested in the Presidential Regulation), and more clarification needed for the roles of each actor and stakeholders in carbon economic valuation and how carbon economic valuation invites public participation.

Keywords: *Carbon economic value, carbon pricing, carbon taxation, presidential regulation, legislation*

I. INTRODUCTION

The world is facing a global threat of environmental collapse as the result of climate change. One of the most significant contributors to climate change is the increase of carbon emissions into the atmosphere. Since the industrial revolution at the end of the 18th and into the 19th century, human activity continue to produce artificial or anthropogenic carbon emissions which have consequently exacerbated the harmful effects earth's naturally produced emissions.² The use of fossil fuels reached an unprecedented peak in human history during the 21st century, causing not just extreme weather events and increased risk of crop failure, but also global mortality and disease.³ According to United Nations, pollution from the increasing reliance on fossil fuels as

¹ This article was written and reviewed prior to the enactment of the Ministry of Environment and Forestry Regulation No. 21 of 2022 on Guideline of Carbon Economic Value (*Tatalaksanaan Penerapan Nilai Ekonomi Karbon*).

² United Nations, *United Nations Handbook on Carbon Taxation for Developing Countries* (New York: United Nations, 2021), 17.

³ Karn Vohra, et al., "Global Mortality from Outdoor Fine Particle Pollution Generated by Fossil Fuel Combustion: Results from GEOS-Chem", *Environmental Research* 195 (2021).

energy source are responsible for about one in five deaths worldwide in 2018.⁴ Even with all the current efforts to stop carbon emissions “it would still take up to 200 years for the last artificially emitted CO₂ particles to leave the atmosphere.”⁵

As the world enters an era of climate emergency, new approaches and strategies are being discussed on both international and national levels involving various stakeholders. In order to coalesce global awareness and commitment to act against climate change, several international treaties and intergovernmental plans have been initiated as recently as 1972 through the establishment of the UN Conference on the Human Environment in Stockholm. In 1992, the UN Framework Convention on Climate Change (UNFCCC) set the key instruments of climate change regime. UNFCCC sets seven GHG emissions including CO₂, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulphur hexafluoride, and nitrogen trifluoride. The UNFCCC was followed by the Kyoto Protocol in 1997, the Copenhagen Accord in 2009, and most recently, the Paris Agreement in 2015. These instruments require action from all state parties to limit their Greenhouse Gas (GHG) emissions. The Paris Agreement obligates more than 70 countries under UNFCCC to undertake efforts to work toward net zero emissions by 2050. Through the Paris Agreement, each state party must put forth their best efforts to curb carbon emissions by establishing Nationally Determined Contributions (NDCs).

Scientifically speaking, anthropogenic carbon emissions can only be effectively reduced by using non-fossil fuels sources such as wind or geothermal energy, or by decreasing energy-intensive activities such as pulp and steel production.⁶ Another way to reduce carbon emissions is by expanding the reforestation projects. Green areas such as forests and national parks absorb carbon emissions produced by industrial activities. These measures in combination can lead to net zero emissions. This theory underlies the concept of carbon offsets that is currently in practice in several countries and corporations. Since modern-day human activities cannot be entirely conducted without producing some carbon emissions, the carbon offset concept provides opportunity for the public and private sectors to finance forestation projects and support the invention of renewable technology to theoretically offset GHG emissions they produce.⁷ Consequently, this has given birth to the carbon pricing mechanism as “policy instruments that use prices to provide incentives for economic agents to support climate mitigation.”⁸

⁴ *Ibid.*

⁵ United Nations, *United Nations Handbook*, 17.

⁶ *Ibid.*, 18.

⁷ *Ibid.*

⁸ *Ibid.*, 20.

The World Bank defines carbon pricing as “an instrument that captures the external costs of greenhouse gas emissions—the costs of emissions that the public pays for, such as damage to crops, health care costs from heat waves and droughts, and loss of property from flooding and sea level rise—and ties them to their sources through a costing mechanism, usually in the form of a price on the carbon dioxide (CO₂) emitted.”⁹ Based on this definition, carbon pricing mechanisms put the responsibility for GHG emissions back to the emitters who caused it and who can avoid it. By giving a price on carbon, the emitters are pushed to “either transform their activities and lower their emissions or continue emitting and paying for their emissions.”¹⁰

Despite controversies surrounding it, the practice of carbon pricing is growing in acceptance worldwide. In 2019, The Brazilian Ministry of Economy arranged discussions with participants from the private sector and international organisations focusing on the creation of a carbon pricing system.¹¹ Meanwhile in China, the government is finalising the MRV for the ETS and conducted a carbon taxing pilot project for airlines business in 2020.¹² India which currently owns 7% of world carbon trading market has also shown its commitment by reducing its carbon emissions by 20% between 2005-2020.

