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EDITOR'S NOTE

Welcome to the 2025 3rd Volume, 3rd Edition of the UST Law Journal. This year's volume reflects our ongoing commitment to producing rigorous, forward-looking, and socially relevant legal scholarship that addresses the evolving challenges of our national, regional, and global legal landscape. We thank our contributors, reviewers, and readers for their trust and engagement as we usher in another year of meaningful discourse.

Climate change presents one of the most urgent and defining challenges of our time, and the Philippines, among the world's most climate-vulnerable nations, stands at the forefront of its impacts. In this context, the sixth article, *"Building a Legal Framework Towards a Carbon Tax Law in the Philippines,"* provides an insightful and forward-looking contribution to the evolving landscape of taxation, environmental law, and policy.

In this article, the author surveys global experiences with carbon taxation and identifies key principles that can inform a Philippine model, emphasizing the dual goals of reducing emissions and generating revenue for climate adaptation and mitigation. The discussion is grounded in international environmental commitments, domestic constitutional mandates on environmental protection, and the economic realities of developing states. By highlighting both the opportunities and the challenges inherent in adopting a carbon tax, the article provides a nuanced analysis that is both academically rigorous and policy-relevant.

What sets this piece apart is its pragmatic approach to legislative design. Rather than merely advocating for a carbon tax, the author outlines the essential elements of an effective legal framework, emphasizing clarity in scope, fairness in implementation, transparency in revenue use, and strong institutional oversight.

As the Philippines continues to explore pathways toward a greener and more sustainable future, this article serves as a backdrop for policymakers, scholars, and advocates. It underscores the pivotal role of law in shaping climate solutions and reminds us that meaningful environmental reform requires both visionary thinking and sound legal architecture in taxation.

Indeed, this article serves as a reminder that the legal community is increasingly called upon to craft frameworks that not only mitigate environmental harm but also promote sustainable development, economic resilience, and social equity towards a just, sustainable, and climate-resilient Philippines.

IRENE D. VALONES
Editor-In-Chief

BUILDING A LEGAL FRAMEWORK TOWARDS A CARBON TAX LAW IN THE PHILIPPINES

By:

ATTY. GAY CHRISTINE C. LOPEZ, CPA

ABSTRACT

Earth's greenhouse gases (GHGs) trap heat in the atmosphere and warm the planet. GHG's biggest contributor is carbon dioxide (CO2), which is mainly emitted through human activities from the burning of coal, oil, or natural gas. Global warming is a major cause of climate change that, if not addressed immediately, will have a broader range of harmful effects on living beings. This is a worldwide concern that the United Nations (UN) has been calling for more actions to address its impact. Several international agreements were signed, particularly the Paris Agreement, whose overarching goal is to hold the increase in the global average temperature to well below 2 degrees Celsius above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5 degrees Celsius above pre-industrial levels.

While the Philippines has a wide array of laws that are related to carbon emissions, these laws are limited in scope and merely address the issues indirectly. The Philippines needs a more comprehensive and dedicated legal framework that aligns with international climate standards. Several jurisdictions abroad have already implemented carbon tax legislation to discourage the use of fossil fuels and, therefore, mitigate carbon emissions.

This paper employed a doctrinal or black-letter law methodology to analyze the existing laws in the Philippines that aim to curb carbon emissions, including the Climate Change Act, the Renewable Energy Law, the Clean Air Act, and international agreements such as the Paris Agreement. This article further investigated the Philippines' current legal framework and international standards that address carbon emissions. Guided by the Sustainability Theory, the Legal Positivism Theory, and the Pigouvian Externality Theory, this paper reveals a gap: no current domestic law has directly imposed a price on carbon emissions, despite the urgent need to comply with international climate standards. Thus, this paper concludes by recommending the development of a carbon tax legislation within the Philippine legal framework. A carbon tax law may be adopted by utilizing best international practices as a guide and drawing on the Commonwealth Carbon Tax Law Model as a blueprint.

Keywords: carbon emissions, climate change, carbon tax, sustainability.

"We do not inherit the earth from our ancestors;
we borrow it from our children."
-Aldo Leopold

I. INTRODUCTION

We find ourselves in an era where human activities are causing unprecedented and devastating changes to our planet. [1] Simultaneously, the planet's climate is undergoing drastic and perilous changes, warming the world at levels that pose a serious threat. [2]

Global warming occurs when carbon dioxide (CO_2) and other air pollutants collect in the atmosphere, absorbing sunlight and solar radiation that have bounced off the Earth's surface. Usually, this radiation would escape into space, but these pollutants, which can remain in the atmosphere for years or centuries, trap heat and cause the planet to become hotter. They function like a blanket around the earth, allowing sunlight to enter but preventing some heat from escaping into space. These heat-trapping pollutants, namely CO_2, methane, nitrous oxide, water vapor, and synthetic fluorinated gases, collectively known as greenhouse gases (GHGs), have a significant impact, referred to as the greenhouse effect. If humans continue to emit GHG, the climate will continue to warm, potentially reaching dangerous and uncontrollable levels.[3]

Global warming is a significant contributor to climate change,[4] which, in multiple ways, is already affecting every region on Earth. With the extreme weather conditions significantly affecting all living beings, there is an urgent need to mitigate the harmful effects of climate change in our environment. This is a global concern that the United Nations (UN) has been calling for more action to address climate change.[5] Various international conventions have been held,

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[1] Tagg, N., & Jones, M. (2023), *Ecological sustainability for the future of all life on Earth*. Accessed on 22 November 2024.
[2] National Aeronautics and Space Administration (2024), *Exploring the Solar System*. Retrieved from https://science.nasa.gov/exploring-the-solar-system, accessed on 22 November 2024.
[3] Intergovernmental Panel on Climate Change (2021), *IPCC Sixth Assessment Report* (AR6), Working Group I Summary for Policymakers, Retrieved from https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf, accessed on October 14, 2024.
[4] IPCC (2021), *Climate change widespread, rapid, and intensifying*. Retrieved from https://www.ipcc.ch/2021/08/09/ar6-wg1-20210809-pr/, accessed on 25 October 2024.
[5] UN. Org. (2024 April), *Goal 13: Take urgent action to combat climate change and its impacts*.

and UN member countries have entered into these agreements specifically to address carbon emissions.

In the 2023 Global Risks Report, the "failure to mitigate climate change" ranked 4th by impact (severity) in the list of risks over 2 years and 1st in 10 years. This ranking underscores the urgent need for global action to address climate change. Climate and environmental risks are the core focus of global risks, and the Philippines is considered the least prepared. Nature loss and climate change are intrinsically interlinked – a failure in one sphere will cascade into the other. Without significant policy changes or investment, the interplay between climate change impacts, biodiversity loss, food security, and natural resource consumption will accelerate ecosystem collapse, threaten food supplies and livelihoods in climate-vulnerable economies, amplify the effects of natural disasters, and limit further progress on climate mitigation efforts.[6] Unfortunately, the Philippines, an archipelagic nation, is inherently vulnerable to the effects of climate change.

Meanwhile, UN member countries are collectively exerting efforts to mitigate the harmful effects of carbon emissions on our planet. Unfortunately, vulnerable countries like the Philippines, despite emitting the least carbon, will bear the brunt of climate change's impacts.[7] The Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC) meets annually to address progress on climate change.[8] The COP21 conference in 2015 resulted in the adoption of an important international agreement, the Paris Agreement, a legally binding international treaty to substantially reduce GHG emissions to pursue efforts to confine the increase in global temperature to 1.5℃ above pre-industrial levels.[9] CO_2 is the primary greenhouse gas emitted through human activities,[10] mainly from energy production, including burning coal, oil, or natural gas.[11] Transport is the Philippines' most significant source of air pollution and energy-related GHG.[12]

United Nations, D. o. (n.d.), The 17 Goals, accessed on 29 April 2024.

[6] World Economic Forum (2023), *The global risks report 2023* (18th ed.), Insight Report.

[7] Natural Resources Defense Council (2017 March 17), Philippines joins the Paris Agreement on climate change. Retrieved from https://www.nrdc.org/experts/han-chen/philippines-joins-paris-agreement-climate-change, accessed on October 21, 2024.

[8] *What is COP?* Cambridge Institute for Sustainability Leadership (CISL), University of Cambridge, accessed on 11 October 2024.

[9] Change, U. N. (2016), *The Paris Agreement*, accessed on 15 May 2024.

[10] U.S. Environmental Protection Agency (n.d.), *Overview of greenhouse gases*. Retrieved from https://www.epa.gov/ghgemissions/overview-greenhouse-gases, accessed on April 29, 2024.

[11] U.S. Geological Survey. (2019, March 22). *How does carbon get into the atmosphere?* Retrieved from https://www.usgs.gov/media/videos/how-does-carbon-get-atmosphere, accessed April 29, 2024.

[12]Mettke, C., Guillen, D., & Villaraza, C. (2016), *The Jeepney+ NAMA: Transforming Public Transport in the Philippines*. Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. Retrieved from

According to the World Bank, GHG emissions from the land-based transport sector in the Philippines are projected to quadruple by 2050.[13] While the Philippines already has existing laws to address carbon emissions, they are limited and primarily indirect.[14] The Philippines needs a more dedicated legal framework aligned with international climate standards.

Air pollution remains a critical challenge in the Philippines, with the transport sector contributing significantly to GHG emissions. Addressing this requires dedicated carbon tax legislation that embodies the "*polluter pays" principle*, an idea that the costs of polluting activities should be borne by the party that caused them, rather than the individual or community that suffers from the consequences of pollution,[15] ensuring that emitters bear the costs of their activities. Government intervention can address the externalities of air pollution by issuing a regulation or using economic instruments, such as taxes, against those who cause the pollution.[16]

As a signatory of the aforementioned Paris Agreement, the Philippines must submit every five (5) years its Nationally Determined Contributions (NDCs)[17] to lay out how it will contribute to the global temperature goals outlined under the Paris Agreement. Among those countries that submitted their NDCs, two-thirds have considered using carbon pricing to achieve their emission reduction targets.[18]

Carbon pricing, a market-based approach to reducing carbon emissions, is urgently needed in the Philippines. This method utilizes market mechanisms to shift the cost of emissions onto the

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https://changing-transport.org/publications/transforming-public-transport-in-the-philippines/, accessed on April 29, 2024.

[13] Jocson, L. M. J. C. (2023 November 6), *Greenhouse gas emissions from PHL land transport to quadruple by 2050*. *BusinessWorld*. Retrieved from https://www.bworldonline.com/top-stories/2023/11/06/555501/greenhouse-gas-emissions-from-phl-land-transport-to-quadruple-by-2050/, accessed on October 14, 2024.

[14] Organisation for Economic Co-operation and Development (2024), *Pricing greenhouse gas emissions: Key findings for the Philippines*, OECD Publishing. Retrieved from https://www.oecd.org/tax/tax-policy/carbon-pricing-philippines.pdf, accessed on 25 October 2024.

[15] Ruhland, K. (2024 March 28), *Explainer: What is the polluter pays principle and how can it be used in climate policy?* Earth.Org. Retrieved from https://earth.org/explainer-what-is-the-polluter-pays-principle-and-how-can-it-be-used-in-climate-policy/ accessed on 25 October 2024.

[16] Library of Economics and Liberty (n.d.), *Market failures, public goods, and externalities*. Retrieved from https://www.econlib.org/library/Topics/College/marketfailures.html, accessed on 04 December 2024.

[17] *All about the NDCs*, United Nations, Climate Action, accessed on 05 March 2024.

[18] About Carbon Pricing (n.d.). *United Nations Climate Change*. Retrieved from https://www.un.org/en/climatechange/carbon-pricing, accessed on March 2, 2024.

emitters, aiming to discourage the use of CO_2 or the emission of fossil fuels. The goal is to address the causes of climate change, protect the environment, and meet international and national climate agreements and pledges. A specific type of carbon pricing, a carbon tax, sets an exact price on carbon by specifying a tax rate on GHG emissions or the carbon amount found in fossil fuels. However, the Philippines has yet to implement a carbon tax law, which is a crucial step in the fight against climate change.

On 05 December 2023, at a high-level event during the United Nations Climate Conference (COP28), the Commonwealth Secretariat launched the Commonwealth Carbon Tax Model Law. If adopted by the Philippines, this model law could significantly reduce GHG emissions and help the country achieve the Paris Agreement's goal of limiting global heating to 1.5 degrees Celsius.[19] In light of the pace of climate change, the Philippines must implement strategies to reduce carbon emissions and conform to international best practices.

Methodology

This article explores how this principle and international best practices can be institutionalized in the Philippines. This also examines how a carbon tax law, as a specific policy tool, addresses the issues of GHG emissions, reinforces the Philippines' commitment to international climate accords, and provides a pathway to sustainable development. This article is grounded in the Black Letter Law methodology, focusing on interpreting and analyzing legal texts and doctrines. It examines international agreements, such as the Paris Agreement, as well as relevant Philippine laws. It emphasizes a detailed examination of legal texts, statutes, case law, and principles to provide an authoritative and structured analysis. Focusing on primary legal sources, the doctrinal method facilitates the interpretation and critique of the existing legal framework governing carbon emissions, highlighting gaps that require attention.[20] However, this analysis is limited to the plain text of these documents, focusing on their relevance to carbon taxation and highlighting gaps that hinder the Philippines' ability to align with international climate commitments.

