

# Carbon Tax and Prospects for Conserving Environmental Functions in Indonesia

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# Carbon Tax and Prospects for Conserving Environmental Functions in Indonesia

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## Abstract

The international world's attention to the importance of the environment is growing day by day with the decline in the quality of the environment itself. Efforts have been made in the Government of Indonesia since 1994 to ratify the Ratification of the United Nations Framework Convention on Climate Change through Law no. 6/1994. In 2016 the Government has also ratified the Paris Agreement through the Law on the Paris Agreement on the United Nations Framework Convention on Climate Change (Paris Agreement to the United Nations Framework Convention on Climate Change), with Law no. 16/2016. The law contains the obligation of the Government of Indonesia to contribute to reducing greenhouse gas emissions, which is determined nationally to limit the increase in the global average temperature below 2°C (two degrees Celsius) to 1.5°C (one point five degrees Celsius) from pre-industrialized temperature level. The government is obliged to guarantee a healthy living environment for the community in accordance with the 1945 Constitution in particular Article 28 H paragraph (1) and Law Number 32 of 2009 concerning Environmental Protection and Management. Furthermore, to see further the Carbon Tax and the Prospect of Environmental Preservation, it will be studied from the Carbon Tax setting as regulated in Law Number 7 of 2021 concerning Harmonization of Tax Regulations, especially in Chapter VI Article 13. The preservation of environmental functions is a series of efforts to maintain the continuity of the carrying capacity and capacity of the environment by including the Carbon Tax instrument. The research method used is normative legal research by conducting legal studies and legal analysis on the implementation of the Carbon Tax. The main problems in this paper are: First, why is the carbon tax mandatory in Law no. 7 Year 2021 ? Second, how is the implementation of a carbon tax on funding for environmental conservation? The main problems in this paper are: First, why is the carbon tax mandatory in Law no. 7 Year 2021 ? Second, how is the implementation of a carbon tax on funding for environmental conservation? The main problems in this paper are: First, why is the carbon tax mandatory in Law no. 7 Year 2021 ? Second, how is the implementation of a carbon tax on funding for environmental conservation?

**Keywords:** Carbon Tax; Climate Change; Environmental Function Preservation

## Introduction

Indonesia is an archipelagic country consisting of more than 17,000 large and small islands with a land area reaching 187.8 million hectares consisting of 95.6 million hectares of forested land (50.9) and 92 million hectares of non-forested land. 1 million Ha (49.1%) [1]. Indonesian territory is vulnerable to climate change which of course will have risks from climate change itself, such as water scarcity which includes increasing levels of floods and severe droughts which of course have an impact on exacerbating the scarcity of clean water. The occurrence of damage to land ecosystems, for example due to land and forest fires which will cause loss of ecosystems, biodiversity, and changes in biomass. Causes damage to ocean ecosystems such as rising sea surface temperatures that can damage coral reefs, seaweed, mangroves, some biodiversity and marine ecosystems. Other consequences such as a decrease in the quality of health and food scarcity for living things [2]. Climate change can also increase the risk of hydrometeorological disasters which currently account for 80% of the total disasters that occur in Indonesia with the potential for Indonesia's economic loss to reach 0.66% to 3.45% of GDP in 2030 [3,4].

The global trend of strengthening the climate change agenda has begun with the Paris Agreement at COP 21 in 2016 which agreed to reduce the emission rate from business as usual in 2030, to keep the global temperature rate below 2°C from before the industrial revolution [2]. The G20 has encouraged countries' commitment to climate change issues, including phasing out subsidies on fossil fuels. The G20 finance track also forms a Sustainable Finance Working Group (SFWG). At COP-26 in November 2021, climate finance is one of the main themes to realize Net Zero Emissions globally in 2050. Furthermore, the European Union is discussing a Border Carbon Arrangement policy or the imposition of import taxes on goods that produce emissions according to the amount of emissions produced. Carbon pricing has become an instrument that is relied upon and promoted in various forms, and its implementation in the world continues to grow. The Global trend of ESG Funds (funds that pay attention to ESG principles in their investment activities) has been increasing rapidly since 2020 [2].

The emission reduction targets per sector cover 5 sectors, namely 1. Forestry, 2. Energy and Transportation, 3. Industrial Process and Product Use (IPPU), 4. Waste, and 5. Agriculture with a total cost of 3,779.63 trillion needed and needed policies to ensure funding needs are met [5]. The need for climate change funding to which Indonesia is committed is lowered into the agenda of each sector. This commitment has financial consequences that are not small. Estimated Cost of Climate Change Mitigation includes 1. Cost of climate change

mitigation to achieve Nationally Determined Contribution (NDC) with an estimated accumulated cost of Rp. 3. 461 trillion by 2030 [5,6]. The cost of climate change mitigation to achieve NDC (using the cost of mitigation action approach) with an estimated accumulative mitigation cost from 2020-2030 reaches Rp. 3.779 trillion (Rp. 343.6 trillion per year) [5].

Carbon tax has become a consideration for implementing a fiscal consolidation strategy that focuses on improving the budget deficit and increasing the tax ratio, it is necessary to adjust policies in the field of general provisions and taxation procedures, income tax, value added tax, and excise as well as regulations regarding carbon taxes and policies in the form of programs. Taxpayer voluntary disclosure. Carbon tax is one of the Carbon Economic Value (NEK) instruments [6], with the objectives: 1. Aiming to change the behavior of economic actors to switch to low-carbon green economic activities, 2. Supporting GHG emission reduction targets in the medium and long term, 3. Encouraging the development of carbon markets, technological innovation, and more investment efficient, low carbon, and environmentally friendly [2].

The carbon tax applies the following principles: 1. Emphasizing the fair principle based on the polluter-pays principle, 2. Paying attention to the aspect of affordability for the benefit of the wider community, and 3. Paying attention to the readiness of the sector so as not to burden the community [2]. With the existence of a carbon tax in the form of regulation in the Law on Harmonization of Taxation and Environmental Regulations in the hope of realizing a better environment, especially in Indonesia and the world in general through guarantees of legal certainty which are regulated through laws and regulations through tax and financing instruments. other living environment. Furthermore, it is necessary to study whether the existence of a carbon tax can affect the assurance of the environmental function itself as regulated in Law no. 32 of 2009 concerning Environmental Protection and Management which needs to be studied, both from an ecological, economic and social perspective.