In Indonesia, the national government set the goal to reduce its GHG emissions by 41% by 2030 with international assistance (29% with its own resources) relative to a business-as-usual (BAU) scenario through NDC. To meet this target, Indonesia has established The Environmental Fund Management Agency through Presidential Regulation No. 77 of 2018 about Environmental Management Fund. This agency is a public service agency, a non-echelon unit under the Minister of Finance of the Republic of Indonesia.¹³ It is set to bring “multiple sources of funding together to be deployed through a variety of instruments across a number of different sectors (including forestry, energy and mineral resources, carbon trading, environmental services, industry, transport, agriculture, marine, and fisheries).”¹⁴

⁹ The World Bank, *Carbon Pricing Dashboard*, <https://carbonpricingdashboard.worldbank.org/what-carbon-pricing>, accessed 17 June 2022.

¹⁰ *Ibid.*

¹¹ Government of Brazil, *Ministry of Economy advances in discussions on carbon market in Brazil*, December 23, 2019, <http://editor.economia.gov.br:8080/Economia/noticias/2019/12/ministerio-da-economia-avanca-nas-discussoes-sobre-mercado-de-carbono-no-brasil>.

¹² Beijing Municipal Ecology and Environment Bureau, *Notice of the Beijing Municipal Bureau of Ecology and Environment on the announcement of the list of key carbon emission units and reporting units in Beijing in 2019*, 16 March 2020, <http://sthjj.beijing.gov.cn/bjhrb/index/xxgk69/zfxgk43/fdzdgnr2/hbjfw/1745093/index.html>.

¹³ Badan Pengelola Dana Lingkungan Hidup, <https://bpdlh.id/about-bpdlh/>, accessed 17 June 2022.

¹⁴ *Ibid.*

This article aims to reflect on Indonesia's new law in regard to carbon pricing. The issuance of Presidential Regulation No. 98 of 2021 on Carbon Economic Value (Hereinafter: Presidential Regulation No. 98/2021) is the latest effort by the Indonesian government to contribute on the carbon emissions reduction. The main questions surrounding the issuance of this law are: (1) What is the legal basis for the application of carbon pricing regulation in Indonesia? How can the implementation of carbon pricing law have aligned with basic legal principles and other policy? (2) Who are the stakeholders involved in the process? and finally, (3) what is the role of banks in the implementation of carbon pricing? This article will be focused on addressing these questions.

This preliminary study on carbon economic value provides beneficial inputs for determining the direction of environmental policy in Indonesia. The analysis provides insight from a legal perspective about the *raison d'être* behind carbon pricing within national legal system context and some recommendations for filling the gaps in Presidential Regulation No. 98/2021. It is important for the Presidential Regulation to be open to the possibility for derivative regulations in the future to regulate the issue in more detailed and practical manners. Lastly, the discussion in this article can contribute further to strategic involvement of national banking actors in the new carbon market activities. Considering that the climate issue is a multifaceted problem which urgently demands political, economic, and legal approaches, the new regulation on carbon pricing must act as multisectoral receptacle for the involvements of various stakeholders.

II. LEGAL BASIS FOR PRESIDENTIAL REGULATION NO. 98/2021

Indonesia is a state of law that adheres to the supremacy of Constitution and inferior laws and regulations derived from it. The legal framework for hierarchy in Indonesian law is regulated by Law No. 12 of 2011 on the Formation of Legislation (Hereinafter: Law No. 12/2011). According to this Law, the position of Presidential Regulation is subordinate to and must not in conflict with the Constitution, Laws, and Government Regulations. On the other hand, Presidential Regulations can be used as a reference or basis for Provincial Regulations, and Regency/Municipal Regulations because the position of a Presidential Regulation is higher than Regional Regulations in the hierarchy of law.

The Presidential Regulation No. 98/2021 derived its legal basis from the following Indonesian laws:



