

Assignment 3, EE375

Jomkon Kannawat 6304640359

Laksika Bijayendrayodhin 6304640573

Parima Lorsirinant 6304640938

Krittayanan Pilaikiat 6304640540

Chutikarn Louhalerdecha 6304640243

Forest Adaptation

Did you know that more than 10 million hectares of forest were destroyed each year? In fact, more than one third of the world's forests have already been destroyed. Overuse of forest activity causes resource scarcity which will eventually lead to climate change. Moreover, This could lead to deforestation which will lead to both economic and climate change crises. We have seen deforestation everywhere on the news. One of the more famous ones is during the ebola outbreak. The cause of ebola was mainly from the cutting down of tree activity or in other word from deforestation. In this essay, we will be focusing on how forest adaptation and climate change are related and further analysing the economic issues and how the government intervention could prevent this from happening.

Forests have played a large role in human life. Everyone's life depends on trees for oxygen. However, many businesses take advantage of this and make use of their own. This is one of the examples of incompatible land: External cost on another party. Which states that allocation that maximizes net benefit for themselves may not benefit the society as a whole. By cutting down trees, climate change will eventually step in. Deforestation is one of the main causes of greenhouse gas emissions. Greenhouse gases trap heat in the atmosphere which increases the earth's temperature. They cause both the environmental and health effects. One of the commonly known effects of the environment is air pollution. We have seen air pollution everywhere all around the world and this air pollution will affect some people's respiratory system. Another problem that can occur is the wildfire which we have seen a lot during the first period of the year 2020: Chiang mai wildfire 2020 or 2019–20 Australian bushfire season.

Why didn't the government just ban businesses from cutting down trees? Many peoples' income come from "forest". In the USA, tree service businesses can earn around \$100k in annual income. Some people depend on forests for living. There are workers all around the world that are in the tree business. To answer the question, this could cause economic issues since lowering the production of forest will as well lower the country's GDP and also increase the unemployment rate. Thousands of people could lose their jobs. But, what if the government subsidizes this industry? This will increase the business and more people will be cutting down trees. This will not benefit society as a whole since people need oxygen for living. There are 3 approaches to this forest management: No intervention,

reactive adaptation and planned adaptation. No intervention means to set a limit to business production. Reactive adaptive is to record every movement of the production. And planned adaptation is to set a forestry goal and to identify the risk from climate change.

Deforestation has been a big problem since ages. It causes climate change by trapping heat in the atmosphere which increases the earth's temperature. The official is aware of this and has been continuously finding ways to lower the impact from climate change. There are 3 approaches to forest management: No intervention, reactive adaptation and planned adaptation. We should really consider the problem that arises from climate change seriously.

Reference :

“Adapting Forests and Their Management to Climate Change: An Overview.” *Www.fao.org*, www.fao.org/3/i0670e/i0670e02.htm. Accessed 17 Oct. 2021.

“Forest Adaptation Resources | Climate Change Response Framework.” *Forestadaptation.org*, forestadaptation.org/adapt/forest-adaptation-resources. Accessed 17 Oct. 2021.

“Adaptation of Forest Ecosystems - TroFCCA.” *Www1.Cifor.org*, www1.cifor.org/trofcca/forest-and-adaptation/adaptation-of-forest-ecosystems.html. Accessed 17 Oct. 2021.

”Jandl, Robert, et al. “Forest Adaptation to Climate Change—Is Non-Management an Option?” *Annals of Forest Science*, vol. 76, no. 2, 30 Apr. 2019, 10.1007/s13595-019-0827-x. Accessed 28 Nov. 2019.

