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## The Road to Net-Zero Emission in Indonesia: Legal Loopholes in National Carbon Tax Scheme

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Carbon Tax;  
Climate Change  
Mitigation;  
Nationally  
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### Abstract

Indonesia is committed to accelerating the achievement of Net-Zero Emissions by 2060. The Carbon tax is a new instrument that it believes could encourage the achievement of carbon neutrality. Through the Harmonisation of Tax Regulations Act, the Government regulated several carbon tax provisions, which were initially going to be implemented on April 1, 2022, and then postponed to July 1, 2022. Unfortunately, the carbon tax implementation has been delayed until an undetermined time. Implementing legal interpretation, this research comprehensively analyses carbon tax provisions in the Harmonisation of Tax Regulations Act. The research will examine the ability of current carbon tax arrangements to accelerate the achievement of Zero Emissions. This work uses normative juridical methods with a conceptual and statutory approach to provide recommendations. The results show that the carbon tax arrangement does not contain substantial clarity, and various implementing regulations are needed. Article 13 of the Harmonisation of Tax Regulation Act contains vague norms that need to be elaborated. The paper recommends the urgency of legislative review mechanism for the Harmonisation of Tax Regulation Act, especially Article 13, and the need to harmonise it with related laws.

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## Introduction

The Glasgow Climate Pact as a result of the United Nations Climate Change Conference 2021 (COP 26) further confirms the global commitment to tackling climate change. The agreement has been a progressive step in mitigating climate change since the entry into force of the Paris Agreement in 2015 as a framework for implementing essential articles in the Paris Agreement. From all 97 paragraphs in the Glasgow Climate Pact, four main points can be drawn regarding the direction of international cooperation in climate change mitigation: adaptation, mitigation, funding, and collaboration.<sup>1</sup> In terms of climate funding, COP 26 encourages participating countries to increase their

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<sup>1</sup> David Fogarty, 'COP26: Glasgow Sets Course for Stronger Climate Action' (*straitstimes.com*, 2021) <<https://www.straitstimes.com/world/cop26-glasgow-sets-course-for-stronger-climate-action>> accessed 10 September 2022.

climate change mitigation budget according to each country's Nationally Determined Contribution (NDC).<sup>2</sup> Funding support for climate mitigation is also reiterated in COP 27 in Egypt. This approach is motivated by the failure of countries to fulfil their climate change budget commitments. In 2020, developed countries failed to meet international climate funding commitments of US\$ 100 billion (around IDR 1,420 trillion) per year by 2020.<sup>3</sup> The climate change budget in Indonesia is one of the highlights because it continues to decrease annually. The national climate change budget was recorded as Rp 132.47 trillion in 2018. This amount dropped significantly in 2019 to IDR 97.66 trillion and only reached IDR 77.81 trillion in 2022.<sup>4</sup>

As a solution to this problem, COP26 emphasises international cooperation in climate change funding through carbon trading, including implementing a carbon tax as an effort to implement the NDC. Indonesia's first NDC in 2015 (NDC 2015) was considered less ambitious and did not show any significant changes.<sup>5</sup> Therefore, in 2021, at COP 26, Indonesia updated the NDC (NDC 2021) by including various points that were not explained in detail in the 2015 NDC, such as aspects of gender equality and decent jobs.<sup>6</sup> In addition, NDC 2021 adds a long-term strategy (LTS) document and includes Indonesia's commitment to the International Convention on Climate Adaptation. Instead of explicitly regulating and/or mentioning the carbon tax concept, NDC 2021 primarily focuses on carbon pricing. NDC 2021 confirms that a specific climate financing instrument is prepared in the form of Carbon Pricing (Carbon Economic Value), which will open up opportunities to mobilise climate finance from both international and domestic sources and provide incentives for stakeholder contributions to achieve the NDC.<sup>7</sup>

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<sup>2</sup> Joko Tri Harianto, 'COP-26 and Carbon Tax Initiation' (*investor.id*, 2021) <<https://investor.id/opinion/269560/cop26-dan-initiasi-pajak-karbon>> accessed 15 September 2022.