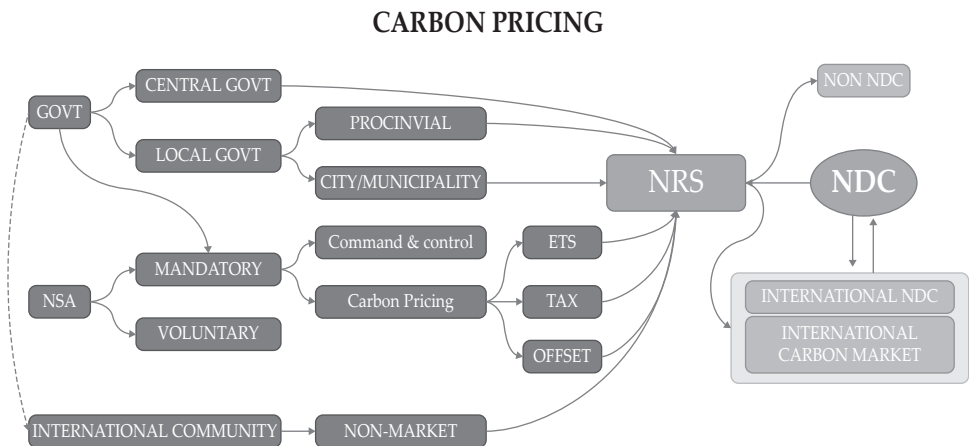
Figure 1. Indonesia’s legal framework according to Law No. 12/2011

Article 28(H) of the 1945 Constitution provides the right to a healthy environment for Indonesian citizens, thus this article serves as a constitutional mandate to acknowledge and implement carbon pricing rights. According to the Constitution, every citizen deserves the right to live in physical and spiritual prosperity, to have a place to live, to have a clean and healthy living environment and have the right to obtain health services. Therefore, the state is obliged to make all of the necessary efforts to provide healthy environment, including to reduce GHG emissions that can lead to environmental damage. As a ratifying state party to the International Covenant on Economic, Social and Cultural Rights, Indonesia is also bound to fulfil the requirement to improve ‘all aspects of environment and industrial hygiene’ as stated within Article 12(2)(b) of the convention. According to ESCR Committee’s General Comment 14, the right to a healthy environment includes the obligation to ensure prevention and reduction of the population’s exposure to substances such as radiation and harmful chemicals or other detrimental environmental conditions that can negatively impact human health.

At the lower tier of the legal hierarchy, Indonesia recognizes the enforceability of international agreements within its national legal system as stated in Law No. 24 of 2000 about International Treaty (Hereinafter: Law No. 24/2000). In order to promulgate enforceable rules to meet Indonesia’s obligations under the Paris Agreement on the national level, Indonesian government did not just ratify the convention but also confirmed it through Law No. 16/2016. According to Constitutional Court Decision No. 12/PUU-

XVI/2018 International Treaties must be legalized through Laws in order to enter the national legal system. This decision shows Indonesia’s tendency towards a dualistic approach, which distinguishes between international agreement and the positive law.¹⁵

Other laws such as Law No. 25/2004 on National Development Plan System, Law No. 17/2007 on National Mid-term Development Plan, Law No. 31/2009 on Meteorology, Climatology and Geophysics, and Government Regulation No. 46/2017 on Economic Instrument for Environment serve as the multisectoral basis for the implementation of carbon economic value. The Presidential Regulation also mentions Law No. 6/1994 on the Ratification of United Nations Framework Convention on Climate Change as one of the basic laws. As previously discussed, UNFCCC is the key instrument of climate change regime which targets for reduction of seven GHG emissions. Thus, the inclusion of laws related to strategic planning, economic development, and environmentally based regulations shows the government’s apprehension of cross-sectoral urgency in enacting carbon economic value models at the national level.



Adapted from: Indonesia Research Institute for Decarbonization 2020

Figure 2. Carbon Pricing Mechanism from International to Local Implementation to support NDC

In addition, Law No. 23/2014 on Regional Government ensures the inclusion of Regional Government to Provincial and City/Municipality to implement carbon pricing policy. It provides the basis for Presidential

¹⁵ Damos Dumoli Agusman, “Sistem hukum Perjanjian Internasional dalam Hukum Nasional RI (Tinjauan dari Perspektif Praktik Indonesia)”, *Indonesian Journal of International Law* 5, no. 3 (2008): 488-504.

Regulation No. 98/2021 to communicate instruments from Paris Agreement at the domestic level. The Regional Government is one of stakeholders responsible for the NDC in domestic level.¹⁶ The binding commitments set forth in the NDC places Regional Governments with ownership and commitment to development.

