

Media Discourse of Roots Causes and Security Perspectives on Climate Change

Munadhil Abdul Muqstith¹, Valerii Leonidovich Muzykant², Rizky Ridho Pratomo³, Refly Setiawan⁴

¹ Ph.D student in International Journalism in Peoples' Friendship University of Russia (RUDN University), Russia

² Professor of Sociology at Faculty of Philology, Peoples' Friendship University of Russia (RUDN University), Russia.

³ Researcher and Program Manager for Security and Humanity, Center for Humanitarian and Development Studies, Indonesia

⁴ Lecturer in the Department of Public Administration, University of Bandar Lampung, Indonesia



Abstract – Climate change has graced and become a discussion among various media, policy-makers, and security analysts, especially the increasingly visible threat. However, quite a lot of debate is taking place regarding the root causes, although public discourse echoes the anthropogenic theory that says humans are the cause. Besides, naturally, climate change becomes a security issue; of course, it is still only a matter of discourse. This paper wants to describe two things: 1) provide an alternative view of the root causes of climate change; and 2) review climate change as a security issue. The author uses critical security theory because it seeks to reassess security from a critical perspective. The author uses a qualitative approach with data collection methods based on the literature review with analysis-descriptive research. The conclusion is that there are quite a few valid perspectives that humans are not the full cause of climate change, and in the issue of climate change, the biosphere is a threatened entity because they attack the layer of places where living things move. As the most superior entity, humans hold a great responsibility to resolve this issue.

Keywords – Media discourse, Climate Change; Critical Security; Global Security and Environment.

I. INTRODUCTION

Climate change has graced and become a discussion among various media, policy-makers, and security analysts, especially regarding the increasingly visible threats. Of course, there is a debate between those who accept and reject the threat of climate change. However, climate change has become a global issue that moves many actors to solve it.

Regarding the root causes of climate change, many theories have emerged. The world community now accepts that humans are the cause, a version of the Intergovernmental Panel on Climate Change (IPCC). Besides, carbon dioxide is a molecule that causes an increase in the earth's temperature.

Not a few people think that the causes of climate change are more natural. The debate will arise in much academic literature.

We are leaving aside differences in perspectives on root causes, changes in weather result in insecurity in society. In the Global Risk Report released by the World Economic Forum in 2020, many parties agreed that the biggest threat to the earth today is climate change. Therefore, of course, this is commonplace if climate change is called a security threat.

However, is climate change the most significant threat, or is it only politicized? Who is most affected: human, state, environment, or biosphere? These questions positively must

be answered to solve the issue of climate change that is threatening the earth. Therefore, the purpose of this paper is to describe two things: 1) provide an alternative view of the root causes of climate change in media discourse; and 2) review climate change as a security issue in media discourse.

Several literature studies have explained climate change from various perspectives. Bradden R. Allenby wrote an article entitled "Environmental Security: Concept and Implementation" in 2003. The focus here is on the conceptualization of environmental safety. It also tells us about four types of environmental safety. Allenby explained that compartmentalized environmental problems would make it easier to prioritize energy, biology, the environment, and its resources. Addressing sectoral will have an impact on policy formulation.

For example, in an article entitled "Discourses of climate security" in 2013, Matt McDonald carried out extensive studies from critical security studies. His article mapped a different approach to the relationship between climate change and security as a climate security discourse, shared here between national, human, international, and ecological security discourse. McDonald examined that each of these discourses gave rise to different actions.

Joshua S. Goldstein wrote Climate Change as a Global Security Issue in 2016; there are three possibilities to tackle climate change as a security problem: From a military perspective and the use of weapons, the dangers posed by climate change leading to armed conflict, and the concept of global warming itself as a security threat. Two of the three possibilities are seen from the state's perspective, and the last dealing with civilization as a whole. That is understandable because if we talk about security, both deal with how state policies or human ability to fight as a whole.

II. LITERATURE REVIEW

2.1. Defining the Concept of Security

What is security? For Wolfers, security, in its dual meaning, refers to the absence of objective hazards, namely the security of 'threats,' 'challenges,' 'vulnerabilities' and 'risks,' and subjective fears, and subjectively to perceptions about them. (Brauch, 2005, p.9) Regarding this definition, we can interpret it broadly about security itself.

However, speaking of the 'object' security, some perspectives vary greatly. Classical paradigms such as realists will certainly talk about the state because they are security providers. At the same time, constructivists and critical security reject that view. According to Krause and Williams (1996), the basic claim of a critical and constructivist

approach is that "security" is not an objective condition, that the threat to it is not merely a matter of correctly understanding the constellation of material forces, and that security objects are unstable or unchanging. (1996, p. 242). So, from a critical perspective, security is a subjective condition. In a simple sentence, Ken Booth explained that security is "the absence of threat" (Booth, 1991, p. 319). He then explained it in the word emancipation, which means: the liberation of people (as individuals and groups) from physical and human constraints that make them stop doing what they choose freely. (Booth, 1991, p. 319)

