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The European Union policies on climate change toward animal welfare



An Independent Study Submitted in Partial Fulfillment of the
Requirements
for the Degree of Master of Arts in European Studies
Inter-Department of European Studies
GRADUATE SCHOOL
Chulalongkorn University
Academic Year 2021
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นโยบายของสหภาพยุโรปต่อการเปลี่ยนแปลงของสภาพภูมิอากาศที่ส่งผลถึงสวัสดิภาพสัตว์



สารนิพนธ์นี้เป็นส่วนหนึ่งของการศึกษาตามหลักสูตรปริญญาศิลปศาสตรมหาบัณฑิต
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บัณฑิตวิทยาลัย จุฬาลงกรณ์มหาวิทยาลัย
ปีการศึกษา 2564
ลิขสิทธิ์ของจุฬาลงกรณ์มหาวิทยาลัย

Independent Study Title	The European Union policies on climate change toward animal welfare
By	Mr. Kitjaphat Sasombat
Field of Study	European Studies
Thesis Advisor	Dr. BHANUBHATRA JITTIANG

Accepted by the GRADUATE SCHOOL, Chulalongkorn University in
Partial Fulfillment of the Requirement for the Master of Arts

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กิจพัฒนา สະสมบัติ : นโยบายของสหภาพยุโรปต่อการเปลี่ยนแปลงของสภาพภูมิอากาศที่ส่งผลถึงสวัสดิภาพสัตว์. (The European Union policies on climate change toward animal welfare) อ.ที่ปรึกษาหลัก : อ. ดร.ภาณุภัทร จิตเที่ยง

การศึกษานี้มีวัตถุประสงค์เพื่อตรวจสอบและค้นคว้าเกี่ยวกับนโยบายของสหภาพยุโรปต่อสภาพอากาศและการปกป้องสวัสดิภาพสัตว์จากการเปลี่ยนแปลงของภูมิอากาศในรูปแบบของความร่วมมือระหว่างประเทศภายในสหภาพยุโรปโดยใช้ข้อมูลในเชิงปริมาณในหัวข้อของ การเปลี่ยนแปลงของภูมิอากาศ ความร่วมมือระหว่างรัฐบาล และ สวัสดิภาพสัตว์ เพื่อหาและระบุวิธีการของความร่วมมือภายในสหภาพยุโรปภายในหัวข้อของการปกป้องสวัสดิภาพสัตว์จากการเปลี่ยนแปลงของภูมิอากาศ. จากการวิเคราะห์แสดงให้เห็นว่าภายในสหภาพยุโรปภายใต้นโยบายภูมิอากาศและสวัสดิภาพสัตว์นั้นมีการเชื่อมถึงกันน้อยและยังมีอุปสรรคที่ทำให้สหภาพยุโรปไม่สามารถร่วมมือกันเพื่อป้องกันสวัสดิภาพสัตว์ได้อย่างเต็มที่ โดยอย่างยิ่งการขาดความสมัครใจ ขาดคุณค่าของสัตว์ และขาดการเงิน ทั้งภายในแต่ละรัฐและสหภาพยุโรปทำให้ข้อขัดข้องนโยบายต่อการเปลี่ยนแปลงของภูมิอากาศอย่างสวัสดิภาพสัตว์ถูกเพิกเฉย



สาขาวิชา ยุโรปศึกษา
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toward animal welfare. Advisor: Dr. BHANUBHATRA JITTIANG

This study aims to explore and investigate the European Union climate and animal welfare protection regime on how the European Union protects animals from climate change using quantitative data on climate change, cooperation of governments, and animal welfare protection. Using regime theory, I analyze the method and identify the cooperation European Union has developed in animal welfare protection from climate change. My analysis shows a weak correlation between the two areas and numerous obstacles preventing the European Union from completely cooperating and providing the full protection animals deserve. The study concluded that the climate regime of the European Union might be effective in mitigating climate change impacts but does not give any direct benefits to animal welfare, especially when there is a lack of willingness, value, resources, and finance from both national and regional levels ended up as the climate mitigation's subfunction such as animal welfare protection and extinction prevention from climate change has been ignored and forgotten.



Field of Study: European Studies

Student's Signature

Academic Year: 2021

Advisor's Signature

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Kitjaphat Sasombat



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1.1 Introduction

Climate change has been a global problem for decades. As of now, it could not yet be resolved and is expected to be much worse from the rising average temperature, currently at 1.1 degrees. The situation is expected to be different in 2050 when the temperature has risen at the rate of 2 degrees compared to pre-industrialization in the mid-18th century. Nowadays, in terms of sea level, it has been increased by twenty centimeters (about 7.87 in) and is expected to be at 122 centimeters (about 4 ft) by 2100. Due to the current and future expectation impact of climate change that could disturb every country and every living being, many countries have committed to cooperation to achieve the same goals of zero-emission and carbon neutralization. The COP26 organized in Glasgow in 2021 was one of the examples of climate cooperation.

