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## Case Study Of Forest Conversion Into Palm Oil Land In Indonesia From An Environmental Security View

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### Abstrak

Dalam artikel ini, penulis membahas mengenai isu keamanan lingkungan yang dimana isu ini merupakan bagian dari konsep keamanan manusia (*Human Security*). Keamanan lingkungan merupakan isu keamanan non-tradisioanal yang bertujuan untuk melindungi tanah, air, udara dan lain sebagainya. Penulis membatasi kasus dalam isu alih fungsi hutan atau sering disebut dengan deforestasi menjadi lahan sawit di Indonesia. Seperti yang kita ketahui bahwa isu lingkungan masih menjadi salah satu isu yang mendapat perhatian cukup banyak dikarenakan memang lingkungan yang seharusnya dapat dimanfaatkan dengan baik malah rusak ataupun dirusak sehingga berkurang bahkan hilang fungsi dari lingkungan itu sendiri. Maka dari itu artikel ini membahas mengenai konversi hutan yang terjadi di Indonesia dalam pandangan keamanan lingkungan. Hasil dalam artikel ini menyatakan masih terdapat masyarakat yang terkena dampak dari adanya konversi hutan menjadi lahan sawit di Indonesia.

Kata Kunci: Deforestasi, *Human security*, Indonesia, Keamanan lingkungan, Lahan sawit

## Abstract

In this article, the author discusses the issue of environmental security, which is part of human security. Environmental security is a non-traditional security issue that aims to protect land, water, air, etc. The author limits the case to the issue of forest conversion, often referred to as deforestation, into oil palm land in Indonesia. As we know, environmental problems are still one of the issues that get a lot of attention because the environment that should be able to be used properly is actually damaged or damaged, reducing or even losing the function of the environment itself. Therefore, this article discusses forest conversion that occurs in Indonesia from an environmental security perspective. The results in this article show that there are still people who are affected by the conversion of forests to oil palm land in Indonesia.

Keywords: *Deforestation, Environmental security, Human Security, Palm oil land.*

## INTRODUCTION

Since the end of the Cold War, the concept of security can no longer be interpreted only through military aspects. The expansion (widening) of the security concept means it can be interpreted from non-military aspects. This aligns with the 1994 UNDP report, which stated that post-Cold War security was not just about weapons but also human life and dignity in seven categories, including Environmental Security (Environmental Security) and individual Security (Personal Security). Community Security and Political Security. One of the topics that will later become the theme of this article is Environmental Security.

Indonesia's forests are often referred to as one of the world's lungs because they are able to absorb dangerous carbon dioxide and produce oxygen gas, which humans need to survive (Dita Shafitri & Prasetyo, 2018). There are five main environmental issues, one of which is land loss due to deforestation and land conversion for plantations. The palm oil industry is the most significant foreign exchange contributor in Indonesia and is able to absorb large amounts of labor so that oil palm plantations can continue to grow significantly (Horas et al., 2017). Although oil palm plantations support the national economy strategically, they also have negative impacts, including the potential to damage the environment and trigger social conflict. According to estimates, pulp and paper production accounts for 20% of Indonesia's deforestation, while land conversion to oil palm plantations accounts for 57% of the country's deforestation. Indonesia experiences forest fire disasters almost yearly (Wahyuni & Suranto, 2021).

Environmental degradation can create specific threats, not only threats to the state but also to humanity itself, making environmental issues a topic that deserves attention. Environmental problems then become global issues due to their global and transnational impact, and there are still many exploitation activities of natural resources on a local or

national scale carried out in many places throughout the world, so they can be considered a global problem. The environmental security aspect itself is a security aspect that concerns various environmental threats, such as pollution, scarcity of natural resources, warming of the earth, and deforestation.

In this article, the author tries to take a case study regarding deforestation carried out in forests in Indonesia. The United Nations (UN) Agency for Food and Agriculture (Food and Agriculture Organization/FAO) defines deforestation as an event where forest land is destroyed by humans or nature. On a large scale, this will certainly threaten living creatures, such as animals losing their homes, erosion and flooding can occur, water quality will decrease, and have potential for the global climate. Deforestation has become a major problem faced by developing countries, including Indonesia. The form of deforestation often found in Indonesia is the palm oil industry. The environmental organization Green Peace Indonesia says that the palm oil industry has reached forest land in Papua. This is due to the lack of land in Kalimantan and Sumatra. This is proven by data from Greenpeace Indonesia, which states that Kalimantan has lost 1,778,125 hectares of forest, while Sumatra lost 712,001 hectares of forest in the case of oil palm plantations during 2001-2019 (CNN Indonesia, 2020). The palm oil industry that encourages deforestation will be a potential threat if it is carried out without ignoring environmental aspects.