Aside from Law No. 23/2014 on Regional Government, the division of authority for environmental management is regulated through Law No. 32/2009 on Environmental Protection and Management. This regulation gives Regional Governments the authority to protect and manage the environment in planning, using, controlling, supervising, and enforcing laws. So far, there is no specific regulation which acts as the implementation law for the Paris Agreement on the domestic level, despite the participation of Regional Government as one of the determinants of success for achieving targets set by NDC. This absence was primarily due to the conception that environmental issues are often treated as central government issues instead of local ones, due to the perceived lack of knowledge of environmental and climate issues.¹⁷ Moreover, regional government faces administrative challenges because there are no binding regulations, and the overlapping bureaucracy hinders performance in carrying out programs related to the environment and climate change.¹⁸

To incorporate the role of Regional Government into carbon economic value implementation, Article 2 (4) of Presidential Regulation No. 98/2021 stipulates that emission control is carried out by policies in national, central, and regional development as well as from, for, and by the national government, regional governments, business, and the community. Based on the above-mentioned laws and regulations, the applicability of Presidential Regulation No. 98/2021 is critical to be integrated within Indonesian legal system because:

1. It serves as the legal basis for NDC and Indonesia's NDC achievements;
2. It provides procedural guidelines for a carbon economic value system;
3. It sets up a channel for carbon economic value implementation in Indonesia;
4. It gives incentive option for businesses.
5. It establishes legal basis for the implementation of environmental-funding instruments; and
6. It supports the performance of the implementation of environmental-funding instruments.

¹⁶ Ministry of Environment and Forestry, *Summary Nationally Determined Contribution (NDC) and Its Progress of Implementation*, 2017, 9.

¹⁷ The Conversation, "Empat Tantangan Pemerintah Daerah dalam Menjalankan Program Lingkungan dan Pengendalian Perubahan Iklim, <https://theconversation.com/empat-tantangan-pemerintah-daerah-dalam-menjalankan-program-lingkungan-dan-pengendalian-perubahan-iklim-172852>, accessed 30 January 2023.

¹⁸ *Ibid.*

III. ANALYSING PRESIDENTIAL REGULATION NO. 98/2021

III.A. Provisions regarding basic principles, rights, and obligations in the presidential regulation

Presidential Regulation No. 98/2021 acts as the legal foundation for regulating carbon trading, carbon market and the implementation of Carbon Economic Value (Hereinafter: CEV) concept to support national emission reduction targets as stated in the NDC document for controlling climate change. The Presidential Regulation is expected to mobilize more green financing and investments that have an impact on reducing GHG emissions involving various stakeholders from the central government, local governments, businesses, and the local communities.

Article 1(2) of the Presidential Regulation No. 98/2021 defines CEV as: “The value of each unit of GHG emission resulting from human activities and economic activities.” According to Article 11(3), human and economic activities that can be inventoried for GHG emissions are activities that have potential as a source of GHG Emissions.

Based on Greenhouse Protocol, emissions as the results of human economic activities are broken down into three categories:¹⁹

- **Scope 1 – All Direct Emissions** from the activities of companies owned or controlled sources, such as emissions from companies’ power facilities or vehicles;
- **Scope 2 – Indirect Emissions** from electricity that companies purchase, such as commercial buildings and manufacturing companies that consume electricity; and
- **Scope 3 – All Other Indirect Emissions** from sources that are not controlled by the companies but occur in the value chain, including both upstream and downstream emissions, such as the extraction and transportation of purchased materials (upstream) and the use of sold products and services (downstream).

The concept of CEV requires comprehensive and accurate calculation of GHG emissions produced during human and economic activities from upstream to downstream. Presidential Regulation No. 98/2021 acknowledges this mechanism by obliging stakeholders (Article 11(2)) to inventory GHG emissions’ source activity data including carbon absorption (Article 10). Furthermore, Presidential Regulation No. 98/2021 states that Carbon Rights are managed by the State. The word for ‘managed’ used in this regulation is “*dikendalikan*” in the Indonesian language. Based on its terminology, the word

¹⁹ Aaron Ezroj, *Carbon Risk and Green Finance* (Oxon: Routledge, 2021), 29-30.

'*dikuasa*' sometimes can also be interpreted as 'owned.' However, in terms of State's power to regulate natural resources, as argued by Budi Harsono and Maria Soemardjono, the correct interpretation for the word '*dikuasa*' is managed, not owned. This would give the State the authority to use, harvest, and benefit from natural resources for good of the Indonesian people. In other words, the Constitution (Art. 33) and Presidential Regulation 98/2021 do not give ownership rights to the Carbon, but rather, management right for the good of the Indonesian people.

According to Presidential Regulation 98/2021, carbon rights are strictly limited only for:

- The fulfilment of CEV's legal certainty;
- To achieve NDC's targets;
- To be authorized and managed by the state; and
- Providing incentives and fiscal needs to support stakeholders in reducing their GHG emissions.

