

Fragmented Carbon Tax Governance in Indonesia: Institutional Conflicts, Legal Certainty, and Lessons from Finland

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Abstract

This study examines the construction of institutional authority over carbon tax administration in Indonesia and formulates an ideal design informed by Finland's model. Using normative legal research with statute-based and comparative approaches, the analysis identifies four interlocking normative deficits in Indonesia's carbon tax governance: operational unworkability of the statutory mandate, a norm-hierarchy conflict between Law No. 7/2021 on Tax Regulations Harmonization (HPP Law) and lower-level regulations, fragmented attribution of authority among the Directorate General of Taxes (DJP), the Financial Services Authority (OJK), and the Ministry of Environment and Forestry (KLHK) without binding resolution mechanisms, and systemic incoherence between fiscal and market-based carbon instruments. The normative shift from Presidential Regulation 98/2021 to Presidential Regulation 110/2025 widens the gap between the fiscal mandate of the statute and actual implementation by explicitly positioning the carbon tax as a residual instrument subordinate to mitigation, quota, and offset mechanisms. Drawing on Finland's experience since 1990, the study demonstrates that unified fiscal attribution, upstream tax integration, and systemic coherence are achievable without creating new institutional structures, while acknowledging contextual differences in administrative capacity, European Union membership, and economic development. Indonesia's ideal design requires an omnibus Government Regulation establishing the DJP as the sole fiscal authority, revision of Presidential Regulation 110/2025 to restore the primacy of the carbon tax over carbon trading, and binding data-exchange protocols between institutions, preceded by structured inter-ministerial consultation to address political resistance. The novelty of this study lies in its integrated four-theory analysis of institutional authority construction and the normative consequences of the Perpres 98/2021 to 110/2025 transition in a gap unaddressed in prior literature on Indonesian carbon pricing.

INTRODUCTION

Indonesia adopts a carbon tax through Law Number 7 of 2021 concerning the Harmonization of Tax Regulations (HPP Law) with a minimum rate of IDR 30.00 per kilogram of CO₂ equivalent. This norm places the Directorate General of Taxes (DGT) as the sole collecting authority and implicitly positions the carbon tax as the main fiscal instrument in emission control. More than three years since the norm's enactment, the carbon tax is not yet operational: its implementation has been delayed from April 2022 to 2025, and as of 2026 its collection roadmap is still being drafted.¹ The World Bank's *State and Trends of Carbon Pricing 2025* report notes that Indonesia has experienced implementation delays due to institutional fragmentation and the absence of a binding data exchange protocol between institutions.² The Financial Audit Agency noted that cross-agency synchronization is the main obstacle to the determination of *the road map*.³

This delay is not just a matter of technical readiness. The three regulatory regimes run simultaneously with potential overlap. The DGT holds the authority to collect carbon taxes based on the HPP Law. The Ministry of Environment and Forestry (MoEF) manages the National Registry System (SRN) through Presidential Regulation Number 110 of 2025 concerning the Implementation of Carbon Economic Value Instruments (NEK). The Financial Services Authority (OJK) supervises the carbon exchange based on POJK Number 14/POJK.04/2023.⁴ The three deal with the same object in different legal regimes without a normative bridge that governs the relationship between the three. Harifuddin et. al., confirming that the gap is not a symptom of transition, but a reflection of the structural unpreparedness of Indonesia's carbon governance.⁵

The business implications of this condition are concrete. Business actors in the mining and energy sectors cannot be sure of their fiscal obligations: whether the purchase of carbon credits on the OJK exchange aborts tax obligations to the DGT, and which must be fulfilled first. This uncertainty is a real legal risk, even for companies that intend to

¹ World Bank, *State and Trends of Carbon Pricing 2025* (Washington DC: World Bank, 2025), <https://openknowledge.worldbank.org/entities/publication/e5f6e755-e6a6-4d2c-927a-23b5cc8a9b03>

² OECD, *Pricing Greenhouse Gas Emissions 2024: Gearing Up to Bring Emissions Down* (Paris: OECD Publishing, 2024), 45–47, <https://doi.org/10.1787/b44c74e6-en>

³Ministry of Finance Media, "Towards the Implementation of Carbon Tax," August 16, 2024, <https://mediakeuangan.kemenkeu.go.id/article/show/menju-implementasi-pajak-karbon>

⁴ Financial Services Authority of the Republic of Indonesia, *Financial Services Authority Regulation Number 14/POJK.04/2023 concerning Carbon Trading Through Carbon Exchange* (Jakarta: OJK, 2023).