[19] Commonwealth carbon tax model law launched to help countries reduce greenhouse gas emissions (2023 December 5), *Climate Policy Initiative*. Retrieved from https://www.climatepolicyinitiative.org/news/carbon-tax-model-law/, accessed on October 10, 2024.
[20] Twining, W. L. (1994), *Blackstone's Tower: The English Law School*, Sweet & Maxwell.

Specifically, the Black Letter Law approach is particularly suitable in explaining the implications and dilemmas in this article because of its emphasis on statutory analysis, which is critical in evaluating the Climate Change Act of 2009 (Republic Act No. 9729), the Philippine Clean Air Act (Republic Act No. 8749), and related international agreements such as the Paris Agreement.[21] It provides a clear and precise interpretation of legal provisions, forming a robust basis for proposing reforms.

Primary Sources comprises the statutory laws, such as key domestic legislation including the Climate Change Act of 2009, the Renewable Energy Act of 2008, and the Philippine Clean Air Act; international agreements involving Global instruments like the Paris Agreement and the Kyoto Protocol, which provide a framework for carbon taxation; and Philippine Supreme Court decisions relevant to environmental governance and taxation. Secondary sources were also consulted such as but not limited to academic journals and legal commentaries which provide insights into carbon taxation's theoretical and practical aspects; reports and studies through the publications from international organizations such as the UNFCCC and the World Bank, offering data and analysis on global carbon pricing mechanisms; Government Reports and policy briefs from Philippine agencies, including the Climate Change Commission, to understand the local context and challenges.

The author draws on best practices from jurisdictions with established carbon tax systems. The Commonwealth Carbon Tax Model Law serves as a benchmark for crafting a similar framework tailored to the Philippine context. However, the economic and social impacts of carbon taxation in the Philippines have not been empirically examined, as the survey prioritizes legal interpretation over quantitative research. Hence, this article presents and unpacks the key findings, guided by the discussion of the dilemmas propounded in this article. It builds upon the groundwork laid by the previous chapters by analyzing how international obligations, existing local laws, and foreign models intersect—and where they diverge—when it comes to carbon taxation.

Drawing from the legal sources, case studies, and international models examined using the Black-Letter methodology, this articles also explores how international climate agreements and global best practices, particularly the Paris Agreement, the Commonwealth Carbon Tax Model Law, and the carbon emission laws implemented

[21] United Nations Framework Convention on Climate Change (UNFCCC) (2015), *Paris Agreement*. Retrieved from https://unfccc.int on December 15, 2024.

in countries abroad, can inspire the creation of a carbon tax framework tailored to the Philippine legal and policy environment. It examines how international legal obligations contribute to the development of domestic legal tools for carbon taxation, understands the current state of Philippine law, and assesses whether and how these obligations are translated into actionable environmental policy. Finally, it considers how foreign legal systems—those that have successfully implemented carbon pricing mechanisms—can offer valuable insights and potential models for Philippine adaptation

In this article, the author emphasizes the absence of local precedents, considering that the Philippines has yet to implement a carbon tax law, prompting the author to rely on international agreements, foreign best practices, and existing domestic laws for analysis. Despite these limitations, this article serves as an essential academic resource, providing a foundational exploration of the legal framework for carbon taxation in the Philippines. By addressing the critical gaps in the country's legal and policy landscape, the author hopes to contribute to the national discourse on climate change mitigation and provide a reference for future technical and empirical studies. The practical implications of these findings could potentially shape the future of climate policy in the Philippines.

II. THE DILEMMA

As a signatory to international agreements and conventions such as the Paris Agreement, the Philippines is responsible for mitigating its carbon emissions. Despite its commitments to global climate goals, the country lacks a comprehensive legal framework for carbon taxation—a critical policy tool for reducing GHG emissions and addressing climate change. While domestic environmental laws and policies exist, they are fragmented, primarily indirect, and insufficient to meet international standards in effectively curbing carbon emissions.

This article addresses this gap by examining how international agreements and conventions provide a legal foundation for establishing carbon tax legislation in the Philippines. It also aims to analyze the alignment of Philippine domestic laws with these international commitments and explores how international legal frameworks, *such as* the Commonwealth's Carbon Tax Model Law, may be used to inform the development of a carbon tax law best suited to the Philippine context.

In this article, the following research dilemmas were dissected, each of which is crucial to our understanding of the role of international legal frameworks in the development of a carbon tax law in the Philippines: (1) How can international agreements and conventions contribute to the development of a domestic legal framework for carbon taxation in the Philippines as a means to address carbon emissions?; (2) How can existing Philippine laws and regulations translate these international obligations into domestic legal frameworks for carbon emissions reduction?; and, (3) How can the carbon tax law be adopted in the Philippines using the Commonwealth Carbon Tax Model Law; and Global best practices from other countries, such as Finland, Japan, Singapore, British Columbia, Sweden, and other Nordic countries.

III. INTERNATIONAL ENVIRONMENTAL LAWS

International environmental laws encompass international treaties and principles that aim to protect the environment and mitigate climate change. They aim to achieve sustainable development, *i.e.,* development that allows people to have a high quality of life today without sacrificing the quality of life of future generations[22], or the broader concept of sustainability.

The roots of sustainability can be traced back to ancient civilizations, where communities recognized the need to live in harmony with their environment. It is realistic to assume that Hans Carl von Carlowitz, mining manager for the Saxon court in Freiburg, Germany, during the late 17th and early 18th centuries, was also driven by necessity and a severe shortage of wood to invent the concept of sustainability, or to be more precise, he coined the word to describe the quintessential principles of a human activity that goes back to the dawn of history: the sustainable use of natural resources.[23] The Industrial Revolution brought rapid economic growth and technological progress, but it also increased pollution, resource depletion, and environmental degradation.[24]

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[22] American Bar Association (2021January5), *International environmental law*. Retrieved from https://www.americanbar.org/groups/environment_energy_resources/publications/international-environmental-law/, accessed on November 21, 2024.

[23] Schelby, E. (2022), *Sustainability is not as new an idea as you might think- It's more than 300 years old, Down To Earth*, published on 11 February 2022.

[24] 1972

, P. J. (2023 August 9), 7 negative effects of the Industrial Revolution, *History*. Retrieved from https://www.history.com/topics/industrial-revolution/7-negative-effects-industrial-revolution, accessed on September 23, 2024.

The 1972 UN Conference on the Human Environment in Stockholm was the first world conference to make the environment a significant issue. The participants adopted a series of principles for the sound management of the environment, including the Stockholm Declaration and the Action Plan for the Human Environment, as well as several resolutions.[25] The Stockholm Declaration, which contained 26 principles, placed environmental issues at the forefront of international concerns and marked the start of a dialogue between industrialized and developing countries on the link between economic growth, the pollution of the air, water, and oceans, and the well-being of people around the world. One of the significant results of the Stockholm conference was the creation of the United Nations Environment Program (UNEP), which is responsible for coordinating responses to environmental issues within the United Nations system.[26]

The Rio Principles emerged from the 1992 Earth Summit in Rio de Janeiro, a landmark UN Conference on Environment and Development. This summit led to the creation of the United Nations Framework on Climate Change (UNFCCC).[27] In 1995, the first Conference of the Parties (COP) for UNFCC was held with the ultimate objective of stabilizing greenhouse gas (GHG) concentrations at a level that would prevent dangerous anthropogenic (human-induced) interference with climate change.[28] The COP, the supreme decision-making body of the convention, meets every year to review the national communications and emission inventories submitted by Parties. The COP assesses the effects of the measures taken by the Parties and the progress made in achieving the ultimate objective of the Convention. [29]

International Climate Agreements

The United Nations Millennium Development Goals (MDGs) are eight objectives established by 189 UN member states in September 2000, and they are committed to accomplishing them by 2015. The Millennium Declaration was ratified during the worldwide summit

[25] United Nations Conference on the Human Environment. (1972 June 5–16), *Stockholm Declaration*. Retrieved from https://www.un.org/en/conferences/environment/stockholm1972, accessed on May 20, 2024.
[26] *Supra,* United Nations Conference on the Human Environment. (1972 June 5–16), *Stockholm Declaration*. Retrieved from https://www.un.org/en/conferences/environment/stockholm1972, accessed on May 20, 2024.
[27] United Nations. (1992, June 3–14), *United Nations Conference on Environment and Development, Rio de Janeiro, Brazil*, Retrieved from https://www.un.org/en/conferences/environment/rio1992, accessed on October 10, 2024.
[28] *Ibid.*
[29] United Nations Climate Change (2024), *Conference of the Parties (COP),* Retrieved from https://unfccc.int, accessed on October 12, 2024.

in September at the UN headquarters in New York, where 149 foreign leaders pledged to address issues such as sickness, hunger, poverty, illiteracy, gender inequality, and environmental degradation.[30]

Subsequently, under the previous Rio Principles of 2015, the UN supplanted the MDGs with the 17 Sustainable Development Goals (SDGs). The MDGs need enhanced monitoring, assessment, and frameworks for impact accountability. In contrast, the SDGs advocate managing impact data, ensuring quality, and timely acquisition. The SDGs were formulated through a highly collaborative process incorporating contributions from essential stakeholders worldwide, including 193 member nations, scientists, and business sector representatives.[31]

Specifically, SDG 13 on climate action mandates immediate measures to address climate change and its consequences.[32] Climate change is a global crisis that necessitates not just individual, but collective action. This challenge transcends national boundaries, requiring global collaboration and synchronized solutions across all tiers. The adoption of the historic Paris Agreement by 196 Parties at the UN Climate Change Conference (COP21) in Paris, on December 12, 2015, is a prime example of the power of international cooperation in addressing climate change. This agreement, which entered into force on November 4, 2016, is a testament to the importance of unity and collaboration in the face of such a pressing issue.

The primary objective of the Paris Agreement is to restrict the rise in the global average temperature to far below 2 degrees Celsius over pre-industrial levels and to limit the temperature increase to 1.5 degrees Celsius above pre-industrial levels.[33] It mandates each country to delineate and convey their post-2020 climate initiatives, called their Nationally Determined Contributions (NDCs). The NDCs are fundamental to the Paris Agreement and the realization of its long-term objectives. They represent the initiatives of each nation to mitigate domestic emissions and adjust to the effects of climate change. Article 4, paragraph 2 of the Paris Agreement mandates

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[30] MDG Monitor (n.d.), *Category: Millennium Development Goals*, Retrieved from https://www.mdgmonitor.org/category/millennium-development-goals/, accessed on September 23, 2024.

[31] Pierce, A. (2024), *Why shift from MDG to SDG?* Sopact. Retrieved from https://www.sopact.com/perspectives/mdg-to-sdg, accessed on September 23, 2024.

[32] United Nations. (n.d.), *The Global Goals*. Retrieved from https://www.globalgoals.org, accessed on May 20, 2024.

[33] *Supra,* United Nations. (n.d.), *The Global Goals*. Retrieved from https://www.globalgoals.org, accessed on May 20, 2024.

that each Party formulate, convey, and uphold successive NDCs that it aims to accomplish. Parties shall implement domestic mitigation strategies to fulfill the goals of these contributions.[34]

In compliance with the Paris Agreement, the Philippines has committed to pursuing inclusive, sustainable economic development policies that address its vulnerability to climate change in its First Intended NDC. In this NDC, the Philippines set a GHG emission reduction target of 70% by 2020.[35] In its NDC in 2021, the Philippines committed to a projected emissions reduction and avoidance of 75%, of which 2.71% is unconditional, and 72.29% is conditional, representing the country's ambition for emissions mitigation from 2020 to 2030.[36]

IV. DOMESTIC LAWS RELATED TO CARBON EMISSIONS

The Philippines is one of the most vulnerable countries to the impacts of climate change. Due to its geographic location, the nation faces heightened risks from severe weather events, rising sea levels, and other environmental consequences of global warming. Despite contributing minimally to global GHG emissions, the Philippines disproportionately experiences the adverse effects of climate change. This vulnerability underscores the urgent need for effective and sustainable climate policies to mitigate risks and protect the country's citizens.

As signatory to international agreements such as the Paris Agreement, the Philippines has pledged to reduce GHG emissions and contribute to global climate mitigation efforts.[37] The Paris Agreement requires member countries to submit their NDCs every five (5) years, serving as strategic roadmaps to reduce emissions and adapt to climate impacts.[38]

In November 2021, the Glasgow Climate Pact called for countries to revisit and strengthen their NDCs, emphasizing the importance of more ambitious climate actions.[39] Carbon pricing mechanisms, such as carbon taxes, have emerged as key tools for

[34] United Nations Climate Change (2024), *The Paris Agreement and the NDCs: Nationally Determined Contributions (NDCs)*. Retrieved from https://unfccc.int, accessed on May 10, 2024.
[35] OECD. (n.d.), *Taxing energy use for sustainable development: Country notes, Philippines, macroeconomic and policy context,* Better Policies for Better Lives.
[36] Philippines, Overview, NDC Partnership, accessed on 10 May 2024.
[37] United Nations. (1998), *Kyoto Protocol to the United Nations Framework Convention on Climate Change*, Kyoto, Japan.
[38] *Ibid.*
[39] Taryn Fransen, Katie Ross, and Jamay Sroujie, *5 Ways the Glasgow Climate Pact Aims to Reduce Greenhouse Gas Emissions*, 10 March 2022, World Resources Institute, accessed on 05 March 2024.

achieving emission reduction targets.[40] Two-thirds of submitted NDCs incorporate carbon pricing to meet their climate goals.[41]

The Philippines needs a comprehensive legal framework for carbon taxation, a widely recognized policy instrument for reducing carbon emissions and promoting sustainability. This absence represents a significant gap in the country's legal and policy landscape, hindering its ability to effectively meet international climate standards.

