



Reforming Tax Administration Through the Coretax System to Promote Green Tax Policies

Fitria Arianty¹ 

¹ Vocational Education Program University Indonesia
arianty.fitria@vokasi.ui.ac.id

Abstract.

Research Objective: To determine the influence of the Coretax system on the improvement of tax administration and the effective implementation of green tax policies.

Method: The research technique is qualitative using literature review and policy analysis. The data collected includes journal publications, reports of international organizations, legal actions, regulations and normative acts on digital tax administration, green tax and associated issues. The collected information was analyzed by the method of thematic content analysis. This allowed to identify the contribution of digital tax administration to the effective implementation of green tax policies.

Results: The findings of the research indicate that the Coretax system has an impact on the improvement of the administrative efficiency, data management, control, and accountability, and thus it promotes the dependable functioning of green tax policies. The integration of tax data also means greater responsibility and allows the government to create complete systems of environmental taxation and rewards. However, the existing Core Tax system has many disadvantages with respect to technological stability, data quality and security, and flexibility.

Practical/Theoretical Contribution: The research contributes to resolving practical and theoretical concerns linked to the improvement of tax administration and the implementation of green tax policy. For example, the study findings may be valuable for policymakers, industry practitioners and educational institutions as they demonstrate how the implementation of the Core Tax system may facilitate the efficient introduction of green tax policies, improve tax administration and facilitate the development of competencies with respect to the digital and green transformation.

Keywords: Coretax System, Green Tax Policy, Tax Administration Reform

1 Introduction

Climate change has become a severe concern to a planet, hence it is vital for countries to take actions to resist it. Another approach countries are taking is to change economic policy, by adopting environmental or green levies. Such tariffs are meant to promote sustainable development by cutting greenhouse gas emissions while also allow

to achieve sustainable economic growth [1]. The OECD states that the introduction of green taxes is one of the necessary criteria for reaching carbon neutrality and transitioning to a low-carbon economy [2]. Green taxes are intended to make polluting activities expensive and hence undesirable from an environmental point of view. They also provide incentives to transition to cleaner alternatives. However, in designing a tax policy that would promote sustainable development, governments should also consider the importance of tax administration. To begin with, the complexities associated with environmental taxation require extensive tax administration for effective implementation. The tax authorities need to have enough knowledge and information about taxpayers' activities to assure compliance and to eradicate tax avoidance. Therefore, they are often forced to rely on digital technologies that allow them to store, process, and analyze large volumes of data related to taxpayer activity. Furthermore, as the environmental tax base develops, tax administration needs to be equipped with the necessary digital infrastructure to process taxpayer data and make appropriate fiscal policy decisions. The OECD Tax Administration Series highlights the relevance of the digital transformation of tax administrations around the world. According to it, tax authorities undergo digitalization processes that involve implementing IT-based systems, artificial intelligence, integrated databases and automation of tax administration to make tax collection more efficient and assure effective tax governance. In the implementation of green tax policies, governments should understand the necessity of proper tax administration. Tax authorities need to have the necessary infrastructure to collect and analyze vast amounts of data related to taxpayers' activity to ensure compliance and prevent tax evasion. This is why tax administration is being digitised and integrated with modern technologies to enhance efficiency and ensure effective governance. Indonesia is now implementing one of its most substantial tax administration reforms with the Coretax Administration System (CtAS). The CtAS provides a single digital platform for taxpayer registration, filing, payment, audit, collection, risk management and third-party information. Hence, the Indonesian government aims to assure tax compliance, administrative efficiency, and transparency, and facilitate the construction of a comprehensive digital data eco-system to allow future tax policy changes. Meanwhile, the government is also working on fiscal policies that will impose carbon tax as a response to environmental concerns. The UU HPP (Law on the Harmonization of Tax Regulations) provides the legal basis for the imposition of a carbon tax, which indicates the government's willingness to commit to carbon pricing policies to meet international obligations. However, the success of these policies largely depends on the capacity of the digital tax administration to cope with the growing complexity of the environmental tax data [3]. While many academic studies have demonstrated the promise of the digital tax administration and the green taxes, most of these studies consider the digital tax administration or environmental taxation in isolation. Studies on digital tax administration highlight the relevance of CtAS in achieving effective taxpayer services, administrative operations and revenue generation. On the other hand the research on environmental taxation looks at carbon pricing, compliance costs and environmental policy as such. However, there is little academic research on how digital tax administration can enable green tax reforms and support sustainable development through reliable taxpayer data collection, improved