According to the authors, this paper's most appropriate approach is to use the critical security paradigm. Security is a derivative concept; that is, the security view we get comes from the way we see the world and the way we think politics works: what we think is the most important feature of world politics will influence what we consider to be threats, what needs to be protected, and hence the way we define security. (Peoples & Vaughan-Williams, 2010, p. 22). From Ken Booth's definition, we understand that some questions must be asked if we refer to the security terminology as the absence of threats. Peoples & Vaughan-Williams (2010) says:

"When we examine such a definition in more detail, however, we come up with a range of related questions that are among contested (and most interesting) within the subject area: What kinds of 'threats' do we want to be from? Who or what is it that 'threaten' us? How do we define 'the' we seeking freedom from threats? Is it the individual, group, nation, state, or all of the above? Even if we can answer these questions, how do we go about achieving security?" (2010, h. 22)

Therefore, based on this background, the author wants to review climate change as a security issue using a critical security approach. This article is divided into several sections. First, the author will examine the debate about the root causes of climate change. The second continues whether climate change is dangerous. Third, explain which party is threatened and how much responsibility is assumed. As a limitation, the author does not answer how to achieve security because it is sectoral and specific (agriculture, energy, and economy).

III. RESEARCH METHODS

This type of research is library research, a series of studies relating to collecting library data, or research where the object of research is explored through various library information (books, encyclopedias, scientific journals, newspapers, magazines, and documents). According to Sugiyono,

literature research or literature review critically examines or reviews the knowledge, ideas, or findings in the academic-oriented literature and formulates theoretical and methodological contributions to certain topics (Setiawan, 2016).

Library research focuses on finding various theories, laws, propositions, principles, or ideas used to analyze and solve the research questions formulated (Farida & Setiawan, 2018). This research is a descriptive analysis, which regularly describes the data that has been obtained. It is given an understanding and explanation to be understood properly by the reader (Farida et al., 2020).

The data used in this research is secondary data. Secondary data is data obtained, not from direct observation. However, these data were obtained from the results of the research that had been conducted by previous researchers. The secondary data sources are in the form of books and primary or original scientific reports in articles or journals (printed and/or non-printed) relating to the media discourse of roots causes and security perspectives on climate change. Source selection is based on four aspects, namely (Setiawan, 2017) :

Provenance (evidence), namely aspects of the author's credentials and evidence support, for example, the main source of history. Objectivity, namely whether the perspective idea from the author has many uses or is it detrimental. Persuasiveness (degree of confidence), namely whether the author is a person who can be trusted. Value (contributive value), namely whether the author's argument is convincing and has a significant contribution to other research.

IV. RESEARCH RESULTS AND DISCUSSION

4.1. Examining the Root Causes of Climate Change

The discussion of the root causes of climate change is more technical. However, there are differences of opinion about the origin of this phenomenon. The objectives of climate change have different opinions from each party. The IPCC says that the cause is the human activity itself through the anthropogenic global warming theory. According to the Anthropogenic Global Warming Theory (AGWT), humans have caused more than 90% of global warming since 1900 and nearly 100% of global warming since 1970. (Scafetta, 2010) Trenberth (2018) confirms this opinion and says that

human activity has caused carbon release dioxide and "greenhouse" gases that trap enough heat to change the composition of the atmosphere, resulting in the accumulation of heat in the earth's system, commonly referred to as "global warming." (2018, p. 1)

The narrative that develops in public, in general, is that climate change occurs due to the mistakes of humans themselves. The issue of climate change is the subject of 'public discourse.' Mayer (2012) explains it briefly about this discourse:

"Subsequent populist works such as Lyna's Six Degrees, Pearce's The Last Generation, and Lovelock's Revenge of Gaia produced powerful narratives that embraced a similarly existentialist language. John Houghton, who served for the IPCC as co-chairman of the first working group, called climate change "a weapon of mass destruction" in contradiction to the linear orthodoxy to which most of his colleagues and the IPCC reports still adhered." (Mayer, 2012, h. 172)

CO2 contributes to the increase in the earth's temperature and makes it less comfortable for activities. This highly developed discourse has led to a collective movement on contributing even the smallest way to resolve this issue. Many articles discuss how to reduce the effects of climate change, such as the meat diet, and reduce the use of motorized vehicles. This also has implications for state and company policies, especially with carbon market policies.

However, there are several opposing opinions from public discourse, especially those related to the whole human being, which cause climate change. This makes two opposing camps where opposition to anthropogenic theory is called denial. Nicola Scafetta said that there are two fundamental issues: 1) This claim is non-physical because when solar activity increases, the climate warms up, and this causes an increase in the concentration of CO2 and C.H. in the atmosphere; 2) how much global warming can be caused by an increase in atmospheric concentrations of CO2 (or C.H.). (Scafetta, 2010, pp. 4-6). Furthermore, Scafetta said that If greenhouse gases such as CO2 are the main cause of global warming, climate sensitivity to CO2 increases with a minimum error of 50% (along with extreme aerosols that force uncertainty) can only raise strong doubts about the scientific robustness of IPCC climate change interpretations (Scafetta, 2010, p.6).