⁵Harifuddin et al., "Institutional Readiness for Inclusive Carbon Market Development in Indonesia," *Journal of Cultural Analysis and Social Change* 10, no. 4 (2025): 429–38, <https://doi.org/10.64753/jcasc.v10i4.2854>.

comply.⁶ At the international level, the *European Union's Carbon Border Adjustment Mechanism* (CBAM) requires proof of domestic carbon prices from exporting countries; without a carbon tax in operation, the fiscal burden shifts to importers in Europe and potentially reduces Indonesia's export competitiveness.⁷

This study uses four theoretical frameworks as an integrated analysis instrument. Fuller (1964) through its eight principles of legality tests whether Indonesia's carbon tax norms have been published operationally, not contradictory, and applied consistently.⁸ Kelsen (1967) analyzed whether the lower norm of the HPP Law was legally derived or deviated from the mandate of the higher norm.⁹ Hadjon and Djatmiati (2011) identified the source of attribution of authority of each institution and whether there is a resolution mechanism when authority collides.¹⁰ Tipke (1993) assesses whether the existing carbon instruments run in a coherent philosophy or create a systemic chaos that he calls *Steuerchaos*.¹¹ All four theories work in layers: Fuller's violation of legality is a surface symptom; Kelsen's hierarchical conflict is its normative mechanism; Hadjon's attribution fragmentation is its institutional source; and *Tipke's Steuerchaos* is its systemic consequence.

The study of Indonesia's carbon tax after the HPP Law has developed in several directions. Ilahi and Kusmono (2023) assess the carbon tax based on the principles of certainty, justice, and usefulness, without dissecting the overlap of authority between institutions as a separate legal issue.¹² Pamungkas and Haptari (2022) examined the option of imposition schemes without locking in the institutional consequences.¹³ Nurhayati et. al., (2024) compared the *carbon pricing* of Indonesia, Finland, and Sweden in terms of *ratio legis*, the closest study to this study – but the focus ends on the substance

⁶OECD, *Pricing Greenhouse Gas Emissions 2024: Gearing Up to Bring Emissions Down* (Paris: OECD Publishing, 2024), <https://doi.org/10.1787/b44c74e6-en>

⁷European Commission, "Carbon Border Adjustment Mechanism (CBAM): Questions and Answers," 2023, https://taxation-customs.ec.europa.eu/system/files/2023-12/cbam_questions_and_answers.pdf.

⁸Lon L. Fuller, *The Morality of Law* (New Haven: Yale University Press, 1964).

⁹Hans Kelsen, *Pure Theory of Law*, trans. Max Knight (Berkeley: University of California Press, 1967).

¹⁰Philipus M. Hadjon and Tatiek Sri Djatmiati, *Introduction to Indonesian Administrative Law*, 9th ed. (Yogyakarta: Gadjah Mada University Press, 2011).

¹¹Klaus Tipke, *Die Steuerrechtsordnung*, vol. 1-3 (Cologne: Verlag Dr. Otto Schmidt, 1993).

¹²Abdurrahman Raden Ilahi and Kusmono, "Carbon Tax Study in Law Number 7 of 2021 concerning Harmonization of Tax Regulations Based on the Principles of Certainty, Justice, and Usefulness," *Indonesian Tax Journal* 7, no. 2 (2023): 217-232, <https://jurnal.pknstan.ac.id/index.php/JPI/article/view/1672>

¹³Bambang Nofan Pamungkas and Vidya Desi Haptari, "Analysis of Carbon Tax Imposition Scheme in Indonesia Based on the United Nations Handbook on the Implementation of Carbon Tax by Developing Countries," *Indonesian Tax Journal* 6, no. 2 (2022): 191-207, <https://doi.org/10.31092/jpi.v6i2.1843>

of the policy without touching the construction of operational authority.¹⁴ Qanita and Sadiawati (2025) compare Indonesia and Singapore in a general framework.¹⁵ Iqbal and Diana (2024) focus on optimal rates.¹⁶ The unfilled gap is a study that specifically analyzes the construction of authority in its slice with the carbon market, including the normative impact of the shift from Presidential Regulation 98/2021 to Presidential Regulation 110/2025—this is the theoretical contribution of this article to Indonesia's tax law and administrative law.