This article identifies the need for carbon tax legislation to align the Philippines' policies with international climate standards. By drawing on best practices from countries that have successfully implemented carbon pricing mechanisms, this article proposes a legal framework tailored to the Philippine context. The proposed framework aims not only to bridge the existing policy gap and strengthen the country's climate resilience but also holds the potential to significantly contribute to the Philippines' commitments under the Paris Agreement and promote sustainable development.

Proactive Approach Of the Philippines

The Philippines has taken a proactive approach to address climate change, with a growing body of laws and policies aimed at reducing carbon emissions. In 1991, the Philippines established the Inter-Agency Committee on Climate Change (IACC), which was later renamed the Climate Change Commission (CCC) to coordinate government action on climate change. In 1995, the Philippines ratified the UNFCC, committing to international cooperation on climate change. In 1997, the Philippines signed the Kyoto Protocol, agreeing to reduce GHG emissions.

In 2008, the Philippines enacted R.A. No. 9513, or the Renewable Energy Act of 2008, which promotes developing and utilizing renewable energy resources to reduce reliance on fossil fuels and decrease carbon emissions. It also sets Renewable Portfolio Standards (RPS) to increase the share of renewable energy in the country's energy mix.

In 2009, the Philippines enacted R.A. No. 9729, or the Climate Change Act of 2009, a landmark legislation that is the foundation for the country's climate action.[42] It responded to the growing

[40] *About Carbon Pricing*, United Nations Climate Change, accessed on 02 March 2024.
[41] World Bank. (2022), *State and trends of carbon pricing 2022*, Washington, DC: World Bank.
[42] Climate Change Act of 2009 (Republic Act No. 9729 of 2009).

recognition of the urgent need to address climate change and its potential impacts on the country. It also created a National Framework Strategy on Climate Change (NFSCC), which provides a roadmap for climate action, including mitigation and adaptation measures. Within the Framework, the Philippines developed a National Climate Change Action Plan (NCCAP) that outlines a long-term program and strategies for climate change adaptation.[43]

In 2012, R.A. No. 9729 was further amended by R.A. No. 10174 to strengthen the CCC and integrate climate change into national policies. It also mandated the formulation of Local Climate Change Action Plans (LCCAPs).[44]

In 2017, the Philippines made a significant global contribution by formally signing the Paris Agreement to maintain the earth's temperature or, at least, to mitigate its carbon emissions. In a statement, the Philippines' CCC said that formally joining the Agreement "reflects the sense of global urgency needed to hold the increase in the global average temperature to 1.5 degrees Celsius above pre-industry levels agreed under the Paris Agreement, which the Philippines strongly advocated for."[45]

In 2021, the Philippines submitted to UNFCC its updated NDC, which outlines its commitment to reduce GHG emissions by 75% by 2030. This commitment is significant, as it demonstrates the Philippines' strong stance on climate action and its determination to contribute to global efforts to mitigate climate change. However, most of its commitment is conditional on international support, and its unconditional target needs to be more ambitious and will not drive real-world emissions reductions.[46]

Meanwhile, Philippine Tax Code or the National Internal Revenue Code (NIRC) of 1997, as amended, does not have specific provisions directly penalizing carbon emissions. Indirectly, the Philippines penalizes the "burning and combustion of fuels" by imposing an excise tax on all petroleum products, including oil and fuel.[47]

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[43] National Climate Change Action Plan, National Integrated Climate Change Database and Information Exchange System, accessed on 22 November 2024.
[44] *People's Survival Fund Seeks to Find Solution to Climate Crisis* (November 25, 2020), Department of Finance.
[45] *Philippines Joins the Paris Agreement on Climate Change* (March 17, 2017), NRDC.
[46] Philippines, *Climate Action Tracker*, accessed on 22 November 2024.
[47] (Representatives, 2022), *Excise Tax on Petroleum Products in the Philippines*, February 2022, Facts in Figures, Congressional Policy and Budget Research Department, House of Representatives, accessed on 29 April 2024.

The Philippines is yet to implement a carbon tax law, the concept of carbon taxation is relatively new in the local context. This absence in the current legal framework presents a significant challenge. Recognizing this, the author seeks to contribute to the academic discourse by exploring the legal and policy aspects of carbon taxation and gradually introducing the subject of carbon pricing through legislative mechanisms, thereby paving the way for a novel approach to climate policy in the Philippines.

V. CONCEPTS AND PRINCIPLES

The following concepts are noteworthy to mention in order to elucidate the exploration of understanding the nature and historical backgrounds of the legal framework related to international environmental laws.

Brundtland Commission

Founded in 1983 by the United Nations, the Brundtland Commission [48] developed the concept of sustainable development as "meeting the needs of the present without compromising the ability of future generations to meet their own needs."[49] This article may offer a framework for the Philippines to include sustainability in its policies, namely in reducing carbon emissions through legislative measures.

Cap-and-Trade

A market-based mechanism that sets a cap on total greenhouse gas emissions while allowing entities to trade emission allowances to stay within the cap.[50] In a typical cap-and-trade program, the government first creates a "cap" on the total amount of pollutants that emitters may release. The government grants the right to emit pollutants through emission allowances by setting a maximum emission limit. An emission allowance is a license to emit pollutants; the cap limits the total number of allowances. Because allowances are tradable, bankable, and scarce, they serve as a price signal for the cost of emitting when companies buy and sell allowances. While not implemented in the Philippines,

[48] *Brundtland Report*, Britannica, accessed on 17 October 2024.
[49] United Nations. (1987), *Our Common Future (Brundtland Report)*, Oxford University Press.
[50] Stavins, R. N. (2003), *Market-Based Environmental Policies*, Handbook of Environmental Economics, Elsevier.

cap-and-trade is a comparative framework for designing emission reduction policies, such as carbon taxation, by analyzing systems like the European Union's (EU) Emissions Trading System.

Carbon Border Adjustment Mechanisms (CBAM)

CBAM is a trade mechanism that imposes tariffs on carbon-intensive imports to equalize the carbon price paid by domestic and foreign producers.[51] By confirming that a price has been paid for the embedded carbon emissions generated in the production of certain goods imported into the EU, the CBAM will ensure that the carbon price of imports is equivalent to the carbon price of the domestic output and that the EU's climate objectives are not undermined.

Carbon Dioxide (CO_2)

A colorless and non-toxic gas consisting of one carbon atom and two oxygen atoms,[52] CO_2 is the primary greenhouse gas responsible for climate change.[53] The CO_2 and other GHGs help create and maintain the natural greenhouse effect that keeps Earth hospitable to life. GHGs do not have a negative effect when present in natural amounts; the Earth's average temperature would be much cooler without them. CO_2 is central to the Philippine carbon tax policy discussion, as it is the primary target of emission reduction strategies through energy reforms and the promotion of renewable energy.

Carbon Credits

Carbon credits represent tradable certificates allowing an entity to emit a specific amount of CO_2 or equivalent greenhouse gases, typically one metric ton.[54] In this article, it can be a tool that can be integrated into Philippine climate policy to incentivize private sector compliance with emission reduction targets. When companies purchase a carbon credit from the government, they gain permission to emit one ton of CO_2. With carbon credits, carbon revenue flows vertically from companies to regulators, though companies that end up with excess credits can sell them to other companies.

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[51] European Commission (2021), *Carbon Border Adjustment Mechanism*. Retrieved from https://ec.europa.eu.
[52] *Carbon Dioxide 101*, National Energy Technology Laboratory, accessed 09 March 2024.
[53] World Meteorological Organization (2021), *Greenhouse Gas Bulletin*. Retrieved from https://public.wmo.int.
[54] World Bank (2022), *State and Trends of Carbon Pricing 2022*, World Bank Group.

Carbon Emissions

This refers to the release of carbon compounds, especially CO_2, into the atmosphere from the combustion of fossil fuels and deforestation.[55] Since GHG emissions are often calculated as carbon dioxide equivalents, they are usually called "carbon emissions" when discussing global warming or the greenhouse effect.[56] Focuses on sources of emissions in the Philippines, such as the transportation sector, which contributes significantly to rising GHG levels.

Carbon Footprint

The total GHG emissions are directly or indirectly caused by an individual, organization, or country, expressed in CO_2 equivalents.[57] The average carbon footprint for a person in the United States is 16 tons, one of the highest rates in the world. Globally, the average carbon footprint per person is closer to 4 tons.[58] This will measure the impact of activities like coal-fired electricity generation and deforestation in the Philippines on global warming.

Carbon Offsets

Carbon offsets are reductions in GHG emissions used to compensate for emissions produced elsewhere, often through renewable energy projects or reforestation.[59] Offsets flow horizontally, trading carbon revenue between companies. When one company removes a carbon unit from the atmosphere as part of its regular business activity, it can generate a carbon offset. Other companies can then purchase that carbon offset to reduce their carbon footprint.[60] This is a potential tool for Philippine industries to meet voluntary emission reduction goals, particularly in sectors like energy and agriculture.

Carbon Pricing

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[55] IPCC (2021), *Sixth Assessment Report: Climate Change 2021*, Intergovernmental Panel on Climate Change (IPCC).

[56] *Carbon emission defined and explained* (updated 15 December 2022), Ecolife, accessed on 17 November 2024.

[57] *What is a carbon footprint?* The Nature Conservancy, accessed on 02 March 2024.

[58] Pachauri, R. K. (2004), *Climate Change and Its Implications for Development: The Role of the IPCC,* Environment and Development Economics, 9(3), 221–232, https://doi.org/10.1017/S1355770X04001427.

[59] Gold Standard (2020), *What are carbon offsets?* Retrieved from https://www.goldstandard.org.

[60] *Supra, The Ultimate Guide to Understanding Carbon Credits.*

A policy mechanism that assigns a monetary cost to GHG emissions to encourage emitters to reduce their carbon footprint.[61] It curbs GHG emissions by placing a fee on emitting and/or offering an incentive for emitting less. The price signal created shifts in consumption and investment patterns, making economic development compatible with climate protection.[62] This article is a central policy discussion in this thesis and emphasizes the need for carbon taxation in the Philippines to align with international climate standards.

Carbon Tax

A tax on the carbon content of fossil fuels is designed to reduce CO_2 emissions by making polluting activities more costly.[63] The primary focus of this article is the proposed carbon tax as a policy instrument to address carbon emissions and fulfill international commitments like the Paris Agreement. By leading in this global climate discussion, the Philippines can demonstrate its commitment to environmental stewardship and inspire others to take action.

Carbon Trading

A market-based system where emission allowances are bought and sold to incentivize businesses to reduce emissions.[64] While not implemented in the Philippines, this mechanism is discussed as an alternative to carbon taxation for achieving emission reduction targets.

Climate Change

Long-term changes in global or regional climate patterns are mainly attributed to increased levels of atmospheric CO_2 from fossil fuel use.[65] Climate change is the central issue addressed in this article. With carbon taxation proposed as a mitigation strategy for the Philippines, it underscores the urgent need to address this pressing global issue.

Climate Standards

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[61] OECD (2020), *Effective Carbon Rates 2020: Pricing Carbon Emissions Through Taxes and Emissions Trading*, Organisation for Economic Co-operation and Development.
[62] *Supra, About Carbon Pricing*, United Nations Climate Change, accessed on 02 March 2024.
[63] World Bank. (2022), *State and Trends of Carbon Pricing 2022*, World Bank Group.
[64] Stavins, R. N. (2003), *Market-Based Environmental Policies*, Handbook of Environmental Economics, Elsevier.
[65] *Supra, What Is Climate Change?* United Nations, Climate Action, accessed on 24 February 2024.

Benchmarks or guidelines set to regulate and reduce GHG emissions are often based on international agreements such as the Paris Agreement.[66] This article evaluates the alignment of Philippine policies with international climate standards, focusing on the absence of a carbon tax framework.

Commonwealth Carbon Tax Model Law

A legal framework proposed by the Commonwealth Secretariat to assist countries in implementing carbon taxes aligned with international climate goals.[67] It serves as a primary reference for crafting a Philippine carbon tax law, as discussed in this article. The Commonwealth Carbon Tax Model Law is designed to provide countries with a comprehensive and easy-to-administer tool for implementing a carbon tax that is consistent with a just transition, potentially significantly impacting climate change. Moreover, it is crucial to consider the potential economic impacts of such policies.[68]

Decarbonization

Reducing carbon dioxide emissions from economic activities typically occurs through the adoption of renewable energy and improvements in efficiency (Stern, 2007).[69] Refers to efforts in the Philippines to transition from coal-fired power plants to renewable energy sources as part of broader climate action. Decarbonization is achieved by switching to the usage of low-carbon energy sources.