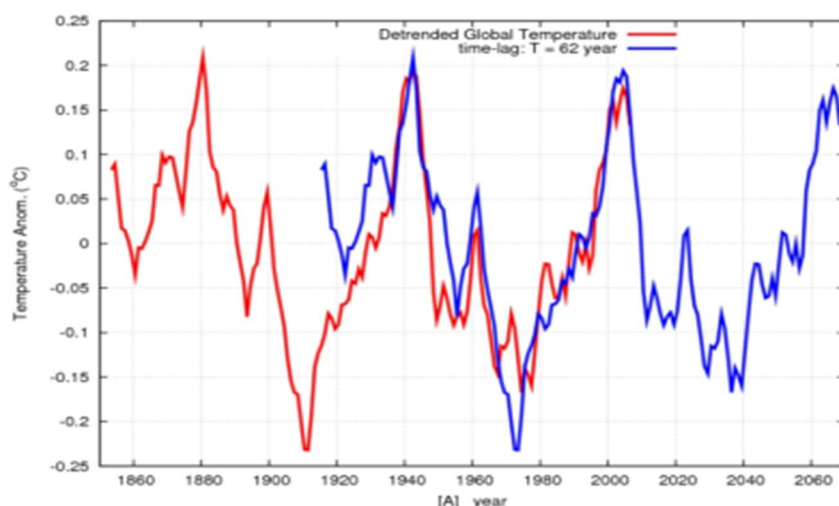


Figure 1: 60-year cycle (Scafetta, 2010)

Scafetta described the rise in temperature as a result of a 60-year cycle. The red line illustrates the temperature graph, while the blue line shows a 60-year cycle. During the cycle period, weather changes are more a cycle than humans as the cause. Nature has its process so that humans can only enjoy the results themselves. Based on these findings, Scafetta explained that: "... the natural contribution to warming since 1970 may have been even larger than 60%. Human emissions can have contributed to the remaining 40%, or less, of the warming, observed since 1970, not the 100% as claimed by the IPCC. (Scafetta, 2010, p. 18)

Rey J. Fleming also put forward a popular counter-perspective. Climate change itself is quite complex and covers a large spectrum of time and space scales. (Fleming, 2020, p. 1). Therefore, an analysis of climate change from time to time during the earth's life span is needed to

understand the big picture of the root causes of climate change. A good environment can also affect climate change, therefore it needs serious attention to the environment (Kusuma & Setiawan, 2018).

According to Fleming, climate changes are three reasons: (1) the strength of the Sun's magnetic field (the differential rotational function and angular momentum rotation and its effect on solar dynamo). Space (a). Weak fields allow light to attack the earth, forming more clouds and cooling the earth. (3) Additional orbital angular momentum (which adds to the Sun's rotation) due to the Sun's movement about the center of mass of the earth's mass. solar system (SSB - the center of the solar system), which changes due to the Sun's position and the position of the four main planets. (Fleming, 2020, p. 83). Meanwhile, Scafetta described it as a 60-year cycle to show the absence of CO₂'s contribution to climate change.

Tabel 1: climate change timeline (Fleming, 2020, p. 24)

Table 5.1 List of significant periods of warm and cold (bp = years before present)

Climate changes	Dates of changes
Holocene warming a	11,600–8500 bp
Egyptian cooling	8500–8000 bp
Holocene warming b	8000–5600 bp
Akkadian cooling	5600–3500 bp
Minoan warming	3500–3200 bp
Bronze age cooling	3200–2500 bp
Roman warming	500 BC–535 AD
Dark ages	535 AD–900 AD
Medieval warming	900 AD–1300 AD
Little ice age	1300 AD–1850 AD
Modern warming	1850 AD–.....

Fleming also has in common with Scafetta that climate change is a natural cycle. The process also alternates; in one heat, in another cold. Although it differs from the Scafetta method, which uses a 60-year pattern or cycle, there is a common ground that human contribution to climate change is not too significant compared to what is assumed by the IPCC. This certainly can be the basis for policy-makers to make environmental policies based on complex research results.

The author agrees that climate change is a complex process involving many variables. Based on Scafetta's view, humans are indeed the causative variable, but not determinants. Natural conditions become the main determinant itself when referring to the historical Fleming timeline. After that, there is a question that must be answered, of course; Does the current climate change threaten the lives of many people?

4.2. Danger but Sectoral and Predictive

This question is raised in various walks of life. Are we currently at a point that threatens human life, or is this just an ordinary, non-threatening natural cycle? The world was shocked when Greta Thunberg appeared at the U.N. forum in 2018 and gave a speech.

"My message is that we'll be watching you. This is all wrong. I shouldn't be up here. I should be back in school on

the other side of the ocean. Yet you all come to us young people for hope. How dare you! You have stolen my dreams and my childhood with your empty words. And yet I'm one of the lucky ones. People are suffering. People are dying. Entire ecosystems are collapsing. We are at the beginning of mass extinction, and all you can talk about is money and fairy tales of eternal economic growth. How dare you!" (Nikkei, 2019)

This Greta speech contains a very explicit message saying that we are currently on the path to extinction where people are suffering and ecosystems are destroyed. This speech, filled with anger emotions, became a wake-up call for people throughout the world to take collective actions to prevent this mass destruction.

