CLIMATE CHANGE AND INTERNATIONAL LAW: REVIEWING COMMITMENT FROM ASEAN AND EU

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Article Abstract

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Climate change is a major issue occurring in our time. Global in scope and unprecedented in size, the repercussions of climate change include everything from changing weather patterns that endanger agricultural production to increasing sea levels that raise the possibility of catastrophic flooding. Considering the broad impact of climate change, all parties must take any measure necessary to address this issue, including primary regional organizations, namely the Association of Southeast Asia Nations (ASEAN) and the European Union (EU). This study examines the approach of ASEAN and the European Union regarding climate change that dramatically impacts the country's stability. Research shows that ASEAN-EU cooperation on climate change consists of 3 (three) main collaborations, namely Green Growth and the Environment, ASEAN-EU Statement on the Paris Agreement Reaffirming Commitment to Cooperation to Address the Shared Challenges of Climate Change, and The Second EU-ASEAN High-Level Dialogue on Environment and Climate Change. These forms of cooperation emphasize the commitment of the European Union as an advanced regional organization to support ASEAN in dealing with the impacts of climate change and implementing policies to reduce the use of carbon gas. In addition, the comparison of ASEAN and European Union policies on climate change ASEAN and the European Union is based on indicators according to Article 4 of the UNFCCC, which consists of progress, reduction of carbon gas emissions and greenhouse effects, adaptation and mitigation, and implementation of national policies. In addition, it can be seen that ASEAN policies are more in the form of a framework in conferences that reduce various regulatory instruments with each focus. At the same time, the European Union uses an approach in the form of an action plan that will be integrated into one law on climate change, namely the European Climate Law.

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A. INTRODUCTION

ASEAN and the European Union are two primary regional organizations with similarities and differences. These similarities include that both are regional organizations with legal entities. Another commonality between these two organizations is that they were established to advance peace. The European Union was established after the devastating Second World War to prevent another European conflict and enact peace by economic union. At the same time, the goal of ASEAN is to maintain peace throughout Southeast Asia so that its member nations can concentrate on developing their economies. Of course, there are differences between the two countries in addition to their commonalities. A very significant difference is that the European Union consists of countries with relatively stable economies, while ASEAN consists of relatively developing countries. ASEAN and the European Union always experience comparisons. As a young regional organization with multicultural and multi-condition member countries, ASEAN was expected to apply the European Union system as an inspiration in various aspects such as dispute resolution, human rights, economy, and climate change, whose policies tend to direct developed countries to guide developing countries.

The impact of climate change on the worldwide population is a global concern frequently raised in national and international forums. The effects of climate change are evident in natural disasters, harsh weather fluctuations, and increasing sea levels.³ Climate change is defined by the United Nations Framework Convention on Climate Change as a change that, intentionally or inadvertently, impacts human activities by disrupting the earth's atmosphere. The existence of climate change has always been debated. The impact of climate change is severe and has the potential for irreversible damage. Climate change includes rising sea levels, melting icebergs, global warming, and natural disasters. One example of this natural disaster is the forest fires in Australia in early 2020 which burned 12.6 million hectares and left 33 people dead. More than 1 billion animals died, and some of these species and ecosystems could not be recovered.⁴ Based on this case, climate change can cause enormous losses to a country, especially developing countries. Developing countries have higher limitations in meeting their needs to deal with climate change. ASEAN member countries consist of maritime and agricultural countries highly dependent on their natural resources for their development and society's welfare.⁵

A good form of mitigation and adaptation strategy is urgently needed to deal with the impacts of climate change. Mitigation and adaptation require good natural qualities to be implemented optimally. Therefore, a comparison between ASEAN and the European Union regarding climate change policies is urgently needed. The research identified 2 (two) problems, which are (1) how is ASEAN's cooperation with the European Union regarding climate change and (2) how is the comparison of ASEAN and EU policies regarding climate change. This study aims to highlight the commitment of ASEAN and the EU to recognizing the issue of climate change through legislation.

¹ Ali Martin and Sugiarto Pramono, "Faktor-Faktor Pendorong Integrasi Regional: Studi Perbandingan Uni Eropa Dan ASEAN," *Spektrum* 8, no. 1 (2011): 27.