Direct Emissions Approach

Under the Commonwealth Carbon Tax Model Law, this method measures emissions directly at their source, such as power plants or factories.[70] While potentially more accurate in reducing emissions, this would require significant investment in emissions monitoring and reporting systems, especially for manufacturing, energy, and transportation industries.[71] Emphasizing the importance of accurate emissions tracking is crucial to support carbon taxation policies in the Philippines. This ensures the

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[66] OECD (2020), *Effective Carbon Rates 2020: Pricing Carbon Emissions Through Taxes and Emissions Trading*, Organisation for Economic Co-operation and Development.
[67] Commonwealth Secretariat (2023), *Commonwealth Carbon Tax Model Law*. Retrieved from https://thecommonwealth.org.
[68] *The Commonwealth Carbon Tax Model Law*, The Commonwealth (2023).
[69] Stern, N. (2007), *The Economics of Climate Change: The Stern Review*, Cambridge University Press.
[70] EPA (2020), *Direct emissions measurement*, U.S. Environmental Protection Agency. Retrieved from https://epa.gov.
[71] *Ibid, The Commonwealth Carbon Tax Model Law*, The Commonwealth (2023).

effectiveness and fairness of the policies, making stakeholders feel the necessity of this aspect.

Emissions Trading Systems (ETS)

A cap-and-trade system, also known as an emissions trading system (ETS), is one where governments cap emissions and allow businesses to buy and sell allowances. The cap helps ensure that the required emission reductions will occur to keep the emitters (in aggregate) within their pre-allocated carbon budget.[72] While not yet applied in the Philippines, ETS is an alternative policy instrument discussed alongside carbon taxation in this article.

Environmental Taxes

Taxes imposed on activities harmful to the environment are based on the "polluter pays" principle.[73] This includes excise taxes on petroleum products under the Philippine TRAIN Law, which indirectly addresses carbon emissions.

Fuel Approach

Under the Commonwealth Carbon Tax Model Law, this pertains to the tax on the carbon content of fuel at the point of sale. This could be more feasible initially, as it leverages existing fuel tax infrastructure and may be simpler to implement. However, for the policy to substantially impact emission reductions, it would be necessary to ensure the tax rate reflects the environmental cost of carbon emissions, which may require higher tax rates.[74] This is relevant to the Philippine context as the excise taxes under the TRAIN Law impose levies on fuels, indirectly reducing carbon emissions.

Glasgow Climate Pact

This was adopted at the COP26 UN climate conference in November 2021, which saw signatory countries increase climate ambition and action from the Paris Agreement in 2015 and set out new rules to reduce GHG emissions, including phasing down coal and a global carbon market.[75] The Glasgow Climate Pact, adopted at the COP26 UN climate conference, is a benchmark for assessing the

[72] World Bank (2022), *State and Trends of Carbon Pricing 2022*, World Bank Group.
[73] Iberdrola (2024), *Environmental taxes make way to protect the environment.* Retrieved 02 March 2024.
[74] *Supra, The Commonwealth Carbon Tax Model Law*, The Commonwealth (2023).
[75] COP26: *Together for our planet*, United Nations, Climate Action, accessed on 01 May 2024.

Philippines' commitment to revisiting its NDCs and advancing carbon mitigation strategies.

Global Warming

The long-term increase in Earth's average temperature is due to elevated levels of GHGs in the atmosphere.[76] Though this warming trend has been going on for a long time, its pace has significantly increased in the last hundred years due to the burning of fossil fuels.[77] Global warming is a central focus of this article, serving as a driver of climate change, which necessitates the implementation of carbon pricing mechanisms in the Philippines.

Greenhouse Gases (GHGs)

Atmospheric gases, including CO_2, methane, and nitrous oxide, trap heat and contribute to the greenhouse effect.[78] The gases act like the glass walls of a greenhouse; hence, the name, greenhouse gases. Without this greenhouse effect, temperatures would drop to as low as -180 °C (-0.40 °F), which is too cold to sustain life on Earth.[79] A primary target of carbon taxation policies proposed in this thesis is to align Philippine laws with global climate standards.

Greenhouse Gas Effect

The process of GHG trapping heat in Earth's atmosphere causes the planet's surface to warm.[80] Without this greenhouse effect, temperatures would drop to as low as 18 degrees Celsius, which is too cold to sustain life on Earth.[81] GHG effect provides the scientific foundation for discussing carbon taxation as a policy tool to mitigate climate impacts in the Philippines.

Heat Index

A measure of how hot it feels when relative humidity is factored into the air temperature.[82] This underscores the pressing need for climate action in the Philippines, where heat index levels have

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[76] IPCC (2021), *Sixth Assessment Report: Climate Change 2021*, Intergovernmental Panel on Climate Change (IPCC).
[77] *Global Warming*, National Geographic, accessed on 01 May 2024.
[78] World Meteorological Organization (2021), *Greenhouse Gas Bulletin*. Retrieved from https://public.wmo.int
[79] *What are greenhouse gases*? National Grid, accessed on 02 March 2024.
[80] NASA (2020), *The greenhouse effect and climate change*, National Aeronautics and Space Administration. Retrieved from https://nasa.gov.
[81] *Supra, What are greenhouse gases?, National Grid, accessed on 17 November 2024.*
[82] NOAA (2020). *What is heat index?*, National Oceanic and Atmospheric Administration. Retrieved from https://noaa.gov, accessed on 01 May 2024.

reached record highs due to global warming. The urgency of the situation calls for immediate and effective measures, such as implementing carbon taxation policies.

Internalizing an Externality

An economic principle where costs or benefits not included in market transactions are incorporated into pricing mechanisms, often through taxes or subsidies.[83] The goal is to ensure that the costs and benefits of the activity are reflected in the prices paid by the participants rather than imposed on third parties who are not part of the transaction. This can be achieved through various means, such as taxes, subsidies, regulations, or market-based mechanisms such as emission trading.[84] It forms the theoretical basis for carbon taxation, which ensures polluters bear the cost of their emissions in the Philippine context.

International Environmental Law

A body of treaties, principles, and customs that reflect the world's collective effort to manage our transition to the Anthropocene to address environmental challenges, including climate change.[85] Refers to frameworks like the Paris Agreement and UNFCCC that guide Philippine climate policies and legislative proposals for carbon taxation. Thus, addressing specific threats and integrating long-term environmental protection into the global economy is critical.

Kyoto Protocol

An international treaty adopted in 1997 under the UNFCC set binding emission reduction targets for developed countries.[86] The Convention only asks those countries to adopt policies and measures on mitigation and to report periodically. This provides historical context for the Philippines' commitments to climate change mitigation, including its voluntary efforts to reduce emissions.

Nationally Determined Contribution (NDC)

Climate action plans submitted by countries under the Paris Agreement outline their targets for reducing greenhouse gas

[83] Pigou, A. C. (1920). *The Economics of Welfare*. Macmillan.
[84] *Internalising the Externality*, tutor2U, accessed on 23 March 2024.
[85] David Hunter (January 5, 2021), International Environmental Law, 19 Insights on Law & Society.
[86] *What is the Kyoto Protocol?,* United Nations Climate Change, accessed on 16 May 2024.

emissions.[87] Each Party to the Paris Agreement must establish and update an NDC every 5 years.[88] This article highlights the Philippines' conditional and unconditional commitments to reduce emissions, with carbon taxation proposed as a tool to achieve these targets.

Negative Externality

A cost incurred by a third party due to economic activity, such as pollution that is not reflected in the market price.[89] However, the entity that created this byproduct does not pay for it; instead, society pays the price. Examples include air and noise pollution, toxic runoff, and the unintentional killing of pollinators through the use of pesticides.[90] In this context, it refers to the environmental costs of carbon emissions in the Philippines, which this article seeks to address through a carbon tax policy.

Non-Renewable Resources

Natural resources, such as coal, oil, and natural gas, cannot be replenished on a human timescale once consumed.[91] Fossil fuels, when burned to produce energy, cause harmful greenhouse gas emissions, such as carbon dioxide.[92] This context emphasizes the Philippines' reliance on coal-fired power plants and the need for policies encouraging renewable energy use.

Paris Agreement

A legally binding international treaty adopted at COP21 in 2015 aimed to limit the global temperature rise to below 2 degrees Celsius, with efforts to restrict it to 1.5 degrees Celsius.[93] As such, it charts a new course in the global climate effort and marks a turning point for international climate action.[94] It is a key international commitment influencing the Philippines' climate policies and proposed carbon tax framework.

Pigouvian Tax

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[87] *The Paris Agreement*, United Nations Climate Change, accessed on 16 May 2024.
[88] *Supra*, *All About the NDCs*, United Nations, Climate Action, accessed on 05 March 2024.
[89] Pigou, A. C. (1920). *The Economics of Welfare*. Macmillan.
[90] Julia Kagan, *Pigovian Tax*: Definition, Purpose, Calculation, and Examples, updated 20 February 2024, Investopedia, accessed on 05 March 2024.
[91] EIA (2021), *Non-renewable energy resources*. U.S. Energy Information Administration. Retrieved from https://eia.gov.
[92] *What is renewable energy?* United Nations, Climate Action, accessed on 11 March 2024.
[93] UNFCCC (2015), *Paris Agreement*. United Nations Framework Convention on Climate Change (UNFCC).
[94] *Key aspects of the Paris Agreement*, United Nations Climate Change, accessed on 02 March 2024.

A tax levied on activities that generate negative externalities, such as pollution, to correct market failures and internalize external costs.[95] Those can include environmental pollution, strains on public healthcare systems from selling tobacco products, or any other side effects that have an external negative impact.[96] In this article, a carbon tax is proposed as a tool in the Philippine setting to make polluters pay for the social cost of their carbon emissions. It ensures that those responsible for greenhouse gas emissions bear the financial burden, following the "polluter pays" principle.

"Polluter Pays" Principle

An environmental policy principle that assigns the cost of pollution prevention, control, and cleanup to the polluter.[97] Central to the article is the foundational principle for carbon taxation, ensuring that entities contributing to carbon emissions bear the financial cost of their environmental impact.

Progressive Tax

A tax structure where the tax rate increases as the taxable amount rises, placing a higher burden on those with more significant income or wealth.[98] This is discussed in contrast to carbon taxation, which, while progressive in principle, may disproportionately affect low-income sectors in the Philippines without proper safeguards.

Regressive Tax

A tax system where lower-income individuals bear a higher tax burden than their income, as the tax rate remains the same, regardless of economic capacity.[99] This is identified as a potential concern in carbon taxation frameworks, requiring mitigation strategies to protect vulnerable populations in the Philippines.

Renewable Energy

Energy is derived from naturally replenished sources, such as solar, wind, hydro, and geothermal, which do not deplete over

[95] Pigou, A. C. (1920), *The Economics of Welfare*. Macmillan.
[96] *Supra.* Julia Kagan, *Pigovian Tax*: Definition, Purpose, Calculation, and Examples, updated 20 February 2024, Investopedia, accessed on 05 March 2024.
[97] OECD (1972), *The Polluter Pays Principle*, Organisation for Economic Co-operation and Development.
[98] Musgrave, R. A. (1959), *The Theory of Public Finance*. McGraw-Hill.
[99] Atkinson, A. B., & Stiglitz, J. E (2015), *Lectures on Public Economics*. Princeton University Press.

time.[100] This is recognized as a complementary measure to carbon taxation in the Philippines, promoting a transition from fossil fuel dependence.

Revenue Neutrality

For purposes of this article, revenue neutrality means offsetting the revenue earned from carbon taxation with tax reductions that are beneficial to the country's citizens as a whole. Thus, since British Columbia applied a revenue-neutral carbon tax, every dollar generated is returned to British Columbians in the form of personal and business tax measures, such as reductions in personal income tax rates, the Low Income Climate Action Tax Credit, and corporate income tax reductions.[101]

Sustainability

The ability to meet present needs without compromising the capacity of future generations to meet their own, integrating economic, social, and environmental dimensions.[102] The overarching goal of carbon taxation in the Philippines seeks to ensure environmental preservation, economic growth, and societal well-being.

Sustainable Development

Development that meets current needs while ensuring the future availability of resources for subsequent generations[103] provides the framework for carbon taxation policies aimed at addressing climate change while promoting economic sustainability in the Philippine context.

Sustainable Development Goals (SDGs)

A set of 17 global goals was adopted by the United Nations in 2015 to address poverty, inequality, climate change, and environmental sustainability by 2030.[104] SDG 13, "Climate Action," is a critical benchmark for the Philippines' carbon taxation efforts to mitigate emissions and contribute to global climate goals.

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[100] International Renewable Energy Agency (IRENA). (2021), *Renewable energy statistics 2021*. Retrieved from https://www.irena.org

[101] *Revenue-Neutral Carbon Tax/Canada*, United Nations Climate Change, accessed on 22 February 2025.

[102] Brundtland, G. H. (1987), *Our Common Future: The World Commission on Environment and Development*, Oxford University Press.

[103] United Nations. (1987), *Our Common Future (Brundtland Report)*, Oxford University Press.

[104] United Nations. (2015), *Sustainable Development Goals*, United Nations Development Programme (UNDP)

Vulnerability

The extent to which a system, group, or region is vulnerable to or incapable of managing the detrimental impacts of climate change, encompassing exposure, sensitivity, and adaptive capacity. This indicates the Philippines' increased vulnerability to climate-related calamities, emphasizing the need for immediate mitigation strategies, such as carbon taxes, to enhance climate resilience.

VI. CARBON TAXES: EXPLAINED

The literature on carbon taxes emphasizes its theoretical underpinnings, legal frameworks, both international and domestic, and comparative approaches from various jurisdictions. It further analyzes the International Legal Framework, encompassing accords such as the United Nations Framework Convention on Climate Change (UNFCCC), the Kyoto Protocol, and the Paris Agreement, which inform national policy, including market-based instruments like carbon taxes. The Carbon Tax Model Law, serving as a blueprint and guide for the formulation of a carbon tax law in the Philippines, is also discussed.