Therefore, this article refers to written materials or literature studies from a number of previous studies on deforestation, which are deemed necessary because of the many misconceptions about community activities that can harm society and the environment. This article focuses on the state's efforts to coordinate the palm oil industry by prioritizing the ecological side so that deforestation does not cause forest damage and negatively impacts the people living nearby.

## RESEARCH METHOD

This study uses a qualitative method to explain forest conversion into palm oil land in Indonesia. A qualitative approach in international relations aims to study phenomena and actors and emphasizes explanations of the processes and phenomena that occur (Cresswell, 2014). Besides that, this research uses the concept of environmental security to analyze cases of forest conversion into oil palm land so that it can be concluded later whether this case has complied with the regulations or not. This data collection technique research began by looking for previous research papers such as articles, books, and proceedings that were related to this research. This previous research is filtered based

on title, keywords, and abstract which will ultimately produce several studies that are relevant to this research. Then the relevant results of previous research are elaborated on in this research so that the facts presented are more comprehensive and balanced. This method is called Systematic Review with Preferred Reporting Items for Systematic Reviews and Meta-analyses.

### Green Politics Theory

In the 60-70s, environmental problems became a global issue. The emergence of criticism by environmentalists such as scientists and activists has brought this issue to the international community's attention. That is when green politics theory (GPT) began to develop, and its thinkers were called the greens. In general, GPT focuses on ensuring environmental sustainability for future generations. Hayward said that the development of GPT was based on the fact that humans are part of nature; therefore, humans are involved in political behavior. With this argument, political theory should also be combined with environmental theories, meaning that humans are not only seen as rational individuals or as social creatures but as natural creatures (Apriwan, 2009).

Green Politics theory distinguishes between ecocentrism and anthropocentrism. The main idea of GPT is to reject the anthropocentric perspective and have the characteristics of ecocentrism. In other words, ecocentrism is a way to liberate all the things given to them. As a result, humans cannot control the balance of nature. The second concept is the debate regarding the nature of the environmental crisis and the limits of growth. GPT shows that the exponential economic growth experienced over the last two centuries, the root cause of the current environmental crisis, represents a limit to growth. Therefore, what distinguishes GPT from other environmental theories is not their conception of environmental crisis but rather their understanding of its nature (Paterson, 2000).

The fact that respect for humans leads to respect for other species is another argument favoring the GPT philosophy. A fundamental component of GPT is the ethical relationship between humans and the balance of nature. First, ethical ecocentrism identifies all issues of human interest (as opposed to economic interests in the use of resources). This is one of the main characteristics of ethical ecocentrism. Second, identify non-human societies. Third, it identifies the interests of future generations of humans and non-humans. Fourth, GPT adheres to growth limits. The last is to apply a holistic rather than atomistic perspective, namely by evaluating populations, species, ecosystems, the natural environment as a whole, and individual organisms (Dan & Asnelly, 2017). GPT has ten values that serve as a reference for the formulation of political policies and become the foundation and goals of the movement:

1. Sustainability and environmental awareness;
2. Democracy by the People;
3. Equal Opportunities and Social Justice;
4. Defeat violence;
5. Decentralization;
6. Fair and based on communication economics;
7. Gender parity and feminist ideals;
8. Tolerance of diversity;
9. Personal and social accountability;
10. Concentrate on sustainability and the future.

Therefore, the author chose Green Politics Theory because it shows its harmony with efforts to overcome the ecological crisis and its concern for the increasingly severe global ecological crisis. Green Politics Theory argues that maintaining ecological balance and saving it from problems is equivalent to protecting the people around it. Therefore, sustainability must be maintained by maintaining environmental balance rather than pursuing development goals. This is related to this article, which discusses Indonesia's efforts to coordinate the palm oil industry by prioritizing the ecological side so that deforestation does not cause forest damage.