The leading actor in the climate initiative is the European Union which has initiated many internal and external policies regarding climate actions, including the European Green Deal which is the pact of European Union climate legislation to improve the well-being of lives for the future generation in terms of climate, environment, and the ocean but the lives mentioned in the European Green Deal is mainly designed on human lives. The European Union even put on the higher standards on climate actions compared to the rest of the world by aiming to reduce emissions by 55 percent compared to 1990 by 2030 and make European Union as a whole bloc become net zero emission by 2050. Aside from significant scale policies of the European Union, there are many adopted and pending policies related to climate actions which could positively show that European Union is putting in a remarkably high effort into climate actions.

However, the European Union seems to lack of, the policies on animal welfare protection related to climate change, any mentions of animal welfare policies mostly come as a part of protecting farm animals or preventing animal trading between states or part of non-profit organization supporters but none of the current European Union animal protection policies has mentioned the endanger species affected by climate change even United Nation has issued and talk over the area of endangered species of animal and plant with high risk of extinction, more than one million species are in deep problem threatened by climate change. As the animal protection policies of the European Union focus on the welfare of farm animals or preventing animal trade but the area of protecting animal welfare impacted by climate change does not include in the animal protection policy. As so turning to the European Union climate regime many aspects are included but an extremely limited number have focused on mentioned animal welfare as part of climate policy. Thus, coming the ideal of the European Union as one of the powerful global actors with tools and potential to influence third countries globally, so the European Union plays the important role in the climate actions if animal protection has been taking into consideration many species of animal and plant might have gained better chance of surviving but at the current rate animal welfare protection from climate change impacts seem to be in the middle of nowhere as it was never come together without relation between animal and climate change, as the animal were never to get impact from climate change.

Therefore, the question of what extent does the European Union take actions to prevent the extinction of animals and protect animal welfare from climate change has been occurred, to analyze and identify the reason for policymaking on what could have been done to improve animal welfare with the current climate issue and why

wouldn't the European Union has come to the conclusion of animal impacts from climate change whether the animal is not the really important focus of the European Union at the moment or animal is not worth protecting at all.

1.2 Research Questions:

To what extent does the European Union take actions to prevent the extinction of animals and protect animal welfare from climate change?

1.3 Objectives:

1. To study and identify European policies and regimes toward animals and climate resilience.
2. To explore the mechanism the European Union, uses for protecting animal welfare from climate change impact.

1.4 Arguments

This study argues that despite having several policies on climate change, the European Union does not seem to draw a close connection between climate change policies and wild animal welfare protection. The European Union's climate change policies do not give full attention to the animal at risk of extinction, and the animal protection policies do not include climate impact mitigation. As a result, these existing policies are not effective enough to provide safety and welfare to animal got affected by both direct and indirect climate impacts

2.1 Literature Review

Animal Impact from Climate Change

The study of United Nations (2019), shows that there are approximately one million animal and plant species at the edge of extinction due to human and climate related to melting ice, flora, fauna, and human unable to adapt (Paul, 2019).

According to the study by Dybas Cheryl (2015); (Fisher, 2020), the number of polar animals that are the breed that gets direct impact from climate change rapidly decreases. For example there are only around 20,000 polar bears remaining with the focus of Fitzgerald (2013), has shown that animals living in the cold area of Alaska, Russia, Canada, Greenland and the Nordic region, so that polar animals could be a main projection of climate change impact. There is a possible chance of extinction within 30 years of the world's temperature is still rising. Thus, Lacetera (2018); RSPCA (2020), has examined and concluded that climate change has a substantial adverse effect on animal welfare and oppose the risk of extinction whether in term of direct or indirect impact, such a heat that effect animal habit or extreme weather (Hsiung & Sunstein, 2007), supporting by the study of Shields and Orme-Evans (2015), saying that not just wildlife alone got effect by climate change but farm animal welfare as well, albeit Lacetera (2018) argue that climate change and increasing of temperature can reduce the risk of animal death in winter, but the problem needed to be directed to the extreme weather.