Finland was chosen as a comparator country not because of the similarity of its economic system or administrative capacity, but because of the relevance of its institutional design. Finland was the first country to implement a carbon tax in 1990 by integrating it into a single authority without dividing authority with non-fiscal institutions.¹⁷ This option allows for a comparison focused on the same variables: who is authoritative, how the collection procedure is designed, and how the relationship of carbon taxes with other carbon instruments is managed. Drews and van den Bergh (2025) show that developing countries that successfully initiate *carbon pricing* tend to opt for simple administrative mechanisms with a single attribution point—a condition aptly exemplified by the Finnish model.¹⁸

This study formulates two questions: first, how to construct the authority to implement Indonesia's carbon tax and what are its juridical implications for the certainty of collection procedures; second, how the ideal design for the implementation of Indonesia's carbon tax can be formulated based on learning from the Finnish model.

METHODS

This study uses a normative legal research method that places law as norms, principles, and rules that are studied through literature studies.¹⁹ Two approaches are

¹⁴Yati Nurhayati et al., "Carbon Pricing Policy to Support Net Zero Emission: A Comparative Study of Indonesia, Finland and Sweden," *Environmental Policy and Law* 54, no. 1 (2024): 53–63, <https://doi.org/10.3233/EPL-230047>.

¹⁵Salsabila Yasmin Qanita dan Diani Sadiawati, "Carbon Tax Regulation in Indonesia: A Comparative Review with Singapore," *Awang Long Law Review* 7, no. 2 (2025): 340–48, <https://doi.org/10.56301/awl.v7i2.1533>.

¹⁶Syaiful Iqbal dan Shelly Diana, "Predicting Optimal Tariff of Indonesia's Carbon Tax: A Reflection on Japan and Singapore," *International Journal of Social Science and Business*, 8(4), 541–556. <https://doi.org/10.23887/ijssb.v8i4.89592>

¹⁷Finnish Government, *Act on Excise Duty on Liquid Fuels No. 1472/1994* (Helsinki: Ministry of Finance Finland, 1994).

¹⁸Stefan Drews dan Jeroen van den Bergh, "A Review of Carbon-Pricing Studies for Developing Countries," *Climate and Development* 18, no. 2 (2025): 121–40, <https://doi.org/10.1080/17565529.2025.2506758>.

¹⁹Soerjono Soekanto and Sri Mamudji, *Normative Law Research: A Brief Review* (Jakarta: Rajawali Press, 2019).

used simultaneously: a legislative approach to examine the structure of articles and the relationship between provisions in the HPP Law, Presidential Regulation 98/2021, Presidential Regulation 110/2025, POJK 14/2023, and PermenLHK 21/2022; as well as a comparative approach to compare the implementation design of Indonesia and Finland on three variables that are explicitly determined: (1) the organizing authority and the source of attribution of authority, (2) the collection procedure and the point of imposition of taxes, and (3) the normative relationship between carbon taxes and other carbon instruments.²⁰

The selection of Finland as a comparator country was based on three criteria: commonality of the problem points (how one fiscal authority manages carbon taxes without fragmentation of authority), the relevance of the institutional design that can be contrasted, and the availability of academic literature and verified official data. Sweden and Norway were not chosen because of the differences in the structure of fiscal federalism; Singapore was not chosen because it does not yet have a carbon market that operates in parallel with its carbon tax, so the third variable cannot be compared.

The data sources are all secondary data grouped into three categories. Primary legal materials include the HPP Law, especially Article 13, Government Regulation Number 50 of 2022, Presidential Regulation 98/2021, Presidential Regulation 110/2025, POJK 14/2023, Regulation of the Minister of Environment and Forestry 21/2022, Regulation of the Minister of Energy and Mineral Resources 16/2022, and Finnish energy excise regulations. Secondary legal materials include scientific literature from the Scopus indexed international journal, reports of international institutions (OECD, World Bank, Nordic Council of Ministers), and official government documents. The analysis is carried out in a normative qualitative manner through content analysis to interpret norms, organize the construction of arguments, and draw the juridical implications of the implemented design being compared.²¹ The validity of normative arguments is tested through the internal coherence of the four theories and their consistency with the primary legal material.

²⁰Peter Mahmud Marzuki, *Legal Research* (Jakarta: Kencana, 2021).

²¹Jonaedi Efendi and Johnny Ibrahim, *Legal Research Methods: Normative and Empirical* (Jakarta: Prenadamedia Group, 2018).

RESULTS AND DISCUSSION

1. Presidential Decree 98/2021, Presidential Decree 110/2025, and Shifting the Position of the Carbon Tax

The HPP Law stipulates the carbon tax as a fiscal instrument with the DGT as the sole collector. Within the framework of this norm, the carbon tax is an obligation attached to carbon emissions, and business actors that produce emissions that exceed the threshold are obliged to pay the tax to the DGT. Presidential Decree 98/2021 which is in force at the same time does not explicitly regulate the order between the carbon tax and the carbon market mechanism, so that the carbon tax as an instrument stipulated by the HPP Law remains an obligation that cannot be replaced by the market mechanism.

