

Juridical Concept Of Carbon Trade As International Collaborative In Effort To Save The World From The Threat Of Global Warming

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Abstract – Global warming and climate change are global environmental issues and one of the international issues that hold polemics in terms of the juridical aspect, namely the concept of carbon trading as a form of cooperation between developed and developing countries which is carried out with an ERPA (Emission Reduction Purchase Agreement) contract. This research examines: What are the rules of international law regarding global warming? What is the international law that regulates carbon trading? How are the legal aspects of carbon trading related to international cooperation to overcome the impact of global warming, according to the ERPA (Emission Reduction Purchase Agreement) agreement? This research is descriptive normative legal research because the objective of this research is to examine the legal rules related to global warming, and carbon trading using library research techniques. The data were analyzed qualitatively. Global warming and climate change are regulated in The United Nations Framework Convention on Climate Change (UNFCCC). UNFCCC becomes a reference for parties who ratify this convention in making further rules on ways to deal with global warming and climate change. The UNFCCC is also a reference for the formation of the Kyoto Protocol which gave birth to the concept of carbon trading through the Flexible Mechanism. One of the carbon trading concepts is CDM which allows cooperation between developed and developing countries. The CDM project is carried out by ERPA (Emission Reduction Purchase Agreement). There are several clauses in the ERPA contract for CDM project implementation. Projects through the CDM carbon trading scheme are implemented properly and more easily, making more and more countries take part in them to tackle the issue of global warming and climate change.

Keywords – Carbon Trading, Global Warming, UNFCCC, Kyoto Protocol, ERPA.

I. INTRODUCTION

Global warming has hit the world, and is characterized by increased levels of emissions (CO₂) in the air and rising sea levels, as a result of melting ice in the north pole, radical weather changes, natural disasters as a result of global warming, and climate change [1], [2]. Global warming is a problem that is getting warmer [3]. All countries in the world are increasingly struggling to deal with the problem of global warming, trying to overcome it and trying to prevent the development of global warming [4]. Thus the prevention efforts are not a few as well as efforts and actions that make the problem of global warming widening and getting worse so that the world situation is getting more deplorable and needs to be addressed further [5].

Many people realize that to stop global warming, we can't do it alone, but need cooperation involving the world's communities [6]. However, there are still many people who do not know what actions should be taken to stop global warming. If we don't act immediately, the impact will be very serious. Not all industrialized countries causing this problem are ready to deal with it because mitigation efforts to deal with the causes require high costs. At the same time, almost all countries that do not cause climate change problems, namely developing countries, feel the impact, but do not have adequate capacity to adapt to the negative impacts caused by climate change.

This earth-saving movement has existed since the World Environment Conference in Stockholm 1972, that solving environmental problems is the role of all countries in the world, both developed countries and developing countries. It takes cooperation between the two. Environmental problems will not be solved if only developed countries undertake mitigation while developing countries continue to destroy nature with deforestation, degradation, water, and air pollution [7]. Furthermore, in 1992 the Earth Summit was born which was held in Rio de Janeiro, Brazil in the context of solving world environmental problems. Furthermore, in 1997, the Kyoto Protocol was formed which is a continuation of one of the results of the Earth Summit, namely the Climate Change Convention, which also discussed global warming and climate change. In the Kyoto Protocol, the concept of the Clean Development Mechanism (CDM) emerged. One of the application forms of CDM is Carbon Trade [8][9]. The entire emission reduction mechanism seeks to keep as much carbon as possible or remain in natural sources. These emission reduction efforts then developed into a very profitable carbon business. The concept of Carbon Trading is an interesting study because it is considered a 'win-win solution' which is strengthened by the jargon 'when profit and ethical unite', 'solving the problem with the thinking created it'. The advantage that this concept brings is its success in combining two interests that have been considered contradictory, namely environmental interests and economic interests. Another study that needs to be observed is whether each country that trades carbon is ready with instruments, both technical and implementation, including the legal umbrella, which regulates the mechanism of carbon trading, both international and national. These regulations are made to be a reference in entering into carbon trading agreements, both between countries that have agreed to and or ratified the Kyoto Protocol [10].