International pressure on the grounds of global climate change, of course, cannot be carried out effectively because the principles contained in the rule of law are cored in the principles of recognition, respect and protection of the human personality which optimizes the principles of recognition and protection of human dignity and freedom which are fundamental principles. legal certainty, equality, democracy and general principles of good governance [7]. Meanwhile, to assess whether a carbon tax can affect a better environmental function, of course, it will be studied from the legal substance that can affect the possibility of implementing the law with various factors that influence it [8].

## Research Methods

The research method is a basic tool in the development of science and technology. This is because the research aims to reveal the truth in a systematic, methodological, and consistent manner. While the research method is a procedure or way of obtaining correct knowledge or truth through systematic steps [9]. The specifications of the research used are descriptive analysis research, and the legal research method used in this research is a normative juridical approach or legal research normative legal research [10] or literature with the approach used is to conduct a legal study of the Carbon Tax as regulated in Law Number 7 of 2021 concerning Harmonization of Tax Regulations, especially Article 13 and its explanation, Laws related to Climate Change, Law on Environmental Protection and Management and other related regulations. The legal materials used are primary legal materials and secondary legal materials. Primary legal materials can be sourced from legal sources in the form of laws and regulations related to carbon taxes and the environment. While other secondary data obtained from literature studies relevant to the object of research. The analysis of the results of the study was carried out with a normative juridical study.

## Laws on Climate Change

### Law of the Republic of Indonesia Number 6 of 1994 concerning Ratification of the United Nations Framework Convention on Climate Change.

The reasons for ratifying the United Nations Framework Convention on Climate Change are a. that changes in the earth's climate caused by increased concentrations of greenhouse gases in the atmosphere will have a detrimental effect on the environment and human life; b. that in an effort to prevent the increase in greenhouse gas concentrations in the atmosphere, the Earth Summit in Rio de Janeiro, Brazil, on June 3 to 14, 1992 has resulted in international commitments by the signing of the United Nations Framework Convention on Climate Change by a large number of countries in the world, including Indonesia; c. that in an effort to prevent the continuation of climate change that is detrimental to the environment and human life, the international community through the United Nations has agreed to pursue projected reductions in greenhouse gas emissions by 1990; d. that Indonesia has a strategic role in the structure of the world's geographical climate because as an equatorial tropical country which has the largest wet tropical forest in the world and an archipelagic country which has the widest sea in the world has a function as a large greenhouse gas absorber; e. that the commitment of developed countries to provide

financial assistance and transfer of technology to developing countries which is the responsibility of developed countries, as regulated in the United Nations Framework Convention on Climate Change, needs to be responded positively by the Government of Indonesia; f. that Indonesia needs to actively take part together with other members of the international community in an effort to prevent the increase in greenhouse gas concentrations in the atmosphere, therefore the Government has signed the United Nations Framework Convention on Climate Change in Rio de Janeiro, Brazil, on June 5, 1992 ; g. that based on the above considerations, the Government of Indonesia deems it necessary to ratify the United Nations Framework Convention on Climate Change with a law [11].

Ratification of the United Nations Framework Convention on Climate Change (United Nations Framework Convention on Climate Change), in his explanation stated that in general the ratification was in accordance with the Preamble to the 1945 Constitution, among others, emphasized that the Government of the Republic of Indonesia should protect the entire Indonesian nation and the blood spilled. Indonesia and to promote public welfare, educate the nation's life, and participate in carrying out world order based on independence, eternal peace and social justice. In addition, Article 33 paragraph (3) of the 1945 Constitution states that "Earth and water, and the natural resources contained therein are controlled by the State and used for the greatest prosperity of the people". The article contains the essence of the fundamental mandate for the implementation of Indonesia's national development. In environmentally sustainable development, humans can play a role in controlling the climate system through natural resource management. For this reason, it is necessary to develop a pattern of reciprocal interactions between the atmosphere, earth and water that can form the climate system. Climate management continues to be developed to support development in various sectors, such as agriculture and forestry.

## Laws and Climate Change

It is a commitment for the state to have the awareness that the environment and natural resources are life for ecosystem communities on earth so that climate change problems can be handled jointly between countries because they are related to the sustainability of future generations. For example, forest management and mineral and coal mining contribute to carbon emissions resulting in climate change and global warming [12].

The People's Consultative Assembly in 1993 has established the Outlines of State Policy, especially regarding the Environment and Foreign Relations, among others



affirming the following [13]:

- a. Environmental development which is an important part of the ecosystem that functions as a life support for all living things on earth is directed at realizing the preservation of environmental functions in dynamic balance and harmony with population development in order to ensure sustainable national development. Environmental development aims to improve quality, utilize natural resources in a sustainable manner, rehabilitate environmental damage, control pollution, and improve environmental quality;
- b. In sustainable development that is environmentally sound, a spatial pattern is developed that harmonizes the use of land, water and other natural resources in a harmonious and dynamic integrated environmental system and is supported by a harmonious management of population development. Spatial planning needs to be managed based on an integrated pattern through a regional approach by taking into account the nature of the natural environment and social environment. Land use is developed by paying special attention to preventing the use of productive agricultural land that can disrupt the balance of the ecosystem. In developing water use, special attention needs to be given to the provision of sufficient and clean and sustainable water; prevention of deterioration of water quality and sustainability, as well as saving watersheds.
- c. The damaged or disturbed living environment needs to be rehabilitated so that it returns to function as a life support and provides benefits for the welfare of the community. Improved guidance and law enforcement to reduce the occurrence of environmental pollution. In an effort to control pollution, various economic tools can be used with the use of appropriate technology so that the quality of the environment can be maintained. Facilities and infrastructure in waste management including household waste, industrial waste, and hazardous and toxic waste need to be improved so that the quality of a sustainable environment can be guaranteed for its sustainability;
- d. Regional and international cooperation regarding the maintenance and protection of the environment, and participation in the development of international policies and the advancement of science and technology regarding the environment need to be continuously enhanced for the benefit of sustainable development.
- e. Foreign relations are activities between nations both regionally and globally through various bilateral and multilateral forums devoted to national interests, based on the principle of a free and active foreign policy and directed at contributing to the realization of a new world order based on independence, lasting peace and social justice and aimed at further enhance international cooperation, by further strengthening and increasing

the role of the Non-aligned Movement.