A systematic interpretation of the HPP Law is needed before concluding that there is a conflict of norm hierarchy. Article 13 of the HPP Law stipulates that carbon taxes are imposed on carbon emissions that have a negative impact on the environment. A direct fiscal attribution to the DGT without the condition of the precedence of other instruments.²² Article 13 paragraph (8) stipulates a minimum tariff of Rp30/kg CO₂e as an imperative norm that does not give discretion to policymakers to postpone or require such obligations. The General Explanation of the HPP Law emphasizes the *ratio legis* of the carbon tax as an instrument of internalizing negative externalities based on the *principle of polluter pays*, which is an inherent fiscal obligation on the emissions themselves, not on the failure of the market mechanism.²³ A systematic reading of Article 13 and the General Explanation of the HPP Law shows that the carbon tax is a fiscal obligation that is directly attached to any emissions above the threshold without a hierarchy of options that takes precedence over market mechanisms.

Presidential Regulation 110/2025, which replaces Presidential Regulation 98/2021 based on Article 101, introduces significant normative changes. Article 63 paragraph (3) establishes the order of settlement of emission obligations explicitly: business actors who exceed the upper limit are required to take mitigation actions first, then buy emission quotas from other installations, then buy greenhouse gas emission offsets, and only last pay carbon taxes.²⁴ This provision creates a precedence condition where a new carbon tax is mandatory after the previous three options cannot be met. The direct *contradiction* occurs at the level of the substance of the obligation: the HPP Law places the carbon tax

²² Republic of Indonesia, *Law Number 7 of 2021 concerning Harmonization of Tax Regulations*, Statute Book of the Republic of Indonesia of 2021 Number 246, Article 13

²³ Republic of Indonesia, General Explanation of Law Number 7 of 2021, 120–22

²⁴ Government of the Republic of Indonesia, *Presidential Regulation Number 110 of 2025 concerning the Implementation of Carbon Economic Value Instruments and National Greenhouse Gas Emission Control*, Article 63 paragraph (3)

as an inherently unconditional obligation, Presidential Regulation 110/2025 places it as a conditional last option.²⁵

Kelsen's perspective identifies a fundamental problem here. Lower norms (Perpres) must not limit or weaken norms that have been set by higher norms (UU).²⁶ This is not just a further regulation or technical implementation, but a modification of the substance of the obligations that have been established by law. Presidential Decree 110/2025 effectively changes the nature of carbon tax liability from *unconditional liability* to *conditional liability*. A change that goes beyond the authority of the president to regulate the implementation of the law. This hierarchical conflict has no legal resolution within the framework of existing norms, creating legal uncertainty that violates the principle of *lex superior derogat legi inferiori*.²⁷

OJK as a formal member of the Steering Committee in Presidential Regulation 110/2025, which is a position that does not exist in Presidential Regulation 98/2021, strengthens the presence of market instruments in national carbon governance. Hadjon and Djatmiati emphasized that coordination without clear attribution of authority does not result in binding decisions.²⁸ A Steering Committee with a coordinating function without the authority to enforce data exchange or resolve attribution conflicts cannot be a mechanism for resolving the normative tensions generated by the three different legal instruments.

The application of Indonesia's carbon tax needs to be evaluated against Fuller's eight principles of legality to test whether existing norms have met the standard of legal certainty. The principle of *generality* is fulfilled because the HPP Law applies generally to all emitters above the threshold without discrimination against the subject of the law. The principle of *non-retroactivity* is also fulfilled considering that there is no indication that the carbon tax will be applied retroactively. The other five principles show a serious normative deficit.

The principle of promulgation was violated because the tariff of Rp30/kg CO₂e that has been published in the HPP Law cannot be operationalized without a technical PMK on collection procedures that have not been published until now.²⁹ Taxpayers know their obligations in the abstract but do not have procedural guidelines to meet them. The principle of *clarity* is violated through the phrase "carbon levy" in PermenLHK 21/2022

²⁵ Kelsen, *Pure Theory of Law*, 221–25

²⁶ Kelsen, 226–30; Marzuki, *Legal Research*, 156–59

²⁷ Jimly Asshiddiqie and Ali Safa'at, *Hans Kelsen's Theory of Law* (Jakarta: Secretariat General of the Constitutional Court of the Republic of Indonesia, 2006), 89–94

²⁸ Hadjon and Djatmiati, *Introduction to Indonesian Administrative Law*.