The Doctrine of Incorporation, as stated in Article II, Section 2 of the 1987 Constitution of the Philippines, is a key legal principle that binds the Philippines to generally accepted principles of international law. This principle is particularly relevant when considering the country's obligations under international climate agreements.

In *Tañada v. Angara,*[105] the Court explained that by the doctrine of incorporation, the country is bound by generally accepted principles of international law, which are considered to be automatically part of our laws. Under the doctrine of incorporation, rules of international law become part of the domestic law of a country. No further legislative action is needed to make such rules applicable domestically.

Furthermore, the time-honored international principle of *pacta sunt servanda require*s the performance of treaty obligations

[105] *Lorenzo M. Tañada v. Hon. Juan C. Tuvera*, G.R. No. L-63915, April 24, 1985, Supreme Court En Banc.

in good faith by the states that agree.[106] Every treaty in force is binding upon the parties, who must perform obligations under the treaty in good faith. More importantly, treaties have the force and effect of law in this jurisdiction.[107]

Given its membership in the United Nations and its ratification of numerous international climate agreements, the Philippines plays a significant role in the global effort to combat climate change. As a signatory to the agreement, the Philippines is bound by international law to take steps to mitigate climate change. Implementing a carbon tax aligns with these international obligations and can be seen as a concrete step towards a sustainable future.

Key International Instruments

By analyzing these international instruments, this article aims to identify global best practices, lessons learned, and potential challenges in implementing a carbon tax in the Philippines.

The United Nations Framework Convention on Climate Change (UNFCC)

Adopted in 1992, the Convention establishes a framework for international cooperation on climate change mitigation and adaptation. A key principle of the UNFCCC is the *"principle of common but differentiated responsibilities."* Due to their historical contribution to climate change, this principle recognizes that developed countries bear greater responsibility for addressing the issue. The Convention also emphasizes the *precautionary principle*, which calls for taking precautionary measures to prevent climate change, even in the absence of complete scientific certainty.

The UNFCCC's Conference of the Parties (COP) is the primary decision-making body. COP meetings bring together representatives from nearly 200 countries and shape international climate governance since its establishment in 1992. This framework has facilitated major initiatives, such as the 1997 Kyoto Protocol, which set legally binding carbon reduction objectives for developed nations, and the 2015 Paris Agreement, which aims to limit global temperature increases to below 2 degrees Celsius.

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[106] *Air Canada v. Comissioner of Internal Revenue*, G.R. No. 169507, January 11, 2016, Supreme Court Second Division.
[107] *Ibid.*

As a UNFCCC member, the Philippines is fulfilling its obligations by submitting NDCs and implementing climate adaptation and mitigation initiatives. Significant shortcomings persist in financing and implementation, presenting ongoing challenges.[108]

The Kyoto Protocol

The Kyoto Protocol, adopted in 1997, is an international treaty that extends the 1992 UNFCC. It focuses on reducing emissions of six significant GHGs: carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF6).[109]

The Kyoto Protocol, a global climate governance measure, faced challenges such as limited US participation, insufficient ambition in reducing climate change, and implementation gaps in developing countries. Developed countries bear a greater responsibility for taking action, and the protocol established emission reduction targets for industrialized countries, given their historical contribution to climate change. Thus, the United States, a significant emitter, withdrew from the Protocol in 2001. Canada also withdrew in 2011. Despite these setbacks, the Kyoto Protocol remains an important milestone in international climate cooperation. The first commitment period of the Kyoto Protocol ended in 2012.[110]

While the Kyoto Protocol's specific targets and mechanisms may no longer be directly applicable, its legacy continues to influence international climate policy. The principles established by the Protocol, such as *common but differentiated responsibilities* and the use of market-based instruments, remain relevant to contemporary climate action, including the implementation of carbon taxation. It paved the way for subsequent climate agreements, such as the Paris Agreement. [111]

The Paris Agreement

[108] Philippine Climate Change Commission. (2023). *Climate change in the Philippines: Policy and action overview*. Retrieved from https://climate.gov.ph, April 2024.
[109] Nations, U. (2020), *What is the Kyoto Protocol?* Retrieved from unfccc.int:https://unfccc.int/kyoto_protocol, accessed on April 2024.
[110] *Supra,* Nations, U. (2020), *What is the Kyoto Protocol?* Retrieved from unfccc.int:https://unfccc.int/kyoto_protocol, accessed on April 2024.
[111] *Ibid.*

The Paris Agreement, adopted in 2015, is a landmark international treaty addressing climate change. It sets a global goal of limiting global warming to below 2 degrees Celsius above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5 degrees Celsius. To achieve this goal, the Agreement establishes a framework for countries to submit their NDCs, which outline their climate action plans. These NDCs include targets for reducing greenhouse gas emissions and adapting to the impacts of climate change.

Governments can incentivize businesses and individuals to reduce their carbon footprint by imposing a price on carbon emissions. This can lead to the adoption of cleaner technologies, energy efficiency measures, and a shift toward low-carbon economic growth. Furthermore, the revenue generated from carbon taxes can be utilized to fund climate mitigation and adaptation projects, bolstering national climate action plans.

While carbon taxes may generate public revenues, this article does not empirically assess their economic allocation or redistribution. Instead, it recognizes the relevance of international legal models, such as the Commonwealth Carbon Tax Model Law, which propose that such revenue mechanisms incorporate legally mandated safeguards, including periodic audits, rebates, and equity-based exemptions.[112]

The Commonwealth Carbon Tax Model Law[113]

The Commonwealth Secretariat has developed and drafted a model law to assist other Commonwealth member countries in introducing a carbon tax, which is the most straightforward way of implementing carbon pricing administratively.[114]

The Commonwealth Carbon Tax Model Law is structured into five key parts: (1) Definitions and Scope, (2) Liability and Taxation Mechanism, (3) Administration and Compliance, (4) Revenue Use and Safeguards, and (5) Review and Oversight. It emphasizes transparency, fairness, and administrative efficiency—principles

[112] Commonwealth Secretariat (2023). *Commonwealth Carbon Tax Model Law: Guidance for Legislators and Policymakers*. London: Commonwealth Legal Advisory Division. Available at: https://thecommonwealth.org/document/commonwealth-carbon-tax-model-law
[113] *Supra, The Commonwealth Carbon Tax Model Law*, The Commonwealth (2023).
[114] *Supra,* Commonwealth Secretariat (2023a). *Commonwealth Carbon Tax Model Law: Guidance for Legislators and Policymakers*. London: Commonwealth Legal Advisory Division. Available at: https://thecommonwealth.org/document/commonwealth-carbon-tax-model-law

crucial for developing countries with limited enforcement capacity.[115]

The law's notable provisions include calculating the carbon tax and taxing operators of fuel facilities and large industrial emitters. These provisions, among others, may be adopted in the Philippines, as both taxpayers can be the target of the carbon tax to mitigate the country's carbon emissions.[116]

Importantly, the Model Law provides for dual approaches to taxation—the Fuel-Based Approach and the Direct Emissions Approach—allowing flexibility based on a country's technical capacity. For instance, where emissions monitoring is not yet viable, the tax may be levied upstream, such as at the point of fuel production or importation.[117] This approach is compatible with the Philippines' current excise tax collection infrastructure under the TRAIN Law.

The model law also covers audits, rebates, and exemptions, which are essential in ensuring that it is not regressive and will not seriously affect low-income taxpayers, who will be mostly affected by the carbon tax law. Section 28 of the Model Law, for instance, recommends a "Carbon Tax Rebate Fund" to ensure equity and social protection, allowing proceeds to be used for compensatory transfers to vulnerable sectors.[118] This provision is noticeably absent in current Philippine environmental statutes, which lack earmarking mechanisms for revenue redistribution.

The periodic review clause embedded in the Commonwealth Model Law mandates assessment every five years to adjust the tax rate and evaluate environmental effectiveness. This aligns with the Philippines' obligation to submit updated Nationally Determined Contributions (NDCs) under the Paris Agreement. Yet, the domestic legal system lacks a direct statutory mechanism to integrate such fiscal adjustments with climate policy cycles.[119]

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[115] *Ibid.*

[116] World Bank (2022). *State and Trends of Carbon Pricing 2022*. Washington, DC: World Bank. Available at: https://openknowledge.worldbank.org/handle/10986/37455.

[117] Department of Finance (2018). *TRAIN Law Primer*. Republic of the Philippines. Available at: https://www.dof.gov.ph/tax-reform-packages/train

[118] Commonwealth Secretariat (2023b). *FAQs on the Commonwealth Carbon Tax Model Law*. London: Commonwealth Secretariat. Available at: https://thecommonwealth.org/media/news/commonwealth-carbon-tax-model-law-faqs.

[119] UNFCCC (2023). *Nationally Determined Contributions (NDCs) Interim Registry*. United Nations Framework Convention on Climate Change. Available at: https://www4.unfccc.int/sites/NDCStaging/Pages/Home.aspx

Philippine Legal Framework on Carbon Taxes

Domestic Environmental Laws

The domestic legal framework of a country plays a crucial role in shaping its climate change policies, including carbon taxation. This section will explore the key domestic laws and regulations in the Philippines relevant to implementing a carbon tax. By analyzing these laws, we can assess the legal feasibility and potential challenges of introducing a carbon tax in the Philippines.

Specifically, this section delves into the domestic legal framework relevant to a possible adoption of a carbon tax in the Philippines. Specifically, it will examine the (1) Climate Change Act of 2009, (2) Renewable Energy Act of 2008, and (3) Clean Air Act of 1999.

Climate Change Act of 2009

The Climate Change Act of 2009 is a comprehensive piece of legislation designed to address the multifaceted challenges of climate change in the Philippines. It establishes a robust climate action framework that encompasses both mitigation and adaptation strategies.[120]

A key provision of the Act is the establishment of the Climate Change Commission (CCC), a government body responsible for coordinating and overseeing the implementation of climate change policies, programs, and projects. The Commission plays a crucial role in developing and implementing the National Climate Change Action Plan, which outlines specific strategies and targets for reducing greenhouse gas emissions and enhancing climate resilience.[121]

The Climate Change Act of 2009 provides a robust legal framework for implementing a carbon tax in the Philippines. While the Act does not explicitly mention carbon taxation, it establishes a comprehensive framework for climate change mitigation and adaptation, which carbon pricing mechanisms can complement.

Renewable Energy Act of 2008

[120] Republic Act No. 9729, also known as the "Climate Change Act of 2009.
[121] *Ibid.*

The Renewable Energy Act of 2008 (R.A. 9513) represents a significant step forward in the Philippines' efforts to transition to a sustainable and low-carbon future. Recognizing the pressing need to diversify its energy mix and reduce reliance on fossil fuels, the Act provides a comprehensive legal framework for developing and utilizing renewable energy sources. By offering a range of fiscal and non-fiscal incentives, such as feed-in tariffs, tax breaks, and simplified permitting procedures, the Act aims to stimulate private sector investment in renewable energy projects.

R.A. 9513 can provide a strong foundation for integrating carbon taxation into the Philippines' energy policy. The Act aligns with the broader goal of reducing GHG emissions by promoting renewable energy sources and incentivizing clean energy technologies.

The Philippine Clean Air Act of 1995

The Philippine Clean Air Act, enacted in 1995, is a landmark piece of Philippine legislation to protect public health and the environment from air pollution. Recognizing the growing threat posed by air pollution to human health and the ecosystem, the Act establishes a comprehensive framework for air quality management and control. By setting stringent emission standards, promoting clean technologies, and empowering local government units, the Clean Air Act aims to enhance air quality and mitigate the adverse health effects of air pollution.[122] While the Clean Air Act of 1995 primarily focuses on regulating air pollutants, it indirectly relates to carbon taxation through its emphasis on air quality management and emission control.

By promoting cleaner air and reducing emissions, the Clean Air Act can contribute to the overall goal of mitigating climate change. A carbon tax can further incentivize the adoption of cleaner technologies and practices, thereby enhancing the effectiveness of the Clean Air Act.

VII. CASE STUDIES: CARBON TAXATION IN FOREIGN COUNTRIES

The Philippines can leverage the extensive expertise of several countries in formulating and executing carbon tax legislation. This

[122] Philippine Clean Air Act of 1999, Republic Act No. 8749.

section will analyze countries that have already implemented the same, including Finland, the nation that was first to introduce a carbon tax, and our neighboring countries, Japan and Singapore.