Carbon buying and selling agreements between developed and developing countries can be made between the government and the government, the government and the private sector, or the private sector and the private sector [11]. The agreement can be done through two approaches. First, developed country parties (private or government) agree with developing country parties (private or government) to purchase a certain amount of carbon produced from projects implemented by developing country parties [12],[13]. So in this case, developed countries only provide market guarantees for carbon credits that will be generated by developing countries. Second, developed country parties agree to buy carbon credits from developing country parties, but developed country parties are actively involved in the preparation process such as the preparation of criteria for project selection, pricing, project size, and so on, up to the implementation stage and issuance of emission reduction credit certificates. [9], [14]. The implementation of carbon trading between countries as a form of cooperation between countries in the world in saving the earth from global warming requires an agreement (approval) that will bind the parties in the carbon trading process. ERPA (Emission Reduction Purchase Agreement) is a carbon trading agreement in the context of implementing the CDM (Clean Development Mechanism) program which aims to reduce carbon emissions as a way to deal with global warming problems[9], [15], [15]–[17]. The ERPA clarifies how the carbon trading is carried out, which explains how the carbon trading is carried out, the agreed amount and price, to the obligations of the parties conducting the carbon trading [13], [17]–[20]. As an example, in this emission reduction program, in 2006 an Indian private company Amrit Bio-Energy & Industries Ltd, and the Irish State Company Eco securities Group Plc. entered into a partnership to reduce emissions by trading emissions (carbon) using ERPA.

II. RESEARCH METHODOLOGY

This research is descriptive normative legal research, namely by using an approach method or a way to approach the object of research understudy so that it relates to how to treat the subject matter to find problems in the form of answers to the problems and research objectives [21]. The approach method used in writing this law is a normative juridical approach, namely an approach that seeks to synchronize the applicable legal provisions in legal protection against other legal norms or regulations with their relation to the application of these legal regulations in practice in the field.

The specification of the research used is descriptive-analytical, namely by describing the applicable laws and regulations associated with legal theories and the practice of implementing positive law related to problems [21]. This analytical descriptive research is following the research conducted by the author because in this study the author tries to describe the existing facts or existing facts and describe a problem that exists in the implementation of laws and government regulations and applicable international provisions [22],[23].

2.1. Data Types and Sources

The type of data used by the author is secondary data. Secondary data is data obtained from various existing sources. Secondary data were obtained through a literature study. Literature study is the collection of data sourced from books, literature, and opinions of legal experts related to this research, or other sources in the field to support the success and effectiveness of research,

namely by separating the outline between primary and secondary data. Secondary data is obtained by studying and analyzing legal materials. The secondary data in this study includes and is grouped into 3 (three) materials, namely: (1) Primary Legal Materials, in the form of laws and regulations that are closely related to the problems studied to obtain a theoretical basis for compiling legal writing. (2) Secondary Legal Materials, in the form of legal materials which are the work of scholars related to primary legal materials and can provide explanations on primary legal materials, such as research results or scientific works, writings, or legal opinions from scholars; books compiled by legal experts. (3) Tertiary Legal Materials in the form of supporting or reference materials to clarify primary and secondary materials, such as Legal Dictionary, Big Indonesian Dictionary, EYD Guidelines, and Encyclopedias.

2.2. Method of collecting data

The data collection method used in this research is the first literature study, which is a technique for obtaining secondary data through related documents. With the problems, objectives, and benefits of the research. To complete the secondary data, interviews were conducted [24], [25]. Interview or interview, namely conducting interviews with informants who aim to dig deeper information about various aspects related to the problem [26], [27].

2.3. Data analysis method

This study uses qualitative data analysis techniques, qualitative data analysis, namely data obtained through interviews and field observations supported by related regulations and library research, then compiled systematically and then analyzed qualitatively to achieve clarity on the problems to be discussed. The data is then analyzed interpretively using positive theory and law that has been poured in and then inductively drawn conclusions to answer the problem of the Juridical Concept of Carbon Trading as an International Collaborative in Efforts to Save the World from Global Warming.