### Paris Agreement Ratification

Ratification of the Paris Agreement to The United Nations Framework Convention on Climate Change (Paris Agreement on the United Nations Framework Convention on Climate Change) has been ratified by the Government since October 24, 2016. This is in accordance with the national goals of the Republic of Indonesia as stated in the Preamble to the Act. the Constitution of the Republic of Indonesia with consideration; a. to protect the entire homeland of Indonesia and to promote public welfare, educate the nation's life and participate in carrying out world order based on freedom, eternal peace and social justice; b. climate change due to the increase in the earth's temperature is an increasingly serious threat to mankind and planet earth so that it requires more effective cooperation between countries; c. In an effort to control the continuation of climate change, the Government of Indonesia together with members of the international community through the 21st Conference of the Parties United Nations Framework Convention on Climate Change on December 12, 2015 in Paris, France has adopted the Paris Agreement to The United Nations Framework Convention on Climate Change (Paris agreement on the United Nations Framework Convention on Climate Change) which was followed up by the signing of the agreement on April 22, 2016 in New York, United States of America;

Ratification of the Paris Agreement to The United Nations Framework Convention on Climate Change (Paris Agreement on the United Nations Framework Convention on Climate Change) according to the explanation<sup>1</sup> namely the impact of global climate change has become the concern of the world community and nations, including Indonesia. As an archipelagic country that has a variety of natural resources and high diversity, Indonesia has great potential to be negatively affected by climate change, and at the same time has great potential to take part in mitigating and adapting to the negative impacts of climate change. Climate change, as many people know, is a natural event that can be explained scientifically, and is considered a natural thing.

However, what makes the issue of climate change increasingly surfaced and becomes a topic of discussion for many people is that in the last few decades, precisely after the era of industrialization, as the results of the Intergovernmental Panel on Climate Change (IpCC) report, the process of climate change is accelerating and the impacts of climate change are increasing. The impact of climate

<sup>1</sup> Ratification of the Paris Agreement to The United Nations Framework Convention on Climate Change has been ratified by the Government since October 24, 2016.

change is felt to be increasingly widespread in various aspects of people's lives and is increasingly felt by humans in various parts of the world.

The close relationship between the impacts of climate change and human life, both as actors in activities that emit greenhouse gases and as those affected, has made the issue of climate change increasingly a concern for countries in the world, which are united under the umbrella of the United Nations Framework for Climate Change (UNFCCC), and negotiate to find the best way and compromise in sharing roles and responsibilities in controlling climate change and dealing with its impacts.<sup>2</sup>

Mitigation and adaptation are 2 (two) aspects of activities that are used as the main instrument in dealing with the impacts of climate change. In the national context, controlling climate change is a constitutional mandate that everyone has the right to live in prosperity, physically and mentally, to have a place to live, and to have a good and healthy environment and have the right to health services [14]. The state provides direction and is obliged to ensure that the development needed to meet the welfare of the people still takes into account the protection of environmental and social aspects.

With the awareness of the threat from the negative impacts of climate change, controlling and handling climate change is not a burden for the State, but it is time to become a necessity. Thus, the State's commitment in dealing with climate change is a national agenda. The Paris Agreement is legally binding and applicable to all with the principle of common but differentiated responsibilities and respective capabilities, and assigns responsibilities to developed countries to provide funding, capacity building, and transfer of technology to developing countries.<sup>3</sup>

In addition, the Paris Agreement mandates an increase in bilateral and multilateral cooperation that is more effective and efficient to implement climate change mitigation and adaptation actions with funding support, technology transfer, capacity building supported by transparency mechanisms and sustainable governance. Indonesia is located in a geographical area that is very vulnerable to the impacts of climate change. In general, the increase in the average temperature in the territory of Indonesia is estimated at 0.5 - 3.92°C in 2100 from the conditions for the period 1981-2010. As for rainfall, based on observational data, there has been a

shift in the wet and dry months. Higher rainfall intensity and shorter duration of rain occurred in northern Sumatra and Kalimantan, while the rainfall is low and the duration of the rain is longer in the southern part of Java and Bali. The sea level rise due to climate change is projected to reach 35-40 cm in 2050 relative to the 2000 value. The sea level rise will reach 175 cm in 2100 by taking into account the melting of ice in the North and South poles.

The city of Tarakan shows a sea level rise of about 14.7 cm (with an uncertainty of about 6.25 cm) in 2030 relative to current conditions. Variability also occurs at sea level due to the La-Nina phenomenon and storm surges. This phenomenon is expected to raise sea levels by 15 cm and 30 cm. Meanwhile, for the South Sumatra region, sea level rise is between 0.5-0.7 cm/year. Projected sea level rise in 2030 is 13.5 to 6.15 cm relative to sea level in 2000. Studies on Climate Change Risk and Adaptation were conducted in Tarakan City, South Sumatra Province, and Malang Raya.

The city of Tarakan has experienced a temperature increase of 0.63°C over the last 25 years; South Sumatra Province experienced a temperature increase of 0.67°C; while Malang Raya experienced an increase of 0.69°C. The city of Tarakan is heavily affected by the potential for the El-Nino phenomenon. In fact, there had been a long drought in the 1961-1970s, and in April - August there was a rainfall deficit of about 100 mm from the average value. With more than 17,000 islands, and most of the provincial capitals and nearly 65% of the population living in coastal areas, Indonesia is vulnerable to the impacts of climate change, particularly those caused by rising sea levels and inundation due to flooding in coastal areas or tidal waves.

Sea level rise, in addition to causing direct impacts in the form of reduced area due to drowning by sea water; damage to coastal ecosystem areas due to tidal waves, also causes indirect impacts in the form of loss or change in community livelihoods, especially people living on the coast, reduced rice fields, lowlands near the coast which will affect food security, inter-island transportation disturbances, and damage or loss of island and coastal tourism objects.