<sup>3</sup> Stanislaus Risadi Apresian, 'Glasgow COP26 Agreement Contains 4 Important Points, Is Indonesia's Climate Action On Track?' (*theconversation.com*, 2021) <<https://theconversation.com/kejuangan-cop26-glasgow-memuat-4-poin-penting-apakah-aksi-Indonesia-sclimate-already-according-line-172206>> accessed 15 September 2022.

<sup>4</sup> *ibid.*

<sup>5</sup> Geny Jati, 'Check out 6 Differences in Indonesia's 2016 NDC and 2021 Update Results' (*IESR.or.id*, 2021) <<https://iesr.or.id/en/check-out-6-differences-in-indonesias-2016-ndc-and-2021-update-results>> accessed 15 September 2022.

<sup>6</sup> Ministry of Environment and Forestry, *Updated Nationally Determined Contribution of Republic Indonesia 2021* (Ministry of Environment Life and Forestry of the Republic of Indonesia 2021) 15.

<sup>7</sup> Ministry of Environment and Forestry (n 6).

Indonesia's steps in meeting the NDC target are increasingly progressive with the promulgation of two regulations as the implementation of the NDC achievement strategy, namely Law Number 7 of 2021 on Harmonisation of Tax Regulations (*Harmonisasi Peraturan Perpajakan*) (HPP Act) and Presidential Regulation Number 98 of 2021 concerning the Economic Value of Carbon (*Nilai Ekonomis Karbon*) (Perpres NEK). These two legal products confirm Indonesia's commitment to climate change mitigation outlined in the Paris Agreement and the NDC 2021. The Ministry of Finance of the Republic of Indonesia stated that enacting a carbon tax through the HPP Act was a milestone in climate-change mitigation support through the fiscal sector. Indonesia is among the first countries to apply carbon taxes worldwide, especially from a newly emerging economic country.<sup>8</sup> The concept of a green economy that Indonesia is trying to implement through the HPP Act with a carbon tax is further strengthened by the passage of Perpres NEK, which opens the way for achieving NDC through carbon trading. Perpres NEK is an entry point for green investment and the transfer of renewable technologies, a policy that is expected to encourage the achievement of low-carbon development in line with the goals of net zero emissions by 2060.<sup>9</sup> Hence, the HPP Act and Perpres NEK—the two legal instruments underlying carbon tax implementation - reflected the consistency of the Indonesian Government's commitment to pursue a strong, just, and sustainable economy.

However, fundamental criticisms exist behind robust climate commitments regarding the implementation of the HPP Act and Perpres NEK. Strong criticism in particular hit the HPP Act. The failure to implement Carbon Tax—a duty postponed twice—remained in a pigeonhole for an undetermined time. The carbon tax was intended to be implemented on April 1, but was suspended two months later (July 1, 2022) and continues to be held.<sup>10</sup> Such a failure to implement a carbon tax indicated a fundamental

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<sup>8</sup> *ibid.*

<sup>9</sup> Ministry of Environment and Forestry, 'Presidential Decree on Carbon Economic Value Supports Achievement of Indonesia's NDC' (*PPID of the Ministry of Environment and Forestry*, 2022) <<http://ppid.menlhk.go.id/berita/siaran-pers/6269/perpres-value-onomi-karbon-support-achievement-ndc-indonesia>> accessed 20 September 2022.

<sup>10</sup> Anisa Indraini, 'Carbon Tax Canceled July 1, Why Mrs. Sri Mulyani?' (*detik.com*, 2022) <<https://finance.detik.com/energi/d-6149319/pajak-karbon-batal-berlaku-1-juli-kenapa-bu-sri-mulyani>> accessed 30 September 2022.

implementation problem of the HPP Act, a law that formed the carbon tax concept. Away from this argument, the Minister of Finance of the Republic of Indonesia, Sri Mulyani Indrawati, stated that the reason for delaying the imposition of the carbon tax was global geopolitical uncertainty in the war between Russia and Ukraine, and the energy crisis in Europe.<sup>11</sup> Global uncertainty due to war has created instability in global energy prices. Considering that the Carbon tax is applied to emission-producing industries, such as the energy industry, the vulnerable condition of instability due to war could be worse if a carbon tax is imposed. Such policy inconsistency between climate change commitment and postponing the carbon tax raises general concerns about the effectiveness of carbon taxes as a fiscal instrument to meet the NDC and Net Zero Emissions (NZE) targets of 2060. Consequently, this research will comprehensively discuss the barriers to carbon tax implementation, as regulated in the HPP Act. To what extent is the carbon tax roadmap in the HPP Act linear with the 2021 NDC commitment?.