Animal welfare

Even animal welfare and protection come to be an important role of European Union, the study of Shepherd et al. (2020), states that the European Union (EU council regulation) does not practically protect the endanger species, according to Falaise (2019), the European Union animal welfare legal principle are more likely to apply in term of farm animal but not the endanger species like bull or polar bear (also six other species of bears) as the buying and selling within the EU are still somewhat possible for example the animal (parts) trading e.g. bear parts are still happening which mostly flow from countries like Croatia, Romania, Greenland etc. to Czech Republic which alone has an enormous demand on animal parts (Shepherd et al., 2020). Another study in term of animal welfare legal aspect from Denis Simonin (2019) showing as the European Union animal welfare legal basis area is limited exemption of treaty of the Functioning of the European Union, cooperate with study of Falaise (2019), which explored the limitation of animal welfare law and legislatives done by member states the result showing in some countries the fines/penalties for abuse of animal are low or even non-exist.

Climate Regime

In the field of climate change, according to the study of Jakučionytė-Skodienė and Liobikienė (2021), that reducing emission is the most important way and the policies target must be to keep the world's temperature increase below 2 degrees Celsius; however, study of Dupont and Torney (2021); Romppanen (2018), shown the study that the European Union does not have the clear vision, direction and the lack of

implementation for laws and policies in the field of European Green Deal and Carbon policies (specifically black carbon) release from transport also residential actions in Europe the study of Fisher (2020), shown that the challenge of implementation of the European Union climate regime are the requirement to make all institution and member states working together but the European Union Institutions has made the climate proposal become less effective as a result of the timeframe to review by many institution, more integrated and of course accountability (funds) challenge (Rosamond & Dupont, 2021). In terms of financial funding and financial support for climate friendly activities the study of Jakučionytė-Skodienė and Liobikienė (2021), examine that there is a connection between national wealth and climate change concerns as the poorer countries in European Union like Bulgaria and Romania only 20% realized the climate change and only 1/3 participate in eco behavior even the poorer economy countries will get more negative in economic due to climate change (Jakučionytė-Skodienė & Liobikienė, 2021; Paul, 2019). Albeit data from Fisher (2020), has shown that European Union has made positive impact on some sector; for example the “green jobs (Fisher, 2020)” like the transportation sector but still there are room to go for further improvement according to Fisher (2020); Romppanen (2018) while Jakučionytė-Skodienė and Liobikienė (2021), have distinguished that it’s not only the concerns on the policies but more about creating and promoting eco-friendly behavior, the study from Rosamond and Dupont (2021), show that the climate related engagement from the European institution increasing year by year but still not getting much attention on political area and policymaker should reduce the cost of climate friendly actions (Jakučionytė-Skodienė & Liobikienė, 2021).

Research Gap

The studies related to climate change impact on animals, European Union animal protection and European Union climate regime policies has shown that nearly altogether the current studies on these topics are (Animal Welfare, Climate Change Regime) are aiming to see the effect on each area or review the engagement of European Union into policy initiation. Also, there are no study/research showing European Union plan or direction on how the European Union does or will initiate policies related to the animal which affected by climate change as a regime (EU pact). Even the United Nations which are the cooperation of European Union, has issued the data that millions of species are at the risk of extinction especially around the polar cycle area; there is still no evidence or study on the European Union attitude on this area. This study will focus on the topic of policies and actions from European Union on animal welfare with climate impact.

2.2 Framework

Regime Theory (Bradford, 2007; Peterson, 2012)

The regime theory is one of the concepts in international relation. The old formalistic academic theory on the cooperation between actors were based on the international relations theory back in 1979 or integration studies in 1975 are focus on form of cooperation, not the substance. Those theories are given the importance to the structures more than choice and action of actors. The concept of the international regime was created to replace old studies to understanding both cooperation form and substance and also to give the explanation on how the cooperation end up with the same path, The international regime (regime theory) seek to explain the cooperation among state but the difference of normal cooperation and cooperation as a regime is that the normal cooperation is not a merge principle and does not consist of regime elements. The international regime consists of three elements 1) array of principles, norms, and decision-making. 2) actors (nation) use an array to shape their own and others' behavior 3) identify the area to be engaged. Even though the three areas are met, to mark one area as international regime theory, important aspect is that the actor expectations must be merged and point in the same direction because one requirement is that the actor must allow the array of normative and follow the guideline. So, to say when states cooperate it may or may not be in the form of a regime; even though the objective of regular cooperation and the international regime is the same, the state's behavior of cooperation can be different while the international regime cannot, which lead to the regime beneficial as the behavior cannot differ so states can get rid of the cost on implementation or cost on creating rule when new objective/agreement has founded.

The international regime concept can be placed in any context by looking at substantivity and impact varies on the issue, the region, or the intention to mitigate the problem. Including the impact study of an international regime on what gaining from international rule worth the costs and the level of compliance to achieve an international regime. Whether the international government is worth the charges or not actually depends on goal desirability, which sought to European Union policies on climate change toward animal welfare study on how the European Union value the animal.