A global behavior survey conducted by the Pew Research Center of 27,612 respondents in 26 countries from May to August 2018 shows that climate change is considered the most frightening problem. (Muzykant & Muqsith, 2020, p. 166) Half of the respondent countries (13 countries) ranked the issue at the top, defeating Islamic state groups' concerns in Iraq and Syria (NIIS) and cyber attacks. (Muzykant & Muqsith, 2020, p. 166) Between 1999 and 2018, around 495,000 people died worldwide, and a loss of U.S. \$ 3.54 trillion (in PPP) occurred as a direct result of more than 12,000 extreme weather events (Eckstein, Künzel, Schäfer, & Wings, 2020, p. 5).

Tabel 2: The 10 most affected countries (Eckstein, Künzel, Schäfer, & Wings, 2020, p. 6)

Ranking 2018 (2017)	Country	CRI score	Death toll	Deaths per 100 000 inhabitants	Absolute losses (in million US\$ PPP)	Losses per unit GDP in %	Human Development Index 2018 Ranking ¹²
1 (36)	Japan	5.50	1 282	1.01	35 839.34	0.64	19
2 (20)	Philippines	11.17	455	0.43	4 547.27	0.48	113
3 (40)	Germany	13.83	1 246	1.50	5 038.62	0.12	5
4 (7)	Madagascar	15.83	72	0.27	568.10	1.32	161
5 (14)	India	18.17	2 081	0.16	37 807.82	0.36	130
6 (2)	Sri Lanka	19.00	38	0.18	3 626.72	1.24	76
7 (45)	Kenya	19.67	113	0.24	708.39	0.40	142
8 (87)	Rwanda	21.17	88	0.73	93.21	0.34	158
9 (42)	Canada	21.83	103	0.28	2 282.17	0.12	12
10 (96)	Fiji	22.50	8	0.90	118.61	1.14	92

PPP = Purchasing Power Parities. GDP = Gross Domestic Product.

The Global Climate Risk Index issued by Germanwatch in 2020, which is based on data on the impact of extreme events and socio-economic, explains that there are ten countries most affected by climate change. Japan, Germany, and Canada are developed countries with the highest climate change risk index. In terms of the number of victims, India is the most numerous country, with 2,081. This shows that

climate change risks attacking anyone. However, it needs further assessment and deeper variables about this.

Also, analyzing the impact of climate change as a whole requires a lot of cross-cutting intellectuals. This is because climate change can be viewed from a social perspective, especially if people are still fond of this anthropocentric theory. Sciences such as biology, meteorology, geography,

oceanography, and others are needed. It takes a combination of natural and social sciences to convey their impacts thoroughly, both numerically and emotionally. But indeed, the intellectual field of the impact of climate change on conflict is characterized by diverse disciplinary and institutional interests, data collection methods and analysis, and very different opinions about what is conveyed by the data. (Abraham & Carr, 2017, p. 1)

Besides, according to the authors, the issue of climate change is predictive. The literature review on this subject addresses vulnerability and risk, both of which are preventable variables. However, due to the many factors of climate change, the situation is uncertain. That is the source of insecurity for the community because it is faced with a probability situation. If it leads to the definition of security, these two things make human psychology in worry and doubt. This makes humans not free from threats.

When this domain is brought into the country, there is no common view that climate change is a security issue. Jarrod and Janelle (2014), in an article entitled "Security in Climate Change Discourse: Analyzing the Divergence between U.S. and E.U. Approaches to Policy," illustrates that there are differences in attitudes about the attitude of the European Union and the United States influenced by political institutions. Political institutions influence the taking of climate change discourse as a security issue. Besides, the U.S. sees it as a threat, while the European Union considers this issue to be an opportunity to build leadership and partnership.

However, measuring how the effects or impacts of climate change are quite difficult. The risks and threats of climate change are quite heterogeneous and are shaped by several factors, including geographical location, affected entities, and social environment. (Scheffran, 2011, p. 743).

Also, Barnett and Adler explain that the vulnerability (potential loss) of people to climate change depends on the extent to which they depend on natural resources and ecosystem services, the extent to which the resources and services they rely on are sensitive to climate change, and their capacity to adapt. changes to these resources and services. (Barnett & Adger, 2007, p. 641)

Therefore, of course, the effects of climate change differ from one another. Most of the effects of change protagonist the African region and the Pacific islands are prime examples. As a start, Kotir (2011), who assessed how food safety in the sub-Saharan Africa region, concluded that:

"The magnitude of the impacts of climate change is not going to be the same for every region or country in SSA. Hot and dry parts of Africa are likely to be severely affected. The distributions of impacts arising from the variety of climate scenarios and crop models used, and the different analytical methods used to assess current and projected impacts. The extent of climate change and spatial patterns of impacts are, however, highly uncertain." (2011, h. 600)

The form of projections explained how food safety predictions, when exposed to climate change. However, speaking of the country's area affected, it can be said that the Pacific island nation has the potential to be significantly affected. According to NASA reports, the sea level has experienced a large increase during the last nine years. In 2010, the sea level was in the range of 53.9 mm; the latest data showed that the sea level was at 96 mm. This increase certainly has an impact on the life of the Tuvalu island nation.