### **Research Method**

The article utilises normative juridical with a conceptual approach as the research method<sup>12</sup>, namely the concepts of carbon taxes, climate change mitigation, carbon economic value, and net zero emissions. It also uses a statutory approach in the HPP Act and the 2021 NDC Documents. This research is a reform-oriented research, which aims to provide recommendations for transformation to the legal issues raised.<sup>13</sup>

### **Legal Problems of Carbon Tax concept in the HPP Act**

The carbon tax is part of carbon pricing or carbon economic value applied through trade and non-trade instruments.<sup>14</sup> It is firmly believed that a carbon tax could successfully act as a non-trade instrument in climate-change mitigation.<sup>15</sup> The HPP

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<sup>11</sup> *ibid.*

<sup>12</sup> Peter Mahmud Marzuki, *Legal Research* (3rd editio, Prenada Media 2016) 21.

<sup>13</sup> Marzuki (n 12).

<sup>14</sup> Rohan Best and Paul J Burke, 'Energy Mix Persistence and the Effect of Carbon Pricing' (2020) 64 *Australian Journal of Agricultural and Resource Economics* 555-574.

<sup>15</sup> Best and Burke (n 14).

Act, as an omnibus law for the taxation sector, regulates the carbon tax in one of its articles. From a total of 104 pages - 224 pages with commentary notes - and 19 (19) articles, amended 3 (three) taxation regulations<sup>16</sup>, carbon tax regulated in Article 13 of the HPP Act. Article *a quo* has 16 paragraphs - an extensive number compared to other usual legislation.

The definition of a carbon tax does not appear explicitly in the HPP Act. Article 13 (1) of the HPP Act stipulates only the obligation to impose taxes on carbon emissions that harm the environment. An explicit definition of a carbon tax is found in the Academic Text of the Draft Law Concerning the Fifth Amendment to Law Number 6 of 1983 on General Provisions and Tax Procedures (*Ketentuan Umum Perpajakan*) (RUU KUP). The RUU KUP was a draft of the law on the General Provisions of Taxation, which later transformed into the HPP Act. The RUU KUP defines carbon tax as fees imposed on fossil-based goods, businesses, or activities that contain or produce greenhouse gas emissions.<sup>17</sup> This carbon tax definition is not a formulation made by the House of Representatives as the legislature, but an adaptation of the carbon tax explanation made by the Organisations for Economics Co-operation and Development (OECD).<sup>18</sup>

The academic text of the RUU KUP explains the legal ratio of why carbon taxes should be included as a fiscal instrument in tackling climate change. The basis for such an urgency departed from the existing conditions of the negative externalities of carbon emissions, which are generated by economic activities, particularly by the energy and transportation industries.<sup>19</sup> The negative externality of climate change leads to economic losses in the form of external costs to third parties, which cannot be reflected in market prices.<sup>20</sup> To deal with negative externalities in the form of carbon emissions, the government introduces negative externalities in an open market economy.<sup>21</sup> To do

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<sup>16</sup> HPP Act amended six legislations namely: 1) General Provision and Procedure of Taxation; 2) Income Tax; 3) Excise.

<sup>17</sup> DPR RI Expertise Agency, *Academic Text of the Draft Law Concerning the Fifth Amendment to Law Number 6 of 1983 Concerning General Provisions and Tax Procedures* (2021) 135.

<sup>18</sup> OECD, 'Effective Carbon Rates 2021: Pricing Carbon Emissions Through Taxes and Emissions Trading' (2021) <<https://www.oecd.org/tax/tax-policy/effective-carbon-rates-2021-0e8e24f5-en.htm>>.

<sup>19</sup> DPR RI Expertise Agency (n 17).