The Regime Theory used in this study to analyze on the topic of European Union policies toward animal welfare on climate change area, as the regime theory framework are about international relations, this study uses regime theory to explain the cooperation between states on the area of animal welfare protection from climate change. As the regime is about group of actors processing onto the same direction to achieve their own interest, in this study regime theory been used to see whether the European Union as twenty-seven nations has cooperation as a regime on the area of animal welfare protection from climate change or not, and in which level does the protection of animal welfare from climate change exist. Furthermore, using regime theory to explain why states should comply and/or why they fail to do so. Additionally, the use of regime theory as a base to study the benefits and losses of the regime by studying both institutional and environmental effectiveness, with the study of behavior of the states toward climate change/animal welfare. Moreover, from the data and analysis based on the regime theory, the study can show the data on how the European Union and animals would gain benefits from having the protection as a regime.

2.3 Methodology

The research methodology tries to link three policy areas initiated by the European Union: the policies that deal with climate change, policies on animal welfare/protection, and the policies on the area of climate change impact on animals. Aiming to focus on the main interesting point: how do the European Union policies impact animal welfare protection and prevent extinction from both direct and indirect impacts from climate change. The data collection is focused on the secondary data based on the news, official website, academic, and science data to conclude with all the secondary literature without touching any primary resources; The data has been collected in all three areas and analyzed by putting together the data and see whether each category of policy works or effective on protecting the animal. With the three areas of policy on climate change, animal welfare, and climate change impact on animals, the analysis would show how the European Union climate regime could prevent animal extinction and protect animal welfare from climate change based on the regime theory. The final objective is to answer whether the European Union animal protection from climate change regime is essential or not, what would be the benefits and what is needed for the government.

2.4 Outline

The study has been divided into two parts, mainly in sections three and four of the research. Section three reviews the background of the current legislative and policies of the European Union from three-dimension which are the policies on climate change (climate regime), animal welfare, and the area of animal welfare-related to climate change, to provide the analysis on what is the point of convergence of European Union in each room and what the European Union or member states contribute on climate change or animal welfare. Section four focuses on the reason behind the regime on what are disadvantage of regime lacking which includes the part on why the protection of animal welfare from climate change regime is not happening, what are the factors that create obstacles. The conclusion part discusses the regime beneficial, future policies and direction the European Union could improve to provide more welfare to animal globally.

3.1 European Union Climate Policies

Climate change has caused many turbulent events globally, as well as among European Union countries. Aside from rising temperature, impacts from climate change such as season shifting, extreme weather events, and off-season snow are also imminent and occur more frequently. Those climate change impacts are affecting living beings and creating negative economic effects as some climate impacts disrupt production and export/import flow, as well as national cost on restoring physical damage caused by climate impacts. Those all affecting economic.

The European Union is interested in solving climate change by initiating and developing climate policies since 1990 with a focus on greenhouse gases, emission, and energy. Then the European Union comes to participate on solving climate change globally in 1997 known as Kyoto Protocol, but even though European Union focus on solving climate change and protecting the ozone level, Europe (overall Europe, not particularly European Union) is one of the major continents responsible of 32 percent of heater system uses and exposes gases that impact ozone (W.L. Gates et al., 2001). Following with many commitments the European Union act such as the Paris Agreement in 2015, Millennium Development Goals, Sustainable Development Goals, or the current focus of the European Union; the European Green Deal since 2020, with its objective to provide and prepare the European Union for climate change actions. Looking at all those climate regimes the European Union trying to promote and apply, it all focuses on the same aspects which are to reduce the emission and stable the increase of world's temperature below 1.5 degrees compared to the pre-industrialization era. Even there are many agreements, policies, protocols, and frameworks initiated by the European Union on the area of climate change longer

than three decades, the climate change issue cannot be tackled effectively yet and seem to get worse as some of the commitments and promises cannot even be kept, for example according to the Council on Foreign Relations (2021), many expertise in the field of climate change has concluded that at the current implementation rate the Paris Agreements which are aiming at stabilize the increasing of world's temperature below 1.5 degrees are no longer possible which means that the Paris Agreement are impossible to achieve. Consequently, the European Union climate policies are related to Paris Agreement in terms of goals and objectives (Strielkowski et al., 2016), so by admitted that Paris Agreement is no longer work somehow, could means that European Union climate goals will not be able to achieve as well.