The Indonesian legal system requires every law produced by governing bodies to comply with certain basic principles. These principles are known as The Principles for the Formation of Laws. According to Soeprapto (2007), the proper principles upon which to form a law must follow the following guidelines: 1) Pancasila as the ideal of state law; 2) State fundamental norms; and 3) The principles of the state and the principles of government.²⁰

Constitutionally, Article 5 of Law No. 12/2011 sets standard for the Principles for the Formation of Laws. An overview of the basic elements of the Principles for the Formation of Laws and how the principles are met in Presidential Regulation No. 98/2021 is explained below.

1. The clarity of purpose Principle

Article 3 (1) of Presidential Regulation No. 98/2021 states its purpose to regulate the reduction of GHG emissions, increase Climate Resilience, and Economic Value of Carbon in order to reach NDC's targets by referring to Baseline for GHG emissions in 2030 (2,869 million tons of CO₂) and Climate Resilience Baseline. The guidelines for emission reduction follows NDC targets and to control GHG emissions within the scope of national development. Therefore, Presidential Regulation No. 98/2021 has a clear direction and goals to be achieved.

2. Institutional or Proper forming officials Principle

Every legal regulation must be constituted by state institutions or authorized law-making officials. In this case, Presidential Regulation No. 98/2021 was decreed by the President of the Republic of Indonesia, legislated by

²⁰ Ahmad Redi, *Hukum Pembentukan Peraturan Perundang-Undangan* (Depok: Sinar Grafika, 2021), 22.

the Ministry of Law and Human Rights, and initiated by the Ministry of Environment.

3. Suitability between types, hierarchies, and material contents Principle

During the law-making process, the focus must be drawn to the appropriate material contents in accordance with types and hierarchies of legislations. In this context, Law No. 16/2016 on the Confirmation of Paris Agreement acts as the international general guidelines for the material contents of Presidential Regulation. Based on its type, Presidential Regulation No. 98/2021 serves as the legal basis and norms for regulating CEV. The implementation of CEV will further be exercised by lower tier of legal product, in this case the Ministerial Regulation as mandated inside the regulation.

4. Enforceability Principle

The principle of Enforceability emphasizes that the process of law-making must consider the law's efficacy within the society, based on philosophical, sociological, and juridical foundations. Presidential Regulation No. 98/2021 includes procedures for CEV implementation in the field, the parties appointed to carry out to enforce the law, and the supervisory mechanism.

5. Effectivity and Efficiency Principles:

Based on this principle, every legal regulation is created because it is compulsory and beneficial in order to regulate life in society, nation, and state. The global threat caused by climate change makes carbon emissions regulation critical and mandatory. It is by far the most efficient way to fulfil targeted plans set by NDC and allow human economic activities to continue running.

6. The clarity of formulation Principle:

Every law must fulfil technical requirements in composing subordinate legal regulations, systematic, word and terminology choices, and clear and understandable legal language to avoid various interpretations in its execution. In this regard, Presidential Regulation No. 98/2021 has the complete structure of a legislation with General Terms, Aims, Purposes, Scope of Application, NDC's Targets, Climate Change Mitigation, Climate Change Adaptation, CEV, Carbon Trading, Carbon Taxing, Transparency Framework, Sanctions, Directing Committee, Transitional Terms, and Closing.

7. Transparency Principle:

Every step of the law-making process, starting from planning, composing, discussion, ratification, and stipulation, must be open and transparent. All levels of society have equal opportunity to give feedbacks during law-making process.

In addition to containing the Principles of the Formation of Laws, as a legal regulation, Presidential Regulation No. 98/2021 must contain provisions related to the rights and obligations of all actors involved in carrying out the CEV policy. Article 2(9) of Presidential Regulation No. 98/2021 stipulates that GHG emissions control is conducted within the national development policy framework, involving Government, Regional Government, businesses, and the society. The Government in this context refers to the central government (President, Ministry of Environment and Forestry, Ministry of Maritime & Investment Affairs, and other related Ministries) and local government (Provincial and City/Municipal levels). In implementing CEV policy, Presidential Regulation No. 98/2021 sets a clear division for regulatory and executory roles that must be carried out by the relevant parties.