environmental compliance, digital reporting procedures, and evidence-based fiscal policies. This leaves a study gap in the connection between tax digitization and environmental taxation. Finally, another motivation for this research is the tax administration issues in Indonesia and their impact on the national tax base. The tax ratio in Indonesia is quite low compared to its rivals in the region and OECD, indicating a need for improvements in tax administration to increase taxpayer compliance and overall revenue collection. Hence, improvements to strengthen tax administration, backed by integrated digital tax administration, are needed to achieve higher tax collections and better support national fiscal targets, including environmental sustainability [4]. The digitalization of tax administration is closely tied to the implementation of green tax policy. Coretax becomes an enabler of progressive tax administration and of the implementation of sustainable fiscal policies by holding databases that allow the tax authority to identify economic activities, ensure compliance with emission-based taxation, assess the effectiveness of green tax measures, and analyzing compliance risks to build evidence-based compliance risk analysis systems [5]. Based on these principles, the present study intends to show how the reform of tax administration through the Coretax system will allow the establishment of green tax policies in Indonesia. Unlike previous studies that either focused on digital taxation or environmental taxation, this project will explore the role of the Coretax system as a digital enabler in fostering transparency, compliance, environmentally friendly tax administration, and evidence-based decision making for the development of fiscal policies. In doing so, the study will contribute to the advancement of academic knowledge on digital tax administration, environmental fiscal policies and the production of recommendations for the introduction of sustainable taxation in developing countries.

Based on the description above, it can be argued that the issue of tax administration reform through the Coretax System and green tax policy in Indonesia is an agenda with two distinct topics that runs concurrently but has rarely been deliberated together as one combined entity. This article aims to address the aforementioned issues related to the potential contribution of tax administration reform via Coretax to the realization of green tax policies in Indonesia. Hence, the research questions that will be addressed by this paper include:

Research Questions

1. What are the implications of the characteristics and capacities of the Coretax system on the realization of green tax policies in Indonesia?
2. What administrative, technical and institutional problems arise in incorporating the green tax policy agenda within the reform of the Indonesian tax administration?
3. What alternative options does Indonesia have to ensure that tax administration reform through the Core Tax System can contribute to the achievement of green tax policy objectives?

2 Methods

2.1 Research Design

The study is a qualitative approach with the descriptive-analytical research design. The study was designed as a qualitative study, because the study is not intended to prove a hypothesis but is intended to understand, describe, and analyze the phenomenon – tax administration reform through the introduction of the Coretax system and its association with the promotion of green tax policy in Indonesia. The use of the descriptive-analytical research design is justified by the need to describe the situation in the researched object – the introduction of the Coretax system and further analyze it with the concepts of tax administration reform and green tax policy to identify their relationship.

2.2 Data Sources

The data sources in this study consist of three, namely: literature data, primary data, and secondary data, which are explained descriptively as follows:

- a. This data source is sourced from various literature reviews, including books, scientific journals, research results, and official publications related to tax administration reform, Coretax system, and green tax issues, both nationally and internationally
- b. Primary Data: This data source is sourced from observations of taxpayers' use of the Coretax System. This observation aims to obtain empirical data related to the implementation of Coretax system taxpayers in order to be used as a basis for evaluating tax administration reform.
- c. Secondary Data: This data source is obtained from tax-related official documents such as laws and regulations, circular letters, DJP performance reports, and other supporting documents, including literature review data in the form of scientific journals and research reports.

2.3 Data Collection Procedure

The study consisted of three key activities in data collection:

- a. Library research: This involves scanning and gathering literature items pertinent to the research subject.
- b. Direct observation: This was done by witnessing how the subjects of the survey, the taxpayers, interacted with Coretax system in performing their tax obligations utilizing the system.
- c. Documentation study: It entailed gathering and studying documentation related to the Coretax system and green tax policy.