<sup>20</sup> *ibid.*

<sup>21</sup> *ibid.*

so, the government implemented disincentives or taxation instruments that, in nature, provide sanctions for industries that use carbon emissions. Valentine et al. emphasized that carbon taxes are tools for control or behavior modifiers.<sup>22</sup> Valentine's opinion aligns with how the administrative law concept views tax as a form of government control aimed at controlling society, including changing behavior. Prajudi stressed that the legal basis is absolute because of the functions of modern law, including managing society and regulating the flow of life within the community.<sup>23</sup> According to Prajudi, the existence of a comprehensive law to regulate carbon taxes is necessary. Valentine further argues that the imposition of a carbon tax is intended to grow a green industrial climate capable of encouraging economic innovations and good green technology to reduce tax payments.<sup>24</sup> Considering the philosophical purpose of carbon tax implementation, arguably, its intended results will take time to achieve.

The HPP Act was formed using the omnibus method, which altered several laws simultaneously. The carbon tax arrangements in the HPP Act are outlined in Chapter VI, Article 13 of the Act. Comparing this to the goals set for the carbon tax itself and Indonesia's exceptional commitment to mitigating climate change, more than a single legal norm on the carbon tax is needed to build a solid and well-implemented concept of the carbon tax. Article 13 contains 16 paragraphs. From a drafting point of view, the number of verses was profoundly large. Bounding all legal norms related to the carbon tax in one article creates obscurity in these norms. Comparing Article 13 HPP Act to the goals set for the carbon tax itself and Indonesia's exceptional commitment to mitigating climate change, more than a single legal norm on the carbon tax is needed to build a solid and well-implemented concept of the carbon tax.

In accordance with the HPP Act, Article 1 (1) emphasises that the object of the carbon tax is carbon emissions that harm the environment. Meanwhile, the subject of a carbon tax imposition includes every person/business entity that purchases carbon-containing goods and/or conducts activities that produce carbon emissions (Article 13 (5)). When a carbon tax

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<sup>22</sup> Scott Victor Valentine, Marilyn A Brown and Benjamin K Sovacool, *Empowering the Great Energy Transition: Policy for a Low-Carbon Future* (1st edition ed, Columbia University Press 2019) 34.

<sup>23</sup> Prajudi Atmosudirjo, *State Administrative Law* (Ghalia Indonesia 1994) 24.

<sup>24</sup> Atmosudirjo (n 23).



becomes payable, it should be paid at the end of an activity that produces carbon emissions or at any other time as regulated by or based on government regulations (Article 13 (7)). Nonetheless, the HPP Act did not provide a further explanation of when the specified time was. It only rules that this arrangement will be regulated by the government. This obscurity affected the diminishing legal certainty of the carbon tax itself. The exact timing at which a carbon tax can be imposed as duty is exceedingly essential. This argument builds on the concept of legal certainty, one of the basic principles in law formation. A law must function to ensure legal certainty. Clarity regarding the timing at which an activity should be liable for a carbon tax is essential to ensure the rights and obligations of the taxpayer. From the lens of administrative law, as an instrument to control, a regulation governing the rights and obligations of the community should be formed by involving the House of Representatives (DPR). Thus, arrangements regarding when an activity that produces carbon emissions is subject to carbon taxes must be regulated in the law.

The payable carbon tax is calculated by considering the emission factor values determined by the ministries and/or agencies that possess the competence and authority to measure the values. However, this norm does not clarify which ministries and/or institutions have the authority to calculate. Again, this vague formulation of norms creates legal uncertainty, conflicts of authority, policy overlap, and inconsistency. The sectoral perspective of ministries and the degree of cooperation across ministries are the two main problems that still need to be solved. This problem could worsen with blurred authority norms of carbon tax calculations. On the other hand, authority is essential in determining the legitimacy of government actions, including the collection of carbon taxes. If this parameter is not fulfilled, government actions can be illegitimate.<sup>25</sup> The absence of regulatory norms to measure factor values of the carbon tax, and delegate this matter to the government as a government regulation, shows that legislators provide a “blank check” for regulations to the government. This condition is not ideal; the certainty of factor value measurement and the authority to conduct it is part of the community’s rights and obligations related to carbon taxes. Therefore, the regulation of the carbon

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<sup>25</sup> Phillipus M.Hadjon, *Basic Understandings of Acts of Government (Bestuurhandeling)* (Stencil Djumali 1985) 6.

tax calculation and measurement of factor values should be in the form of a law. In contrast to the HPP Act, Perpres NEK provides a more apparent authority division by giving power to the Minister of Finance to set the formulation of levies, including carbon taxation (Article 58 (3) Perpres NEK). The President stipulated Perpres NEK on the same day as the promulgation of the HPP Act by the DPR.