 $^{^2\} Fabio\ Indeo, "ASEAN-EU\ Energy\ Cooperation:\ Sharing\ Best\ Practices\ to\ Implement\ Renewable\ Energy\ Sources\ in\ Regional\ Energy\ Grids,"\ Global\ Energy\ Interconnection\ 2,\ no.\ 5\ (2019):\ 393,\ https://doi.org/10.1016/j.gloei.2019.11.014.$

³ Cinta Lomba-fern, Josune Hernantes, and Leire Labaka, "Guide for Climate-Resilient Cities: An Urban Critical Infrastructures Approach," *Sustainability*, 2019, 10.

⁴ Bin Jalaludin et al., "Reflections on the Catastrophic 2019–2020 Australian Bushfires," *The Innovation* 1, no. 1 (2020): 100010, https://doi.org/10.1016/j.xinn.2020.04.010.

⁵ Indra Overland et al., "The ASEAN Climate and Energy Paradox," *Energy and Climate Change* 2, no. October 2020 (2021): 100019, https://doi.org/10.1016/j.egycc.2020.100019.

B. RESEARCH METHODS

This form of study is normative law and descriptively analyzes individuals, events, and other phenomena anticipated to support already-established ideas or advance newly-developed theories. Moreover, this research also uses a comparative method analysis to draw a systematic study on the raised issue. The problem approach in research consists of determining an appropriate approach to the problem formulation and research objectives. The source of data used in research is secondary data such as books, journals, and web articles relating to research.

C. ANALYSIS AND DISCUSSION

The discussion will describe climate change regulation according to international law in general. Furthermore, the research will explain how these international legal arrangements will influence ASEAN and the European Union's commitment to climate change.

1. Climate Change Regulations Under International Law

a. The United Nations Framework Convention on Climate Change (UNFCCC)

The convention considers how vulnerable each nation is to the effects of climate change, particularly emerging nations. The convention and the parties involved in the convention have decided to utilize an adaptation approach after several years of emphasizing mitigation. The Secretariat of the United Nations Framework Convention on Climate Change has provided guidelines for adaptation to climate change. Water resources, food production, health, terrestrial ecosystems, coastal zones, and marine ecosystems are some of this adaptation's features that are classified as either anticipatory or reactive.⁷

b. Paris Agreement to the United Nations Framework Convention on Climate Change The United Nations Framework Convention on Climate Change's member nations ratified the Paris Agreement (also known as the Paris Agreement) on December 12, 2015, making it a binding agreement. The agreement is the outcome of a global agreement with standards for overcoming climate change-related challenges.⁸ The agreement seeks to reduce global warming to less than 1.5°C through the efforts of the parties to implement climate change adaptation and mitigation measures, such as structured financial flows, innovation and technology frameworks, capacity development, and aid for developing and most vulnerable countries in line with their national needs. The twelve critical components of the Paris Agreement regulate climate change, regulates long-term surface temp goal (Article 2); global surging and climate neutrality (Article 4); mitigation (Article 4); sinks and reservoirs (Article 5); voluntary cooperation (Article 6); adaptation (Article 7); loss and damage (Article 8); support for finance, technology, and capacity-building (Article 9, 10, 11); education and training about climate change (Article 12); transparency (Article 13); and global stocktake (Article 14), decision 1/CP.21.⁹

⁶ Ani Purwati, Metode Penelitian Hukum (Surabaya: Jakad Media Publishing, 2020), 20.

⁷ Mark Roelfsema et al., "Integrated Assessment of International Climate Mitigation Commitments Outside the UNFCCC," *Global Environmental Change* 48, no. November 2017 (2018): 69, https://doi.org/10.1016/j.gloenvcha.2017.11.001.

⁸ Charlotte Streck, Paul Keenlyside, and Moritz Von Unger, "The Paris Agreement: A New Beginning," *Journal for European Environmental and Planning Law* 13, no. 1 (2016): 38, https://doi.org/10.1163/18760104-01301002.

⁹ Mai Miyamoto and Kenji Takeuchi, "Climate Agreement and Technology Diffusion: Impact of the Kyoto Protocol on International Patent Applications for Renewable Energy Technologies," *Energy Policy* 129, no. May 2018 (2019): 1335, https://doi.org/10.1016/j.enpol.2019.02.053.