3 Result and Discussion

3.1 Result

DJP is speeding the development of the tax administration system through digitalization and e-government, one of which is the launching of the Coretax Administration System or Coretax. It is part of the Tax Administration 3.0 paradigm, which intends to increase tax compliance and, by extension, tax collections through the use of information technology [6]. Based on Presidential Regulation no. 81 of 2010 concerning the Grand Design of Bureaucratic Reform 2010-2025, in 2013 the Ministry of Finance initiated the implementation of the Ministry of Finance Institutional Transformation consisting of 87 transformation programs grouped into 5 themes, one of which is taxation. The basis of Phase III Tax Reform was Minister of Finance Decision no. 360/KMK.03/2017 about Tax Reform Program which is on modernizing information technology, database, and business process at Directorate General of Taxes (DJP). Coretax is one of the efforts of the Ministry of Finance Institutional Transformation Programs and is part of a bigger digital agenda for the reform of national tax administration, which has been gradually implemented since 2025. The new digital infrastructure is intended to improve openness and efficiency in the administration of taxes and to enhance the taxpayer services [7]. In order to meet the requirements of Tax Administration 3.0, DJP tends to integrate various tax administration information systems (previously running in silos) into one national information system, called CTAS. This will provide a single view of the taxpayer and their activities and serve as the platform for all tax-related processes, from taxpayer enrollment, tax calculations/reporting, payment, and tax control [7].

From the literature review, it is possible to determine the basic characteristics of the new system, which are:

- a. Integration of data across processes and entities: One of the main advantages of CTAS is that it allows to merge all data related to taxpayers, which are generated in different processes and by different tax authorities, into one database, which allows to get a complete picture of taxpayers' operations.
- b. Automation of processes: CTAS allows the automatization of a number of processes, including calculation, control, reporting and others, which were previously performed manually or with limited IT support, which in turn has led to a higher risk of errors and opportunities for tax fraud [8]

On the other hand, the introduction of a carbon tax as the main green tax instrument in Indonesia established by Article 13 of the UU HPP requires several particular administrative capacities to be fulfilled, including the ability to determine and verify emissions data: as a carbon tax is levied on emissions that negatively affect the environment, its tax base is not related to monetary values, but to the volume of emissions of greenhouse gases created by specific economic actors. This requires an administrative system that can collect and retain not only financial data but also non-financial, technical data on emissions [9]

A reliable monitoring, reporting and verification system (MRV) The government postponed the introduction of a carbon tax from April 2022 to 2025, and one of the

reasons for this was lack of a system for reporting, monitoring and verification of emissions of greenhouse gases by enterprises. This fact points to the importance of administrative capacities for the proper implementation of green tax measures, including the creation of the appropriate digital infrastructure [10]. Clear enforcement mechanism and sanctions for violations The uncertainty of the enforcement mechanism and sanctions for violations of the requirements of the UU HPP show a weakness in carbon pricing legislation. This weakness is caused by the lack of a detailed formulation of administrative and criminal liability for violation by enterprises of the rules of UU HPP, which allows them to avoid responsibility. Emphasizing this, the present study shows that the administrative system is an important factor in achieving the success of the carbon price, notably because of its data-driven nature. From the mapping results presented above, it can be concluded that the functional capabilities of CTAS can be leveraged to a certain extent to meet the requirements of green tax as a tool of taxpayer supervision, for instance: to establish connections between the taxpayers' economic activity data stored in CTAS and the emission data of the given taxpayer, on which the amount of carbon tax is based (with the participation of the tax authorities, for instance, the Ministry of Energy and Mineral Resources or the Ministry of Environment and Forestry), which would allow to ensure that the process of emission verification is not separate from the overall tax administration process; automatization of carbon tax calculations and reporting based on verified emission data, which would minimize the possibility of taxpayer interference with the data; the analytical capabilities can be used to identify discrepancies in emission reporting as a basis for priority tax inspections (risk-based audit). At the same time, it should be noted that so far the functional capabilities of CTAS are mostly aimed at supporting traditional forms of taxation such as income tax, VAT, and other transaction-based taxes, not technical-environmental data such as the volumes of carbon emissions. This raises the question whether the data architecture and reporting tools of Coretax that are mainly focused on financial information would be suitable to store and process data on carbon emissions or whether specific modules should be developed for this purpose or whether there is an opportunity to provide the needed connectivity with the MRV emission inventory systems of the Ministry of Energy and Mineral Resources or the Ministry of Environment and Forestry. The obstacles for the adoption of the green tax policy agenda, especially the carbon tax, in the development and transformation processes of the Indonesian Coretax system can be grouped into three main issues which are strongly related to the administrative, technical and institutional aspects of tax administration.

The barriers to incorporating the green tax policy agenda, especially carbon tax, in the development and transformation processes of the Coretax system in Indonesia can be identified into three main issues related to administrative, technical, and institutional aspects of tax administration which are highly associated.