The Paris Agreement is an international agreement on climate change that aims to keep the global average temperature rise below 2°C above pre-industrial levels and continue efforts to suppress temperature increases to 1.5°C above pre-industrial levels. In addition, the Paris agreement on the United Nations Framework Convention on Climate Change, hereinafter referred to as the Paris Agreement, is directed at increasing the ability to adapt to the negative impacts of climate change, towards climate resilience and low-emissions development, without threatening food production, and preparing funding schemes for towards low-

<sup>2</sup> Elucidation of Law of the Republic of Indonesia Number 16 of 2016 concerning Ratification of the Paris Agreement To The United Nations Framework Convention on Climate Change (Paris Agreement on the United Nations Framework Convention on Climate Change)

<sup>3</sup> Elucidation of Law of the Republic of Indonesia Number 16 of 2016 concerning Ratification of the Paris Agreement To The United Nations Framework Convention on Climate Change, Op.cit.



emissions and climate-resilient development.

By ratifying the Paris Agreement, Indonesia will benefit, among others:

1. Increasing the protection of Indonesia's regions which are very vulnerable to the impacts of climate change through climate change mitigation and adaptation;
2. Increased recognition of national commitments in reducing emissions from various sectors, forest conservation, increasing renewable energy and the participation of local communities and indigenous peoples in controlling climate change that Indonesia has been fighting for so far;
3. Become Parties that can participate (have voting rights) in decision-making regarding the Paris Agreement, including in the development of modalities, procedures and guidelines for implementing the Paris Agreement;
4. Get easy access to funding sources, transfer technology, increase capacity for implementation of mitigation and adaptation actions.

**The substance of the Paris Agreement is as follows:**

**The Paris Agreement contains the subject matter**

- a. The goal of the Paris Agreement is to limit global temperature rise to below 2°C from pre-industrial levels and to make efforts to limit it to below 1.5°C;
- b. It is the obligation of each State to submit Nationally Determined Contributions. The contribution of these declines must increase every period, and developing countries need to get support to increase these ambitions;
- c. The commitment of the Parties to reach the peak point of greenhouse gas emissions as quickly as possible and make efforts to reduce emissions quickly through mitigation actions;
- d. Positive policy approaches and incentives for activities to reduce emissions from deforestation and forest degradation as well as sustainable forest management, conservation and enhancement of forest carbon stocks including through results-based payments;
- e. Development of voluntary cooperation between countries in the context of reducing emissions, including through market and non-market mechanisms;
- f. The setting of global adaptation goals to increase adaptive capacity, strengthen resilience, and reduce vulnerability to climate change is an acknowledgment that adaptation is a global challenge that requires international support and cooperation, especially for developing countries.
- g. Recognition of the importance of minimizing and

overcoming loss and damage due to the adverse impacts of climate change;

- h. The obligation of developed countries to provide funding sources to assist developing country Parties in implementing mitigation and adaptation. In addition, other parties can also provide support voluntarily;
- i. Increasing cooperative actions of all countries in terms of technology development and transfer;
- j. The need for the cooperation of the Parties to strengthen the capacity of developing countries in the implementation of the Paris Agreement and the obligation of developed countries to strengthen support for capacity building in developing countries;
- k. Cooperation of the Parties in efforts to strengthen education, training, public awareness, public participation, and public access to information on climate change;
- l. Establishment and implementation of a transparency framework in order to build mutual trust and improve implementation effectiveness, including action and support with flexibility for developing countries. This framework is an extension of the existing one under the Convention.
- m. Periodic implementation of an inventory of the implementation of the Paris Agreement to assess collective progress towards achieving the goals of the Paris Agreement (global stocktake) starting in 2023 and thereafter every five years.
- n. Establishment of mechanisms to facilitate implementation and promote compliance with the Paris Agreement;
- o. The Paris Agreement enters into force on the 30th day after 55 countries reflecting at least 55 o/o global emissions have deposited their instruments of ratification, acceptance, approval or accession with the depositary;
- p. No reservations can be made against the Paris Agreement.

**Nationally Designated Contributions as a statement of commitment to Paris Agreement Implementation**

In order to achieve the goals of the Paris Agreement, national contributions to global efforts are contained in Nationally Determined Contributions, all States parties implement and communicate their ambitious efforts and show progress over time, related to Nationally Determined Contributions (mitigation), adaptation, and financial, technological and capacity building support for developing countries by developed countries.

Indonesia's Nationally Determined Contribution (NDC) covers both mitigation and adaptation aspects. In line with

the provisions of the Paris Agreement, Indonesia's NDC would need to be determined periodically. In the first period, Indonesia's NDC target is to reduce emissions by 29 o/o with their own efforts and to 41 o/o if there is international cooperation from a business as usual condition by 2030, which will be achieved, among others, through the sector forestry, energy including transportation, waste, industrial process and product use, and agriculture. Indonesia's NDC commitment for the next period is determined based on a performance review and must show improvement from the next period.

### Carbon Tax Setting

Carbon tax is a new thing and still requires a long process to implement. Understanding taxes in general can be formulated by understanding the elements contained in the meaning of taxes. Some elements that can be understood about taxes are [15]:

- Taxes can be imposed, because they are levied by law;
- Tax as contribution
- Taxes are levied on individuals or Organizations/Entities;
- Taxes are received by the Government of a State;
- Intended for general government financing purposes;
- Taxes are levied on the people by not showing a direct counter-achievement;
- Taxes function as budgetair and regularend;

The tax function is concerned with the main benefits of taxes. The main benefit of taxes is to increase people's welfare. This is in line with taxes as a tool to determine the political economy of a country. Thus, taxes become the backbone in improving people's welfare in the economic, social, legal and state resilience fields. The tax function is generally divided into 4 (four), namely: the budgetair function, the regularend function, the stability function, and the income redistribution function.

### After the promulgation of Law Number 7 of 2021 concerning Harmonization of Tax Regulations, Article 13 regulates the following points:

- Imposition is imposed on carbon emissions that have a negative impact on the environment.
- The direction of the imposition of a carbon tax pays attention to the carbon market roadmap and/or the carbon tax roadmap which contains a carbon emission reduction strategy, priority sector targets in alignment with the development of new and renewable energy as well as alignment between various other policies.
- The carbon tax principle adheres to the principles of justice (just) and affordability (affordable) by taking into account the business climate, and small communities.