²⁹ Fuller, *The Morality of Law*, 46–52

Article 3 which conceptually overlaps with "carbon tax" in the HPP Law without a norm explaining the relationship between the two.³⁰ Taxpayers cannot operationally distinguish between fiscal obligations to the DGT and obligations to the Ministry of Environment and Forestry.

The principle of *non-contradiction* is violated systemically. Presidential Decree 110/2025 Article 63 paragraph (3) places the carbon tax in last place after mitigation, quotas, and offsets, contrary to the position of the HPP Law which establishes it as the primary fiscal instrument.³¹ POJK 14/2023 creates a carbon trading mechanism that operates in parallel without a normative bridge with the DGT's fiscal obligations. The principle of *possibility of compliance* is procedurally violated because taxpayers cannot fulfill carbon tax obligations to the DGT without technical PMK that regulates collection procedures.³² Obligations exist normatively but cannot be complied with procedurally.

The principle of *constancy* is questionable considering the three implementation delays (April 2022, 2025, with no certainty as of 2026) and the replacement of Presidential Regulation 98/2021 with Presidential Regulation 110/2025 which substantially changed the position of the carbon tax from a primary instrument to a residual option.³³ The principle of *congruence* was violated because the DGT was mandated as a collector by the HPP Law, but the technical instruments that allow the DGT to act were not yet available.³⁴ There is a gap between the stated norms and the administrative reality. The violation of Fuller's five principles of legality is not just a technical deficit, but a manifestation of the structural unpreparedness of Indonesia's carbon governance that requires a fundamental normative reconstruction.

2. Fragmentation of Authority and Authority Without Procedure

The conditions produced by the existing regulatory framework can be formulated as authority without procedures: the HPP Law already determines who is authorized to collect, but the technical path of implementation is not available. The Minister of Finance's regulation on tariffs and collection procedures has not been issued because *the carbon tax road map* that requires synchronization across five institutions has not been prepared.³⁵ The DGT's authority over the fiscal carbon tax depends on emission data from the Ministry of Environment and Forestry through the SRN PPI, the upper limit data on emissions from the Ministry of Energy and Mineral Resources, and verification of

³⁰ Fuller, 53–58

³¹ Fuller, 59–64; Kelsen, *Pure Theory of Law*, 221–25

³² Fuller, *The Morality of Law*, 65–70

³³ Fuller, 71–76

³⁴ Fuller, 77–82; Kelsen, *Pure Theory of Law*, 226–30

³⁵ World Bank, *State and Trends of Carbon Pricing 2025*, 52–54

repayment or replacement of obligations from the OJK. None of these three data channels have legally binding exchange protocols.³⁶

PermenLHK 21/2022 adds a layer of complexity by including carbon levies as one of the NEK mechanisms in Article 3. This phrase has the potential to conceptually overlap with the carbon tax regulated by the HPP Law. There is no norm that explicitly explains the relationship between the MoEF's carbon levy and the DGT's carbon tax. Fuller calls this void a failure of the third principle of legality: norms cannot be understood operationally by the legal subjects who must comply with them.³⁷ Hadjon and Djatmiati identified this condition as three government organs with the authority to attribute different instruments to interrelated objects without a resolution mechanism.³⁸

Köppl and Schratzenstaller (2023) in an empirical review of carbon taxes in various jurisdictions show that the effectiveness of emission reductions depends heavily on the clarity of institutional design, not merely high tariffs.³⁹ The three implementation targets that were missed are manifestations of the absence of a single instrument that integrates all authorities in one clear hierarchy. As long as there is no single norm that establishes the DGT as the holder of clean fiscal authority, binds the Ministry of Environment and Forestry to submit emissions data in a legally established format and deadline, and positions carbon market mechanisms subordinate to carbon tax fiscal obligations, cross-agency synchronization cannot be accomplished through informal coordination alone.

3. The Finnish Model: One Attribution, One Procedure, One Philosophy

Finland enacted a carbon tax in January 1990 by integrating it as a component in the *Act on Excise Duty on Liquid Fuels No. 1472/1994*—an excise law that already has administrative procedures and taxpayers identified.⁴⁰ This integration allows the carbon tax to operate from day one without building new bureaucracy and without creating new authority on non-fiscal institutions. Tipke calls this choice of design the application of *Systemgerechtigkeit*: the legislator chooses a single system and consistently applies its philosophy across instruments.⁴¹

All energy tax administration, including the carbon component, is under the sole attribution of the *Finnish Tax Administration (Verohallinto)* which is responsible to the

³⁶ Harifuddin et al., "Institutional Readiness for Inclusive Carbon Market Development in Indonesia," *Journal of Cultural Analysis and Social Change* 10, no. 4 (2025): 432, <https://doi.org/10.64753/jcasc.v10i4.2854>

³⁷ Fuller, *The Morality of Law*, op. cit.