1. Administrative Challenges

- a. Delays in implementation due to unreadiness of supporting systems: The most tangible indication of this challenge is embodied in the government's decision to defer the commencement of the carbon tax from its initially scheduled date of 7 April 1, 2022, to 2025, taking into account economic conditions, prepar-

edness of businesses, institutional governance capacities, and greenhouse gas emissions' monitoring, reporting, and verification (MRV) systems. Contribution Title (shortened if too long) ⁷ This alone demonstrates how badly the policy concept and the administrative arrangements supporting it were misaligned, since the postponement was not a one-off event. The Indonesian government kept on shifting the date for implementing the tax, which indicates a continuous problem of administrative preparedness.

- b. The DJP's own program of conventional tax administration reforms, which have been implemented gradually since 2025, offers an additional barrier to the proposed improvements: Burden of transition with conventional tax administration reform. switching costs and liabilities linked with the new carbon tax would be enormous, especially as the DJP will have to face two major reforms at the same time, namely switching to Coretax and widening the revenue base to include environmental taxes. These transition costs and responsibilities may be excessive and disruptive, creating additional administrative obligations on firms and taxpayers.
 - c. Minimum technical regulations after UU HPP: The UU HPP is passed, but technical rules needed for carbon tax operationalization are not formulated. Specifically, while Article 13 provides for the general ability to impose a carbon tax, the specific regulations on reporting formats to be submitted by taxpayers, the information to be provided, and how to incorporate this into the existing Coretax system are yet to be developed, leaving DJP with little administrative capacity to introduce the tax measure.
2. Technical Challenges

- a. Differences in the characteristics of data to be processed by the system: Coretax is basically a system that processes data on conventional financial transactions, i.e., tax bases such as transaction value, income, or consumption. By contrast, carbon tax necessitates technical-scientific data on greenhouse gas emissions generated through physical measures, such as emission volume, carbon conversion factor, and so forth. The data characteristics issue is one of the most critical aspects of the technical nature in this case. It raises the question of what additional capabilities need to be developed for Coretax beyond the current data processing capabilities for conventional tax collection.
- b. Complex system interoperability requirements between agencies: Verification of emissions data as a basis for calculating carbon tax presumably involves the participation of competent agencies other than DJP, namely, the Ministry of Energy and Mineral Resources (ESDM) and the Ministry of Environment and Forestry (KLHK). In this regard, it is noteworthy that carbon tax law enforcement encounters problems in establishing verification mechanisms and sanctions for violations of tax obligations in emissions data reporting. Such a situation may be justified by the absence of detailed regulations on administrative and criminal liabilities for violations of the UU HPP, thus requiring additional technical efforts to develop data bridge systems (system interoperability) between Coretax and ESDM and KLHK, which presumably have different levels of digitalization and data formats.

- c. Need to create capabilities for advanced technologies (AI, analytics, automation): In the international context, the development of information and communication technologies (ICT) in tax administration is trending toward intelligent automation driven by artificial intelligence (AI), blockchain, machine learning, and robotics. The recommendations suggest focusing first on core processes related to basic automation before moving on to more data-intensive techniques such as data science analytics, self-learning systems, and machine learning for detecting patterns and correlations in data. This consideration is particularly relevant for developing countries like Indonesia, where digitalization is still at an early stage. Thus, the current level of Coretax development needs to be guided by recommendations for fundamental automation before moving to more advanced levels of digitalization for analyzing emission data.
- d. The availability of digital infrastructure at the implementation level: At the local level, the issue of the adequacy of digital infrastructure is also relevant, as illustrated by the challenges of optimizing the digital transaction system in remote areas with poor network coverage. Although the issue of digitalization of tax administration is not the central issue in this case, these findings highlight the potential for digital infrastructure gaps in different regions to affect the effectiveness of a carbon tax system, especially considering the variability of taxpayer categories in different areas, such as coal-fired power plants in various provinces.