Since the European Green Deal was introduced along with the European climate law aiming to make the whole European Union bloc reduce 55 percent of greenhouse gases by 2030, and in long run become climate neutral by 2050, the European Union has initiated many policies to reach the European Green Deal objectives; for example, the policies on LIFE Climate Change Mitigation aiming to support human on climate change adaption or the Biodiversity Strategy which aim to Europe's biodiversity recovery to prevent threats like forest fire and food insecurity (Commission, n.d). However, there are two significant points that the European Union might lacks; (i) first one is the economic support and encouragement given to people for participating in climate activities by provide people with incentives in the climate-friendly way (Jakučionytė-Skodienė & Liobikienė, 2021). So even the European Union collaborates with member states and issue as many policies as possible, without financial support, it still lacks engagement from people. (ii) second point is the EU climate policies lacks consideration of non-human beings such as climate

impacts to animal. Overall, of the climate policies aim at human protection and human preparation from climate impacts.

Under the European Green Deal there is the Biodiversity Strategy aims reduce animal threat from forest fire and able to ensure foods for animal, but overall the main center objective of climate policy mostly is to prevent and give protection on any damages that could occur by climate change-related threats with human as center stage as the most important aspect to protect: the policy aims primarily at human-related activities such as habitat, food production, economic activity, but only few or even none mention the protection of animal welfare within its scope.

In the part of forest strategy is fairest mention animal protection within the climate action scope on improving forest protection. As forest is a home to many animals, protecting forest from climate change also means animal's habitat also protected. The forest strategy is the only European Union legislation on climate regime that mention animal protection from climate change by includes animal within its scope, however, the policy aiming to the forest with benefit to animals, not aiming at protecting animal directly. Moreover, the forest strategy or Biodiversity strategy are shared competence between European Union and Member states so each state can have different strategies toward the same goal which is not the full cooperation under the concept of regime.

Even somehow animal has been included in European Union climate policy, the focus group of the animals are the ones that influence human life and human economic activity such as farm animal or the protection of nature with indirect benefit to animal but not directly to unaccompanied animal overall. For example, the polar

circle is the most affected area by climate change with the threat of warming weather and melting ice; those polar animals (Bears, Seals, Penguins) receive no attention from the European Union, as if the climate actions policies from the European Union do not include the direct protection of animal welfare within its scope.

3.2 European Union animal welfare policies

The European Union has legislation on the protection of animal enacted based on the 1976 European Convention. They provide support and protection to three areas of animals; protection of animals used in farming, protection of animals in captivity, and protection of animals used in scientific research. The 1976 European Convention has expanded to a brunch of legislations for example: (i) the protection of animals kept for farming purpose; its objective aim to improve the lives of farm animal by giving animals freedom from; hunger, discomfort, pain, fear, and freedom to live with normal behavior. The legislative on the five-freedom applied to all animal species kept for production. For example, some of the regulations are that animals must be inspected once a day and get attention from human. In the case of zoo animals in captivation must receive welfare-oriented and biological needs based on each species. (ii) The habitats directive is another legislation of the European Union aim to protect animal welfare, focuses on protecting wild animals from conflicts with human activities like the prohibition of killing or captivity of wild animals and prohibit any actions that would disrupt animal breeding, still this protection regime is about protecting animals from human, not related to protection from climate impacts at all (Commission, n.d.-a).

Although the European Union has mentioned the extinction risk animals, the specification comes with the focus only to protect on the exchange of animal parts but not protecting them from climate threats. The legislation related to the extinction risk animals is about banning movement and sale of bear and seal parts (only two species have been banned). Even though according to European Commission (n.d.-b) complied with the study of IUCN, there are 15,060 kind of species been label as European Red List (Extinction list) so theoretically the rest of 15,058 are not protected under the banning movement act. For others kind of species that can exchange openly, there is a legislation of the European Union that related to the animal welfare which is on public moral ground namely animal hunting method adopted in 1991. The legislation prohibits the use of trap that torture animals, prohibits the use of lures in the European Union, and prohibit import of animals that been hunted with leg trap/lures. So, the animal welfare in term of animal trade and animal exchange is the focus on the European Union.

In terms of wild animal welfare legislation operating by the European Union institution. Still most of the animal welfare legislatives of the European Union are not considered as a regime yet as most of the animal welfare legislations are directive for example, under the Convention on International Trade in Endangered Species of Wild Fauna and Flora, the legal basis of animal trading (fines/penalties/use of laws) depends on individual member state to implement so in each member state able to perform different method toward the same goal, while becoming regime one of the critical aspect is the state's behavior must be the same and heading toward the same direction, in this case, the behavior of each state are different; for example in some states, punishment on abuse of an animal or selling animal parts are insufficient

or even non-exist which is encourage illegal smuggling of animals. In addition in the Regulation 338/97 on the protection of species of wild fauna and flora by regulating trade therein, even this regulation applied to all the European Union state with the same method and implementation however, its scope is limited only to trade, protection of climate impacts not included (BROOM, 2017; Council of European Union, 1996).