c. Kyoto Protocol to the United Nations Framework Convention on Climate Change

The Kyoto Protocol to the United Nations Framework Convention on Climate Change (Kyoto Protocol), which focuses on regulating the limitation and reduction of greenhouse gas emissions, was developed as a derivative rule from the United Nations Framework Convention on Climate Change. Emission Trading, Clean Development Mechanisms, and Joint Implementation are the Kyoto Protocol's measures for lowering greenhouse gas emissions. Like the convention, the Kyoto Protocol aids developing nations that sign the agreement by providing funds for initiatives that support these adjustments through the Adaptation Fund program.10

d. Intergovernmental Panel on Climate Change

The Intergovernmental Panel on Climate Change (IPCC) is an agency of the United Nations (UN) whose task is to assess climate change scientifically. Even though the IPCC is not an international legal instrument, it has a vital role for state leaders because the IPCC provides a variety of data, information, scientific research on climate change, potential risks that may occur, and their implications. This information is very useful for countries in formulating regulations or policies related to climate change. In addition, through the IPCC, countries have a wide range of options for implementing mitigation or adaptation within their respective countries.¹¹

2. ASEAN and European Union Collaboration in Addressing Climate Change

The European Union and ASEAN declared their aim to transform their relationship into a "strategic partnership" on December 1, 2020, following decades of collaboration and communication. Although the partnership's specifics are still unknown, it is evident that climate policy has been identified as a significant area of collaboration between the two blocs.12 Therefore, the following discussion will describe some of ASEAN's cooperation with the European Union on Climate Change:

a. Green Growth and the Environment

The European Union Green Growth and Environment (Green Deal), at the core of EU policymaking and the region's growth plan, blatantly demonstrates the EU's commitment to combating climate change. The Green Deal is an action plan to boost resource efficiency by transitioning to a clean circular economy while restoring biodiversity and lowering pollution. It summarizes the European Union's commitment to becoming carbon neutral by 2050. All EU international cooperation programs highly recommend a just and socially equitable transition. The European Union assists ASEAN and its Member States with measures to improve the region's capacity to adapt to and withstand the effects of climate change, protect their biodiversity, and improve disaster response and mitigation as a strategic measure.¹³

b. ASEAN-EU Statement on the Paris Agreement Reaffirming Commitment to Cooperation to Address the Shared Challenges of Climate Change

In 2017, the Post Ministerial Conferences (PMC+1) held in Manila saw the adoption of an action plan (2018-2022) between ASEAN and the European Union (EU). The ASEAN-EU Declaration on the Paris Agreement Reaffirming Commitment to Collaboration to Address the

¹⁰ S. Niggol Seo, "Beyond the Paris Agreement: Climate Change Policy Negotiations and Future Directions," Regional Science Policy and Practice 9, no. 2 (2017): 124, https://doi.org/10.1111/rsp3.12090.

¹¹ Matthijs Kouw and Arthur Petersen, "Diplomacy in Action: Latourian Politics and the Intergovernmental Panel on Climate Change," *Science and Technology Studies* 31, no. 1 (2018): 54, https://doi.org/10.23987/sts.60526. ¹² Overland et al., "The ASEAN Climate and Energy Paradox."

¹³ Thomas Christiansen and See Seng Tan, The European Union 's Security Relations with Asian Partners (Cham, Switzerland: Springer Nature Switzerland AG, 2021).

Common Challenges of Climate Change was also adopted by the two nations at the summit, establishing ASEAN-EU dialogue connections. The joint statement hails the Paris Agreement as a landmark agreement that strikes a balance, allows each party to chart its strategic course, and fosters international cooperation while considering national interests to promote climateresilient development and lower greenhouse gas emissions globally. Hence, to achieve this goal, the Parties will work together to enhance the international response to the threat of climate change within the context of sustainable development and poverty alleviation initiatives and to catch up efforts to restrict temperature rise below 1.5 °C.14 The joint declaration increases support for ASEAN's implementation of adaptation and mitigation measures and its aspiration to boost the effectiveness and transparency of its support during the period between 2020 and beyond. To keep the rise in the average global temperature well below two °C above preindustrial levels and to pursue efforts to limit this increase, the Parties will collaborate to strengthen the international response to the threat of climate change. This will be done within sustainable development and poverty alleviation efforts – minimum temperature of 1.5 °C. The joint declaration increases backing for ASEAN's implementation of adaptation and mitigation measures and its desire to increase means of implementation and encourage transparency during the 2020s and beyond.¹⁵

c. The Second EU-ASEAN High-Level Dialogue on Environment and Climate Change Senior officials from ASEAN and the EU gathered today for the second EU-ASEAN High Level Dialogue on Environment and Climate Change. As agreed upon in the Joint Declaration of the 22nd ASEAN-EU Ministerial Conference, the EU and ASEAN discussed during the dialogue their collaboration on shared regional and international concerns relating to environmental protection and the fight against climate change. After the initial gathering in July 2019, the second Dialogue offered a chance to discuss environmental and climatic goals further and advance local strategies for a green transition. ¹⁶