The Case of Finland: HIILIDIOKSIDIVERO CO2 TAX (1990)

In 1990, Finland became the first country to introduce a carbon tax, a pioneering move many nations have since emulated. The tax initially covered fuel oil, natural gas, and coal, but has since undergone several changes: the tax rate has been increased multiple times, its structure has been modified, and refund systems have been implemented. This success story from Finland is a testament to the potential of carbon taxes in achieving emission reduction objectives.[123]

Outcomes and Challenges

- The Finnish CO2 tax is challenging to quantify due to its integration with energy taxation, making it impossible to ascertain whether the observed emission reductions stem from the CO2 tax or other influences.[124]

- The Finnish CO2 tax has been modified on an "ad hoc" basis due to political and economic considerations.[125] The energy tax system has faced criticism for its distributional effects, especially its impact on low-income individuals, those with limited mobility, and residents of rural areas.[126]

The Case of Japan: TAX FOR CLIMATE CHANGE MITIGATION (2010)

Japan implemented the Tax for Climate Change Mitigation on all fossil fuels in October 2012, with the tax system anticipated to be fully operational by April 2016. The policy aimed to create revenue, advance renewable energy technology and energy conservation measures, and diminish fossil fuel consumption. The tax base comprises the volume of CO_2 emissions from fossil fuel consumption, which accounts for 70% of Japan's GHG emissions,

[123] Finlex Data Bank, (2016).
[124] UNFCCC, 2016. Greenhouse Gas Inventory Data, http://unfccc.int/di/DetailedByParty.do.
[125] *Ludovino Lopes Advogados et al.* (2014).
[126] Institute for European Environmental Policy (2013), Evaluation of Environmental Tax Reforms: International Experiences.

with specific exclusions for agricultural, public transportation, petrochemical sectors, and coal-fired power facilities in Okinawa.[127]

The tax was gradually implemented and incorporated into the current petroleum and coal tax. Tax revenues are designated for clean energy technology, energy efficiency initiatives, and environmental conservation.[128]

Outcomes and Challenges

The Japan Ministry of the Environment contends that CO_2 emissions can be mitigated through the promotion of energy efficiency improvements and the adoption of renewable energy, suggesting a positive future picture.[129]

Notwithstanding its prospective benefits, the implementation of carbon pricing in Japan has faced numerous obstacles. Japanese industry associations have consistently opposed efforts to implement carbon pricing, with nine organizations rejecting a carbon price at the 2009 COP in Copenhagen. Since the tax's adoption, the Japan Business Federation has consistently urged for a reevaluation and even abolition of the tax for Climate Change Mitigation and the FIT, voicing concerns about its economic impact.[130]

The Case of Singapore: Carbon Pricing Act (2019)

The carbon tax in Singapore is a charge levied on GHG emissions from industrial facilities, which represent approximately 80% of Singapore's total GHG emissions.[131] The tax is imposed according to the "polluter pays" principle, a widely recognized environmental policy that asserts people who generate pollution must incur the costs of its management.[132] In this scenario, the greater the GHG emissions, the higher the financial obligation.

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[127] World Bank (2014), State and Trends of Carbon Pricing 2014. Washington, DC: World Bank.
[128] *Supra,* World Bank (2014), State and Trends of Carbon Pricing 2014. Washington, DC: World Bank.
[129] Keidanren (2013). *Keidanren's Opinion on Japan's Climate Change Policy for the Immediate Future.*
[130] *Ibid.*
[131] National Environment Agency (2022), *Overview of the Carbon Tax in Singapore*. Retrieved from https://www.nea.gov.sg, accessed on December 15, 2024.
[132] OECD (2020), *Pricing Carbon: Tax Policies for Climate Change*, OECD Publishing.

Implemented in 2019 via the Carbon Pricing Act (CPA) and in accordance with Singapore's national climate objectives, the tax will be incrementally raised over the forthcoming decade.[133]

Outcomes and Challenges

Singapore's carbon tax is essential for achieving its net-zero objectives and climate mitigation initiatives. It efficiently directs producers and consumers away from carbon-intensive products and services, ensures corporate accountability for emissions, and strengthens the rationale for creating low-carbon solutions.[134]

The carbon tax, including 80% of the nation's total GHG emissions from about 50 manufacturing, electricity, waste, and water facilities, is a crucial element of Singapore's extensive array of mitigation strategies.[135] This package encompasses the carbon tax and additional policies and initiatives, including energy efficiency programs, renewable energy incentives, and research and development in clean technologies, all facilitating the transition to a low-carbon economy.[136]

Carbon Pricing Instruments Around The World

One of the significant challenges in implementing carbon pricing is the formulation of a robust carbon design. Studies have shown that many developing Asian countries face difficulties designing and implementing effective carbon pricing policies and carbon crediting mechanisms. To address these capacity gaps, developed economies with relevant experience can provide technical assistance. Experience-sharing and mutual learning are crucial in overcoming these challenges and ensuring the successful implementation of carbon pricing, highlighting the need for a comprehensive approach to climate change mitigation.[137]

Outside Asia, the following are remarkable and worth-emulating countries with successful carbon pricing mechanisms:

a. *British Columbia*

[133] Government of Singapore (2019), *Carbon Pricing Act 2018*, Retrieved from https://sso.agc.gov.sg accessed on December 15, 2024.
[134] National Climate Change Secretariat (2023), *Singapore's carbon tax and climate mitigation strategies.*
[135] Ministry of Sustainability and the Environment (2023), *Greenhouse gas emissions and mitigation policies in Singapore.*
[136] *Supra,* (Carbon Tax, n.d.).
[137] Liu, Xianbing and Murun, Temuulen (2022), *Carbon Pricing for the transition toward net-zero of Asia,* Institute for Global Environment Strategies.

In 2008, British Columbia, Canada, implemented a revenue-neutral carbon tax on fuel acquisition or utilization. The priced carbon aims to mitigate the financial burden on consumers, particularly rural and low-income households, via revenue recycling and tax rebates. The tax is remitted by end purchasers and users, but collected from upstream sources.[138]

Fuel wholesalers are required to register with the Ministry of Finance as "tax collectors." They are tasked with collecting the tax from buyers at the point of sale. Vendors are required to remit a security deposit to the government equal to the total tax owed by the consumer. Since 2014, carbon taxes can be remitted online via the province's eTaxBC system. This carbon tax collection method has been implemented to alleviate the administrative burden, as a downstream tax is comparatively more difficult to monitor and enforce.[139]

The introduction of the carbon tax initially faced opposition from British Columbia's rural and low-income communities, as they feared an additional tax burden would fall upon them. Some raised concerns that the carbon tax could be regressive. Through targeted tax credits, the British Columbia government made sure that the burden on the sections of society that would be most heavily impacted by the tax would be redistributed appropriately. For example, the tax incorporated a Low-Income Climate Action Tax Credit to offset the carbon tax for lower-income households. [140]

By openly communicating how the tax revenue would be recycled through tax breaks and making revenue neutrality a legislated requirement, the B.C. government could mitigate the opposition from businesses when the tax was first established. This success story from British Columbia can serve as an inspiration and motivation for other regions to implement similar policies. [141]

b. ***Sweden***

Sweden, often depicted as a pioneer in environmental and climate governance, has championed a key policy instrument, the carbon tax, the first of its kind, along with its Nordic parallels

[138] *Supra,* Liu, Xianbing and Murun, Temuulen (2022), *Carbon Pricing for the transition toward net-zero of Asia,* Institute for Global Environment Strategies.
[139] *Ibid.*
[140] *Ibid.*
[141] *Ibid.*

(Finland 1990, Norway 1991, Denmark 1992). Still being taxed at the highest rate globally,[142], the Swedish carbon tax is hailed as a success for effectively reducing carbon emissions while decoupling continued economic growth from national emissions. Since its introduction in 1991, the tax has been raised and redesigned. Backed up by a success narrative, it has attracted widespread support from a broad coalition of organized interests.[143] This success story from Sweden can inspire and motivate other regions to implement similar policies.

The enduring success of the Swedish carbon tax can be attributed to the steadily growing public awareness about climate change and the urgency to take mitigating action. This growing public awareness has strengthened the arguments for the tax and lifted it to become one of the backbones of Swedish climate policy. After the Swiss population rejected a carbon price in a referendum, a group of researchers, *i.e.* Carattini et al. (2017), ran an article to investigate what could have made the proposal more popular. The referendum was a significant event in the global discourse on carbon pricing. They found that "the effectiveness of energy taxes is not a fact for the general public"; their article showed that the most essential successful argument in favor of the tax is information on the expected effectiveness in reducing emissions.[144]

c. *Other Nordic Countries*[145]

Nordic countries introduced carbon neutrality targets at a very early stage and made the decision long ago to raise their national carbon price levels in order to expedite the GHG emission reduction process.[146]

To bridge the carbon pricing gap necessary to achieve their climate objectives, Denmark and Norway have decided to significantly raise their respective national nominal carbon tax rates in 2022 and impose double carbon pricing (carbon tax and European carbon allowances) on certain industries, thereby distinguishing themselves from other European countries. Finland also enforces this double pricing for thermal power plants (district heating networks, industrial cogeneration). For its part, Norway

[142] World Bank (2021).
[143] Hildingson, Roger and Knaggard, Asa: The Swedish Carbon Tax: A Resilient Success, *Successful Public Policy in the Nordic Countries: Cases, Lessons, and Challenges* (2022), Oxford University Press.
[144] *Supra,* R Roser, M. (2021), *The argument for a carbon price,* accessed on 09 March 2024.
[145] *Carbon Pricing in Nordic Countries,* Tresor-Economics, No. 346, July 2024, Nordic countries include Denmark, Finland, Iceland, Norway and Sweden.
[146] *Ibid.*

announced an increase in its carbon pricing, the highest in all the Nordic countries, with a view to cutting its emissions by 55% by 2030.[147]

An expanding body of empirical studies demonstrates that carbon taxes can curb carbon emissions or slow their growth without adversely impacting economic growth, employment, and competitiveness. Denmark's experience, where carbon tax revenues were redistributed to the industry to fund energy efficiency improvements, is a prime example. Early studies show significant emission reductions in the sector, providing reassurance about the economic viability of carbon taxes.[148]

A article on the effects of taxation as a measure to improve sustainability in the Norwegian energy sector concluded that improving sustainability, not only in the Norwegian energy sector but also in global society, is one of the key factors in mitigating climate damage.[149]

VIII. THEORETICAL PRINCIPLES

The author emphasizes principal theories in this article: *Sustainability Theory and Legal Positivism Theory*. These frameworks establish the basis for comprehending the dynamics of carbon taxes as a sustainable policy instrument and a legal entity across both local and international realms.

Sustainability Theory

The Sustainability Theory examines the intricate relationship between human culture and the environment. It underscores the necessity of reconciling economic development, environmental conservation, and social justice to guarantee the welfare of current and future generations. This theory is conceptual and philosophical, offering a framework for comprehending the principles and dynamics of sustainability.

This thesis used the Sustainability Theory to examine the environmental and economic consequences of enacting a carbon tax legislation in the Philippines. It underscores the imperative of

[147] *Supra, Carbon Pricing in Nordic Countries,* Tresor-Economics, No. 346, July 2024, Nordic countries include Denmark, Finland, Iceland, Norway and Sweden.
[148] Raugstad, Oddvar; Molde (2020), *Internalizing the externalities-the effects of taxation as a measure to improve sustainability in the Norwegian energy sector.*
[149] *Ibid.*

incorporating sustainable practices within the legislative system to mitigate carbon emissions, advance renewable energy, and safeguard natural resources.

Legal Positivism Theory

The Legal Positivism Theory posits that laws are social constructs created by legitimate authority and enforced by institutions. This theory underscores the supremacy of written law, as enshrined in constitutions, legislation, regulations, and court rulings. Legal Positivism is especially pertinent to international environmental law, as treaties and accords are the foundation of state duties.[150]

This article utilizes Legal Positivism to analyze the statutory foundation of carbon taxes in the Philippines. The author examines current environmental, tax, and energy legislation, concentrating on clauses that directly or indirectly pertain to carbon emissions.

Pigouvian Externality Theory

Pigou's most influential work, *The Economics of Welfare* (1920), expanded upon Marshall's concept of externalities. Pigou described externalities as costs imposed or benefits conferred on others that are not accounted for by the individual or entity responsible for creating them.[151]

An application of the Pigouvian tax is carbon taxation, which embodies the "*polluter pays" principle*. Under this principle, greenhouse gas emitters are charged for their emissions based on their potential costs to society, effectively forcing emitters to internalize the cost of their pollution.

"Polluter Pays" Principle

Introduced by the OECD, the "polluter pays" principle asserts that polluters should bear the costs of implementing pollution prevention and control measures enforced by public authorities to maintain environmental integrity.[152] In economic terms, the principle supports the internalization of negative environmental

[150] Austin, J. (1832). *The province of jurisprudence determined.*
[151] Arthur Cecil Pigou, British economist, updated 03 March 2024, Britannica, accessed on 08 March 2024.
[152] Kagan, J. (2023, October 2), *What is a carbon tax: Basics, implementation, offsets,* Investopedia. Retrieved from https://www.investopedia.com

externalities, shifting the burden of pollution control from taxpayers to polluters. This approach aligns closely with the paper's focus on sustainable practices and climate action through economic mechanisms, such as carbon taxation.

Through these theories, a systematic methodology is delineated for addressing the research dilemmas, grounded in insights from the literature review, to ensure the rigor and validity of the article's findings.

IX. CARBON TAXATION IN THE PHILIPPINES AS A MEANS TO ADDRESS CARBON EMISSIONS

Sustainable development has increasingly shaped legal discourse, particularly in the realm of environmental law. The theory of sustainability has been incorporated into various international legal instruments, spearheaded by the UN through multiple resolutions, declarations, and treaties. Given the global nature of climate change, international cooperation is imperative. Sustainable development necessitates that industrialized nations take the lead in reducing GHG emissions, while developing nations, including the Philippines, establish domestic frameworks that align with international climate standards.

By integrating sustainable development principles more effectively into both international and domestic law, states can mitigate the irreversible impacts of climate change. Countries that commit to sustainable development through treaties and conventions have a corresponding obligation to balance economic, social, and environmental priorities, ensuring the well-being of future generations. In this light, the Philippines, as a signatory to relevant international agreements, is obligated to promote sustainability initiatives through legal mechanisms, including carbon taxation.