Animal protection is part of the European consideration. However, the definition of the term “animal welfare” according to Denis Simonin (2019), refers only to farm animals and animals used for scientific purposes. Most scenarios in the European Union animal welfare policies, focus on preventing illegal animal trading, protection from human activities, and the welfare of farm animals, especially from the disorder, stress, heat, and changes in climate. It appears that the animal welfare legislative of the European Union provides welfare to animals only in the areas relative to human relations. The convention in the European Union level related to animals focuses on the point of farming, slaughtering, transporting, pet, scientific, and captivity animals according to Global Animal Law Association (2022). However, the focus on the welfare of animals affected by climate impacts has not been included or mentioned within the scope. The plausible reason animal welfare protection from climate change is not included in the current European Scheme can be traced back to 1976, when the European Convention for the protection of animals was initiated. Climate change was not yet considered an essential topic in the European Union.

All those legislations from the European Union on the ground of animal welfare, even the European Union somehow consider animal welfare, but only

a few or even none related to climate change impacts on animals. Even climate change is a severe threat to all kinds of animal, but it cannot be denied that wild and unaccompanied animals would get more direct effects from climate change for example extreme events such as heavy rain, wildfire, and weather instability. Even though the European Union has a protection regime that includes animal protection within its scope, the European Union's animal welfare and animal protection overall are lack interpretation on climate change impacts into the animal welfare legislative, so without applying the climate impacts consideration to animal welfare, the protection of animal welfare from climate change would not occur in the European Union level.

As it has been shown that the European Union animal welfare protection is conducted and trying to get rid of the part that seeing the animal as an instrumental object, even the European Union is considered as the region that has highest standards on animal welfare owing to the Lisbon treaty; the European Union must recognize the animal as sentence being rather than just instrument. However, one missing part is how the European Union would protect animal welfare from climate change, particularly unaccompanied animals, as climate change impacts such as those extreme events and animal habitat has not been mentioned in the part of the European Union animal welfare legislation. So, to say the protection of animal welfare from the point of the European Union legislative does not include the protection of animals from climate change impacts.

3.3 European Union animal protection from climate impacts

The current European Union legislation on both climate regime and animal welfare sides rarely have connection between each other; even climate change has profound impacts on animal welfare; with the ongoing erratic climate patterns, many species (animals/plants) will not be able to adapt and survive. In case of the European Union wants to bring out the animal welfare protection from climate change as a regime, the regime objective could consider creating mechanism and plan that would put animal welfare at the center of security and suitable for animals' climate-resilient or at least to delay the point of extreme climate change so that animals could have more adaption time, with the result of higher survival rate, for example legislation on banning activities that pollute emission around animal habitat area, or legislation requiring the government to provide necessary needs to the animal if climate change impacts their food sources and their habitat.

Even though many have reported that animals are the victim of climate change, on the other way around, climate change and animal welfare are somehow related more than just animals getting impacts from climate change and the increase of extinction risk; animals are also responsible as a source of climate change, particularly greenhouse gas referring to the study of Cole et al. (2009), even the study of Cole et al. (2009) based on farm animal. Still, it can show that overall animals are a source of climate change. As a result, based on scientific studies that animals are accountable for climate change problem, comes the question on balance between climate change and animal welfare for example, the national legislation of Holland with a plan to reduce livestock the portion one out of three, hoping that reducing livestock would cut off greenhouse gases and pollution, and in the end, improvement

to the environment, biodiversity, human, and animal welfare (Pritchett, 2021). Even Dutch's legislative points out that by reducing livestock comes a decrease of climate impacts, and animals get indirect benefits on this climate actions. Still, it is not aimed to protect animal welfare from climate change directly; it is just some side benefits animal gets.

However, protecting the animal from extreme events is something else that tends to be the responsibility of the European Union level, not just an individual nation alone, but at the current review, the European Union does not have any legislations or regimes on protecting animal welfare from climate change directly. The European Union's actions on protecting animal welfare from climate change are hardly given direct benefits to the animal, as the current European Union legislation and policies provide only indirect benefits to the animal as mentioned in the European Climate law, Biodiversity Strategy, Forest Strategy, or Transforming Agriculture Strategy (European Council, 2022). For example, transforming the agriculture sector would undeniably reduce carbon and the risk of animal extinction. However, its main objective is based on human needs to create a positive impact on human lives, by improving sectors like farming or fishing. So, assuming or claiming these actions aim to provide better welfare for animals' sake seems to be mistaken as there are aimed for human sake, with indirect benefit to the animal.