Tuvalu people are aware that there is a change in their environment. Fisher surveyed Tuvalu's people to see their response to the issue of climate change.

Tabel 3: Tuvalu community survey (Fisher, 2011, p. 301)

Table 2. Survey results for select questions. The responses here represent respondent's perceived changes over the last ten years.

Tuvalu survey results on select questions (%) (Perceived changes over the last 10 years)

	(4) Significant	(3) Moderate	(2) Minor	(1) Minimal	0 No Change	(-1) Minimal	(-2) Minor	(-3) Moderate	(-4) Significant
Δ Ocean temp	15.63	34.38	30.21	11.46	8.33	0	0	0	0
Δ Quantity of fish	1.69	2.54	1.69	0	0.85	11.02	33.05	29.66	19.49
Δ Consumption of imported foods	41.04	34.33	13.43	6.72	0.75	1.49	0	0.75	1.49
Δ Health	8.27	21.80	20.30	4.51	21.80	3.76	6.77	5.26	7.52
Δ Garbage/physical waste	67.18	12.98	16.79	2.29	0.76	0	0	0	0
Cultural loss					21.57	22.55	35.29	12.75	7.84

The people of Tuvalu are feeling climate change on food issues. They think that they currently consume imported food.

Ten years ago, the people of Tuvalu did not feel the effects of climate change, but, ten years later, they felt the effects. In

addition, there is a change in the level of concern (scale 0-9), where in the past ten years, the average was only 3.53. However, ten years later, the average level of concern was 6.36. Fisher concluded that "as the effects of climate change through society or communities, they not only change the environment, they also create new trajectories of vulnerability that affect the underlying human support systems, such as development, development, health, food security, quality environment, political capacity, resources power, and ecosystem biodiversity. " (Fisher B. P., 2011, p. 311)

At the country level, the survey results from this community show that the impact of climate change has been felt by Tuvalu. The first impact felt is how their consumption patterns rely on imports. Due to the effects of rising seawater, agriculture has become ineffective because irrigation water has been contaminated, so the Tuvalu government has adopted a food import policy to meet their primary needs.

Not all impacts of climate change are felt in various countries in the world. Therefore, not many countries feel the "urgency" of climate change security itself. Although actually, if you see from Tuvalu, which is an archipelago that is on the verge of sinking, people, heads of state, and policy-makers should have prepared themselves. However, the results of COP 25 in Madrid, where there are no more ambitious targets to prove this.

According to the authors, the dangers of climate change are actually real, but the impact has not been felt, so that it appears absent on the surface. Goldstein described this very brilliantly:

"Most importantly, "tipping point" scenarios of climate change, such as the onset of a new ice age, could pose threats to civilization potentially comparable to the nuclear war fears of earlier times, yet these scenarios remain highly uncertain as of today. The danger is real but not present." (Goldstein, 2016, h. 96)

Thus, the issue of climate change from a security perspective is more inclined towards discourse because not all parts of the world experience the same thing as Tuvalu or the African region. In short, the relationship between the impacts of climate change and conflict outcomes is very time-specific and is a product of many different factors. (Abraham & Carr, 2017, p. 1)

4.3. Climate Change and Critical Security Perspectives

An interesting link between climate change and how threatened by these communities is that many voices say that climate change will result in resource shortages,

environmental conflicts, migration, etc. Still, this threat is more predictive than direct effects. The atomic bomb is a clear and immediate threat so that no one can ignore it, but global warming, by contrast, is a more fuzzy and protracted threat. (Harari, 2018, p. 130). In other words, climate change is dangerous but in the future.

When viewed from a critical security perspective, who is threatened, will produce very varied answers. For example, the State of Tuvalu, which is threatened due to rising sea levels, can be a national threat because its existence threatens both the country and its people. However, if you want to be called a global threat, Tuvalu's problems can be raised to security issues through speech acts from political leaders. Depending on who raises the issue, climate change will become a global threat.

Climate change can also be linked to state threats and military use. There are three reasons why this is done: 1) The armed forces use a significant amount of natural and financial resources, making it an important factor in the balance of national energy and an effective competitor for government spending on climate change; 2) climate change will change the strategic and operational environment of the military, giving them new choices and challenges; and 3) there is a danger that climate change can be 'militarized' by defense officials who support the use of force to deal with mass migration and other destabilizing responses to environmental disasters, even when better alternatives are available. (Brzoska, 2012, pp. 43-44) In other words, military use can be an option, especially if there are incidents such as civil war and mass chaos.