³⁸ Hadjon and Djatmiati, *Introduction to Indonesian Administrative Law*, op. cit.

³⁹ Angela Köppl dan Margit Schratzenstaller, "Carbon Taxation: A Review of the Empirical Literature," *Journal of Economic Surveys* 37, no. 4 (2023): 1353–1388, <https://doi.org/10.1111/joes.12531>.

⁴⁰ Finnish Government, *Act on Excise Duty on Liquid Fuels No. 1472/1994*, op. cit.

⁴¹ Tipke, *Die Steuerrechtsordnung*, op. cit.

Ministry of Finance.⁴² Tax liabilities are attached to the *fuel supplier* at the time of release for consumption so that the number of taxpayers is limited and supervision is concentrated, without the need for an emissions verification system at the company level.⁴³ Hadjon and Djatmiati call this a clean attribution authority: one organ, one attribution, one undivided domain of authority.⁴⁴

The 1994 reform refined the imposition base to a combination of 60 percent carbon content and 40 percent energy content.⁴⁵ Tariff transparency is a measurable institutional feature: as of January 1, 2026, the base value of CO₂ is adjusted through an official announcement that is available long before it takes effect. Khastar et. al., showing that this model has been shown to drive emissions reductions sustainably for more than three decades.⁴⁶

Three contextual differences between Indonesia and Finland need to be acknowledged before recommendations are drawn. Finland's tax administration capacity is structurally more established, with a taxpayer reporting system already in place long before the carbon tax was enacted. Finland is a member of the European Union so the EU ETS operates as a supranational instrument completely separate from domestic energy tax, there is no risk of overlapping authority between the two regimes as the jurisdictional boundaries are legally clear. The difference in the level of economic development and the composition of the industrial sector is also relevant. The lessons learned from Finland that are valid for Indonesia are not in its absolute scale or capacity, but in its institutional design principles: one point of attribution, one philosophy of instruments, and one operational procedure from day one.

Paukku (2023) notes that Finland started from a simple mechanism and improved it incrementally without ever stopping operations—an argument for a phased approach that is also relevant for Indonesia.⁴⁷

⁴²Nordic Council of Ministers, *EU versus National Climate Policies in the Nordics*, Nordic Economic Policy Review 2023 (Copenhagen, 2023), <https://pub.norden.org/nord2023-001/nord2023-001.pdf>

⁴³Finnish Tax Administration, "Changes to the Excise Duty 2026," 2026, <https://www.vero.fi/en/About-us/newsroom/changes-in-taxation/changes-to-the-excise-duty-2026/>.

⁴⁴Hadjon and Djatmiati, *Introduction to Indonesian Administrative Law*, op. cit.

⁴⁵Eelis Paukku, "Finland's Carbon Tax: A Hit or a Miss?" *Nordic Tax Journal* 2023, no. 1 (2023): 76-95, <https://doi.org/10.2478/ntaxj-2023-0006>.

⁴⁶Mojtaba Khastar, Abolfazl Aslani, dan Mehdi Nejati, "How Does Carbon Tax Affect Social Welfare and Emission Reduction in Finland?" *Energy Reports* 6 (2020): 736-44, <https://doi.org/10.1016/j.egyr.2020.03.001>.

⁴⁷Paukku, "Finland's Carbon Tax," op. cit.

Table 1. Comparison of the Implementation Design of the Carbon Tax of Indonesia and Finland

Aspects	Indonesia	Finland
Imposition Point	Downstream: taxes are levied on actual emissions that exceed the threshold. Article 63(3) of Presidential Decree 110/2025 makes the carbon tax a residual option after mitigation, quotas, and offsets.	Upstream: a tax is attached to the <i>fuel supplier</i> upon release to the market. The carbon tax is a primary instrument, not a residual one (<i>Act No. 1472/1994</i>).
Fuller's Principle of Legality	Failing on three principles: tariffs have not been published operationally, the norms of the DGT and OJK intersect without resolution, and the technical PMK for collection has not been published.	Meet eight principles: open published norms, stable and predictable rates, one authority acts according to the mandate without conflict between instruments.
Hierarki Norma Kelsen	The HPP Law stipulates the DGT as the collector. Presidential Regulation 110/2025 Article 63(3) deviates from the mandate of higher norms by placing the carbon tax in last place.	A single tax law becomes the sole source of norms. All authority is legitimately delegated to <i>the Finnish Tax Administration</i> without any deviation of hierarchy.
Attribution of Hadjon Authority	Three attributions from different instruments: the DGT (HPP Law), OJK (Presidential Decree 110/2025 & POJK 14/2023), and the Ministry of Environment and Forestry (PermenLHK	A single attribution to <i>the Finnish Tax Administration</i> of a single excise law. No non-fiscal institution has intersecting authority.