The carbon tax rate arrangement is found in Articles 13 (8) and (9) of the HPP Act. It was mentioned that carbon tax rates are based on the carbon price per kilogram of carbon in the carbon market. The rate is set higher than or equal to the price in the carbon market. If the carbon price on the carbon market is lower than IDR 30 (30 rupiah) per kilogram of carbon dioxide equivalent (CO<sub>2</sub>-e), then the carbon tax rate is set at a minimum of IDR 30.00 (30 rupiah) per kilogram of carbon dioxide equivalent (CO<sub>2</sub>-e). However, the formulation of the tax rate needs to be explained further. The lack of such explication could be another root cause of diminishing legal certainty in the carbon tax concept. The tax rate formula is essential for the government to impose carbon tax. It is also important for society, particularly carbon taxpayers. Despite providing sufficient elaboration of the tax rate formulation, Article 13 (10) of the HPP Act again sets a delegation of arrangements regarding changes in tariffs and/or tax determination to the Minister of Finance Regulation, which should be issued after consultation with the DPR. The paper argues that numerous delegations of regulation brought by the HPP Act can potentially plummeting legal certainty.

In addition, the delegation of regulation appears in the provision of carbon tax incentives and tax objects. The carbon tax collection mechanism is accompanied by incentives in the form of carbon tax reductions and other privileges if the subject of the carbon tax participates in carbon emission trading, carbon emission offsets, and/or mechanisms related to the environment. Nevertheless, the Law did not regulate the extent to which these incentives could be provided or the type of incentives. Apart from rates and incentives, the law also delegates regulations to determine tax objects. The lawmaker gave the government authority to regulate this matter through government regulations (Article 13 (11) of the HPP Act). Furthermore, the delegation of regulations that exist in Article 13 of the HPP Act rules the carbon tax concept is listed in table below.



**Table 1.** Delegation Regulatory Legal Forms in HPP Act.

Article Norms (HPP Act)	Substance	Delegation of regulatory legal forms
Article 13 (7)	When the Carbon tax is payable	Government regulations
Article 13 (10)	Carbon tax arrangement and modification, tax base	Minister of Finance Regulation
Article 13 (11)	Additional carbon tax objects	Government regulations
Article 13 (14)	Procedures on calculation, collection, payment or deposit, report and carbon tax imposition	Ministerial regulation
Article 13 (15)	Carbon tax subject, allocation of carbon tax revenue for climate change mitigation	Government regulations

Source: *Author Analysis, 2023 (Edited)*.

Table 1 shows that the HPP Act in Article 13 provides delegation of regulation in each of its paragraphs; this leads to the failure of the HPP Act to carry out its obligations as a comprehensive carbon tax regulation. Delegation of regulation is not a forbidden process: the Law on Establishment of Legislations (Law Number 12 Year 2011 (Law 12/2011) as amended by Law 6 Year 2023 on Job Creation), Article 7 (1) explained Government Regulation as a form of legislation. However, as Law 12/2011 said, only Law - a form of regulation that discussed and agreed upon between the House of Representatives and the government. It could be argued that Law is a form of regulation that ensure public participation in lawmaking. It is important that Law provide clear legal norms.