- The carbon tax rate is set higher or equal to the carbon price in the carbon market with a minimum rate of Rp. 30,000 per kilogram of carbon dioxide equivalent (CO<sub>2</sub>e).
- Utilization of state revenues from carbon taxes is carried out through the APBN mechanism, which can be used, among others, to control climate change, provide social assistance to poor households that have an impact on carbon taxes, subsidize renewable energy, and others.
- Taxpayers who participate in carbon emission trading can be granted a carbon tax deduction.
- The implementation of the carbon tax took effect on April 1, 2022, which was first imposed on entities operating in the field of coal-fired power plants with a cap and tax scheme that is in line with the implementation of the carbon market which has already started running at the coal-fired power plant.
- Regulation on carbon is also regulated in Article 58 of Presidential Regulation of the Republic of Indonesia Number 98 of 2021 concerning Implementation of Carbon Economic Values for Achieving Nationally Determined Contribution Targets and Control of Greenhouse Gas Emissions in National Development. The points of the arrangement include:
  - Carbon levies are defined as state levies both at the central and regional levels, based on carbon content and/or potential carbon emissions and/or total carbon emissions and/or performance of mitigation actions.
  - Furthermore, the arrangement for its implementation is in accordance with the provisions of the legislation.
  - The levy on carbon can be in the form of existing state levies (eg motor vehicle tax, fuel tax, PPnBM), as well as other levies that will be applied.

## Juridical Analysis of Carbon Tax with Conservation of Environmental Functions

### Carbon Tax is Mandatory

Before moving on to a carbon tax, considering the condition and geographical position of Indonesia is very vulnerable to the impacts of climate change, it is necessary to undertake mitigation efforts through climate change mitigation. In order to follow up on the Bali Action Plan agreement at the 13th Conferences of Parties (COP) of the United Nations Frameworks Convention on Climate Change (UNFCCC) and the results of COP-15 in Copenhagen and COP-16 in Cancun as well as fulfill the commitments of the Government of Indonesia in the G- 20 in Pittsburgh to reduce greenhouse gas emissions by 26% with their own efforts and reach 41% if they receive international assistance by 2030 from conditions without a business as usual (BAU) action plan, it is necessary to develop measures to reduce greenhouse gases glass.



Almost at the same time as attention to the increase in greenhouse gas concentrations which causes global warming triggering global climate change, of course, it can reduce the quality of the environment, then according to Article 63 paragraph (1) of the Law on Environmental Protection and Management [16] the obligation of the central, provincial and district/city governments to have the duty and authority to carry out an inventory of greenhouse gases. Then the Presidential Regulation of the Republic of Indonesia Number 71 of 2011 was issued regarding the Implementation of the National Greenhouse Gas Inventory [17,18]. The purpose of holding a national greenhouse gas inventory is to provide: a. Periodic information regarding the level, status and trend of changes in GHG emissions and removals including carbon storage at the national, provincial, district/city levels; b. information on the achievement of GHG emission reductions from national climate change mitigation activities.

Regarding carbon, the Ministry of Environment and Forestry has also issued a policy through the Regulation of the Minister of Forestry of the Republic of Indonesia Number: P.20/Menhut-II.2012 concerning the Implementation of Forest Carbon [19]. This policy was taken in the framework of forest management for the greatest prosperity of the people in a just and sustainable manner in accordance with Article 3 of Law Number 41 of 1999 [20] concerning Forestry, one of which is through optimizing various forest functions to achieve environmental, social, cultural, and economic benefits in a holistic manner: balanced and sustainable. Optimizing forest functions is an effort to mitigate global climate change through its role in reducing forest carbon emissions, sequestering Co<sub>2</sub> from the atmosphere and maintaining carbon stocks.

The carbon tax is a very new arrangement in Indonesia in relation to the environment. On the one hand, as a sovereign state, guarantees for the environment have been regulated in the 1945 Constitution Article 28 H.<sup>4</sup>The environment cannot be separated from problems with international community relations when viewed from the understanding of the environment itself [16]. Environmental problems are inseparable from world relations, especially those related to the economy, trade system between nations and also consumers who want the products used to pay attention to the environment. In Law Number 7 of 2021 concerning Harmonization of Tax Regulations one of the principles is "justice" and its objectives are a. promote sustainable economic growth and support the acceleration of economic recovery. b. optimize state revenues to finance national development independently towards a just, prosperous and

prosperous Indonesian society, c. realize a more just taxation system and legal certainty, d. implement administrative reforms, consolidated taxation policies, and expand the tax base, and e. improve voluntary compliance of taxpayers [21].

The carbon tax regulated in Article 13 of Law no. 7/2021 is imposed on carbon emissions that have a negative impact on the environment. Various instruments can be taken to achieve the NDC target, including using the carbon economic value (NEK) instrument consisting of trading and non-trading instruments. One of the non-trade instruments is the imposition of a carbon tax. Carbon taxes are imposed in order to control greenhouse gas emissions to support Indonesia's NDC achievement. NDC or nationally determined contributions are national commitments for handling global climate change in order to achieve the goals of the Paris Agreement to The United Nations Framework Convention on Climate Change. Climate Change has been regulated in Law Number 32 of 2009 concerning Environmental Protection and Management Article 1 number 19 [16]. What is meant by "carbon emission" is equivalent carbon dioxide emission (CO<sub>2</sub>e) [21]. Meanwhile, the criteria for negative impacts on the environment include: a. natural resource depletion<sup>5</sup>; b. environmental pollution; or environmental damage [16].

### The carbon tax road map regulated in Law no. 7/2021 contains the following:

#### Carbon Emission Reduction Strategy

The government has committed to reduce greenhouse gas emissions by 29%o (twenty nine percent) with its own capabilities and 41o/o (forty one percent) with international support by 2030 and towards Net Zero Emission (NZE) by 2030 at the latest. 2060.

#### Priority Sector Target

The emission reduction targets for the energy and transportation sectors as well as the forestry sector already cover 97o/o (ninety-seven percent) of the total NDC emission reduction targets, so that they become the main priority for reducing greenhouse gas emissions. In addition to these two sectors, the national industry transformation based on clean energy and carbon tax will be followed by Indonesia Gold in 2045 and NZE no later than 2060.

#### Paying attention to the development of new and renewable energy

The policy mix of carbon tax, carbon trading and sectoral technical policies including phasing out coal, development of new and renewable energy, and/or increasing biodiversity is expected to support the achievement of the NZE 2060 target

<sup>4</sup> Paragraph (1) Everyone has the right to live in physical and spiritual prosperity, to have a place to live, and to have a good and healthy living environment and have the right to obtain health services.