The stakeholders and their institutional roles in implementing CEV policy

Presidential Regulation No. 98/2021		Institution(s)
Article 6 (3)	Coordinating Climate Change Mitigation	Minister of Environment and Forestry
Article 11 (2)	Inventorying national GHG emissions (executory role)	National level - Minister of Environment and Forestry;
		Sectoral level – related Ministries;
		Provincial level – Governor;
		City/municipal level – Regent;
		Company level – business directors
Article 11 (4)	Setting other source of GHG emissions (regulatory role)	Minister of Environment and Forestry
Article 15 (4)	Composing sectoral GHG emissions Baseline (executory/regulatory role)	Minister of Environment and Forestry, Coordinating Minister of Maritime & Investment Affairs
Article 15 (5)	Establishing the result of GHG emissions Baseline (regulatory role)	Minister of Environment and Forestry
Article 27 (2)	Planning for Provincial Climate Change Mitigation Action in accordance with Action Plan for Climate Change (regulatory role)	Minister of Environment and Forestry
Article 27 (3)	Coordinating the implementation of Climate Change Mitigation Action (executory/regulatory roles)	Minister of Environment and Forestry
Article 35 (2)	Inventorying the impact of climate change (executory role)	Minister of Environment and Forestry and/or related institutions
Article 42 (3)	Implementing Climate Change Adaptation Action (executory role)	Each related ministry
Article 50 (2)	Stipulating Carbon Trading mechanism	Minister of Environment and Forestry
Article 53 (3)	Developing Carbon Market infrastructure	Minister of Environment and Forestry and/or related institutions
Article 56	Establishing RBP guidelines (executory role)	Minister of Environment and Forestry
Article 57	Recipients of RBP's benefits to Government	Related ministries/institutions, business actors, community

One caveat to the future carbon tax regulation, is that the current carbon tax, Tax Regulation Harmonisation Law (Law No. 7/2021), has set a very low minimum price for the carbon tax. The implementing regulation on carbon valuation and carbon tax needs to be bold and not use the minimum price, but instead, use the highest or maximum price for an Indonesian carbon tax. This will send a message to the world that Indonesia truly cares about reducing climate change risk through GHG emissions reduction.

III.B. Additional Notes on the Legal Aspects in Presidential Regulation No. 98/2021

Despite many important legal aspects that form the basis for implementing CEV and achieving NDC, Presidential Regulation No. 98/2021 is still in need of improvement. For instance, Article 1 defines about Carbon Rights without an explanation about its application. This is especially important in earmarking construction for the use of funds as the result of CEV implementation. Furthermore, Article 59 stipulates the types of state income managed by institutions that administer environmental fund or a specifically appointed institution.

The Indonesian legal system recognizes the existence of derived legal regulations as reflecting and implementing the Constitution, Laws, Government Regulations, Presidential Regulations, or Local Government Regulations.²¹ The derived legal regulations are created through mandates from the Laws must be seen as an integral part of the Indonesian legal system. In several articles, the Presidential Regulation promises follow-up supporting presidential regulations. These documents are expected to be issued through Ministerial Regulations involving multisectoral coordination with the Ministry of Finance and other related ministries. The regulation also stipulates that fund management and distribution of benefits from implementing Carbon Trading, Performance-Based Payments, and Carbon Fees can be made through Environmental Fund Management Agency or institutions that are appointed by the Ministry of Finance.

The list of derived rules based on Presidential Regulation No. 98/2021 goes as follows:

²¹ Dominikus Rato, *Dasar-Dasar Ilmu Hukum: Memahami Hukum Sejak Dini* (Jakarta: Prenada Media, 2021), 14.

Presidential Regulation No. 98/2021	Follow-up Ministerial Regulations
Article 30	Regulation on the implementation of Climate Change Mitigation
Article 40	Regulation on the implementation of Climate Change Adaptation
Article 68 (6)	Regulation on validation procedure, verification, competence standard for independent validator and verifier
Article 48 (4)	Stipulation on domestic Carbon Trading and/or abroad by Ministry of Environment after coordination with other related ministries
Article 49	Regulation on the implementation of cross-sectoral Carbon Trading
Article 54 (4)	Regulation on the implementation of Carbon Trading
Article 55 (6)	Regulation on the paying procedure based on performance
Article 58 (3)	Stipulation and Strategy of implementation for Carbon Taxing
Article 61 (3)	Regulation on MRV Guideline for Climate Change Mitigation, Climate Change Adaptation, and CEV
Article 69 (5)	Regulation on the implementation of SRN Climate Change
Article 70 (4)	Regulation on procedure of sanctions for implementation for businesses
Article 71 (4)	Regulation on certification of GHG emissions reduction
Article 75	Offset sanctions

In terms of public participation, Presidential Regulation No. 98/2021 stipulates Government to increase involvement from stakeholders for Climate Change Mitigation, Climate Change Adaptation and CEV implementation. With respect to that, Article 82 (1) recommends Government to provide:

- a. Information;
- b. Capacity building; and/or
- c. Recognition or reward.

Despite acknowledging the mandate for public participation, Presidential Regulation No. 98/2021 does not currently contain any mechanism about the flow of the participation process for public. It does not have regulation over periods of follow-up for community participation/comment to ensure legal certainty. In accordance with the mandate of Law no. 14 of 2008 concerning Public Information Disclosure, the Government is obliged to provide accurate information and in timely manner to the public. The implementation of this obligation also requires the Government to provide facilities such as building or room for complaint, complaint desk, online complaint network, and other structures to garner public participation.