3. ASEAN and European Union Commitments in Addressing Climate Change

There are undoubtedly significant difficulties in ASEAN and EU climate change collaboration. Southeast Asia presents particular difficulties and limitations for EU leaders. The region's overall energy demand is expected to increase by 60% by 2040, according to the International Energy Agency's 2019 Forecast, fueled by quickening industrialization, urbanization, and economic expansion rates. Due to the increased reliance on fossil fuels, CO2 emissions during the same period may rise by almost 2.4 gigatons. The European Union must confront adjusting its climate policy to an area coping with tremendous growth at the expense of the mass use of wasted energy. The European Union is a bloc of advanced industrialized nations. Also, the study will outline the relative climate change policies of ASEAN and the European Union.

a. ASEAN Policy on Climate Change

Although ASEAN countries are not a significant source of greenhouse gas emissions, ASEAN Member States have taken steps to combat climate change through diverse

¹⁴ Andreas Pramudianto, "ASEAN Commitment to Sustainable Development in the Regional International Environmental Law Perspective," *International Relations and Diplomacy* 6, no. 3 (2018): 177, https://doi.org/10.17265/2328-2134/2018.03.003.

¹⁶ Indeo, "ASEAN-EU Energy Cooperation: Sharing Best Practices to Implement Renewable Energy Sources in Regional Energy Grids."

¹⁷ Iris Chen Xuechen, "The Role of ASEAN's Identities in Reshaping the ASEAN-EU Relationship," *Contemporary Southeast Asia* 40, no. 2 (2018): 226, https://doi.org/10.1355/cs40-2c.

environmental, economic, and social actions throughout the past year. ¹⁸ Several ASEAN members have set voluntary mitigation goals, including Indonesia (26% below business-asusual (BAU) emissions by 2020, with the potential to reach 41% with increased international support), Malaysia (40% below 2005 levels for GDP energy intensity), the Philippines (20% below BAU emissions), and Singapore (16% below BAU emissions). Asean's climate change policy is as follows: ¹⁹

1) ASEAN Declaration on Environmental Sustainability (13th ASEAN Summit in 2007)

The ASEAN Declaration outlines several climate change-related goals, including collaborating with the international community to understand better and prepare for the adverse effects of climate change, particularly those involving greenhouse gas emissions and carbon sinks. The Declaration stressed that obstacles to trade and investment should be avoided while addressing climate change and energy security issues. Recognizing that fossil fuels will continue to play a significant role in our energy mix, the strategy also entails collaborating in cooperative research, development, and deployment of low-emission technologies for the cleaner use of fossil fuels. The Declaration also commits to promoting the use of renewable and alternative energy sources, including geothermal, biomass, biofuels, solar, wind, and tidal energy, as well as, for interested parties, civilian nuclear power while ensuring environmental sustainability and protection by current international standards. Environmental protection throughout the entire production cycle.²⁰ Also, the commitment to boosting energy efficiency in important energy-using sectors through knowledge sharing, capacity building, and deploying relevant technologies and practices. Last but not least, the proclamation implements concrete initiatives toward global and regional markets that are open and competitive to provide affordable energy at all economic levels to support the adoption of energy-efficient and lowemission technology.

2) ASEAN Declaration on COP-13 to the UNFCCC and CMP-3 to the Kyoto Protocol (13th ASEAN Summit in 2007)

The Declaration implements pertinent agreements to address climate change in conformity with the UNFCCC and the Kyoto Protocol to stabilize greenhouse gas concentrations. It also confirms the commitment to achieving sustainable development goals. Given their historical responsibilities, economic might, and capacities, the UNFCCC's Annex-I Parties are required by the declaration to continue taking the lead in cutting their emissions significantly. This is because climate change calls for a global response. Based on the shared but differentiated responsibility principle, every nation is required to contribute in some way. The proclamation also promotes developing and transmitting significantly safer and climate-friendly low-carbon technologies through bilateral, regional, and international cooperation.

3) Singapore Declaration on Climate Change, Energy and the Environment (3rd EAS Summit in 2007)

According to the Declaration, while rapid economic development helps the region's sustainable development and fight against poverty, it also creates new problems due to increased energy consumption, worries about regional and global energy security, and an increase in urbanization that will double Asia's urban population from 1.7 billion to 2 billion by 2030, which will increase the need for environmental management. The declaration also

¹⁸ Andreas Pramudianto, "ASEAN Commitment to Sustainable Development in the Regional International Environmental Law Perspective."