<sup>5</sup> Natural resources are being depleted by human activities and by nature.

while still prioritizing the principle of just and affordable transition for the community and providing business climate certainty.

### Harmony Between Policies

The carbon tax road map will include, among others, a strategy for reducing carbon emissions in the NDC, priority sector targets, and/or paying attention to the development of new and renewable energy and further regulated by or based on a Government Regulation.

### The imposition of a carbon tax is carried out as follows:

- In 2021, a carbon trading mechanism will be developed;
- From 2022 to 2024, a tax mechanism based on emission limits (cap and tax) is applied for the power generation sector; limited to coal-fired Steam Power Plants (PLTU);
- In 2025 and beyond, the full implementation of carbon trading and the expansion of the carbon tax taxation sector in stages according to the readiness of the relevant sectors by taking into account, among other things, economic conditions, readiness of actors, impacts, and/or scale.

The implementation of the carbon tax prioritizes the regulation of corporate tax subjects. The carbon tax rate will be made higher than or equal to the carbon price in the domestic carbon market. From several arrangements in Law no. 7/2021 concerning Harmonization of Tax Regulations has been given an explanation<sup>1</sup> related to what is meant by "carbon-containing goods" are goods that include but are not limited to fossil fuels<sup>2</sup> that cause carbon emissions. While other arrangements in Law no. 7/2021 concerning Harmonization of Tax Regulations also covers: activities that generate carbon emissions [21],<sup>3</sup> is an activity that generates or emits carbon emissions originating among others from the energy, agriculture, forestry and land change sectors, industry, and waste. Included in the scope of buying, namely buying goods that produce carbon emissions in the country and imports.

### Several important definitions provided by Law no. 7/2021 specifically related to carbon taxes, namely:

1. Calculation of the carbon tax payable on the entire purchase value of carbon-containing goods or activities

<sup>1</sup> Explanation of Law No. 7/2021: Activities that produce carbon are activities that produce or emit carbon emissions originating, among others, from the energy, agriculture, forestry and land change sectors, industry, and waste. Included in the scope of buying, namely buying goods that produce carbon emissions in the country and imports.

that produce carbon emissions by considering the emission factor value determined by the ministry and/or agency/institution that has the competence and authority to measure the emission factor value.

2. Emission factor value, emission factor value is the coefficient value that connects climate change mitigation" is a series of activities carried out in an effort to reduce the level of greenhouse gas emissions or increase the absorption of greenhouse gas emissions as a form of efforts to mitigate the impact of climate change.
3. Adaptation to climate change" is an effort made to increase the ability to adapt to climate change, including climate diversity and extreme climate events so that the potential damage due to climate change is reduced, opportunities posed by climate change can be utilized, and the consequences arising from climate change can be overcome.
4. "Carbon emission trading" is a transaction mechanism between business actors and/or activities whose emissions exceed the specified emission limit.
5. What is meant by "carbon emission offset" (carbon emission offset) is the reduction of carbon emissions by businesses and/or activities for the average amount of emissions released into the atmosphere from certain sources relative to the unit of activity or process related to the release of carbon emissions.
6. Carbon dioxide equivalent (CO<sub>2</sub>e) is a representation of greenhouse gas emissions, including carbon dioxide (CO<sub>2</sub>), nitrous oxide (N<sub>2</sub>O), and methane (CH<sub>4</sub>). What is meant by "equivalent" is the conversion unit of carbon dioxide equivalent (CO<sub>2</sub>e) among other things to mass units and volume units.
7. Climate change control is climate change mitigation and adaptation. compensate for emissions created elsewhere [21].

The carbon tax adheres to the principle of justice or fairness by applying the "polluters-pays-principle". This principle is regulated in Article 87 paragraph (1) of Law no. 32 of 2009 : "Every person in charge of a business and/or activity who commits an unlawful act in the form of environmental pollution and/or destruction that causes harm to other people or the environment is obligated to pay compensation and/or take certain actions.

The provision in Article 87 paragraph (1) is the realization of a principle in environmental law called the polluter pays principle. In addition to being required to pay compensation, environmental polluters and/or destroyers can also be burdened by judges to take certain legal actions, for example orders to: a. install or repair the waste treatment unit so that the waste complies with the specified environmental quality standards; b. restore environmental functions; and/or c.



eliminate or destroy the causes of environmental pollution and/or destruction [16].

The polluter pays principle according to the OECD (The Organization for Economic Cooperation and Development) formulates [22]:<sup>7</sup> "...that the polluter should bear the expenses of carrying out the measures, as specified in the previous paragraph, to ensure that the environment is in an acceptable state...the cost of these measures should be reflected in the cost of goods and services which cause pollution in production and/or consumption".

The OECD emphasizes that polluters are burdened with the obligation to pay for environmental damage that causes damage. OECD polluters are also required to pay the costs of necessary preventive activities in the form of strengthening incentives equal to the costs of cleaning up waste, in addition to setting mandatory criteria such as taking preventive measures. According to the OECD, pollution control efforts involve costs such as alternative costs for implementing anti-pollution measures, costs for measuring and monitoring management, research costs, technology development for pollution treatment units and maintenance of installations for waste management units. The principles applied by the OECD are included in 7 (seven) policies taken, namely:

1. Direct Control;
2. Taxation;
3. Financing;
4. Subsidy;
5. Various policies that are incentives, such as tax advantages, credit facilities, and accelerated amortization or debt repayment (Accelerated Amortization);
6. Pollution rights auction (The Action of Pollution Right);
7. Charges (Charges )

Taxes as a mandate from the Law that was established with the aim of: increasing sustainable economic growth and supporting the acceleration of economic recovery, optimizing state revenues to finance national development independently towards a just, prosperous and prosperous Indonesian society, realizing a more equitable taxation system and legal certainty, of course, is a mandate from the 1945 Constitution of the Republic of Indonesia to create a just, prosperous and prosperous Indonesian society based on Pancasila which upholds the rights and obligations of Indonesian citizens and residents in the context of realizing state obligations in an effort to improve welfare, justice, and

social development. Economic growth must be sustainable and support the acceleration of national economic recovery.