The incompleteness of carbon tax arrangements also reflects lawmakers' failure to establish a basic framework for carbon tax collection. Therefore, they trust and give authority to the government to determine the fundamental aspects of the carbon tax. For example, in tax objects matters, by providing the power to determine tax objects in government regulations, the legislative maker lost their ability to control the range of carbon tax objects, which is fundamental for society. From the taxpayer's point of view, this causes uncertainty about their carbon tax duties. The tax objects could be altered anytime by Government Regulation; it has a more straightforward issuance process than an act and only involves the government as an executive. Tax objects linked to the collection. Expanding tax objects brings additional financial benefits to the state budget and sets duties for taxpayers. At this point, the role of the legislature as lawmakers is

vital to ensuring the legal certainty and balance position of rights and responsibilities, scope, and the tariff of the carbon tax. Unfortunately, such a legislative role could not be accessed if regulations were delegated.

### **Carbon Tax Roadmap as a Climate Change Mitigation Instrument to achieve NZE 2060**

The discussion in this subsection is intended to seek to what extent the recent Article 13 of the HPP Act could be a blade in achieving *Net Zero Emission* (NZE) as Indonesia's *Nationally Determined Contribution* (NDC) target in 2060. Article 13 (12) provides policymakers with discretion to determine carbon tax revenue allocation for climate change mitigation. Colmuss argues that the carbon tax concept is in accordance with the *pigovian* tax model. The outcome of the tax is to reduce negative externalities, in this context, climate change.<sup>26</sup> The characteristics of a carbon tax also follow the characteristics of a *pigovian* tax in the form of a disincentive. It has a regressive impact by creating a dead-loss effect on energy and good prices.<sup>27</sup> This negative impact raises the debate on whether carbon tax is progressive or regressive. Referring to Daniel's opinion, progressive taxes can be seen through the provision of incentives to taxpayers.<sup>28</sup> Meanwhile, as Colmuss argued, carbon tax could bring about an increase in energy and goods prices.<sup>29</sup> Despite these arguments, the authors argue that the HPP Act designed a carbon tax as a progressive tax. Incentives are given to taxpayers who participate in a gradual tax rate reduction.

The linearity between the 2021 NDC target and the carbon tax formulation in the HPP Act is reflected in Article 13 (3) of the carbon tax roadmap. The roadmap includes 1) carbon emission reduction strategy, 2) priority sectors, 3) alignment with new and renewable energy development, and/or 4) harmonization between other related

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<sup>26</sup> Anja Kollmuss and others, *Handbook of Carbon Offset Programs: Trading Systems, Funds, Protocols and Standards* (1st Editio, Earthsca 2010) 56.

<sup>27</sup> Arnaud Brohe, Nick Eyre and Nicholas Howard, *Carbon Markets: An International Business Guide* (1st editio, Earthscan 2009) 23.

<sup>28</sup> Lawrence Daniel Ferwinz Andi Lolo, Achmad Dhani Maulana and Decmonth Nuel Pasaribu, 'Carbon Tax Transparency: Digitalization of Carbon Taxes as a Catalyst for Low Carbon Development in Indonesia' (2022) 5 *Jurist-Diction* 205, 205-228 <<https://e-journal.unair.ac.id/JD/article/view/32981>>.

<sup>29</sup> Kollmuss and others (n 26).

policies. These points are further elaborated in the official explanation of Article *a quo* that links the carbon tax road map with the carbon reduction target pursuing NZE 2060. Furthermore, Article 13 (3) elucidates the carbon tax implementation steps: a) 2021, development of carbon trading mechanism; b) 2022-2024 cap and tax mechanism for coal-based electricity generator; c) 2025-further, fully implemented carbon trading and expansion of carbon tax sectors with careful consideration of the economy condition, the readiness of the business stakeholders, and impact and/or scale. Interestingly, Article 13 (3) commentary provides two extra parameters: the use of a carbon tax should consider the corporate tax subject's regulation, and the carbon tax tariff should be higher or at least equal to the carbon price in the domestic carbon market. These are essential parameters that lawmakers should set to ensure comprehensive carbon tax implementation. Unfortunately, these parameters appear only in the law commentary, with no legal consequences. These boundaries should be included in legal norms.