3. Institutional Challenges

- a. Fragmentation of authority across agencies: Managing the carbon tax involves at least three institutional realms, namely DJP/Ministry of Finance as a tax collecting agency, Ministry of ESDM as a regulator of carbon economic value in energy sector, and Ministry of Environment and Forestry (KLHK) as a custodian of emission and carbon trading data. Regulation pertaining to the emissions trading proper is also still in formulation by KLHK. Thus, it can be argued that the institutional coordination among these authorized agencies is still pending and consequently complicating the emergence of single administration model such as Coretax as the ultimate authority on carbon tax matters.
- b. Concerns of taxpayers and third parties regarding data security: In terms of institutional trust building, the absence of taxpayer data confidentiality assurance to the public by DJP triggers the suspicion of Institutions, Agencies, Associations, and Other Parties (ILAP) and taxpayers themselves concerning the collection of their data by DJP. This issue may become more complicated in the case of carbon tax due to the data integration necessities among various agencies involved and the sensitivity of the data itself compared to regular tax matters.
- c. Performance indicator orientations still taxpayer-revenue centric: One of the challenges in relation to institutional realm pertains to the optimization of Coretax potential benefits from the taxpayer perspective. Despite its promising prospects, the DJP taxpayer administration performance indicators (IKU), for instance, are still oriented towards taxpayer revenue maximization. Consequently, there is a risk that taxpayers' interest and legal protection will be

compromised, considering that the IKU-driven taxpayer administration strategy may conflict with the carbon tax implementation goal which goes beyond mere revenue generation and enters the realm of environmental conservation. Such contradiction may trigger institutional tussles and impede policy implementation.

- d. Human resource capacity not yet fully prepared: Tax administration reforms in general and Coretax in particular require human resources capacities, institutional acculturation, process re-engineering, and change management as supporting variables for successful strategy design and implementation. The need for enhanced competencies becomes more acute in the case of Coretax considering the multidisciplinary nature of carbon tax which demands the technical know-how beyond DJP core competencies of taxation matter.

3.2 Discussion

Optimizing the Core Tax System to promote green tax requires a holistic and gradual approach by improving the Core Tax system technology which should be complemented by regulatory, institutional, and human capital issues to make the system more strategic enabler for achieving environmental fiscal policy objectives in Indonesia. The discussion will proceed with this logic since the recommendation on how green tax can be included into the core tax system is considered as a complex and multidimensional issue that needs to address the regulation, system, institutional and human capital components

1. Recommendations at the Regulation and Policy Level

Development of more detailed technical derivative rules. As the UU HPP does not currently regulate detailed administrative and criminal liability for breach of reporting obligations, reducing the effectiveness of the HPP policy, it is recommended to supplement the legal framework by developing extensive normative acts on the distribution of revenues from emissions, independent MRV and related sanctions. In particular, the technical rules on standardized data reporting formats to be incorporated in the Coretax should be established. This will ensure that further development of the system modules will be based on a legal foundation. Policy phasing in line with system readiness: The government's prudent approach of introducing carbon tax on a limited basis (only for coal power plants) and then extending to other sectors when the appropriate system conditions are met should be formalized in legislation. In particular, the process of introducing new sectors should be directly connected with technical readiness of Coretex modules.

2. Recommendations at the System and Technology Level

Recommendations Develop a dedicated emissions data module within the Coretax architecture: Since the carbon tax base is a technical-scientific category (emission volumes) and is different from the traditional tax base, a dedicated data module within Coretax should be developed to specifically house, assess, and store emissions data instead of trying to retrofit existing data-storage procedures and formats. Building system interoperability through a national emissions data portal As KLHK is still developing regulations surrounding emissions trading and is not yet finalized on them, it

is suggested to build interoperability between Coretax and the information systems of the Ministry of ESDM and KLHK themselves through APIs or other means, as a way of ensuring that taxpayer emissions data does not have to be re-reported manually, but can instead be cross-checked automatically. Gradual technology development (phased digital maturity): As the recommendations suggest, countries with low levels of digitalization and maturity in public administration should focus on automating core processes, before looking to incorporate new technologies such as data science models, autofiling functions, and machine learning to tax administration. The development of Coretax for green tax purposes should begin with the automation of report filing and reconciliation for emissions data and move towards the incorporation of predictive analytics to identify potential areas of interest for supervisory action. Equalization of supporting digital infrastructure at the level of implementation: In view of the identified weakness of digitalization and the presence of 'digital deserts,' the central government should strive to create equal conditions for digital transactions, especially in regions with higher concentrations of emission-intensive industries, so that the above-mentioned automatization procedures could be implemented smoothly and without a lag induced by technical limitations.