In order to ensure the clarity of follow up mechanism, Presidential Regulation No. 98/2021 must incorporate verification, investigation, imposition of sanctions and decision in granting permits if community involvement has not been carried out. If the rights to participate by the community are not respected, it can result in legal repercussion. It will create legal implications for the actions of the Government and/or business actors such as delay in

granting permits, and cancelling permits. Thus, it is necessary to coordinate among government agencies, especially the central-regional in order to follow up on public participation/complaints.

Lastly, Presidential Regulation No. 98/2021 and legal rules derived from it must incorporate evaluation and reporting of public participation implementation. The government shall make a report evaluating the implementation of public participation initiatives which contains:

- a. Reports received by system;
- b. Follow-up reports;
- c. Status of follow-up reports;
- d. Public satisfaction with the follow-up to comment/participation; and
- e. The facilities and infrastructure provided to encourage community engagement.

The information gathered by the Government through this process can be used as benchmark to improve reports and evaluations on the implementation of CEV.

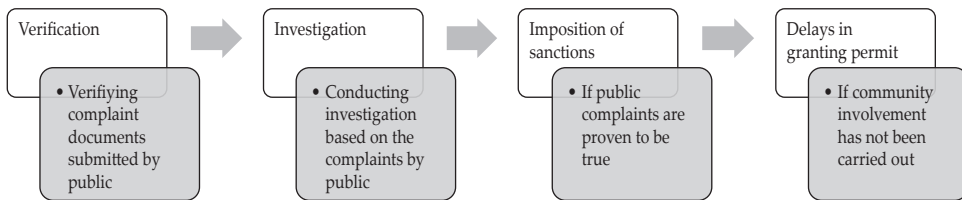


Figure 3 Process of public complaint

GoI needs to invite civil society and the community at large to be informed and involved in CEV and carbon related activities, because even though international commitments are in the State level, but implementation of CEV and carbon related activities are at the grassroots level. Keeping an open line of communication and information is one of the best ways to involve public at large in carbon related activities. Transparency and accountability at every level of government is needed, and this can only happen with public support and involvement.

IV. THE ROLE OF BANKS AND THE IMPLEMENTATION OF CARBON PRICING IN SEVERAL COUNTRIES

Successful implementation of a carbon pricing policy must be supported by strong involvement of banks within the national economic system. The introduction of carbon price policy through tax on carbon content of goods and services or the creation of a markets for emission permits requires

businesses to seek external financial support, mainly through a bank lending mechanism.²² The position of central banks is also important in stimulating low-carbon-output investments that are open and accessible to stakeholders.

On the other hand, there is speculation that changes brought by new legal regime introducing Paris-consistent emissions reductions might potentially create substantially increased risks for the banking system. Carbon pricing is expected to have a transitory inflation effect, thus requiring close monitoring by the central bank. According to a recent study conducted by the European Central Bank, early policy action applying more gradual changes in carbon prices is not expected to lead the adverse impacts on the banking system.²³ Therefore, it is crucial for the banking system to be included in the larger framework of carbon pricing implementation. In light of this, several countries have taken different approaches to address the role of banks on the implementation of carbon pricing.

1) Lebanon

The central bank (Banque du Liban) provides cheap credit for projects related to renewable energy production and energy efficiency in buildings. Once a loan request from a business is approved by a commercial bank, Banque du Liban would reduce an amount equal to 100-150% of the loan for the bank's obligatory reserve requirements.²⁴

2) Canada

In 2021, the Bank of Canada released a statement addressing climate change as global challenge. As the central bank, this statement shows commitment to involvement and demonstration of leadership in managing climate risks in its own operations. The climate-related increases in the frequency and severity of extreme weather events and the transition to a low-carbon net zero economy pose significant risks to the financial system. By developing and advancing the use of tools to assess climate-related risks, the Bank aims to help markets price such risks. The Bank of Canada has committed to taking the following concrete steps:²⁵

1. Assessing the effects of climate change on the macroeconomy and price stability;
2. Evaluating the Canadian financial system's exposures to climate-related risks and improving associate risk management capacities;

²² Emanuelle Campiglio, "Beyond Carbon Pricing: The Role of Banking and Monetary Policy in Financing the Transition to a Low Carbon Economy", *Ecological Economics*, 121 (2015): 220-230.

²³ Marco Belloni, Friderike Kuik, Luca Mingarelli, Euro Area banks' sensitivity to changes in carbon price in *European Central Bank Working Paper Series* No. 2654, March 2022.

