



DEFORESTATION IN THAILAND

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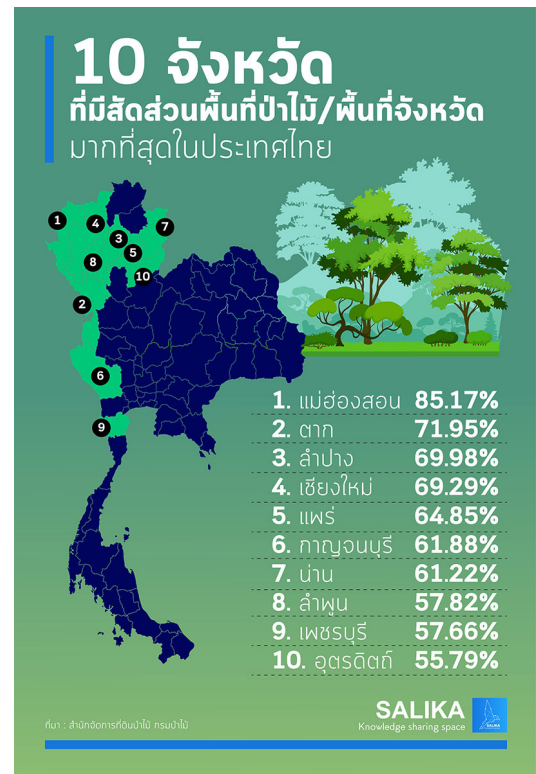
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INTRODUCTION

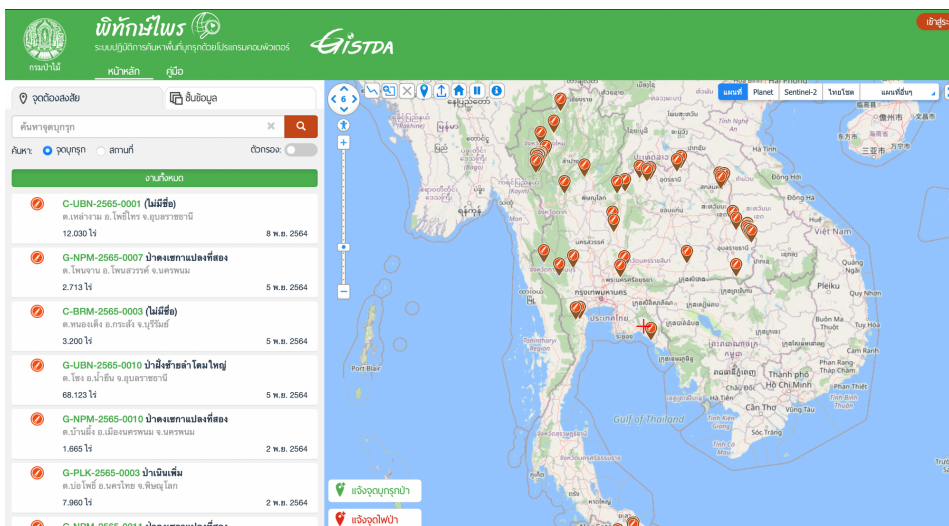
What is deforestation?

Deforestation is the invading and devastating the forest land or stuff. Most of deforestation for make a building, road, use in business such as factory or hote ,and agriculture. Deforestation is not only devastating the tree or forest stuff but also hunt the animal that live in the forest to. All of these problem not came from capitalist or oligarchs but also came from local people. Many people that live in the forest use this be a career such as smuggling lumber, hutting preserved animals ,sell forest stuff ,and use forest area to agriculture. These problems is very hard to avoid or stop because is the problems that have been for a long time.



DEFORESTATION IN THAILAND

Now, Thailand has forest area around 102.35 (31.64% of total area of Thailand) which decreasing from 2020 0.04% .Most reason came from deforestation for profit and agriculture. From the reason that, Royal Forest Department and GISTDA (Geo-Informatics and Space Technology Development Agency) make a decision to make The operating system searches for invaded areas with computer programs called "Pitakpai "(พิทักษ์ไพร). The data from that system tell that since october 2016 till now, has deforestation around 1,384 place in Thailand. Can calculate the deforestation in any region, in North for 651 place ,Northeast for 323 place ,and West for 207 place. And the most province that has most deforestation was Chiang Mai with 328 places.



PROBLEM AND IMPACT

There are several factors that encourage deforestation to be more dominant problem in Thailand as following below:

The increasing area of agriculture

Due to the covid situation, there is an opportunity for the agriculture sector to be increased predicted from TMB Analytics. Along with the significantly decreasing in the number of products in the world market which means that the world supply (international sectors). This also affects Thailand in terms of a higher price of goods so it encourages local people to work more in this area. Along with several shut down companies causing more people to travel back to their hometown as well.

The ineffectiveness of the law

Although there is a Cabinet 30 June 1998 or National Council for Peace Order No. 66/2557 which has been announced to avoid and deal with people who live or get any benefit in national park area, wildlife sanctuary, and no hunting area but this still not able to fix the problem as in some area, it's difficult to control. Furthermore, for some local citizens who live in those areas before the law is announced, they also protest this law as they believe that the area belongs to them. The cost of compensation for their loss is difficult to deal with as this situation definitely causes deadweight loss in the society.

Labor and habitat

As within Thailand, people used to leave their hometown in order to find a new good job within the city. Therefore, in some areas, there is a high density of citizens which leads to a higher number of habitats including infrastructure too. According to this factor, it does affect the forest area in the country. Due to the data from the Forest Department (2018), Bangkok city contains only 0.33% of forest area compared to all provinces in Thailand.