	21/2022). There is no attribution conflict resolution mechanism.	
Tipke System Coherence	Two incoherent philosophies run in parallel: downstream tax (HPP Law) and carbon trading (OJK). Presidential Decree 110/2025 widens the distance from the philosophy of the HPP Law (<i>Steuerchaos</i>).	One upstream philosophy since 1990: one authority, one procedure, one law. The EU ETS operates under a separate regime (<i>Systemgerechtigkeit</i>).
Implementation Status	Not yet operational. Three targets were passed: April 2022, 2025, and no definite targets as of 2026. Attribution fragmentation is a systemic cause.	It has been in operation since January 1990. The 1994 reform was implemented without stopping operations because attribution and procedures were single.

Source: processed from Fuller; Kelsen; Hadjon & Djatmiati; Tipke; DDTNews; Finnish Tax Administration; Paukku; Köppl & Schratzenstaller.

4. Ideal Design Direction: Normative Integration as a Prerequisite for Operationalization

The four theories converge on one proposition: legal certainty in carbon taxes is a product of clarity of attribution of authority, coherence of system philosophy, and consistency between stated norms and official actions taken.⁴⁸ The Finnish model proves that these prerequisites can be met without building new institutions: what is needed is a single legal instrument high enough in the hierarchy to connect all existing norms in one coherent framework.

The first normative step is to issue an integrated legal instrument in the form of *an omnibus law* at the Government Regulation level that simultaneously establishes the DGT as the sole authority authorized to determine fiscal obligations and resolve carbon tax disputes; require the Ministry of Environment and Forestry to submit SRN PPI data to the DGT in a legally determined format, standard, and deadline; and direct the collection system towards a fuel-based model that is Starting from the coal power plant sector as

⁴⁸Fuller, *The Morality of Law*; Kelsen, *Pure Theory of Law*; Hadjon and Djatmiati, *Introduction to Indonesian Administrative Law*; Tipke, *die Steuerrechtsordnung*.

the most technically ready sector. The approach of integrating various carbon norms in one umbrella instrument is in line with the logic of regulatory harmonization that underlies the formation of the HPP Law.⁴⁹

The second normative step is to revise Presidential Regulation 110/2025, especially Article 63 paragraph (3), to restore the order of settlement of emission obligations in accordance with the mandate of the HPP Law. The order in which the carbon tax obligation to the DGT must be fulfilled first, and access to *the carbon trading mechanism* on the OJK exchange is only available after the DGT issues a certificate of fulfillment of fiscal obligations. From Tipke's perspective,⁵⁰ this sequence restores *the Systemgerechtigkeit* in which carbon trading again serves as a complementary mechanism, rather than as an alternative that negates the fiscal function of carbon taxes.

The third normative step is to revise PermenLHK 21/2022, specifically the phrase carbon levy in Article 3, to clarify that the authority of the Ministry of Environment and Forestry is limited to the provision of verified emission data and the determination of measurement standards. Operationalization can start from the coal-fired steam power plant sub-sector, which already has 146 carbon trading participants and an emissions reporting system that runs through the Minister of Energy and Mineral Resources Regulation Number 16 of 2022.⁵¹ As the capacity of the national carbon system matures, dependence on the carbon market mechanism as a transition instrument should gradually decrease, towards Indonesia's *net zero emission target* through *the Enhanced NDC 2022*.⁵²

Three records of institutional eligibility need to be explicitly acknowledged. The revision of Presidential Regulation 110/2025 has the potential to face resistance from the Ministry of Environment and Forestry, whose coordinating position on the Steering Committee will be reduced, and from the OJK, whose role in carbon exchange supervision is under the requirements of the DGT's certificate. The World Bank (2025) notes that *successful carbon pricing reforms* in developing countries generally start from inter-institutional consensus before normative formalization, not the other way around.⁵³

⁴⁹Kelsen, *Pure Theory of Law*, op. cit.; Fuller, *The Morality of Law*, op. cit.