#### Environmental Security

The impact of the environment on human life cannot be denied, although it is often ignored and not felt. Human existence cannot be separated from the environment. Because these health measures attempt to incorporate the effects of environmental change on humans, animals, plants, and even inanimate objects, a broad social notion of concern for environmental protection and environmental health promotion is essential. Social and environmental ecologists also emphasize environmental and natural issues, such as spreading the ideology of green politics and advocating philosophical and ideological environmental rights (Nurhasan Affandi et al., 2022).

The topic of the environment is not a new topic in the study of international relations; in fact, environmental security has developed into one of the standard and illustrative problem areas. The relationship between environmental theory and international relations theory centers on questions about when, if, and how effectively national governments collaborate to address common environmental problems. Then, there has been a lot of debate about how important environmental issues are, especially for countries or other state actors. More generally, there is a need to understand the importance of issues in this field and how they actually impact the hypothetical points of view utilized by world

political scholars on natural issues. The development of awareness of the concepts of international justice and equality in aspects of multilateral environmental agreements has long been applied in international relations to complex policies related to global environmental change. And global environmental governance (Burchil et al., 2005).

Environmental security is part of the Human Security concept; in the UNDP, it is explained that environmental security aims to protect humans from short-term and long-term natural dangers, environmental damage caused by humans, and changes in the natural environment such as global warming, air pollution, pollution. Forest, etc (United Nations Development Programme, 1994). In other words, UNDP defines human security as not only protecting it at a certain time but also ensuring that it does not face threats or have its rights violated. Just like the problems faced by Indonesia when forest fires occurred. Such as lifeguarding, getting clean air, living healthy, and so on. Because such things fall under the purview of the state.

Many experts have put forward a number of different definitions of environmental security. One of them is to show that environmental security is the idea of state security, achieved by fighting poverty and environmental degradation. In recent years, much study and public discussion has focused on the relationship between security, humans, and the environment. National defense is negatively impacted by environmental damage. This is due to the fact that environmental damage can reduce societal welfare by preventing resources from becoming available and also by disrupting political stability. Because the environment plays an important role in peace, conflict, stabilization, and human insecurity can vary from one situation to another, environmental security is central to national security.

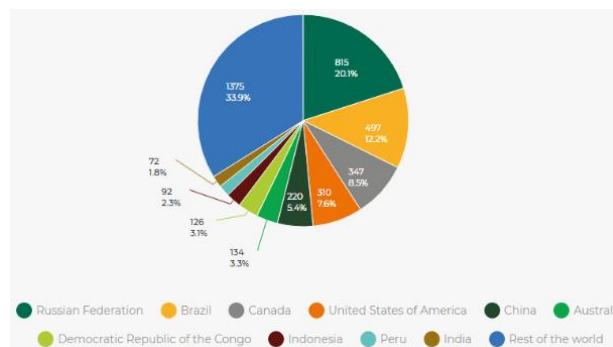
Therefore, the author uses environmental security theory because this article discusses Indonesia's efforts to reduce deforestation, which is not in accordance with Indonesian regulations and can threaten the safety of living things around it, including humans. By using this theory, we can analyze whether the conversion of forest land to oil palm land carried out in Indonesia has threatened the safety and welfare of the community and what efforts or methods to maintain this prosperity for the surrounding community

## RESULTS AND DISCUSSION

A forest is defined as an ecosystem unit in the form of an expanse of land that contains biological natural resources and is dominated by trees in its natural environment, which cannot be separated from each other, according to Article 1 of the Law of the Republic of Indonesia Number 41 of 1999 concerning Forestry. Then, the Food and

Agriculture Organization (FAO) said that forests consist of natural forests and their plants and are determined by the presence of trees and the absence of other main land uses (Food and Agriculture Organization, 2000). From these two definitions, it can be seen that both national and international institutions have recognized the importance of forests. How could it not be? Forests themselves cover one-third of the earth's land. More than half of the world's forests are in five countries: the Russian Federation, Brazil, Canada, the United States, and China. Forests can help carry out vital functions and help the livelihoods of the world's people. Forests can withstand the impacts of natural disasters, such as storms and floods. Apart from that, forests can also provide drinking water supplies. Forests are part of the world's ecosystem and human life.