Mining

Of Course that in order to do mining or even any factories, it requires a large area to operate. Even though it's good for the Thai economy, it does significantly affect the environment. Therefore, the government should come up with adaptation policies and mitigation policies.

Land Allocation

1. Resources Allocation

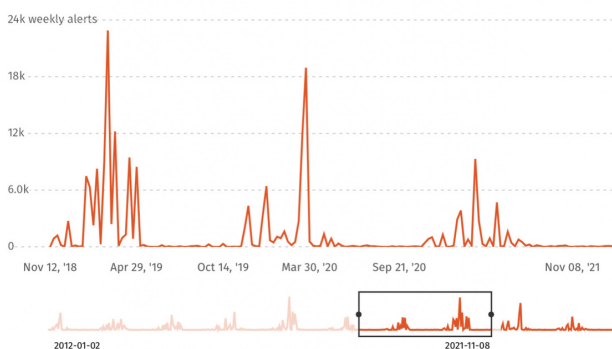
According to the resources allocation in Thailand that follows the basis of first come first serve. Therefore, in some areas, it would be better to use something. However, the owner decided to keep those benefits for themselves rather than sharing them with society.

Wildfire

According to the graph, it shows the historical fire alerts in Thailand from November 12, 2018 to November 8, 2021. This reflects that the fire problems within Thailand usually happen at the beginning of February to April. This not only impacts the forest area but also affects wildlife and environment too. Along with the data from Salika (2020), which also mentions that most of the forest area in Thailand is located in the northern part. However, there are lots of wildfire problems happening in this area more than other sectors of Thailand. Therefore, this still be a problem that needs to be concerned.

HISTORICAL FIRE ALERTS IN THAILAND

Between **12th of November 2018** and **8th of November 2021** Thailand experienced a total of **194,480 VIIRS Alerts** fire alerts.



SOME EXISTING FOREST PROTECTION POLICIES IN THAILAND

1) Set the guideline for long term management and development of forest resources which will enable the country to receive the most social, economic, security, and environmental benefits by emphasizing the coordination between forest resources and other natural resources.

2) Determined to have at least 40 percent of forest areas throughout the country for the followings benefits:

- Conserved forests, which are 25 percent of the country, are to conserve environment, soil, water, plant species, rare animal species and prevent natural disasters such as floods and soil erosion. It is also conserved for research studies and recreation.
- Economic forests, covers not less than 15% of the country, are for Timber production and for economic benefits



3) Classify forest areas for management at the community and country level and establish guidelines for proper management and utilization of forest land in each area

4) Promote the role and duties of government and private sector to raise awareness and to be responsible for the management and development of forest resources

5) For the benefit of forest conservation and prevention of natural disasters, the state must expedite the improvement of urban planning and certainly determine the forest area in order to determine the remaining land area that can be used for residential areas, rural areas, and agricultural areas in each provinces to prevent forest encroachment

6) Adjust the forest management system and make it consistent with the changing quantity and quality of forest resources and environment

9) Increase the use of science and technology to improve agricultural production efficiency to reduce the destruction of forest area

10) Create incentives to promote reforestation for private sector

11) Encourage the country to have a Pulp mill to utilize all parts of the wood and promote the use of other materials instead of wood

12) In order to instill people to know how to use forest resources efficiently, the state should provide knowledge, attitudes, and skills for people about the advantages of forest protection and disadvantages of deforestation and using forest resources inefficiently by raising awareness about the important of forest resources

POLICY RECOMMENDATIONS AND ECONOMICS CONCEPT

The economists have to evaluate the willingness to pay and willingness to accept and estimate the value of Thailand ecosystem services, people in that area would be affected by noise, pollution, or even lose their home.

POLICY RECOMMENDATIONS

- Forest conservation and control : decreased the illegal deforestation and strict about the laws.
- Use of forestland for poverty alleviation : helping the farmers who have no land to use the forest areas to develop the forest.
- Forest compensate policy : planting new trees as reforestation.
- Pay for the use of forest areas every year which depends on value of money and inflation.
- Recycle campaign : support people to recycle such as give vouchers return to recycling products.
- Meat consumption campaign : Supporting plant-based meat products as substitution for meat which can reduce agricultural.
- Tax policy : the government should increase tax rate for applying the forest area to reduce the

METHODS : VALUING THE ENVIRONMENT

There are many ways to value the environment and in this case we can apply it for valuing forest areas as follow:

- Survey-based :
 - Contingent valuation method : directly ask the willingness to pay. For example, building a damn require a large area of land which might effect the forest, the government has to negotiate with locals and evaluate the value.
- Revealed preference approach :
 - Hedonic pricing method : policy decision which estimate people's valuation on environmental attributes. For instance, normally the land in the business or center of cities is more expensive than countryside, the government should rise the price of countryside or green space due to it decreased natural areas.

BENEFITS

- Local Benefits : home, local products, occupation for people in the surrounding area. As the more forest area, the better environment will be.
- National Benefits : ecosystems which means consumption goods, the more space of forest help rising demand for bio-products. Also, forest can reduce the air pollution, noise, and helps the mental health as relaxation.
- Global Benefits : forest resources are solar-powered, renewabl, and store carbon, it's potential is reduce greenhouse gas emissions and benefits for biodiversity as sources of food for animals, and green space could help reduce the climate change and global warming too.

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