While looking into the protection of animal welfare at the European Union level, the European Union specifically focused on the accompanied animals or, to say, the animal that has relation with humans only forest strategy mentions unaccompanied or the welfare of animals that get impacted by climate change.

Looking at the European Union climate regime (climate policies), the main focuses are more on maintaining the stability of the climate, preventing climate damage, and preparing humans to fight against climate impacts, with the indirect benefit to animals however, the protection of animal welfare directly has not been mentioned in the European Union climate regime. As it were at the level of the European Union, the government on animal welfare protection from climate change does not exist.

3.3.1 Animal protection from climate impacts in Nordic States

The European Union level does not show signs of animal welfare protection from climate change. The further point of the study is to narrow down and investigate at the national level within the European Union's member states, to examine animal welfare protection from climate change exists in the national level. Within the European Union member state, Nordic states consisting of Finland, Sweden, and Denmark are very advanced and further ahead other states in term of environmental protection, climate activities and with the intention of taking on international climate leadership, so Nordic states can be representative of the European Union in the area of climate actions (Acciona, 2019), that's why in this part study focus to see the existent of the animal welfare protection from climate change in the Nordic states.

In Finland, climate change is not really a primary threat to animals as the warmer weather could increase the number of species in Finland (Climate Change Post, 2022), but the main threat to animals in Finland is land use and habitat changes. So, to protect animal welfare, aside from the European Union legislation, Finland has initiated Forest Act and Nature Conservation Act that covered area of animal habitat

to protect and preserve spaces for the animal. According to Miliöministerie (n.d) there are 2,124 species under Finnish extinction risk, Even the threat from climate change to animal welfare in Finland occur, but most causes of threat to animal welfare in Finland are changes in the forest environment due to human activities like industries and overgrowing of human habitats. So, the focus of Finnish national legislative on protecting animal welfare is particularly focus on protection of natural habitats rather than climate threat to animal welfare (Miliöministerie, n.d).

In the case of Sweden, the national legislative on animal welfare is focused on protecting animal used in research facility (World Animal Protection, 2020) or by protecting extinction risk animals such as wolf, wolverine, and bear from hunting. As the climate change impacts, and extreme weather are the cause of extinction risk (Routers North, 2015) and the root cause of animal's extinction is climate change impact, however, Sweden chooses to protect extinction risk animals from hunting rather than protect those animals from climate change impacts directly. Additionally, one thing Sweden has done that could improve or become a factor in creating animal welfare protection from climate change is that support and promote understanding of animal value via legislation. Legally of Swedish's legislative on animal welfare is under the companion animal act requires animals to be treated well and protected from suffering, even if the act is under the companion animal, still, the specification of animal type is not furnished, so it could mean all kinds of animal is protected under the act. The companion animal act includes animal health, and abandonment, even though these are not related to animal protection from climate change. Still, it has given human awareness and attention to animal value fields (World Animal Protection, 2020). The point on understanding and realizing the value of animals not

just seeing them as instrumental object is a beginning step toward protection leading to the realization that animals are worth protection from climate change impacts, no different from humans needing protection from climate change impacts.

In Denmark, animal welfare protection is more concerned with animal benefits than other countries. Denmark has issued legislation by consider unaccompanied animals as a central focus. For example, the Danish government imposes a ban on using fertilizers in natural forest are to protect animal habitats. This program has the objective of safeguarding animals specifically (Danish Ministry of the Environment, 2014) so it shows that Denmark considers animal welfare protection in the national level. Although climate impacts have been a threat to animal welfare and Denmark has many animals on the list of extinction risk, however animal welfare protection from climate impact is not mentioned or adopted as legislation in Danish animal welfare act yet.

4.1 Lack of regime impacts

The lack of cooperation between state governments has made the protection of animal welfare overall not as effective as it should have been, as each state will stick to their current action, goals and consider applying only a method that benefits their own nation and people. The European Union is considered as a whole cooperation of region; without the regime and the different kind of direction addressing the same issue, the different outcomes of cooperation and information could prevent mutual beneficial. As the climate impacts to animals (especially wild animals) not

particularly an issue in one area, so without the same direction on protecting those animals, the impacts and extinction risk could not be improved.