Low-carbon transition is improbable without carbon pricing.[153] Carbon pricing is a prime example of systemic policy. It simultaneously shifts the choices of consumers, producers, investors, and innovators in all sectors, which is essential to a

[153] Van den Bergh, Jeroen and Botzen, Wouter (2020), *Low-carbon transition is improbable without carbon pricing.*

low-carbon transformation. To achieve the Paris targets, the use of carbon pricing is crucial.[154]

Carbon pricing is a key instrument in climate policy, as it can be tied to emission targets to ensure they are met. This feature sets it apart from other policy instruments. Carbon pricing creates incentives for cost-effective emission reductions in the short run and cost-reducing innovation in the long run. It can complement the use of other policy instruments, such as regulations and public investment. These can reduce the required carbon price if deployed skillfully.[155] There is a growing understanding across the world that current tax systems need to be overhauled and modernized to deal with prevalent environmental, social, and economic challenges.[156]

Arguably, there cannot be economic or social sustainability without environmental sustainability. Implemented successfully, "sustainability taxation" can play a key role in delivering the environmental aspect.[157] Overall, carbon taxes have significant practical, environmental, and economic advantages for the Philippines.

TRANSLATING INTERNATIONAL OBLIGATIONS INTO DOMESTIC LEGAL FRAMEWORKS ON CARBON EMISSIONS REDUCTION

The 2009 Climate Change Act led to a National Framework Strategy in 2010 and an Action Plan on Climate Change in 2011, which emphasizes the promotion of energy efficiency, renewable energy, and sustainable transport systems. Ambitious goals for scaling up renewable power have been outlined in the 2010 National Renewable Energy Program.

Following on this legacy, in 2015, the government announced an ambitious intended NDC to the Paris Agreement of 70% GHG emissions mitigation relative to business as usual by 2030, conditional on sufficient international support. The Philippines committed to a projected 75% reduction in GHG emissions and avoidance, of which 2.71% is unconditional, for the period

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[154] Baranzini, Andrea; Van den Bergh, Jeroen C.J.M.; Carattini, Stefano; Howarth, Richard B.; Padilla, Emilio; and Roca, Jordi (2017), *Carbon pricing in climate policy: seven reasons, complementary instruments, and political economy considerations*.

[155] Boyce, James K (2018), *Carbon Pricing, Effectiveness and Equity*, Political Economy Research Institute and Department of Economics, University of Massachusetts Amherst, United States.

[156] Agency, E. E. (2019), *The sustainability transition in Europe in an age of demographic and technological change*.

[157] Hogan, D. (2021), *How can taxation can make the world more sustainable?*

2020-2030 across the sectors of agriculture, waste, industry, transport, and energy.

In recognition of the importance of avoiding growth in GHG emissions, the Philippines has enacted an array of laws to promote low-carbon development, 158 with the goal of achieving sustainability.

This article demonstrates that the Philippines has a well-established foundational legal framework for reducing carbon emissions through a combination of constitutional mandates, specific legislation, and national commitments. The 1987 Constitution of the Philippines, the Climate Change Act of 2009, the Renewable Energy Act of 2008, and other related laws collectively promote sustainable development, renewable energy, and emissions control.

The nation's ambitious NDC, under the Paris Agreement, aims for a 75% emissions reduction by 2030, further underscoring its commitment. While the TRAIN Law's excise taxes on petroleum products represent a step towards carbon pricing, a comprehensive, dedicated carbon tax mechanism remains absent.

Therefore, while existing laws provide a strong base, the urgent need for more targeted and stringent regulations, particularly in high-emission sectors like transportation and energy, is evident. Hence, addressing this gap with a focused carbon tax law would significantly enhance the Philippines' ability to meet its international obligations and transition towards a low-carbon economy.

ADOPTION OF CARBON TAX LAW IN THE PHILIPPINES

The Commonwealth Carbon Tax Model Law, released in December 2023, provides a comprehensive framework for the adoption and implementation of carbon taxation in Commonwealth nations, particularly those seeking to align their national policies with international climate commitments such as the Paris Agreement. Recognizing that carbon taxation is one of the most effective mechanisms for reducing GHG emissions, the Model Law serves as a benchmark for policy design, integrating the principles of the “polluter pays” principle and revenue neutrality to ensure both environmental effectiveness and economic feasibility.

In the case of the Philippines, the absence of a dedicated carbon pricing mechanism presents a significant challenge in fulfilling its commitments to global climate agreements. While existing policies such as the Clean Air Act (RA 8749) and the Climate Change Act (RA 9729) contain provisions for emission reductions and sustainable development, they do not explicitly establish a carbon tax regime. The adoption of the Commonwealth Carbon Tax Model Law would bridge this gap, ensuring that the Philippines establishes a structured, legally sound, and economically viable carbon tax framework that aligns with global best practices while considering the country's unique economic landscape.

In Sweden, the Carbon Tax Act of 1991 remains one of the most effective examples of a high-impact carbon pricing policy. With a tax rate exceeding $130 per ton of CO_2, Sweden has successfully reduced emissions while maintaining economic growth. The Swedish model demonstrates that progressively increasing carbon taxes, combined with strong institutional oversight, can yield significant environmental benefits. The Philippines can adopt elements of this approach by ensuring that carbon tax rates are periodically adjusted based on emission reduction targets.

Similarly, Canada's Greenhouse Gas Pollution Pricing Act (2018) introduced a federal carbon pricing mechanism, applying both a fuel charge and an output-based pricing system for industrial emitters. The Canadian model's provincial autonomy feature allows different regions to design carbon pricing systems tailored to their economic structures. The Philippines, with its regional economic disparities, can adopt a similar decentralized approach to carbon taxation, ensuring that economic and industrial variances across regions are accounted for.

Singapore's Carbon Pricing Act (2019), which initially imposed a fixed tax on large emitters with a gradual increase in rates, provides a structured and phased approach that the Philippines could replicate. Singapore's model ensures that businesses have ample time to transition to cleaner energy alternatives, minimizing economic disruptions. This strategy could be particularly effective for the Philippines, where industries may require a gradual adjustment period to comply with new taxation regulations.

The adoption of the Commonwealth Carbon Tax Model Law in the Philippines presents both opportunities and challenges. While the legal basis for carbon taxation exists under the 1987

Constitution of the Philippines and existing environmental laws, integrating a carbon tax framework requires harmonization with fiscal policies, regulatory structures, and economic strategies.

Additionally, the impending European Union's Carbon Border Adjustment Mechanism (CBAM), set to be implemented by 2026, provides a strong economic incentive for the Philippines to introduce a domestic carbon tax law. The CBAM will impose carbon tariffs on high-emission goods imported into the EU, penalizing countries without domestic carbon pricing mechanisms. By enacting a carbon tax law, the Philippines can retain carbon pricing revenues domestically, rather than losing them to EU-imposed border taxes.

The laws being implemented in the Philippines to curb GHG emissions are not directly related to carbon taxation or the imposition of a carbon tax on carbon emissions. While these laws contribute to reducing emissions, they are not fully aligned with international agreements on climate change, such as the Paris Agreement, wherein the Philippines is a signatory. This gap in legal coherence highlights the urgent need for a structured carbon tax law that integrates international obligations with domestic regulatory mechanisms.

The primary challenge in introducing a carbon tax law lies in public perception, political feasibility, and industry buy-in. The term "tax" carries negative connotations and is often met with resistance. Other regulatory systems, such as cap-and-trade programs, social benefit charges, or climate contributions, may be more politically acceptable. However, the experience of British Columbia, where a carbon tax successfully overcame public opposition, proves that effective communication and public education play a vital role in policy acceptance. Public skepticism arises from its perceived inefficacy. Studies indicate that when people understand how carbon pricing works and see tangible results, support for the policy increases.

Carbon taxation is grounded in well-established economic and legal principles. The Pigouvian concept and the "polluter pays" principle form the theoretical foundation of carbon pricing. From an economic standpoint, carbon pricing is the most efficient mechanism for internalizing the external costs of carbon emission.[158] Empirical studies confirm that carbon pricing

[158] World Bank, (2023); Liliestam et al. (2021).

incentivizes emission reductions and yields significant economic benefits.[159]

However, experts caution that carbon pricing alone will not be sufficient to meet the Paris Agreement targets. Achieving these goals requires a comprehensive regulatory framework that integrates economic, legal, and technological solutions.[160] Thus, adopting either a fuel approach or a direct emissions approach under the Commonwealth Carbon Tax Model Law requires careful legal and economic consideration. The fuel approach imposes taxes on fossil fuels based on their carbon content, making it administratively feasible given the existing fuel excise tax infrastructure in the Philippines.[161] On the other hand, the direct emissions approach taxes large industrial emitters based on verified emissions. This approach offers greater transparency and accountability but requires substantial investment in emissions monitoring and reporting systems. The manufacturing, energy, and transportation sectors would be the primary targets, but enforcement challenges persist without robust regulatory oversight.

Thus, a hybrid model, incorporating elements of both approaches, may be the most effective solution. The Philippines can leverage the existing fuel tax infrastructure while gradually introducing direct emissions taxation for high-emission industries.

But the question is about the timing of when to implement carbon pricing? This has a straightforward answer: it is NOW. Waiting for other countries to act is neither necessary nor beneficial. Economic development must occur without compromising environmental sustainability.

Carbon taxation is an essential legal and economic tool for reducing GHG emissions and ensuring compliance with international climate agreements. The experience of countries with successful carbon tax laws demonstrates that carbon taxation can drive significant reductions in emissions while maintaining economic stability. The Commonwealth Carbon Tax Model Law provides a structured framework that the Philippines can adopt to create an effective carbon tax system.

Public acceptance remains a challenge, but effective communication, revenue recycling, and phased implementation can facilitate smoother policy adoption. By taking decisive action, the

[159] Best et al., (2020).
[160] UNFCCC (2023).
[161] TRAIN Law (2018).

Philippines can establish itself as a leader in climate governance while fostering long-term economic resilience.

X. CONCLUSION

Guided by sustainability theory, legal positivism, the Pigouvian externality theory, and the "polluter pays" principle, this article establishes the necessity of carbon taxation in the Philippines. The article has demonstrated that putting a price on carbon is not only an effective market-based mechanism for reducing GHG emissions but is also an essential step in aligning the Philippines' climate policies with international best practices and legal commitments like the Paris Agreement.

Carbon pricing is a crucial tool in advancing sustainable development, particularly SDG No. 13 on climate action. By incorporating the social and environmental costs of carbon emissions into the pricing of fuel and other energy-intensive goods and services, carbon taxation sends a strong price signal to industries, households, and consumers, incentivizing behavioral shifts toward sustainable energy use and low-carbon technologies. This article has found that such a policy mechanism is particularly relevant in the Philippine context, where no existing domestic law has explicitly and directly put a price on carbon emissions.

The article has further demonstrated that a carbon tax law in the Philippines can be structured effectively by drawing on the best practices of other jurisdictions and adapting the Commonwealth Carbon Tax Model Law as a guiding framework. By doing so, the Philippines can internalize the externalities of carbon pollution, ensuring that the cost of environmental degradation is borne by polluters rather than by society at large.

Despite uncertainties and political challenges, delaying action on climate change is not an option. The International Energy Agency (IEA) warns that postponing mitigation measures will lead to exponentially higher costs in the future. Trends indicate that "delaying action is a false economy",[162] and that the financial, environmental, and social costs of inaction far outweigh the investment required to implement carbon pricing policies today. Both economic and legal experts agree that the time for action is now.

[162] 2011 IEA World Economic Outlook, A Green Economy: Government Responses to the Committee's Twelft Report of Session 2010-12-Environmental Audit Committee Contents, *www. parliament.uk.*

XI. RECOMMENDATION

The analysis conducted in this article demonstrates that while statutes such as the Climate Change Act of 2008 and the Renewable Energy Act of 2009 support climate mitigation, they do not provide a direct fiscal mechanism for controlling carbon emissions. Moreover, the country's existing excise tax on fuels under the TRAIN Law is insufficiently structured to achieve emissions reduction goals or fulfill the legal spirit of its NDCs in compliance with the Paris Agreement.

The author therefore recommends the adoption of a carbon tax law in the Philippines, using the Commonwealth Carbon Tax Model Law primarily as a guide. The proposed draft bill is appended below as a model legislative text, which is intended to provide a legal framework for future deliberation and refinement, and which particularly includes provisions for:

(1) The adoption of either a fuel-based or emissions-based taxation scheme;
(2) A carbon tax rebate fund to mitigate the social impacts of carbon taxation; and
(3) Periodic policy reviews and institutional coordination between the government agencies.

The time to act is now. The climate crisis is escalating, and delaying action will only lead to higher economic and environmental costs. The Philippines must demonstrate leadership in climate governance, ensuring that future generations inherit a sustainable and resilient nation. The regulatory proposals outlined in Annex A aim to reduce carbon emissions, leading to zero or negative net global emissions by the end of the century. It is therefore the prudent choice, not because we are sure that a catastrophe will occur, but because we cannot sufficiently be certain that it will *not* occur. But we do know what climate sensitivity and high-temperature damages turn out to be; it will be much too late to do anything about it.[163]

[163] *Supra.* Frank Ackerman and Elizabeth A. Stanton, *Climate Risks and Carbon Prices: Revising the Social Cost of Carbon,* Climate Change and Global Equity, Anthem Press (2014).