III. RESULTS AND DISCUSSION

3.1. Provisions on Global Warming in International Law

Global warming that causes climate change is a problem that crosses national borders regarding a phenomenon in the international scope, including mixing aspects of the natural sciences of life which are of course wrapped in the nuances of international scope, so that it can be seen and drawn the linkages and complexities between global environmental problems and relations between countries. The importance and the high level of urgency of the global warming issue have prompted many parties to raise it and make it a hot issue commodity in every international forum meeting that produces several international agreements such as declarations, conventions, protocols, and agreements.

The issue of global warming was first raised as one of the agenda in a meeting of countries in the realm of international relations in 1972; this was marked by the convening of the United Nations (UN) Conference on the environment in Stockholm, Sweden. The Stockholm Conference [28] resulted in a declaration called the Stockholm Declaration. In the Stockholm Declaration, it has been realized that human activities can cause environmental pollution which ultimately has an impact on global warming [5], [8], [29].

In 1992 the Earth Summit on Environment and Development, better known as the United Nations Conference on Environment and Development (UNCED) was held in Rio de Janeiro, Brazil in the context of solving environmental problems in the world. The Earth Summit signed a climate change framework, hereinafter referred to as the United Nations Framework Convention on Climate Change (UNFCCC). The main objective of this convention is to stabilize greenhouse gas concentrations at a level to prevent the occurrence of dangerous changes in the climate system due to human activities [2], [30].

The parties that ratify the UNFCCC are then included in the Conference of Parties (CoP). CoP holds regular meetings to discuss global environmental issues including global warming and climate change. At the first session of the Conference of Parties CoP1 held in Berlin, Germany in 1995. At the CoP 3 meeting held in Kyoto in 1997. The conference resulted in a protocol called the Kyoto Protocol (Kyoto Protocol).). The Kyoto Protocol further regulates certain clauses of the Climate Change Convention (UNFCCC), namely stabilizing greenhouse gases as mentioned in article 2 of the UNFCCC and directed through article 3 of the UNFCCC which will be discussed further in the next chapter.

Countries that agree to take part in efforts to stabilize greenhouse gases that cause climate change must take actions to protect the climate for the benefit of present and future generations. It is this protocol that forms the basis for industrialized countries to

reduce their combined greenhouse gas emissions by at least 5% from 1990 levels by the period 2008-2012. 8 CoP 4 of 1998 held in Buenos Aires, Argentina, adopted the Buenos Aires Plan of Action (BAPA) designed for the program to operate in detail the Kyoto Protocol. At CoP 5 in 1999 in Bonn, Germany, targeting measurable achievements so that the Kyoto Protocol becomes legally binding, this meeting resulted in Plan Agreements.

In 2000 CoP 6 was held in The Hague, Netherlands, this meeting failed to agree on a decision under the BAPA. Then CoP 6 part II was held in Bonn in 2001. At CoP 7 in Marrakesh in 2001, finalized and adopted the results of the CoP 6b (CoP 6 part II) decision which the result was called the Marrakesh Accord. At the end of 2007, Bali, Indonesia hosted a meeting of countries to discuss global environmental issues regarding climate change as a continuation of the Earth Summit. The Bali Roadmap itself consists of five things, namely post-2012 commitments, adaptation funds, technology transfer, Reducing Emissions from Deforestation in Developing Countries, and CDM (Clean Development Mechanism). [29], [31] The next meeting, held the 2009 Climate Change Conference (United Nations Climate Change Conference 2009) or commonly called CoP 15 which is an international summit on climate change in Copenhagen (Denmark). The meeting was held again in December 2010 in Cancun, Mexico. This CoP 16 resulted in the Cancun Agreements with a key agreement to prevent an increase in the earth's surface temperature of no more than 2° Celsius. CoP 17 held another meeting in 2011 in Durban, South Africa.