Figure 1 World Forest Distribution (Ten Countries with the Largest Forests)



Source: The State of the World's Forests 2020, fao.org

Seeing the potential that forests have, forests should be utilized wisely. Unfortunately, the opposite is true. Forests are actually exploited to obtain maximum resources. Forests were even removed and replaced with new infrastructure because they were considered to hinder the development process. UN Environment stated that yearly, around 12 million hectares of forest are damaged (United Nations Environment and Programme, 2014). Forest destruction itself is defined as a reduction in forest area. This damage is divided into two types: damage to forest ecosystems or forest degradation, as well as deforestation and conversion of forest land or deforestation. The forest damage that often occurs today is deforestation. According to FAO, from 2015 to 2020, deforestation is estimated to reach 10 million hectares per year, and forest area worldwide has decreased by more than 80 million hectares since 1990 (United Nation Food and Agriculture Organization, 2020). This deforestation process is carried out through illegal logging, wood smuggling, and forest burning. Forest damage through the deforestation process will have impacts and influences in various aspects, including (Pachamama Alliance, 2010):

1. Animals lose their natural habitat

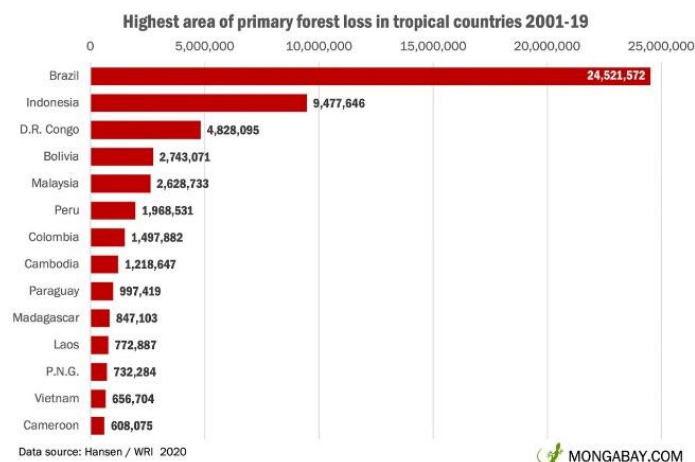
2. There is an increase in greenhouse gases
3. Soil drought, which has an impact on the agricultural sector
4. Has the potential to cause natural disasters, such as erosion and flooding
5. Changes in the lifestyle of traditional communities and indigenous tribes.

The loss of forest land is known as deforestation, and it is a complex problem to solve. Therefore, the community needs to be able to share elements that can encourage them to participate in reducing activities or supporting programs that are considered capable of solving common problems. From 1985 to 1998, Indonesia experienced a deforestation rate of more than 1.6 to 1.8 hectares per year. High annual deforestation rates will result in significant loss of forest land, which has a negative impact on environmental sustainability and social life and may have direct and negative consequences. Then, deforestation increased by around 2 million hectares in 2000 (Wahyuni & Suranto, 2021).

#### Forest Destruction in Indonesia 2010 -2020

It should be noted that Indonesia is the second country in the world to have experienced the most damage to primary tropical forests. Primary tropical forests are one of the world's most densely populated terrestrial ecosystems. Scientists consider the forest damage that occurred on this land to be disproportionate damage, considering the large amount of biodiversity and carbon emissions lost.

Figure 2 Tropical Countries with the Highest Cases of Forest Damage



This forest destruction is caused by a series of events such as deforestation carried out by the palm oil industry, conversion of forests into bushes, agricultural land, the logging industry, the plantation industry, mining, timber transportation routes, city expansion, and fish ponds. Meanwhile, forest destruction for the palm oil industry was the largest contributor to forest destruction during the 2011-2016 period and has resulted in deforestation of 2.08 million hectares or around 23% of national forest destruction.



(Ahdiyati, 2019). In his press release, the Head of the Palm Watch Campaign Division, Bondan Andriyanu, stated that the conversion of food land has resulted in the birth of 500 thousand hectares of new oil palm plantations annually in Indonesia. Sawit Watch conducted research in 2012 on the transition from forest land use to oil palm plantations covering an area of 276,248 hectares. According to official data, a family of food farmers also disappeared within a minute.