¹⁹ Overland et al., "The ASEAN Climate and Energy Paradox."

²⁰ Kazushi Shimizu, "The ASEAN Charter and Regional Economic Cooperation," *Economic Journal of Hokkaido University* 37 (2008): 58.

reiterates the necessity of adopting an efficient strategy to address the interconnected challenges of climate change, energy security, and other environmental and health issues in sustainable development. It stresses that efforts to implement climate change and energy security policies must avoid creating trade, investment, and development barriers.

4) Joint Ministerial Statement of the 1st EAS Energy Meeting (2007)

To improve energy security for the area, the Ministers recognized and acted upon the Cebu Declaration on East Asia Energy Cooperation security. The objective is to guarantee a steady, sufficient, inexpensive energy supply for competitiveness and sustained economic growth. The Ministers decided to advance the Cebu Declaration and achieve concrete outcomes by enhancing cooperation and coordination among their actions and operations. Ministers applauded Japan's Energy Cooperation Package, which focuses on boosting energy efficiency, biomass, and clean coal utilization, as well as Japan's Cooperation Initiative for Clean Energy and Sustainable Growth.

5) Ministerial Statement of the Inaugural EAS Environment Ministers Meeting (2008)

The Ministers emphasized the significance of the EAS's role in taking initiatives based on their ability to address issues identified in a variety of contexts related to environmental issues, such as capacity building, environmental education, climate change, biodiversity, natural disaster risk, coastal and marine ecosystems, water safe for drinking and sanitization, sustainable forest management, and urbanization. The Ministers agreed that this course of action should be consistent with the work done under pertinent international bodies, including the UNFCCC, the Kyoto Protocol, and the Convention on Biological Diversity.²¹

6) ASEAN Joint Statement on Climate Change to COP-15 to the UNFCCC and CMP-5 to the Kyoto Protocol (15th ASEAN Summit in 2009)

This joint statement underscores that climate change is one of the biggest challenges in the era of globalization. A statement emphasizing "a strong political will to urgently combat climate change by the principle of shared but differentiated responsibilities and individual capabilities". Recognizing the "scientific position that global temperature increase must be below 2 degrees Celsius" in sustainable development framework, to combat climate change and prevent harmful anthropogenic interaction with the climate system. To reduce vulnerability and build resilience in developing countries, particularly in highly vulnerable countries, especially the Least Developed Countries (LDC), Small Island Developing States (SIDS), and Africa, it is urgently necessary to scale up action and international cooperation on adaptation. Agree that Parties to the Kyoto Protocol would reinforce their existing targets and that developed countries (Annex I Parties) will "commit to an economy-wide emissions target for 2020," to be presented by January 31 2010. Delivery of financing and reductions from industrialized nations will be tracked, reported on, and verified (MRV) according to COP guidelines.²²

7) Singapore Resolution on Environmental Sustainability and Climate Change (11th AMME in 2009)

By actively collaborating in the research, development, and deployment of clean technologies, the resolution aims to increase close cooperation towards cleaner use of fossil fuels while acknowledging that fossil fuels are an essential part of the energy mix. Additionally, with

²¹ Indeo, "ASEAN-EU Energy Cooperation: Sharing Best Practices to Implement Renewable Energy Sources in Regional Energy Grids."

²² John Taskinsoy, "No Brainer, Tackle Climate Change by 2030 or Await the Doomsday by 2100," *SSRN Electronic Journal*, 2020, 16, https://doi.org/10.2139/ssrn.3532709.

a focus on ensuring safety and protection in accordance with current international standards, the resolution increases efforts to use renewable and alternative energy sources, such as solar, hydro, wind, tidal, biomass, biofuels, geothermal energy, and civilian nuclear power, as appropriate. Requirements for environmental sustainability across a life cycle with high productivity. Additionally, the resolution encourages and enhances energy efficiency in our energy production and consumption through capacity building, information sharing on best practices for controlling energy use, and the use and development of suitable technology and practice.