The environment is also the subject of climate change security, and this may be felt first. Sea level rise and temperature of the earth are increasing slowly but surely are the first effects felt directly from climate change. The most threatened areas due to environmental damage caused by a combination of nature and humans like in Manila, Lagos, Haiti, and Kiribati. Also, one study examined how the effects of climate change on food security, agricultural productivity in Sub-Saharan Africa: (1) direct effects on rainfed yields through changes in temperature and rainfall; (2) indirect effects on irrigation results from changes in temperature and water available for irrigation (including rainfall); and (3) autonomous adjustments to areas and outcomes due to price effects and changes in trade flows in the economic model. (Ringler, Zhu, Cai, Koo, & Dingbao, 2010)

However, if you look at threats from the state's perspective - especially if from the use of the military, the state only carries out its duties as a guardian of order so that the country is

stable. A stable country will make people do their activities well and without the slightest disturbance to security. From an environmental perspective, damaged ecosystems threaten animal and plant habitats. Humans also cut down damaged trees for the benefit of industry-capitalism. Human activity has also introduced new biophysical factors into the biosphere and has begun to change physical parameters that determine the functioning of the main processes of the Earth system. (Dalby, 2014, p. 3)

From a human perspective, in UNDP's view, one of the threats felt by humans is from the environment. For example, threats to fertile soils result in disrupted food production, and the consequence is that humans can reduce their food consumption. Furthermore, their existence will be threatened if they lose their homes, like those in Tuvalu.

If, for example, it is pursued, the conclusion is that humans are the entities affected. Dalby explained that climate is a problem in human affairs today, especially regarding the impact that a more severe storm might have and more extreme weather events on unprepared populations in the coming decades. (Dalby, 2013, pp. 39-40). However, on this earth, there are plants, animals, and humans threatened by climate change. So, who is threatened?

Humans, animals, and plants live in one order called the biosphere. The biosphere itself is the area where we live today, where there is the possibility of organisms (humans, animals, and plants) to live on planet Earth, so this illustrates who is threatened due to climate change. Antonescu well describes the biosphere security terminology: "...the phrase 'biosphere security' is the reflection of a legal and organic connection between the determined human communities and planet Earth (defined as 'biosphere,' as a 'living organism, formed of the totality of terrestrial ecosystems,' in a permanent natural, fragile, unique balance). Simultaneously, it is a phrase denoting the organic connection (also expressed in legal terms of rights and obligations, responsibilities of humanity, among the state and non-state actors that interfere with the environment) between humanity, the human civilization overall, and planet earth." (Antonescu, 2017, h. 77)

Therefore, when it says that climate change affects humans, it negates other organisms that are also affected by the same, both due to nature and the environment. According to the authors, climate change is caused by nature and humans. Also, because the most superior organisms, among others, are humans or *homo sapiens*, it is humans who hold the greatest responsibility for caring for the earth. So, according to the author, "we" should be defined as a whole. All organisms live

in this biosphere, both by politicians, policy-makers, and climate change activists.

4.4. Big Responsibility

The most prominent indirect security implication of climate change is the idea of climate change as a multiplier of threats and drivers of violent conflict. (Huntjens & Nachbar, 2015, p. 1) The effects of climate change do not directly impact all countries, but the environment and in some places have felt the consequences. Also, this future threat-oriented threat makes many parties do not believe in the threat itself.

Dalby (2014) explains this threat quite accurately:

"Climate change and carbon dioxide levels are only one facet of the changes that matter. The artificial 'fixing' of nitrogen, the rapid increase in human appropriations of 'natural' productivity, the extinction of avian and mammalian species – not to mention the 'fishing down' of the oceanic fish stocks – all interact in fashions that we don't yet understand. What is clear is that many of these relationships work in nonlinear ways that will produce surprises in the future." (Dalby, 2014, h. 4)

In other words, this nonlinear nature makes many perceptions of predictive and oriented threats to the future. However, overcoming threats at this time is a wise step to ensure that all living organisms. Humans hold a great responsibility to maintain the biosphere so that it is still possible to carry out life there.

"Human actions are often viewed as external drivers of ecosystem dynamics; examples include fishing, water-extracting, and polluting. Through such a lens, the manager is an external intervener in ecosystem resilience. However, many of the serious, recurring problems in natural resource use and environmental management stem precisely from the lack of recognition that ecosystems and the social systems that use and depend on them are inextricably linked." (Folke et al., 2011, h. 720)

Therefore, what humans do now will greatly affect the survival of the biosphere going forward. We do not want the layers where our lives are threatened due to climate change issues. Moreover, now we are entering the Anthropocene era where humans can cause significant changes to the earth's environment on a massive scale. Humanity is now the new geomorphic agent on the planet. While we are relatively a small force compared to natural forces, human actions are large enough to reshape how the biosphere is governed, and in the process of deciding (whether we intend to do it or not) will be like what its climate and how acidic the seas are in the

coming centuries, and hence how the stage for human drama will be arranged. (Dalby, 2014, pp. 7-8)

According to the author, in carrying out the great responsibility to maintain the biosphere's security, it is important to change the mindset that it is not only humans that are affected but also other organisms that live side by side with us. With this, humans will have a comprehensive perspective on climate change problems and their impacts on the biosphere. As living things, we don't want to be in the confines of any threat, including climate change.

In the state structure, it is important to maintain the inclusiveness and conduciveness of the situation so that the adaptation and mitigation measures that are sounded are running smoothly. On a global scale, some projections of change in the next 30 years have scary scenarios and huge potential losses. So it requires collaboration between stakeholders: government, activists, the private sector, individuals, NGOs, and academics following their respective expertise.