This encounter resulted in the Durban Platform. In 2012, CoP 18 met at the Qatar National Convention Center, Doha. The conference agreed to extend the validity period of the Kyoto Protocol which was due to expire at the end of 2012 until 2020, and it was also agreed that a successor to the Kyoto Protocol would be formulated in 2015, and implemented in 2020. The conference also introduced the concept of "loss and damage". For the first time, namely the principle of agreement which states that rich countries can be financially responsible to other countries for their failure to reduce carbon emissions. The latest development held at a conference in November 2013 in Warsaw, Poland, that the issue of global warming and climate change was highlighted by international law. This makes thinkers and researchers think hard to find out the pattern of climate change that occurs and the solutions that can be offered both at the micro and macro levels.

3.2. The Concept of Carbon Trading in International Legal Settings

A carbon credit is a general term for a tradable certificate or permit/right to emit one ton of carbon dioxide or other mass of greenhouse gas equivalent to one tons of carbon dioxide[13], [14], [17]. A carbon credit is a commodity that can be traded. In general, a commodity is a traded product. This commodity has a characteristic, namely that the prevailing price is the result of the demand and supply that occurs for a commodity and is not determined by the distributor or seller of the commodity and the price is also based on the calculation of the price of each commodity actor.

Reducing greenhouse gases that cause global warming has been initiated since the Earth Summit meeting in Rio De Janeiro, Brazil, in 1992. This can be seen in the objectives of the convention contained in Article 2 of the United Nations Framework Convention on Climate Change (UNFCCC). To achieve this goal, one of the basic principles of the convention which also underlies carbon trading, namely Common But Differentiated Responsibility/CBDR12 in Article 3.1 of the UNFCCC, is applied. Based on this principle, it appears that there are different obligations between industrialized countries/developed countries and developing countries.¹³ Developed countries are obliged to take relevant policy steps and interventions to achieve the targets set [18], [30]. In 1997 in Kyoto, Japan then negotiated negotiations to achieve the UNFCCC's goal of reaching an agreement with the establishment of the Kyoto Protocol. In the Kyoto Protocol, there are emission reduction targets known as Quantified Emission Limitations and Reduction Objectives (QELROs) which are described in Articles 3 and 4 of the Kyoto Protocol. In the Kyoto Protocol, there are 3 mechanisms called flexible mechanisms that allow countries in the world to work together in carbon trading, both between developed and developed countries and developing countries. These Flexible Mechanisms are:

3.2.1. Emission Trading.

If a developed country emits greenhouse gases below the permitted designation, then that country can sell the volume of greenhouse gases it does not emit to other developed countries that cannot meet their obligations. This scheme is hereinafter known as emission trading.¹⁵ Provisions concerning Emission Trading are regulated in Article 17 of the Kyoto Protocol.

3.2.2. Joint Implementation

Joint Implementation is regulated in Article 6 of the Kyoto Protocol. JI is one of the flexible mechanisms of the Kyoto Protocol which provides an opportunity for Annex I countries of the Kyoto Protocol to reduce or limit emissions to obtain ERU (Emission

Reduction Unit) 16 from emission reduction or emission absorption projects from developed countries to other developed countries.

3.3. Clean Development Mechanism

In the Kyoto Protocol, the Clean Development Mechanism is a mechanism to reduce greenhouse gas emissions in which developing countries can participate in cooperation with developed countries. This mechanism is contained in Article 12 of the Kyoto Protocol. The basic principles that CDM projects must meet are:

3.3.1. The Principle of Additionally

The principle of additionally or the principle of added value, namely that this CDM project must provide significant added value both to the environment and to the economy. This principle is a very important condition for a project to be declared a CDM. In this condition, the project developer must be compared without the project (BAU). The resulting difference between the BAU scenario and the emission reductions resulting from the CDM project will then issue CER.¹⁷

3.3.2. Eligibility Principle

This principle is important to avoid investing in projects that do not support the creation of sustainable development. What is meant is such as projects to utilize nuclear power, hydroelectric power plants on a macro scale (still widely opposed by many as CDM projects).¹⁸ Articles 10 and 11 of the Kyoto Protocol discuss the forms of participation of developing countries and their financial implications of it. Participation referred to here is a general obligation in terms of reporting and delivering information related to emissions and national policies. Meanwhile, the financial implications in the application of Article 10 as stated in Article 11 are based on several articles in the convention related to the leadership of developed countries to address climate change as well as providing adaptation funds for very vulnerable countries, as well as providing convenience in the transfer of technology and knowledge^{[32], [33]}.