²⁴ Campiglio, *Beyond carbon pricing*.

²⁵ Bank of Canada, Bank of Canada announces climate change commitments for COP26, <https://www.bankofcanada.ca/2021/11/bank-canada-announces-climate-change-commitments-for-cop26/>, accessed 8 July 2022.

3. Measuring, mitigating, and reporting on the Bank's operational risks related to climate change; and
 4. Engaging and collaborate with Canadian and international partners.
- 3) China

In 2021, the central bank of China (The People's Bank of China) introduced a new strategy to provide financial institutions with low cost loans to help firms cut carbon emissions.²⁶ This new lending facility is expected to help China hit peak carbon emissions by 2030 and reach carbon neutrality before 2060.²⁷ The loan is estimated to reach 60% of loan principals made by financial institutions for carbon emission cut with one-year lending rate at 1.75%. The People's Bank of China also allows the carbon emission reduction loans to be rolled over twice.

Reflecting on the international practices, there are some central banks that focus on inflation control aspects of monetary policy, arguing that "they have a legitimate stake in fighting the climate crisis by construing it as a direct threat to price or financial stability."²⁸ While in other, mostly in middle to low-income, countries central banks have "promoted or announced initiatives to encourage (small-scale) green private lending to green sectors, with the aim of accelerating the low-carbon structural transformation."²⁹ Indonesia has yet to stake out its position on the role of central bank and carbon pricing implementation, but in the future the central bank can exemplify the importance of financial industry's role in protecting the environment in ways such as Lebanon's, Canada's, and China's central banks have done.

V. CONCLUDING REMARKS

Presidential Regulation 98/2021 is designed to achieve the fulfilment of CEV's legal certainty and achieve NDC's targets as authorized and managed by the state and provide incentives and fiscal needs in order to support stakeholders in reducing their GHG emissions. Under Law 12/2011 this regulation fulfilled the standard for the Principles for the Formation of Indonesian Laws. However, there are many things left to be regulated under this regulation (as ordered by this Presidential Regulation) to make the objectives of this regulation come to

²⁶ Reuters, China's central bank rolls out lending tool for carbon emission cuts, <https://www.reuters.com/business/sustainable-business/china-central-bank-provide-low-cost-loans-carbon-emission-cuts-2021-11-08/>, accessed 8 July 2022.

²⁷ Central Banking, PBoC launches carbon-reduction monetary policy facility, <https://www.centralbanking.com/central-banks/monetary-policy/7895581/pboc-launches-carbon-reduction-monetary-policy-facility>, accessed 8 July 2022.

²⁸ Daniela Gabor, Green Central Banking in Heinrich Böll Stiftung Brussels European Union, <https://eu.boell.org/en/green-central-banking>, accessed 8 July 2022.

²⁹ *Ibid.*

fruition, and the deadline for these technical regulations is fast approaching.

The GoI needs to be extremely cautious and sensitive in forming and implementing these technical regulations and exemplify the importance of government's role in environmental protection. This can be done, for example by requesting the department of Finance to determine the increase Indonesia's carbon tax to a higher or maximum price for Indonesian carbon tax (the current carbon tax, Tax Regulation Harmonisation Law (Law No. 7/2021) has set a very low minimum price for carbon tax). This will send a message to the world that Indonesia cares about and would like to protect her environment. Moreover, GoI needs open all channels of public participation and accountability for the public at large. Most carbon emission reduction activities will be taking place at the grassroots level, so public participation is highly needed. Transparency and accountability in every level of government is needed and this can only happen with public support and involvement.

The Bank of Indonesia, as the Central Bank of Indonesia has stated that they acknowledge that the increase in GHG emission can potentially disrupt monetary and financial systems.³⁰ However, more crucial steps are to determine how the central bank is going to position itself in the new CEV and carbon market activities. There is a crucial role for the central bank can play in creating policy innovations in market based instruments toward a greener Indonesia, such as assessing the effects of climate change on the macroeconomy and price stability, evaluating the Indonesia's financial system's exposures to climate-related risks and improve associated risk management capacities, measuring, mitigating and reporting on the Bank's operational risks related to climate change, introducing new strategies to provide financial institutions with low cost loans to help firms cut carbon emissions, are among the examples taken by other central banks in other countries. It is up to Bank Indonesia to start 'picking up the baton' of carbon trading and support GoI in the climate change and GHG reduction race.

³⁰ <https://nasional.kontan.co.id/news/bi-perubahan-iklim-berpotensi-ganggu-stabilitas-moneter-dan-sistem-keuangan-1>, accessed Friday, July 8, 2022.

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