⁵⁰Tipke, *Die Steuerrechtsordnung*, op. cit.

⁵¹Ministry of Finance Financial Media, "Towards the Implementation of Carbon Tax," August 16, 2024, <https://mediakeuangan.kemenkeu.go.id/article/show/menju-implementasi-pajak-karbon>.

⁵²Government of Indonesia, *Enhanced Nationally Determined Contribution* (New York: UNFCCC, 2022), <https://unfccc.int/sites/default/files/resource/202303061323---state-of-ndcs-2022-gst.pdf>

⁵³World Bank, *State and Trends of Carbon Pricing 2025* (Washington DC: World Bank, 2025), <https://openknowledge.worldbank.org>.

This ideal design recommendation requires a structured cross-ministerial consultation process as a political prerequisite before an integrated legal instrument can be issued.

Table 2. Institutional Authority Matrix and Required Normative Framework

Institutions	Attribution Basis		Organized Objects	Positions within the Required Normative Framework
Directorate General of Taxes (DGT)	HPP	Law Article 13; PP 50/2022	Fiscal obligations; rates; Carbon Tax Collection Procedures	A single fiscal authority. No decision of any other institution can change the fiscal obligations of taxpayers without going through the DGT mechanism.
Ministry of Environment and Forestry (MoEF)	PermenLHK 21/2022;	Presidential Decree 110/2025	SRN (emissions data); SRUK (carbon unit); MRV standard	Verified emissions data providers to the DGT. The phrase "carbon levy" needs to be clarified so that it does not overlap with the DGT's fiscal authority.
Financial Services Authority (OJK)	POJK 14/2023;	Presidential Decree 110/2025	Carbon exchange as a carbon credit trading platform	Supervisor of transition mechanisms. Exchange access requires a certificate of fulfillment of fiscal obligations from the DGT before transactions are processed.
Ministry of Energy and Mineral Resources	Minister of Energy and Mineral Resources	16/2022	Upper limit on coal-fired power plant emissions; NEK Electricity Sector Procedures	Provider of sectoral emission upper limit data to the DGT. Data exchange protocols need to be regulated in a binding manner in a single legal instrument.
Steering Committee	Presidential Decree 110/2025	Article 96	Coordination of NEK policy direction across institutions	Coordinating functions without technical attribution authority. It is not a binding mechanism for resolving conflicts of authority.

Source: processed by Hadjon & Djatmiati; Government of the Republic of Indonesia; OJK; MoEF.

CONCLUSION

The construction of the authority to implement Indonesia's carbon tax contains four layers of normative deficits that are interlocked. Three principles of Fuller's legality were violated simultaneously: the tariff was not operationally published, the norms of the DGT and the OJK intersected over the same object without settlement, and the DGT was mandated as the collector but the technical instrument of the collection had not been published. Presidential Regulation 110/2025 as a lower norm introduces a sequence of settlement of emission obligations that puts the carbon tax in the last position—a normative shift from the position that has been established by the HPP Law and that is not recognized in the Presidential Regulation 98/2021 that it replaces. The three government organs have the authority to attribute different instruments to interrelated objects without a binding resolution mechanism. The two incoherent philosophies of carbon instruments run in parallel without determining which is the dominant principle.

The Finnish model proves that fiscal integration, single attribution of authority, and system philosophical coherence are prerequisites that can be achieved without building new institutions—with the important note that differences in administrative capacity, the context of EU ETS membership, and the level of economic development directly limit the transferability of the model. What can be transferred is the design principle, not its absolute structure.

Indonesia's ideal design requires three normative steps: an integrated legal instrument in the form of *an omnibus law* at the Government Regulation level that establishes the DGT as the sole fiscal authority while integrating the obligation to exchange data between institutions; the revision of Presidential Regulation 110/2025 to restore the order of emission obligations so that the carbon tax precedes access to market mechanisms; and the revision of the Minister of Environment and Forestry Regulation 21/2022 to separate environmental authority from fiscal authority. Carbon trading is positioned as a transition mechanism that requires a certificate of fulfillment of fiscal obligations from the DGT before transactions on the stock exchange can be processed, and which is gradually reduced as Indonesia's *net zero emission* target is achieved. The legal certainty of this framework is a prerequisite for the fiscal price signal of the carbon tax to work as intended by the HPP Law.

Further research is recommended to examine the technical design of inter-institutional data exchange protocols and carbon tax rate models that are in accordance with the fiscal capacity of Indonesian business actors, as well as an empirical study on *carbon trading compliance patterns* after the issuance of Presidential Regulation 110/2025.

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