8) ASEAN Plan of Action on Energy Cooperation (APAEC) 2016-2025

The ASEAN Economic Community (APAEC) 2016-2025 is a dynamic and live document that identifies results-based plans and measures to improve market integration and energy connection in ASEAN to achieve energy security, accessibility, affordability, and sustainability for all. The successful implementation of APAEC depends on AMS's commitment and strong leadership through committed energy agencies and sub-sector networks, including ACE as the implementing secretariat. All AMS are anticipated to gain from APAEC and see the ASEAN Community's goals fulfilled by the ASEAN Charter. In order to successfully implement APAEC, increased energy cooperation and collaboration between DP/IO, industry, and academia must be a priority. Based on ASEAN's policy rules regarding climate change, it can be seen that ASEAN has a framework structure for dealing with or overcoming aspects related to climate change and the environment. The framework structure is as follows:

ASEAN Summit Institutional (ASEAN Heads of State / Framework Government (Environment) ASEAN Socio Cultural Coordinating **Community Council** Council **ASEAN Ministerial** Secretary-General Meeting on Environment of ASEAN (AMME & IAMME) ASEAN Senior Officials on **ASEAN Secretariat** the Environment (ASOEN) (ASCC Department) **AWGMEA AWGNCB AWGWRM** AWCME (Malaysia) (Philippines) (Thailand) (Myanmar) Multilateral Nature Water Coastal and Environmental Conservation Resources Marine & Biodiversity Agreements Management Environment AWGEE **AWGESC** AWGCC Other Environmental (Brunei (Cambodia) (Viet Nam) Darussalam) Environmentally Climate Activities Environmental Sustainable Change **(ASEAN** Education Secretariat) Cities

Chart 1: ASEAN Framework for Dealing with Climate Change

To assist with the UNFCCC process, the ASEAN Special Ministerial Conference on Climate Action (ASEAN Ministerial Meeting on Climate Action) was called. Since 1994, the ASEAN Environment Ministers have held formal meetings every three years. While the Senior Officials on the Environment (ASOEN) meet annually and support the ASEAN Environment Ministers in terms of formulating, carrying out, and monitoring regional programs and activities, the ASEAN Environment Ministers Meeting as a Conference of the Parties (COP) has contributed to the implementation of the ASEAN Agreement on the Transboundary Haze Pollution or the Haze Agreement. Environmental department chiefs in charge of environmental concerns in their nations comprise ASEAN. Policies and strategic decisions related to the environment are primarily under the control of the ASEAN Environment Ministers. ASEAN Working Group on Coastal Marine Environment (AWGCME), ASEAN Working Group on Environmental Education (AWGEE), ASEAN Working Group on Environmentally Sustainable Cities (AWGESC), ASEAN Working Group on Multilateral Environmental Agreements (AWGMEA), ASEAN Working Group on Nature Conservation and Biodiversity (AWGNCB), and ASEAN Working Group on Water Resources Management are the six (six) supporting bodies that makeup ASOEN (AWGWRM).23

All additional actions outside the purview of the relevant working committees are like fostering green technologies and harmonizing environmental regulations and databases, which are coordinated by the ASEAN Secretariat and reported to ASOEN. In order to coordinate regional actions to assist ASEAN Member States in putting mitigation and adaptation measures into effect, ASEAN also established the ASEAN Working Group on Climate Change (AWGCC). ASEAN has established and surpassed its energy efficiency goals in terms of renewable energy, lowering energy intensity by more than 21.9% compared to 2005 levels, much above the 2020 goal. ASEAN will keep working to meet the long-term goal of the area, which is to reduce energy intensity by 30% by 2025. Moreover, ASEAN has set a goal to add 23 per cent more renewable energy to the mix by 2025. Between 2015 and 2025, ASEAN intends to decrease the average fuel consumption of new light cars sold in the region by 26% per 100 kilometres.²⁴ Several ASEAN sectoral bodies carry out climate change initiatives, including those responsible for the environment, forestry, agriculture, energy, transportation, and disaster management.

b. European Union Policy in Dealing with Climate Change

For more than 30 years, the European Union has been developing a climate strategy. Climate change was a minor component of EU research policy in the late 1970s. Instead of focusing on concerns about its governance, the investigation will focus on fundamental scientific challenges relating to climate change. The European Union Commission didn't release a communication on climate change until roughly eight years later. Although policies related to climate change have begun to be implemented among member countries, their primary motivation is more focused on the environment and energy, not climate change.²⁵ Along with the times, now the European Union has various regulations and policies regarding climate change, as follows:

1) European Climate Change Program

The first ECCP (2000–2004) looked at various industries and legislative measures that could cut greenhouse gas emissions. The ECCP working group includes flexible mechanisms for carbon trading, co-implementation and clean development mechanisms, energy supply, energy

 $^{^{23}}$ Indeo, "ASEAN-EU Energy Cooperation: Sharing Best Practices to Implement Renewable Energy Sources in Regional Energy Grids."