To achieve CDM objectives, CDM projects must provide benefits to local communities in terms of the social and economic environment. As a guarantee of the positive impact of the CDM project on the local community, participation from the community around the CDM project is required. Community participation, which is a public process that is one of the requirements for CDM, must be carried out from the early stages of planning CDM activities to the monitoring process. Project owners are required to undergo a transparent and objective public process to obtain a public opinion regarding the project activities. ^[34] However, the application of international law has weaknesses, this is because some are only binding on those who sign the international treaty and some treaties are non-binding or known as soft law, for example, resolutions, declarations, action plans, and others. Even though they are binding, such as conventions, the rules of which are later revealed in more detail into protocols, are not immediately binding except in certain political circumstances, because there are no sanctions for disobedience. Another weakness in the application of international law, especially in the context of carbon trading, is that the international legal system does not include the obligation of individuals (not states) to trade carbon. So, there is no obligation for private entities that carry out carbon trading ^{[9], [35]}.

3.4. Aspects of International Law in ERPA (Emission Reduction Purchase Agreement)

From a business perspective, the ratification of the Kyoto Protocol will attract new investment funds through the CDM, where investment activities will provide additional funds as compensation for reducing greenhouse gas emissions because the project is implemented in sectors that can reduce emissions or increase carbon sequestration. From an environmental point of view, it is clear that such projects will directly contribute to the reduction of greenhouse gas concentrations in the atmosphere.²² The Emission Reduction Purchase Agreement (ERPA) is a carbon credit transfer transaction agreement between two parties under the Kyoto Protocol. Buyers pay sellers for carbon credits. ^{[36]–[38]} The CDM project cycle using ERPA Contracts can be illustrated in the following figure 1.

The parties to this agreement are the seller (seller) and the buyer (buyer). This agreement usually involves two countries. But it is possible to happen between a country and a large company. Buyers expect their carbon emissions to be above the levels earmarked for them by the Kyoto Protocol, while sellers expect to produce less. Often, the seller has implemented new technology or is developing a new project that is expected to reduce greenhouse gas emissions ^{[39], [40]}. Many countries in the world have developed CDM projects using ERPA, some examples are Indian companies with China, India with Ireland, and Indonesia with

Japan. In this case, an ERPA was investigated between Amrit Bio-Energy and Industries Ltd, a private company in India, and Eco securities Group Plc, a state-owned company in Ireland.