Scale Up Executive Director Hari Octavian stated that oil palm plantations in Indonesia are starting to impact Riau Province. In 2013, 39 land conflicts were based on Scale Up Information. This is caused by the community's inability to compete effectively with large companies to control plantation land. FAO emphasizes that animal husbandry, agriculture, forestry, fishing, aquaculture, and family farmers are world food producers. Five hundred million of the world's 570 million hectares of agricultural land are owned by family farms.

Bondan Andriyanu said that if the conversion of food land into oil palm plantations cannot be prevented, then the policy of self-sufficiency in rice, sugar, and other grains to achieve food sovereignty is very pessimistic in 3 to 4 years. He added to avoid erosion of consumable land due to the expansion of oil palm plantations, one way to protect consumable land is to make it sustainable for food agriculture. In Law Number 41 of 2009 concerning the protection of sustainable agricultural land, the government can provide land protection and incentives so that grain land is not converted into oil palm plantations.

Riau Province in Indonesia is home to the largest area of oil palm cultivation. Riau occupies 2.9 million hectares of the 13.5 million hectares of oil palm plantations in Indonesia. This industry will continue to grow in line with the government's target to reach 28 million people by 2020 and the increasing global demand for palm oil (CPO) in its various derivative products. Indonesia imports food and various processed products made from palm oil for daily consumption because the processing industry is not yet developed. Considering Indonesia is a predominantly agricultural country with different local foods, why should it concentrate on one product and one cultivation, according to Bondan.

#### Case Study Analysis

In fighting deforestation for palm oil plantations, which is detrimental to the community, the government uses Government Regulation of the Republic of Indonesia Number 76 of 2008 concerning Forest Rehabilitation and Reclamation. The use of these regulations is emphasized in Articles 3 and 4, which read:

- General patterns, criteria, and standards for forest rehabilitation and reclamation are established to implement the process.

- The general pattern of forest rehabilitation and reclamation Article 3 includes:
  - Basics of forest restoration and reclamation and strategies for implementing forest rehabilitation and reclamation.
  - The following are the guiding principles in paragraph 1 letter a:
    - A budgeting system that lasts for several years;
    - Clear authority;
    - Familiarity with the tenure system;
    - Sharing costs (cost sharing);
    - Implement an incentive system;
    - Institutional capacity and community empowerment;
    - Participatory strategy; And
    - Accountability and transparency.
  - The following aspects are included in the strategy described in paragraph 1B:
    - Government;
    - Personal;
    - Finance;
    - Environment;
    - Organizations and institutions:

Also, efforts to reduce deforestation and forest degradation continue through various policies in the 2020-2024 Medium-Term Development Plan (RPJMN). The 2020-2024 RPJMN contains a number of strategies to try to reduce forest deforestation. One of them is reducing the annual deforestation rate to 310 hectares by replanting and enriching production forests covering an area of 1.97 million hectares, which includes ecosystem areas. Deforestation cases always have a negative impact; this gave birth to REDD+ (Reducing Emissions from Deforestation and Forest Degradation), which is an approach to forest land conservation that uses financial schemes in forest conservation as a form of concern for deforestation. Indonesia's REDD+ implementation phases are as follows: First, there is the preparation phase, which lasted from 2007 to 2008 and focused on discovering what science is and what policies can help it. Second, the readiness phase from 2008 to 2012, which focuses on policy and methodology. Third, the implementation phase after 2012 with the hope of utilizing the REDD+ mechanism (Septiyan, 2019).

However, the REED+ development process is still a big question and unclear. REED+ has been monitored by Forest Watch Indonesia in all regions, and apart from district and provincial governments, REED+ has signed memorandums of understanding (MoU) with several local governments (Angelsen et al., 2013). Even though a memorandum of

understanding has been signed for the implementation of the REED+ program, many people do not have a clear understanding of the program.

There are still people who feel disadvantaged by oil palm plantations close to their settlements, for example, in Sarapat Village in Central Kalimantan province. In the past, people in Sarapat village bathed, ate, and drank from river and forest products. However, all that changed in 2007 when a palm oil company moved into the area. The company continues to clear forests and agricultural land for palm oil even though community leaders have rejected the plan. Fertilizers, pesticides, and other waste have polluted rivers since oil palm planting began. As a result, fishing, bathing, and other activities cannot be carried out in this river. Land, a source of income for most of the village population, must be given up.