From a legal perspective, the issuance of a carbon tax is of course also in line with efforts to maintain environmental functions as regulated in Law Number 32 of 2009 concerning Environmental Protection and Management. The function of the environment is a series of efforts to maintain the continuity of the carrying capacity and capacity of the environment [16]. Environmental carrying capacity is the ability of the environment to support human life, other living things, and the balance between the two [16]. Environmental carrying capacity is the ability of the environment to absorb substances, energy, and/or other components that enter or are incorporated into it [16]. The preservation of environmental functions was also regulated in the previous Environmental Law. Koesnadi Hardjosoemantri [23] write that the preservation of environmental functions is a series of efforts to maintain the continuity of the carrying capacity and capacity of the environment. Thus, what was regulated in the previous Environmental Law was also regulated in Law Number 32 of 2009 concerning Environmental Protection and Management.

The concept of sustainable development is also in line with the principles of environmental protection and management, both regulated in the Law on the Harmonization of Tax Regulations related to Carbon Tax and the Law on Environmental Protection and Management. What is meant by the principle of "sustainability and sustainability [16]" is that everyone bears obligations and responsibilities to future generations and to each other in one generation by making efforts to preserve the carrying capacity of the ecosystem and improve the quality of the environment.

Sustainable development is a conscious and planned effort that integrates environmental, social and economic aspects into a development strategy to ensure the integrity of the environment as well as the safety, capability, welfare, and quality of the environment for present and future generations [16].

Carbon tax as a source of climate change funding, of course, cannot be separated from the state's need for environmental availability, which amounts to a very large amount of up to Rp. 343.6 trillion per year until 2030. Learning from the difficulty of funding the recovery and mitigation of environmental losses, it seems that the government needs to work harder because of the provisions regarding accountability rules and alternative mechanisms for compensation. Law no. 32/2009 asking the government to implement economic instruments, including environmental funds and incentive or disincentive instruments has not been

<sup>7</sup> The Organization for Economic Cooperation and Development (OECD) Recommendation of the Council on the Implementation of the Polluter-Pays-Principle (Article I), November 14 Th, 1974. As in NHT Siahaan, Environmental Law and Development Ecology, Second Edition, p. 267.



implemented properly [24].

### Carbon Tax and Implementing Regulations

Although the carbon tax has been enacted, of course it has not yet been implemented because it has to meet various requirements. As regulated in Article 13 requires further regulation in the form of a Regulation of the Minister of Finance and a Government Regulation. Regulation of the Minister of Finance 1. RPMK on Tariffs and DPP for Carbon Taxes, 2. Regulation of the Minister of Finance on Procedures and Mechanisms for Imposing Carbon Taxes. Meanwhile, the Government Regulations that must be in place are: 1. Government Regulations concerning the Carbon Road Map and, 2. Government Regulations concerning the Subject and Allocation of Carbon Taxes.

In the preparation of implementing regulations, it is very important because in order to implement the Law on the Harmonization of Tax Regulations, especially Article 13 related to the carbon tax, in order to be implemented, of course, it must pay attention to the principle of the formation of laws and regulations, as regulated in Article 5 of the Law on the Establishment of Legislations [25,26]. In forming laws and regulations, it must be carried out based on the principles of the formation of good laws and regulations, which include: a. clarity of purpose; b. the appropriate forming institution or official; c. suitability between types, hierarchies, and payload materials; d. can be implemented; e. usability and effectiveness; f. clarity of formulation; and g. openness. Carbon taxes are certainly something very new in the Indonesian setting. However, in order for the carbon tax to be implemented, it is very important to pay attention to these principles in lower legislation. The basic definitions are:

- The principle of clarity of purpose is that every Formation of Legislation must have a clear goal to be achieved.
- The principle of the right institution or forming official is that each type of Legislation must be made by a state institution or an authorized official forming the Legislation. These laws and regulations can be canceled or null and void if they are made by state institutions or officials who are not authorized.
- The principle of conformity between types, hierarchies, and content material is that in the Formation of Legislative Regulations must really pay attention to the right content material according to the type and hierarchy of Legislative Regulations.
- The principle that can be implemented is that every formation of laws and regulations must take into account the effectiveness of these laws and regulations in society, both philosophically, sociologically, and juridically.

- The principle of usability and usability is that every statutory regulation is made because it is really needed and useful in regulating the life of society, nation and state.
- The principle of clarity of formulation is that each statutory regulation must meet the technical requirements for the preparation of legislation, systematics, choice of words or terms, as well as legal language that is clear and easy to understand so as not to cause various kinds of interpretations in its implementation.
- The principle of openness is that in the formation of laws and regulations, starting from planning, drafting, discussing, ratifying or determining, and enacting laws, they are transparent and open. Thus, all levels of society have the widest opportunity to provide input in the formation of laws and regulations.

### In summary, carbon tax Article 13 of Law Number 7 of 2021 concerning Harmonization of Tax Regulations

- A carbon tax is imposed on carbon emissions that have a negative impact on the environment
- The imposition of carbon tax is carried out by taking into account: a. carbon roadmap; and/or carbon market roadmap
- The carbon tax roadmap contains a. carbon emission reduction strategy; b. priority sector targets; c. alignment with new and renewable energy developments; and/or d. alignment between various other policies.
- The carbon roadmap policy is determined by the Government with the approval of the House of Representatives of the Republic of Indonesia
- The subject of the carbon tax is an individual or entity that buys goods that contain carbon and/or carries out activities that produce carbon emissions.
- A carbon tax is payable on the purchase of carbon-containing goods or activities that produce a certain amount of carbon emissions in a certain period.
- When the carbon tax is payable, it is determined: a. at the time of purchase of goods containing carbon; b. at the end of the calendar year period of the activity that produces a certain amount of carbon emissions; or c. other times regulated by or based on a Government regulation.
- The carbon tax rate is set to be higher than or equal to the carbon market price per kilogram of carbon dioxide equivalent (CO<sub>2</sub>e) or equivalent unit.
- In the event that the price of carbon in the carbon market is lower than Rp. 30.00 (thirty rupiah) per kilogram of carbon dioxide equivalent (CO<sub>2</sub>e) or an equivalent unit, the carbon tax rate is set at a minimum of Rp. 30.00 (thirty rupiah) per kilogram of carbon dioxide equivalent (CO<sub>2</sub>e) or equivalent units.