3. Recommendations at the Institutional Level

Establishment of a permanent cross-ministerial coordination mechanism: To overcome authority fragmentation between the DJP, Ministry of ESDM, and KLHK, it is necessary to establish a permanent (not ad hoc) coordination forum or task force specifically handling carbon tax data and policy harmonization, so all three agencies have the same institutional reference in system development and rule enforcement. Strengthening of data confidentiality and security governance between agencies: ILAP and taxpayers are concerned about the lack of socialization of taxpayer data confidentiality regulations. The government must enhance socialization and legal certainty regarding data protection mechanisms in emissions information exchanges between agencies so that similar concerns do not disrupt taxpayer or relevant agency participation in data integration. Reorientation of DJP performance indicators not only based on revenue: Since the potential benefits of Coretax from the taxpayer side are suboptimal, due to the dominance of tax revenue amounts in the DJP key performance indicators, a reorientation of some performance indicators specifically for the carbon tax is needed. This could include, for instance, adding environmental success indicators (such as emission reduction levels in sectors subjected to the carbon tax), ensuring that policy implementation is not measured from a fiscal point of view alone. Strengthening cross-disciplinary HR capacity: For successful strategy execution, tax administration reform would involve HR competences, organizational culture, and change management programs as supporting variables. For green taxes, the specific recommendation is to develop cross-disciplinary training programs for DJP officials combining tax understanding with basic knowledge of emissions measurement and environmental science, so that DJP staff will be better able to verify emissions data, without relying solely on data from other agencies.

3.3 Theoretical Contributions

The present research contributes to the literature of digital tax administration by showing that tools such as the Coretax system can be used not only to promote administrative

efficiency but also to facilitate tax governance to meet Green Tax needs, thus developing relationships between the analysed variables of digital tax administration, governance and Green Tax. 3.4 Policy and Practical Implications The current study has implications for policymakers in terms of incorporating Coretax with other data sets relevant to the environment, while taking into account the risk management method for effective Green Tax implementation for practice. Furthermore, the research makes recommendations on how tax authorities should take use of the systems of digital tax administration to increase compliance, cut expenses, and achieve environmental sustainability goals, ultimately encouraging Indonesian economic growth.

3.3 Theoretical Contributions

The current research contributes to the body of knowledge on digital tax administration by illustrating that such tools as Coretax system can be used not only to promote administrative efficiency but also to facilitate tax governance in order to meet Green Tax needs, thus developing associations between the analyzed variables of digital tax administration, governance, and Green Tax.

3.4 Policy and Practical Implications

For practice, the current study offers implications for policymakers in terms of incorporating Coretax with other data sets related to the environment while considering the risk management approach for successful Green Tax introduction. Furthermore, the research provides suggestions on how tax authorities can benefit from using the systems of digital tax administration to improve compliance, reduce costs, and meet environmental sustainability goals, thereby promoting Indonesian economic growth.

Conclusion

This paper discusses the optimization of tax administration reform (Core Tax System) to realize green tax policies in Indonesia by exploring its functional characteristics, data integration and automation features to enforce compliance, administrative-technical-institutional challenges, and strategic recommendations. Some conclusions can be derived from the study. First, with respect to the overall characteristics of the Core Tax System, it can be concluded that this project has, in principle, the functional capabilities to actualize green tax policy, but they were not deliberately and optimally conceived and built for this goal. In particular, while the system has the administrative and automated analytical capabilities for enforcing compliance, its technical specifications and scientific legitimacy for verifying emissions information and integrating it with MRV systems managed by other environmental and energy agencies are limited. Another way to put it, the Core Tax System may potentially be a green tax policy enabler, but only conceptually and conditionally. Second, the obstacles involved in fitting the green tax policy agenda into the reform framework of the Core Tax System are complicated and multi-faceted. They are inter-related and cut across administrative, technological and institutional concerns. The results of this study indicated that

the administrative problems include the double transition load of implementing two large-scale reform agendas and the non-existence of transitional technical regulations that direct the implementation of the revised UU HPP. Technical challenges include the variances in data characteristics to be processed, the need for system interoperability with other organizations, and the absence of digital infrastructure. Institutional problems include incoherence of institutional roles, security concerns of taxpaying enterprises, prevalence of revenue-centric performance measures, and little interdisciplinary tax expertise. These difficulties are interconnected and should be considered holistically, which implies that a simply technical solution to the problem of fitting the green tax policy into the Core Tax System is not enough overall. Third, based on the findings, this study proposes comprehensive but gradual reform of the Core Tax System and related regulations, based on the following principles: catching up with derivative regulations and policy phasing consistent with system readiness; developing emission data modules, interoperability capabilities, and system specifications in phases according to digital maturity; institutionalizing permanent coordinating, data security, and performance audit mechanisms and revising revenue-centric indicators; and building interdisciplinary tax expertise in general and basic emissions knowledge in particular.

Acknowledgments. This study was not funded by any grant.

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