The first carbon tax road map formulated carbon taxes as a strategy for reducing carbon emissions. Article 13 (3) of the HPP Act commentary stated the government's commitment to carbon emissions reduction by 29% (twenty-nine per cent) with its capabilities and 41% (forty-one per cent) with international support in 2030 and towards NZE no later than 2060. A similar commitment has been stipulated in Chapter IV of NDC 2021, which explains the country's obligation to reduce GHG emissions by 29% unconditionally against the Business as Usual (BaU) scenario in 2030.<sup>30</sup> Climate commitment should be implemented through policies in various related sectors, such as effective land use and spatial planning, sustainable forest management (social forestry programs), restoration of degraded ecosystem functions (including wetland ecosystems and improvement of agricultural productivity), energy conservation, and promotion of clean and renewable energy sources, as well as waste management improvement. The NDC 2021 also highlighted Indonesia's potential to increase its contribution up to 41% of emission reductions by 2030, subject to the availability of

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<sup>30</sup> Ministry of Environment and Forestry (n 6).

international support for finance, technology transfer, and domestic technological capacity building.<sup>31</sup>

The second carbon tax roadmap is linked to the priority sector targets. Annexes 1 and 2 of the NDC 2021 stipulated sectors focus on emission reduction. Annex 1 contains mitigation efforts, whereas Annex 2 discusses adaptation efforts. Energy, agriculture, forestry, land use, and waste management were the prioritized sectors in Annex 1. The energy sector includes energy efficiency and the use of new and renewable energy to produce electricity. These substances have become a direction for energy policy that is strongly connected to climate change mitigation. These priority sectors have also become the focus of carbon tax revenue allocations. The above analysis illustrates the linkage between carbon tax regulations and the 2021 NDC. This interconnected relationship between the HPP Act and the national climate mitigation target supports our central argument that Article 13 of the HPP Act was created as the implementation of Indonesia's commitment to climate change.

Commitment to renewable energy development as part of climate mitigation policies is also reflected in the third point of the carbon tax roadmap. As mentioned in the commentary of Article 13 (3), several approaches should be applied, including carbon taxes, carbon trading, and sectoral technical policies, such as phasing out coal, developing new and renewable energy, and increasing biodiversity. To achieve NZE, the government should apply these policies by considering the balance between climate change mitigation, certainty of the business environment, and the pursuit of a just and affordable transition for the community. This linearity illustrates Indonesia's commitment to the Paris Agreement. The carbon tax must be able to address the problem of New and Renewable Energy (NRE) development, which mainly depends on funding sources due to the high cost needed to develop NRE technology.<sup>32</sup> Therefore, looking at the range of related scope of carbon tax, there is an urgency for harmonization between the HPP Act, Energy Law, Investment Law, and the upcoming

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<sup>31</sup> *ibid* 23.

<sup>32</sup> Heleen L van Soest, Michel GJ den Elzen and Detlef P van Vuuren, 'Net-Zero Emission Targets for Major Emitting Countries Consistent With the Paris Agreement' (2021) 12 *Nature Communications* 1, 1-9 <<https://www.nature.com/articles/s41467-021-22294-x>>.

New and Renewable Energy Law.

The need for harmonisation regulation is expected in carbon tax policies. The carbon tax roadmap highlights the alignment between the taxes and related policies. Nevertheless, the HPP Act places further parameters on this to be regulated by government regulations. Article 13 (4) ruled that such regulations must be made by the government and approved by the House of Representatives (DPR). This is an unusual practice in the law-making process. The legislative function of the DPR only gives the institution the right to make law in the form of a statute and approve a government regulation in lieu of law to become a statute. Such approval is not necessary if it relates to government regulations. This practice reflects the DPR's incompetence in understanding and setting a concept for a carbon tax.

Tax policy is one of the implementations of carbon economic value, as mentioned in Perpres NEK. This regulation was stipulated on October 29, 2021, the same day as the HPP Act was issued. According to this regulation, there are four mechanisms of carbon economic value, namely: 1) carbon trading; 2) performance-based payment; 3) carbon levies; 4) other mechanisms based on the gains and technological development that set by the minister. Carbon levies are mentioned only in one article: Article 58 of Perpres NEK provides a wider mechanism for the levies; it could be in the form of tax (central and regional), customs, and excise. Nevertheless, unlike other forms of carbon economic value, Perpres NEK did not detail carbon levies and left them under the applicable regulations. Hence, Article 13 of the HPP Act on carbon tax did not significantly impact the implementation of carbon levies, as a carbon tax duty has yet to be imposed.