Yuval Noah Harari (2018) adds an explanation of what needs to be done to tackle climate change:

"Therefore, there are many things that governments, companies, and individuals can do to avoid climate change. But to be effective, it must all be done at a global level. When it comes to climate, countries are not sovereign. " (Harari, 2018, h. 128)

However, please note that climate change is not purely from humans, but nature also plays a big role in the various kinds of cycles that accompany it. Organisms on earth are only temporary inhabitants of the biosphere, while the earth is its master. However, as passengers, we need to maintain safety and order as much as possible to not cause more damage. Therefore, policies issued on a global, national, and local scale must be oriented to maintaining the biosphere so that it is still possible to live.

V. CONCLUSION

The issue of climate change has a new impact that will be felt in the coming years. However, some real changes have been felt in several places, such as Tuvalu and Sub-Saharan Africa, plus a Global Climate Risk Index report detailing which countries are most at risk of climate change. Both developed and developing countries are at risk. In Sub-Saharan Africa, explaining only from the perspective of climate change is only one cause among several other causes. Also, we need to understand the causes of climate change itself critically. Anthropogenic theories themselves are not the main cause, although indeed they contribute to the change

itself. However, this still needs to be criticized for grasping the problem more fully and formulating various solutions based on the cause.

The issue of climate change does not only attack humans but the biosphere. The biosphere is the layer where we live. Not only humans are affected but also plants and animals. The difference is important because, from much literature, the threat of climate change is always associated with human, state, environmental, and global security. In fact, broadly speaking, when the biosphere is damaged, the perceived impact will be very broad and comprehensive; to the life of the organism as a whole. It is very common for every country, individual, and organization to have a different perspective because they see climate change as a threat that only threatens certain regions. In fact, a fairly developed country like the Netherlands can sink if seawater gets higher because of its geographical position below sea level.

However, climate change is not a real threat now, but rather its effects in the future. However, that does not mean we should be indifferent. Humans play a very big role because they are superior to organisms. Anthropocene emphasizes how connected humanity is and that now our planet's collective destiny requires the illusion of separation must be abandoned. (Dalby, 2014, p. 7) Mitigation and adaptation measures implemented early on will have a profound effect on other future lives.

REFERENCES

- [1] Abraham, D., & Carr, E. R. (2017). Understanding the Connections Between Climate Change and Conflict: Contributions From Geography and Political Ecology. *Curr Clim Change Rep*, 1-10.
- [2] Al-Rodhan, N. R. (2011). *The Politics of Emerging Strategic Technologies Implications for Geopolitics, Human Enhancement, and Human Destiny*. Hampshire: Palgrave McMillan.
- [3] Antonescu, M. V. (2017). The Concept of "Biosphere Security": Towards A Global Diplomacy of Biosphere Security. *Strategic Impact, Vol. 62, No.1*, 75-82.
- [4] Barnett, J., & Adger, W. N. (2007). Climate change, human security, and violent conflict. *Political Geography, Vol. 26*, 639-655.
- [5] Booth, K. (1991). Security and Emancipation. *Review of International Studies, Vol. 17, Issue 4*, 313-326.
- [6] Brauch, H. G. (2005). *Threats, Challenges, Vulnerabilities, and Risks in Environmental and*