Similar results were also obtained when a group of global academics compared the welfare of various villages in Kalimantan. Some parts of Sumatra, for example, may see more positive social impacts from palm oil. Marcus Colchester of the Forest People Project, a non-profit organization dedicated to forestry, land, and indigenous issues based in the UK, said that the question of what to propose had nothing to do with whether or not palm oil development was to be developed, but rather what conditions could bring about development. Positive.

The development of oil palm encourages thinking about ways to reduce the negative impacts of this commodity, such as conflict and land grabbing. In Indonesia, both incidents have occurred. Indonesia has around 14 million hectares of oil palm plantations, most of which are managed by large companies. Tensions usually accompany various efforts by palm oil companies to secure land ownership, with communities defending their rights. Serapat Village is one of the many villages or residential areas around oil palm plantations that the development of oil palm plantations has negatively impacted. There are other examples such as Lubuk Kembang village and Air Hitam village which are located in Ukui District, Pelalawan Regency; Penyabungan Village, Merlung District, Tanjung Barat Regency, Jambi, is experiencing reduced water quantity due to drought from oil palm plantations, reduced animal populations due to land conversion to oil palm plantations, as well as water pollution in the environment due to waste from oil palm plantations (Utami et al., 2017).

As previously discussed regarding environmental safety. This concept emphasizes the importance of preserving the environment. It was also stated that environmental security is a form of national defense. However, this case is one that threatens state security and the welfare of society. So, it can be concluded that the efforts

made by the government have not been sufficient to reduce deforestation in Indonesia, which has had a negative impact on local communities. There are still many naughty companies that do not comply with the rules that have been made. For things like this, the government should be more firm in imposing sanctions on companies that violate the rules so that local communities can live in prosperity.

## CONCLUSION

As we know, environmental issues are still one of the issues that receive quite a lot of attention because the environment that should be utilized properly is actually damaged or destroyed, so the function of the environment itself is reduced or even lost. Forests are supposed to be able to withstand many natural disasters because they are being depleted little by little; it is not uncommon for many natural disasters to directly impact society because no forests can withstand this.

The loss of forest land is called deforestation, and it is a complex problem to solve. Therefore, the sharing element that is able to involve the community in reducing supporting activities or programs that are considered capable of solving the problems being faced together requires good knowledge and cooperation. From 1985 to 1998, Indonesia experienced a deforestation rate of more than 1.6 to 1.8 hectares per year. High deforestation rates each year will result in significant loss of forest land, which has a negative impact on environmental sustainability and social life and can have direct and negative consequences.

As discussed in the background, the state is trying to coordinate the palm oil industry by prioritizing the ecological side so that the deforestation carried out does not damage forests and harm the people living nearby. The data in the discussion can conclude that Indonesia is still not firm enough towards palm oil companies that violate the rules set by the government. The Indonesian government's efforts to reduce deforestation, which hurts local communities, are deemed insufficient. As has been discussed, Indonesia has regulations regarding Forest Rehabilitation and Reclamation, but this is not enough to become legal material to protect local communities. There are still many companies that continue to violate these regulations and have a negative impact on local communities. The efforts regarding the implementation of REED+, which are expected to reduce deforestation and emissions, have not provided significant results in dealing with this content. There are still many people who are affected by deforestation.

Many experts have put forward several definitions of ecological security. One is to

show that environmental security is the idea of state security, achieved by fighting poverty and environmental degradation. Indonesia must improve its ecological security so as not to hurt other issues. The Indonesian government must also be stricter with companies that violate the rules and harm local communities. So, the existence of forests plays a vital role in at least preventing natural disasters. Apart from that, we also really need forests because forests themselves are the lungs of the world, so if there are fewer or denuded forests in a country, the impact will be felt not just one or two but overall, this impact does not occur immediately but instead in later in the long term. This forest destruction is also caused by a series of events such as deforestation carried out by the palm oil industry, conversion of forests into bushes, agricultural land, the logging industry, the plantation industry, mining, timber transportation routes, city expansion, and fish ponds. Let us take good care of our forests so that all those still there can experience positive things from the presence of beautiful forests and that future generations can still feel what we are feeling now.

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