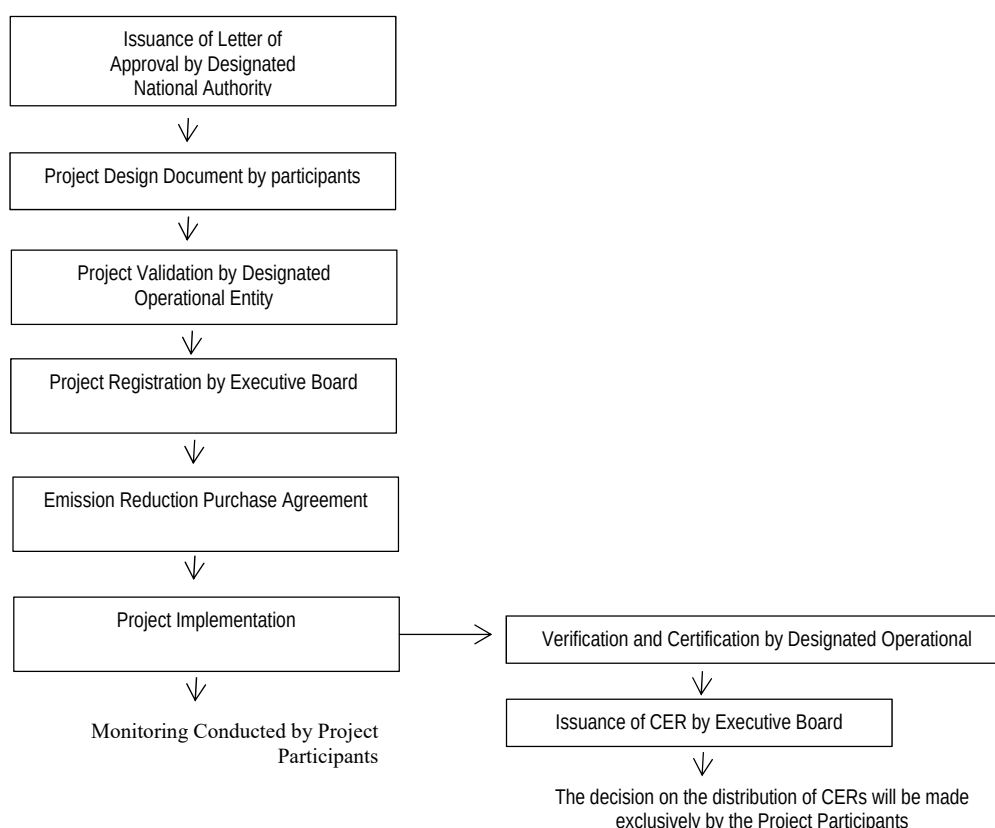


Figure 1 CDM (Clean Development Mechanism) project cycle chart

The emission reduction purchase agreement (ERPA) is an important document for carbon offset project developers. In essence, the ERPA is an agreement between the buyer and seller of carbon credits. The purpose of ERPA is to record agreements between parties, identify responsibilities, assign rights, and manage project risks. 26 The objects of this ERPA are CER (Certified Emission Reduction) in the mandatory market and VER (Verified Emission Reduction) in the voluntary market. 27 ERPA defines the commercial terms of the project such as project initial conditions, obligations of the seller and buyer, price, payment and delivery schedule for emission reductions, buyer involvement in the development of the CDM project, force majeure, the possibility of project failure and its improvement, project termination, and applicable law in the event of a dispute. ERPA is a very important document for CDM project developers. This document will ensure all efforts in the CDM project scheme until the CER is produced. From the point of view of the content of the agreement, it can be divided into two types, namely: (1) ERPA contains an agreement to buy and sell carbon credits from projects that produce carbon credits carried out by sellers of carbon credits. (2) ERPA contains an agreement to buy and sell carbon credits generated from the project and the carbon buyer is involved in the project such as in the agreement process such as the preparation of criteria for project selection, pricing, project size, and so on, or other words the buyer of carbon credits also involved in the process of creating carbon credits generated from projects implemented by the seller of carbon credits. Several special provisions in the ERPA that are characteristic of the legal form (legal character) and the process of forming carbon credits from a scheme/mechanism (in this case the CDM) include:

1. Involvement of non-state parties in ERPA. In the ERPA, the object of the agreement is the CER (carbon credit) resulting from a CDM scheme which is an arrangement in international law through the Kyoto Protocol which creates obligations for member countries. This means that the Kyoto Protocol is not binding on private parties, although in its provisions there is an acknowledgment of the involvement of non-state parties in the schemes/mechanisms regulated in the Kyoto Protocol, a certain legal procedure is still needed for the transfer of these rights. In line with this thought, when viewed in the CDM/carbon credit scheme, there is a stage of requirements to transfer the state's rights to the private sector/private/non-

state, among others through a letter of approval from the state or a permit/approval from DNA as well. can be equated as proof of the transfer of such rights.