²⁴ Daniel Scott, C. Michael Hall, and Stefan Gössling, "Global Tourism Vulnerability to Climate Change," *Annals of Tourism Research* 77, no. May (2019): 49, https://doi.org/10.1016/j.annals.2019.05.007.

²⁵ Nils Meyer-Ohlendorf, "A European Climate Law-What Should It Look Like?," *Ecologic*, no. December (2019): 1–21

demand, energy efficiency in end-use machinery and industrial processes, research agriculture, agricultural land, and forests. Each working group examines emission reduction options and possibilities based on cost-effectivenesses, impact on other policy areas, and potential cobenefits, such as improved air quality and energy security. The second ECCP initiated in 2005 and worked in tandem with the European Union's Lisbon policy to promote economic growth and job creation, investigated further cost-effective solutions for lowering greenhouse gas emissions. To promote and support the implementation of the priorities outlined in the first phase, ECCP I review is being conducted (5 sub-groups: transport, energy supply, energy demand, non-CO2 gas, and agriculture). Aviation, CO2 and automobiles, carbon capture and storage, mitigating the effects of climate change, lowering greenhouse gas emissions from ships, as well as new solutions investigated on flexible mechanisms, agriculture, agricultural sinks, and forests are the components of the second ECCP.²⁶

2) European Climate Law

The European Commission suggested a legally binding goal of 2050 net zero greenhouse gas emissions through the European Climate Act. In order to achieve these goals, EU institutions and Member States are required to take the necessary actions at the EU and national levels while also promoting fairness and solidarity among Member States. The Climate Act includes measures to monitor progress and adjust our actions as necessary, based on already-existing systems like national energy and climate plans' governance procedures, frequent reports from the European Environment Agency, and the most recent research on climate change and its effects.²⁷ According to the Paris Agreement's global stocktake exercise, progress will be evaluated every five years. The steps required to meet the 2050 targets are also included by the Climate Law as follows:²⁸

- a) Based on a thorough impact assessment, the Commission has proposed a new EU target for 2030 to cut greenhouse gas emissions by at least 55% relative to 1990 levels. A new EU goal for 2030 has been proposed by the Commission to be included in the Act.
- b) To offer additional emission reductions for 2030, the Commission will evaluate all pertinent policy instruments in July 2021 and, if necessary, propose to amend them.
- c) The Commission suggests adopting a 2030–2050 EU trajectory for lowering greenhouse gas emissions in order to track progress and give individuals, businesses, and public agencies predictability.
- d) Starting in September 2023 and continuing every five years, the Commission will evaluate whether EU and national policies are consistent with the 2030–2050 trajectory and the aim of carbon neutrality.
- e) The Commission shall have the authority to make recommendations to Member States whose actions are incompatible with the objective of climate neutrality. Member States must consider these suggestions or explain why they choose not to.
- f) Member States must also create and implement adaptation plans that increase resilience and lessen susceptibility to the effects of climate change.

Based on these steps, the product that the European Climate Law wants to produce is an EU legal instrument on climate neutrality that binds various institutions and national governments, Creating a predictable business environment for industry and investors.

²⁶ Andrew Jordan et al., "Understanding the Paradoxes of Multilevel Governing: Climate Change Policy in the European Union," *Global Environmental Politics* 12, no. 2 (2012): 46, https://doi.org/10.1162/GLEP_a_00108.

²⁷ Egor Zadereev et al., "Overview of Past, Current, and Future Ecosystem and Biodiversity Trends of Inland Saline Lakes of Europe and Central Asia," *Inland Waters* 10, no. 4 (2020): 440, https://doi.org/10.1080/20442041.2020.1772034.

²⁸ Maximilian Posch et al., "Integrated Scenarios of Acidification and Climate Change in Asia and Europe," *Global Environmental Change* 6, no. 4 (1996): 375–94, https://doi.org/10.1016/S0959-3780(96)00029-5.

3) European Green Deal

Climate change and environmental deterioration threaten Europe and the rest of the globe. By providing the following things, the European Green Deal will overcome this obstacle and turn the European Union into a modern, resource-efficient, and competitive economy:²⁹

- a) No net emission of greenhouse gases by 2050.
- b) Economic growth is separated from the use of resources.
- c) No one and no place was left behind.