Without a regime, budget management will be difficult, as having the regime to address high issue policy space can reduce transaction cost between states and easier to manage the overall budget for the area. So, the disadvantage is that the protection of animals will require higher cost, leading to less willingness and lack of protection eventually. Lack of regime somehow makes important issue being left out. In this case, the protection of animal welfare from climate impacts are not getting enough attention and commitment, unlike the climate regime of the European Union which received great spotlight and well-planned direction. This shows that having the issue as a regime could make it look more important and require immediate actions in term of legislation.

4.2 The regime obstacles

Currently there is no sign of animal welfare protection from climate change impact initiated as a regime in the level of the European Union. Even the absence of regime causes trouble and make the issue look like a non-important aspect, but why does not European Union just initiate the regime of animal welfare protection from climate change impact; because the cooperation of the nations or, in this case, the regime is difficult to happen due to many obstacle, the difficulty is not specifically occurs in the animal welfare protection from climate change regime only, but in fact, every kind of regime are difficult due to uncertainty in costs and financial needed (Nemet et al., 2010). As to initiate the regime the risk assessment studies on

economic, financial, and benefit must be done and the reason the regime is not proceed further is that the benefit in terms of money the union gets back from the regime is possibly less than the budget requires to for the regime.

(i) Animal value is one of the key sources on why the protection is not worth the cost, as the value of the animal is far less than the human value in terms of money as the animal are unable to participate in economics by themselves (EPA, 2022; Hsiung & Sunstein, 2007), that's why most of the climate policies are aiming on addressing the issue related to human and human activities. (ii) the willingness to protect animal is also an obstacle even the Lisbon treaty has recognized animal as a living-being but it cannot be denied that animals still sometimes be seen as an instrumental object without beneficial to human, unlike farm animals that given benefits to human, that's why most of the guidelines on the animal protection are focused on farm animals which human willing to protect as those animals are part of human economic activities.

Moreover, the study of Berrens et al. (2004) show that the estimate of people's willingness to do financial devotion for climate actions on protecting their own safety is 15 USD per household/month, while the animal welfare is not really necessary thing human needed to devote so the willingness would be much smaller. So, the main obstacles preventing animal welfare protection from climate change regime on happening are Budget, willingness, and animal value.

4.3 Conclusion

Most countries concerned about climate mitigation policies are mainly developed countries, or to it is developed countries' responsibility (Nemet et al., 2010). And as animal welfare protection from climate change has been seen as a sub-faction of climate actions, the devotion to protect animals from climate impacts would be even less. The current European Union legislation and policy (both Regulation and Directive) not show sign of animal protection from climate change, yet to say the European Union does not have a directorate specifically for protecting wild animal from climate change according to COMMUNITIES (1992), the Directive 92 /43 on conservation of natural habitats and of wild fauna and flora (the currently in force directive on wildlife) even it has mention about environmental protection but the protection are specifically from human uses of natural resources example; prevent damage from crops, livestock, fisheries, not the protection from climate impacts or in case of the Regulation 338/97 which see animal protection as a central aim, but it is only in terms of trade, so protection from climate impacts is not exist in the Regulation 338/97.

Both European Union and national level from individual countries specifically Nordic countries which are very advance on climate awareness and climate actions, have an extremely limited legislations or policies to directly protect animal welfare from climate change. So, by having animal welfare protection from climate change initiated as a regime meaning it has come to be regulation and biding with legal status which could make more people, more corporate, and more nations take animal protection into the account of climate policies, not just developed countries alone but developing countries like Bulgaria, Romania are forced to take it as their

responsibility as well. The overall benefit of the regime to the European Union itself is its cost-effectiveness, becoming one as a regime would reduce transaction costs on initiating new policies (Initiate one compared with initiate twenty-seven time), so the area of animal protection from climate change impacts could be more manageable within the regime. (Bradford, 2007).

Another benefit of the animal protection from climate change regime is that more animals will be covered in general protection; according to BROOM (2017), only 65 percent of animals are protected by animal welfare legislation and most of them are accompanied animals, while the rest of 35 percent of animal (about 300 million) are not covered by European Union law, so even this point not related to protection from climate impacts, but those 35 percent left out will be recognized under the same regime, as becoming a regime it would become a mandatory requirement for all of the twenty-seven member states have to follow and go in the same direction toward the same objective, result in the smooth integration on both developed and developing countries. The outcome could beneficially grant those areas of climate change, animal welfare, or animal welfare protection from climate change to be more effective. Even some argument has been made that the climate policies alone are enough to protect animal welfare from climate change; as mentioned in the forest strategy, climate policies do provide animal protection from climate change and help delay the extinction of animals, but it does not explicitly focus on animal directly, it focuses on human with benefit to the animal. If animal protection from the climate regime is initiated, the focus will be merely on the animal.

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