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Republic Act No. 10121*: Philippine Disaster Risk Reduction and Management Act of 2010.*
Republic Act No. 10174: *An Act Establishing the People's Survival Fund.*
Presidential Decree No. 1151*: Philippine Environmental Policy.*
Presidential Decree No. 1586: Philippine Environmental Impact Statement System.
House Bill (HB) No. 4939*: Imposing Climate Tax on Electric Power Consumption or Otherwise Known as the Piso Para sa Kalikasan Act.*
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ANNEX A

DRAFT HOUSE BILL No. ___
PHILIPPINE CARBON TAX ACT OF 2024
(An Act to put a price on carbon emissions in the Philippines)

EXPLANATORY NOTE

We live in a human-dominated era where the lives of animals and other creatures depend heavily on human activities. Thus, if humans are not responsible enough to take care of the planet Earth, this will lead not only to humans' untimely death, but also to other living beings.

The overarching goal of the Paris Agreement that was signed by 196 Parties at the United Nations (UN) Climate Change Conference (COP21) in Paris France, on 12 December 2015, is to hold "the increase the global average temperature to well below 2 degree Celsius above pre-industrial levels" and pursue efforts "to limit the

temperature increase to 1.5 degree Celsius above pre-industrial levels."[164]

The UN Intergovernmental Panel on Climate Change (IPCC) indicates that crossing the 1.5 degrees Celsius threshold risks unleashing far more severe climate change impacts, including more frequent and severe droughts, heatwaves, and rainfall.[165]

Greenhouse gas (GHG) emissions from fossil fuels, *i.e.*, coal, oil, and gas, are the major culprit in making our planet warm as they trap the sun's heat. They are by far the largest contributor to global climate change, accounting for over 75 percent of global GHG emissions and nearly 90% of all carbon dioxide emissions.[166] Under a carbon tax, the government sets a price that emitters must pay for each ton of GHG emissions they emit. Businesses and consumers will take steps, such as switching fuels or adopting new technologies, to reduce their emissions to avoid paying the tax.[167]

The Philippines is yet to enact a direct tax on carbon emissions or a carbon tax law. Several Commonwealth countries have already enacted a carbon tax, as this is the simplest way to implement a carbon price mechanism, as encouraged by the aforementioned Paris Agreement. Carbon tax ensures that polluters bear the external costs of GHG emissions, while providing the triple benefit of emission reduction, investment in the low-carbon economic transition, and increasing government revenues.

Hence, this proposed House bill, which is mainly adopted from the Commonwealth Carbon Tax Model Law, [168], specifically puts a price on carbon emissions to promote sustainability in the context of the Philippines and the Anthropocene.

In view of the foregoing, the passage of this measure is earnestly sought.

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Author

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[164] The Paris Agreement, What is the Paris Agreement? United Nations Climate Change, accessed on 06 September 2024, https://unfccc.int/process-and-meetings/the-paris-agreement.
[165] *Supra,* The Paris Agreement, What is the Paris Agreement? United Nations Climate Change, accessed on 06 September 2024, https://unfccc.int/process-and-meetings/the-paris-agreement.
[166] Causes and Effects of Climate Change, Climate Action, accessed on 06 September 2024, https://www.un.org/en/climatechange/science/causes-effects-climate-change.
[167] Carbon Tax Basics, Carbon Pricing, Carbon Tax, Center for Climate and Energy Solutions, accessed on 06 September 2024, https://www.c2es.org/content/carbon-tax-basics/#:~:text=Under%20a%20carbon%20tax%2C%20the,to%20avoid%20paying%20the%20tax.
[168] *Supra, The Commonwealth Carbon Tax Model Law*, The Commonwealth (2023).

House Bill No. _____

Introduced by Xxx

PHILIPPINE CARBON TAX ACT OF 2024
(An Act to put a price on carbon emissions in the Philippines)

Be it enacted by the House of Representatives of the Philippines in Congress assembled.

ARTICLE 1
Preliminary Provisions

Section 1. *Short Title.* This Act shall be known and cited as the "Philippine Carbon Tax Act of 2024".

Section 2. *Declaration of Policy.* Pursuant to Section 16 of Article 11 of the 1987 Constitution, the State recognizes the urgent need to address climate change, ensure a sustainable environment, and uphold the right of the people to a balanced and healthful ecology The State affirms its commitments under the UN Framework Convention on Climate Change (UNFCC) and the Paris Agreement, and thus, impose a carbon tax to internalize environmental costs and promote compliance with international climate standards.

Section 2. *Transition Period.* To ensure the effective implementation of this Act, there shall be a one-year transition period from its effectivity during which carbon emitters shall register and report their emissions voluntarily. Imposition and collection of the carbon tax shall begin on the second year following the effectivity of this Act.

Section 3. *Definition of Terms.*

(a) "*Business Activity*" means any activity or series of activities that:

a. involve the emission of greenhouse gas;

b. form a single undertaking or enterprise and have regard to any relevant circumstances.

Where a Business Activity is a series of activities that is carried out at more than one location or parcel of land, the Business Activity shall be treated in this Act as carried out at a single site if the same person is the Operator.

(b) *"Carbon Dioxide"* means a naturally occurring gas, having the chemical symbol CO_2 which also occurs as a by-product of burning fossil fuels (such as oil, gas or coal), of burning biomass, of land-use changes and of industrial processes. It is the principal anthropogenic Greenhouse Gas that affects the Earth's radiative balance.

(c) "*Carbon Dioxide Equivalent Emissions"* means emissions from all Greenhouse Gases other than carbon dioxide expressed in carbon dioxide equivalent metric tonnes.

(d) *"Carbon Price"* means the value set out in Article 3, Section 2 of this Act.

(e) *"Carbon Tax on Emissions"* means the penalty and/or tax imposed against greenhouse gas (GHG) emissions and Industrial Process Carbon Emissions.

(f) *"Facility"* means a single site at which any Business Activity is carried out.

(g) *"Greenhouse Gas (GHG)"* means carbon dioxide (CO_2) and other GHGs such as methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF_6), and nitrogen trifluoride (NF_3).

(h) *"Industrial Processes"* means a manufacturing process that chemically or physically transforms materials for commercial use.

(i) *"Operator"* means any person who operates or controls a Facility, or someone who has the authority and ability to:
   a. manage site operations through having day-to-day control of plant operations, including the manner and rate of operation;
   b. ensure that permit conditions are effectively complied with;
   c. decide who holds key staff positions and have incompetent staff remove;
   d. make investment and/or other financial decisions affecting performance of the Facility; or
   e. ensure that regulated activities are suitably controlled in an emergency.

ARTICLE 2
Scope and Persons Liable

Section 1. *Scope.* The Carbon Tax shall apply to all direct GHG emissions from any business activity, regardless of scale, as calculated in carbon dioxide equivalent (CO_2e) units. Emissions arising from industrial processes shall also be covered.

Section 2. *Persons Liable.* The Carbon Tax on GHGs and Industrial Process Carbon Emissions shall be directly levied on the Operators and/or Emitters in the Facility which emits the carbon.

Section 3. *Regulatory Agencies.* The Department of Finance (DOF), in close coordination with the Climate Change Commission (CCC), shall levy a tax known as the Carbon Tax on Emissions, which shall be duly collected by the Bureau of Internal Revenue (BIR) for remittance to the Bureau of Treasury.

ARTICLE 3

Carbon Tax on Emissions and Carbon Price

Section 1. *Carbon Tax Formula.* The Carbon Tax on Carbon Dioxide Equivalent Emissions and Industrial Process Carbon Emissions is calculated as follows: ***CT*=*A x B***, where:

A is the Carbon Dioxide Equivalent Emissions and Industrial Process Carbon Emissions in metric tonnes; and

B is the Carbon Price.

Section 2. *Carbon Price.* The Carbon Price shall initially be set at Php100 per metric tonne of CO2e emissions. It shall increase annually by the Consumer Price Index (CPI), subject to a maximum escalation cap of 10% per annum. Adjustments shall be deliberated and announced by the DOF and CCC every January of each year.

ARTICLE 4
Registration and Utilization of Carbon Tax Collected

Section 1. *Registration requirement.* Any individual or juridical person, who is a carbon emission emitter, shall register and/or make an additional registration with the BIR, including the business facility/ies wherein the person is the Operator, as defined in the Article 1, Section 3 of this Act.

Section 2. *Utilization of Carbon Tax Revenues.* All revenues collected shall be earmarked as follows:

a. 40% for climate adaptation and disaster reliance programs;
b. 30% for investments in renewable energy and green infrastructure;
c. 20% for social protection and targeted rebates for low-income households; and
d. 10% for administrative and enforcement costs under the CCC.

All disbursements shall be subject to the regular and special audit by the Commission on Audit (COA).

ARTICLE 5
Panel of Emission Auditors

Section 1. *Panel of Emission Auditors.* The DOF and CCC shall appoint a Panel of Emission Auditors, who shall be trained in measuring and/or auditing the carbon emissions in the Facility. The Panel shall be provided the necessary data for the audit and be allowed accessed by the Facility. The Panel shall consist of technical experts consisting of practitioners in disciplines that are related to climate change, including disaster risk reduction.

The Panel shall provide technical advice to the CCC in climate science, technologies, and best practices towards the better implementation and monitoring of tax on carbon emissions in the country

The DOF and CCC shall set the qualifications and compensation for the Panel of Emission Auditors. It shall further provide resources for the operations and activities of the Panel.

All facilities subject to audit shall make available their emissions data and calculations annually through a publicly accessible database maintained by the CCC.

ARTICLE 6
Tax Credits

Section 1. *Allowed tax credits.* The Operator who is also paying taxes on fuels shall be given a tax credit on the equivalent amount of carbon tax emissions that it is paying, subject to further audit and/or evaluation by the Emission Auditor and COA.

However, tax credits shall be made available only upon verified emissions reductions, subject to COA Audit and Certification by the Panel of Emission Auditors.

ARTICLE 7
Role of Government Agencies and Private Sector

Section 1. *Role of Government Agencies.* – To ensure the effective implementation of this Act:

(a) The *Department of Education (DepED)* shall integrate into the primary and secondary education curricula and/or subjects, such as, but not limited to, Science, Biology, Sibika, History, including textbooks, primers and other educational materials, basic information on tax on carbon emissions together with basic climate change principles and concepts;

(b) The *Department of Environment and Natural Resources (DENR*) shall oversee the establishment and maintenance of a carbon tax information management system and network, in collaboration with other concerned national government agencies, institutions and LGUs;

(c) The *Department of Foreign Affairs (DFA)* shall review pertinent international agreements related to tax on carbon emissions and make the necessary recommendation for ratification and compliance by the government on matters pertaining thereto;

(d) The *Philippine Information Agency (PIA)* shall disseminate the relevant information on tax on carbon emissions and spread awareness on the policy objectives and benefits that could be derived under this Act; and

(e) The *Department of Budget and Management (DBM)* shall ensure timely and full release of carbon tax funds for climate change programs.

Section 2. *Coordination with Various Sectors.* – In the development of a tax on carbon emissions law, the CCC shall also coordinate with non-government organizations (NGOs), civic organizations, academe, people's organizations, the private and corporate sectors and other concerned stakeholder groups.

ARTICLE 8
Enforcement and Penalties

Section 1. *Failure to Register.* – Any Operator who fails to register under this Act shall be fined not less than Php100,000.00 and not more than Php500,000.00 for each unregistered facility.

Section 2. *Failure to Pay Carbon Tax.* Failure to remit the carbon tax due within the prescribed deadline shall incur a surcharge of 25% of the tax due, plus interest at 12% per annum, as provided in the National Internal Revenue Code (NIRC) of 1997, as amended.

Section 3. *Misreporting or Fraud*. Any person who deliberately misreports carbon emissions data shall be liable for a fine equivalent to three (3) times the underpaid carbon tax dues and may face criminal charges, as provided in the NIRC of 1997, as amended.

ARTICLE 9
Effectivity

Section 1. *Separability Clause.* – If for any reason any section or provision of this Act is declared as unconstitutional or invalid, the other sections or provisions hereof shall not be affected thereby.

Section 2. *Implementing Rules and Regulations.* – Within ninety (90) days after the approval of this Act, the DOF shall, upon consultation with other government agencies, LGUs, private sector, NGOs and civil society, promulgate the implementing rules and regulations of this Act. Provided, That failure to issue rules and regulations shall not in any manner affect the executory nature of the provisions of this Act.

Section 3. *Joint Congressional Oversight Committee.* – There is hereby created a Joint Congressional Oversight Committee to monitor the implementation of this Act. The Oversight Committee shall be composed of five (5) Senators and five (5) Representatives to be appointed by the Senate President and the Speaker of the House of Representatives, respectively. The Oversight Committee shall be co-chaired by a Senator and a Representative to be designated by the Senate President and the Speaker of the House of

Representatives, respectively. Its funding requirement shall be charged against the appropriations of Congress.

Section 4. *Annual Report.* – The Commission shall submit to the President and to both Houses of Congress, not later than November 30 of every year following the effectivity of this Act, or upon the request of the Congressional Oversight Committee, a report giving a detailed account of the status of the implementation of this Act.

Section 5. *Repealing Clause.* – All laws, ordinances, rules and regulations, and other issuances or parts thereof which are inconsistent with this Act are hereby repealed or modified accordingly.

Section 6. *Effectivity.* – This Act shall take effect fifteen (15) days after the completion of its publication in the Official Gazette or in at least two (2) national newspapers of general circulation.

Signed and approved by:
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