Related laws on the carbon tax mechanism can be seen in Annex 1 of the NDC 2021, which includes several regulations as the basis for designing carbon emission reduction targets according to their three respective sectors (energy, AFOLU, and waste management):

**Table 2.** Regulations and Policies for Each Sector in Annex 1 of NDC 2021

No.	Sector	Legislation
1.	Energy	Government Regulation Number 79 of 2014 on National Energy Policy Presidential Regulation Number 22 of 2017 on the National Energy General Plan Decree of the Minister of Energy and Mineral Resources No. 5899 K/20/MEM/2016 on Ratification of the Electricity Supply Business Plan of PT Perusahaan Listrik Negara (Persero) for 2016 to 2025.
	Agriculture, Forestry, and other Land Use (AFOLU)	Regulation of the Minister of Environment and Forestry Number P.41/MENLHK/SETJEN/KUM.1/2019 on the 2011-2030 National Level Forestry Plan <i>Roadmap</i> of the Indonesian Palm Oil Industry Towards 100 Years of the Republic of Indonesia Indonesian Forest Entrepreneurs Association <i>Roadmap</i> 2060 Forest and Plantation Product Industry Strategic Plan for 2020-2024 National Development Plan: Long and Medium Term 2015-2019, 2020-2024
3.	Waste Management	Law Number 18 of 2008 on Waste Management Government Regulation Number 81 of 2012 on Management of Household and Household-like Waste

Source: Updated Indonesia NDC 2021 Annex 1, 2023

Regrettably, not all of the regulations stated in Table 2 are referred to in the considerations section of the HPP Act. The Law only includes statutory related to state finances, which implicitly shows the focus of the HPP Act on the economic sector. In contrast, the HPP Act's issuance is not mainly about taxation, but how the tax could be an instrument to accelerate and achieve national targets for climate change mitigation and the NDC's goal. Article 13, the basis of the new carbon tax scheme, supports this argument. The carbon tax concept is a cross-sectoral fiscal instrument. Therefore, the HPP Act should consider other related regulations. Many related regulations are missing in the consideration section of the HPP Act, two of which are the Environmental Law and Energy Law.

## Conclusion

Carbon taxes can become a source of funding for efforts to reduce carbon emissions in Indonesia and accelerate the achievement of the NZE target by 2060. However, Article 13 of the HPP Act as the legal basis of the carbon tax failed to provide legal certainty.



There are several factors to this: (1) Article 13 comprises 16 paragraphs—too many aspects regulating in a single article; (2) numerous delegations of regulation appear in Article 13, leading to the diminishing of legal certainty related to the carbon tax concept itself; and (3) the perspective of the carbon tax is from the economic aspect only. These conditions make the HPP Act ineffective for implementing a carbon tax. The unavailability of derivative regulations in the HPP Act is a loophole for implementing carbon taxes. The lawmaker should refrain from delegating some of the main aspects, such as tariff formulation and tax objects, to the lower form of regulation. Suppose that the strategy for implementing a carbon tax is the same. In this case, the two delays in implementing the carbon tax will still occur in the future. The HPP Act does not comprehensively explain the written roadmap or how it correlates with the 2021 NDC target. This caused a substance imbalance in Article 13, which focused only on the financial aspects of a carbon tax. The harmonisation of regulation is the next issue, whereas the consideration dictum concentrates only on tax regulations and does not include related laws, particularly environmental law. This contradicts the function of the carbon tax as a green economy instrument.

To respond to the carbon tax implementation problem, we recommend that the carbon tax arrangement in the HPP Act needs a legislative review mechanism as a law reformulation step. Aspects need to be altered, including the broadly elaborated Article 13 HPP Act and alignment with existing regulations and the government blueprint on NZE. A partition of Article 13 into several parts related to the subject is required. Reducing the number of delegations of regulation is essential when the lawmaker conducts their duty to formulate a comprehensive concept of the carbon tax-tariff formula, tax objects, rights, and obligations of the taxpayer. Simultaneously, the derivative regulations of Article 13 of the HPP Act must be discussed and issued immediately while harmonising with the existing law.

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