- Human Security*. Bonn: UNU Institute for Environment and Human Security.
- [7] Brzoska, M. (2012). Climate Change and the Military in China, Russia, the United Kingdom, and the United States. *Bulletin of the Atomic Scientists*, Vol. 68, No. 2, 43-54.
- [8] Chandrasekhar, A. (2019, December 21). *The U.N. climate talks ended in deadlock. Is this really the best the world can manage?* Retrieved February 6, 2020, from The Guardian: <https://www.theguardian.com/commentisfree/2019/dec/21/un-climate-talks-deadlock-cop25>
- [9] Dalby, S. (2013). The Geopolitics of Climate Change. *Political Geography* Vol.37, 38-47.
- [10] Dalby, S. (2014). Rethinking Geopolitics: Climate Security in the Anthropocene. *Global Policy*, Vol. 5. No. 1, 1-9.
- [11] Eckstein, D., Künzel, V., Schäfer, L., & Wings, M. (2020). *GLOBAL CLIMATE RISK INDEX 2020: Who Suffers Most from Extreme Weather Events? Weather-Related Loss Events in 2018 and 1999 to 2018*. Bonn: Germanwatch e.V.
- [12] Farida, I. & Setiawan, R. (2018). Leadership in Cope With Prostitute in Social Department of Bandar Lampung. *International Journal of Social Sciences And Development*. 2 (1). <http://dx.doi.org/10.24967/saburajssd.v2i1>.
- [13] Farida, I., Setiawan, R., Maryatmi, A.S., & Juwita, M.N. (2020). The Implementation of E-Government in The Industrial Revolution Era 4.0 in Indonesia. *International Journal of Progressive Sciences and Technologies*. Vol. 22 (2).
- [14] Fisher, (. 2011). Climate change and human security in Tuvalu. *Global Change, Peace & Security*, Vol. 23, Issue 23, 293-313.
- [15] Fisher, B. P. (2011). Climate change and human security in Tuvalu. *Global Change, Peace & Security*, 23:3, 293-313.
- [16] Fleming, R. J. (2020). *The Rise and Fall of the Carbon dioxide Theory of Climate Change*. Cham: Springer.
- [17] Folke, C., Jansson, A., Rockström, J., Olsson, P., Carpenter, S. R., ..., et al. (2011). Reconnecting to Biosphere. *Ambio*, Vol. 40, No. 7, 719-738.
- [18] Goldstein, J. S. (2016). Climate Change as a Global Security Issue. *Journal of Global Security Studies*, 95-98.
- [19] Gresh, G. F. (2017). A Vital Maritime Pinch Point: China, the Bab al-Mandeb, and the Middle East. *Asian Journal of Middle Eastern and Islamic Studies* Vol. 11, No. 1, 37-46.
- [20] Harari, Y. N. (2018). *21 Lessons: 21 Adab untuk Abad ke-21*. Manado: CV. Global Indo Kreatif.
- [21] Huntjens, P., & Nachbar, K. (2015). *Climate Change as a Threat Multiplier for Current and Future Conflict*. Den Haag: The Hague Institute of Global Justice.
- [22] Kotir, J. H. (2011). Climate change and variability in Sub-Saharan Africa: a review of current and future trends and impacts on agriculture and food security. *Environment, Development, and Sustainability*, 587-605.
- [23] Krause, K., & Williams, M. C. (1996). Broadening the Agenda of Security Studies: Politics and Methods. *Mershon International Studies Review*, Vol. 40, No. 2, 229-254.
- [24] Kusuma, Y., & Setiawan, R. (2018). Start-Up of Creative Industry of Additives Onggok Charcoal Additives (International Conference on Low Carbon City Design, Japan)--(Section: Energy and Environment). *JAILCD*. Asian Institute of Low Carbon Design. 255-258.
- [25] Lintner, B. (2019, December 9). *Sri Lanka's transition opens the way for China*. Retrieved February 5, 2020, from Asian Times: <https://www.asiatimes.com/2019/12/article/sri-lankas-transition-opens-the-way-for-china/>
- [26] Manek, N. (2019, April 6). *Djibouti Needed Help, China Had Money, and Now the U.S. and France Are Worried*. Retrieved February 5, 2020, from Bloomberg: <https://www.bloomberg.com/news/features/2019-04-06/djibouti-needed-help-china-had-money-and-now-the-u-s-and-france-are-worried>
- [27] Mayer, M. (2012). Chaotic Climate Change and Security. *International Political Sociology*, 165-185.
- [28] Muzykant, V., & Muqsith, M. A. (2020). Media Educational Approach to Climate Change News

- Agenda in Russia. *Media Education (Mediaobrazovanie)*, Vol. 60, No. 1, 166-178.
- [29] Nikkei. (2019, September 25). 'How dare you': Transcript of Greta Thunberg's U.N. climate speech. Retrieved March 11, 2020, from Nikkei Asian Review: <https://asia.nikkei.com/Spotlight/Environment/How-dare-you-Transcript-of-Greta-Thunberg-s-UN-climate-speech>
- [30] Peoples, C., & Vaughan-Williams, N. (2010). *Critical Security Studies: An Introduction*. Abbingdon: Routledge.
- [31] Ringler, C., Zhu, T., Cai, X., Koo, J., & Dingbao, W. (2010). *Climate Change Impacts on Food Security in Sub-Saharan Africa: Insights from Comprehensive Climate Change Scenarios*. Washington: International Food Policy Research Institute.
- [32] Scafetta, N. (2010). Climate Change and Its Causes: A Discussion About Some Key Issues. *La Chimica e l'Industria* 1, 70-75.
- [33] Scheffran, J. (2011). Security Risks of Climate Change: Vulnerabilities, Threats, Conflicts, and Strategies. In H. B. al, *Coping with Global Environmental Change, Disasters and Security, Hexagon Series on Human* (pp. 735-757). Berlin: Springer-Verlag.
- [34] Setiawan, R. (2017). Partisipasi Publik Dalam Program Bantuan Listrik Pedesaan Masyarakat Kabupaten Mesuji. *Jurnal e-JKPP*. Vol. 3 (3)
- [35] Setiawan, R. (2016). Peranan Etika Aparatur Sipil Negara Dalam Pelayanan Publik Pada Dinas Kependudukan Dan Catatan Sipil (Disdukcapil) Kota Bandar Lampung. *Jurnal e-JKPP*. Vol. 2 (2)
- [36] Stone, A. (2019, December 20). *Madrid Climate Conference Failed, But Silver Lining Exists*. Retrieved February 6, 2020, from Forbes: <https://www.forbes.com/sites/andystone/2019/12/20/madrid-climate-conference-failed-but-silver-lining-exists/#29bab0ca137c>
- [37] Trenberth, K. E. (2018). Climate change caused by human activities is happening. It already has major consequences. *Journal of Energy & Natural Resources Law*, 1-6.