- Provisions regarding: a. determination of carbon tax rates; b. changes in carbon tax rates; and/or c. the basis of tax imposition, shall be regulated by a Regulation of the Minister of Finance after consultation with the House of Representatives of the Republic of Indonesia.
- Provisions regarding the addition of tax objects subject to carbon tax as regulated by or based on a Government Regulation after being submitted by the Government to the House of Representatives of the Republic of Indonesia to be discussed and agreed upon in the preparation of the Draft State Revenue and Expenditure Budget. Revenue from carbon taxes can be allocated for climate change control.
- Taxpayers who participate in trading carbon emissions, offsetting carbon emissions, and/or other mechanisms in accordance with laws and regulations in the environmental sector may be given: a. carbon tax reductions; and/or b. other treatment for the fulfillment of carbon tax obligations.
- Provisions regarding: a. procedures for calculating, collecting, paying or depositing, reporting, and the mechanism for imposing carbon taxes; and b. the procedure for reducing carbon tax and/or other treatment for the fulfillment of carbon tax obligations is regulated by a Regulation of the Minister of Finance.
- Provisions regarding: a. carbon tax subject and/or b. the allocation of revenue from carbon taxes for climate change control is regulated by or based on a government regulation after being submitted by the Government to the House of Representatives of the Republic of Indonesia to be discussed and agreed upon in the preparation of the Draft State Revenue and Expenditure Budget.
- The implementation of the rights and fulfillment of tax obligations related to the carbon tax is carried out in accordance with the provisions of the legislation in the field of general provisions and taxation procedures.

### Carbon Tax and Environmental Function Conservation Funding

In recent years, the issue of global climate change due to greenhouse gas emissions has attracted attention and has become a global issue and one of the focuses of the most attention in environmental studies. As is developing in China, it is necessary to develop scientific strategies for energy-efficient and low-carbon development [27]. The World Research Institute (WRI) noted that almost half of the world's greenhouse gas emissions are produced by developed countries, namely China, the United States, the European Union, India, Russia, Japan, Brazil, Indonesia, Iran, and Canada [28]. Although Indonesia is still very little compared to developed countries. Currently, the negative externalization of carbon emissions is a global problem that requires the intervention of all parties, including the

government.

A carbon tax is a tax imposed on the use of carbon-based fuels, such as processed products that use fossil fuels such as oil, gas and coal [28]. The carbon tax is expected to increase the potential for state revenue from carbon taxes. In some countries, tax revenue can be in the form of value added tax, corporate income tax, personal income tax, export-import tax, and carbon tax. Carbon taxes can be a new source of revenue in some countries that implement them. The implementation of this carbon tax is intended as an instrument to encourage efforts to reduce carbon emission pollution. Thus, global warming can be reduced. In addition, the impact that can be generated is of course an increase in government revenue in terms of tax revenue and producers and consumers tend to be more energy efficient and invest in energy-efficient technologies [28].

Of course, it is not easy to implement a carbon tax in Indonesia, besides having a positive impact, it also has a negative impact if it is implemented in a hurry or without proper socialization and calculations. Another negative impact is the increase in product prices due to additional production costs. What often happens is that people's purchasing power declines due to high prices for goods and producers find it difficult to compete in the export market. The wider indirect and direct impact is on the level of community welfare. Additional costs encourage manufacturers to reduce business spending. One of the reductions is labor, thus causing unemployment. It all depends on which government to choose, because of the global interest to make the earth a livable place for the next generation [28].

Judging from the substance of the carbon tax which has become mandatory as regulated in Law no. 7/2021 concerning Harmonization of Tax Regulations of course it cannot be assessed whether this carbon tax can be implemented immediately because the carbon tax is a new thing and to implement it requires immediate implementing regulations. Preparing Government Regulations and Regulations of the Minister of Finance, of course, requires caution so that what is regulated later does not conflict with other laws and regulations. In terms of the carbon tax philosophy, of course, it is very supportive for the development of sustainable and environmentally friendly development because it is in line with the 1945 Constitution and Law no. 32/2009 on Environmental Protection and Management. However, the implementation must be more stringent because it will certainly have an impact on the consumer burden and purchasing power of the people. If the people do not have purchasing power and their level of welfare does not improve, the burden on the people will be even heavier.



## Conclusion

In accordance with the main problem in this research and based on the description of legal studies related to carbon taxes and the preservation of environmental functions, then the following conclusions can be drawn:

1. The Carbon Tax which has been regulated in Law Number 7 of 2021 concerning Harmonization of Tax Regulations is certainly not easy to implement because it still needs further elaboration and regulation, both through Government Regulations and Minister of Finance Regulations. The carbon tax can be implemented if the technical provisions have been prepared, so that later there will be no rejection from the community because the burden that will arise from the implementation of the carbon tax will be borne by the community as producers and consumers of products that will be subject to carbon taxes.
2. As a juridical and philosophical basis, carbon taxes are very good to support climate change mitigation as well as to maintain good environmental functions. But on the other hand, the government also needs to pay attention to the social side because the Indonesian people are still poor, per capita income is still small, and GDP is still not able to bear the burden of climate change mitigation. The ability of purchasing power, people's income, welfare and others will be correlated with the preservation of environmental functions. The more prosperous the people, of course, the awareness of the environment will also increase, but on the other hand, if the community does not have purchasing power and is not prosperous, it will correlate with non-compliance with the preservation of environmental functions.

## Suggestions and Recommendations

In accordance with the main problem in this research and based on the description of the legal study related to carbon taxes and the preservation of environmental functions, the policy suggestions that can be given are:

1. Although the carbon tax has been legally promulgated according to tax law, it still requires a more in-depth study before it is implemented because the current condition of society still does not have good economic resilience as a result of the Covid-19 pandemic. It is necessary to socialize and discuss the regulations under it to the public and it is possible to postpone their implementation.
2. In fact, without a carbon tax, funding in the context of preserving environmental functions has become a guideline in every drafting of laws and regulations in Indonesia, including in the preparation of the development budget. So that the carbon tax is only one way to finance climate change mitigation and can still be

budgeted through the pro-environmental State Revenue and Expenditure Budget (APBN) and Regional Revenue and Expenditure Budget (APBD).

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