The European Green Deal will partly be funded by a third of the 1.8 trillion euro investment from the Next Generation EU Recovery Plan and the EU's seven-year budget.

4) European Climate Pact

People from all areas of life can connect and work together to develop and implement climate solutions, no matter how big or little, according to the Climate Pact. We can increase the impact of our ideas and best practices by sharing them. The agreement will emphasize efforts that will spread awareness. There will be numerous ways to get involved. The Pact will give priority in its initial phase to four areas of action that directly improve residents' health and well-being as well as the climate and environment. The four areas of attention are green areas, green transportation, green building, and green skills. The agreement will eventually cover additional topics like sustainable production and consumption, soil quality, dietary patterns, oceans, and rural and coastal areas. The Pact has an open mandate, and the range of its application will change in response to suggestions and input from the parties and organizations taking part in it. ³⁰

c. Comparative Study on ASEAN and EU Policy on Climate Change

After looking at ASEAN's cooperation with the European Union on climate change and seeing each policy regarding climate change in each regional organization, then the research will compare ASEAN and the European Union with indicators of country commitment according to Article 4 of the United Nations Framework Convention on Climate Change (UNFCCC). Here is the comparison.

Table 1: Comparison of ASEAN and European Union Policies in Facing Climate Change

UNFCCC INDICATOR	ASEAN		Uni Eropa	
	C	I	C	I
Provide consistent progress	ü	Singapore Declaration & Resolution	ü	Climate Pact and Green Deal
Application to reduce carbon emissions and the greenhouse effect	ü	APAEC	ü	Green Deal
Adaptation and Mitigation	ü	ASEAN Declaration EAS	ü	Climate Law
Application of national-level policies	ü	COP-13, CMP-3	ü	Climate Law

^{*}C= Compliant (Status of fulfilment)

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^{*}I= Instrument

²⁹ A. Colette et al., "European Atmosphere in 2050, a Regional Air Quality and Climate Perspective under CMIP5 Scenarios," *Atmospheric Chemistry and Physics* 13, no. 15 (2013): 7451–71, https://doi.org/10.5194/acp-13-7451-2013.
³⁰ Zadereev et al., "Overview of Past, Current, and Future Ecosystem and Biodiversity Trends of Inland Saline Lakes of Europe and Central Asia."

Table 1 shows that each of ASEAN and the European Union has fulfilled the indicators from Article 4 of the UNFCCC, which consist of progress, reduction of carbon gas emissions and greenhouse effects, adaptation and mitigation, and implementation of national policies. In addition, it can be seen that ASEAN's policy is more in the form of a framework in a conference which degrades various regulatory instruments with each focus. At the same time, the European Union uses an approach in the form of an action plan that will be integrated into one law on climate change, namely the European Climate Law.

D. CONCLUSION

Based on the discussion of the problem, it can be concluded as follows:

- 1. International law regulates the adaptation and mitigation towards the climate change issue through its three main instruments: the United Nations Framework Convention on Climate Change (UNFCCC), Paris Agreement to the UNFCCC, and Kyoto Protocol to the UNFCCC. Moreover, United Nations established Intergovernmental Panel on Climate Change (IPCC), which is mandated to assess climate change worldwide scientifically. Through the enactment of these primary instruments and followed by the establishment of a supporting body, the international community has proved its recognition of climate change.
- 2. ASEAN's cooperation with the European Union on climate change consists of 3 (three) main collaborations, namely Green Growth and the Environment, ASEAN-EU Statement on the Paris Agreement Reaffirming Commitment to Cooperation to Address the Shared Challenges of Climate Change, and The Second EU -ASEAN High-Level Dialogue on Environment and Climate Change. These three forms of cooperation emphasize the commitment of the European Union as a more senior and advanced regional organization to support ASEAN in dealing with the impacts of climate change and implementing policies to reduce the use of carbon gases.
- 3. Comparison of ASEAN and European Union policies regarding climate change ASEAN and the European Union are based on indicators according to Article 4 of the UNFCCC, which consist of progress, reduction of carbon gas emissions and greenhouse effects, adaptation and mitigation, as well as the implementation of national policies. In addition, it can be seen that ASEAN's policy is more in the form of a framework in a conference which degrades various regulatory instruments with each focus. At the same time, the European Union uses an approach in the form of an action plan that will be integrated into one law on climate change, namely the European Climate Law.

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