2. Ownership of CERs about the mechanism for delivering CERs that are traded. With the signing of the ERPA, the seller agrees to hand over the agreed CER to the buyer and the CER is free from any claims or claims from third parties concerned. CERs that have economic value are CERs that have been verified by the competent authorities based on the rules of the CDM mechanism itself. Due to its different nature from the object of the agreement in general, the mechanism for submitting this CER is also different. Every year, the seller will gradually submit some CERs agreed in the ERPA after the last verification according to the time/before the time specified in the ERPA. The buyer will notify the seller of the registered account where the delivery will occur within the agreed time after the seller has given the notification of the issuance of the CER. The actual delivery occurs when the agreed CER is entered into the buyer's register account. If the buyer fails to determine a registered account or the specified register account has not been established or has not been able to receive a CER, then the seller is deemed to have submitted the CER after the CER has been issued. If this happens, the seller is deemed to have submitted the agreed CER to the buyer's register account if the account is valid. This assistance must be requested only by the buyer and any external costs from the seller will be borne by the buyer.
3. Ownership of CERs and transfer of rights to CERs traded All ownership rights to CERs agreed in the ERPA will be transferred after delivery and receipt of payment by the seller. The transfer of ownership after the receipt of payment is given by the seller to the buyer is included in the ERPA to provide clarity that the ownership of the CER has not been transferred if the CER has been entered into the buyer's register account. This explanation is very different to provide certainty for the seller to get payment from the buyer.

The legal relationship between the owner/seller of carbon credits and the buyer of carbon credits arises based on an agreement made between them which is known as the sale and purchase contract of carbon credits Emission Reduction Purchase Agreement (ERPA). ERPA when viewed from the terms contained in it, precisely there is the word "agreement" indicating that the agreement is included in the realm of public international law. Meanwhile, if we look further within the boundaries of the ERPA, that ERPA is in the form of a contract as seen in the ERPA contains elements and clauses that indicate that the ERPA is a contract. That is, if you look at the title used with the word agreement, it is contrary to the operational limitations in it which confirms that ERPA is a contract. In terms of substance, the appropriate term for ERPA is a contract.

IV. CONCLUSION

1. The rules of international law on global warming are The United Nations Framework Convention on Climate Change (UNFCCC). The UNFCCC becomes the reference for the parties that ratify this convention in making further rules regarding ways to deal with global warming and climate change problems. The rules that were born after the UNFCCC by the parties who ratified the convention include the Berlin Mandate, the Kyoto Protocol, the Buenos Aires Plan of Action (BAPA), the Marrakesh Accord, the Bali Roadmap, the Copenhagen Accord, the Cancun Agreement, the Durban Platform, and the Doha Climate Gateways.
2. International law governing carbon trading is the UNFCCC. The purpose of the convention to stabilize greenhouse gas concentrations is stated in article 2 of the UNFCCC which is the reference for the formation of the Kyoto Protocol which gave birth to the concept of carbon trading through a Flexible Mechanism (Emission Trading (Article 17 of the Kyoto Protocol), Joint Implementation (Article 6 of the Kyoto Protocol), and the Clean Development Mechanism. (Article 12 of the Kyoto Protocol)). One of the most widely developed carbon trading concepts is CDM, which allows cooperation between developed and developing countries to reduce greenhouse gas emissions. CDM is based on the principle of Common But Differentiated Responsibility (CBDR) which is regulated in Article 3.1 of the UNFCCC.
3. Legal aspects of international cooperation related to carbon trading to mitigate the impact of global warming according to the ERPA (Emission Reduction Purchase Agreement) are arrangements regarding the commercial terms of the project such as project initial conditions, obligations of the seller and buyer, price, payment, and delivery schedule for emission reductions, involvement the buyer in the development of the CDM project, force majeure, the possibility of project failure and its improvement, termination of the project, as well as the applicable law in the event of a dispute. The term ERPA which contains the word "agreement" indicates that the agreement is included in the realm of public international law. Meanwhile, in

operational/substance terms, it emphasizes that ERPA is a contract because ERPA contains clauses indicating that ERPA is a contract. So, the right term for ERPA is a contract.

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