

# Li's first L<sup>A</sup>T<sub>E</sub>X document

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January 29, 2023

## Summary Sheet

Forest is the largest carbon pool in the terrestrial ecosystem, which plays a very important and unique role in reducing the concentration of greenhouse gases in the atmosphere and slowing down global warming. The expansion of forest cover is an important mitigation measure that is economically feasible and less costly in the future. To study the carbon sequestration capacity of forests and its economic value, we established two models: Model I, the best carbon sequestration rate model based on the Logistic Growth Model and BEF; Model II is the best economic benefit model based on the Logistic Growth Model.

In Model I, we solve the problem of how to predict the future amount of carbon sequestration in forests and their products. To predict the amount of carbon sequestration in the forest, we first predict the future growth and development of the forest according to the Logistic Growth Model and obtain the change curve of the number of timber trees in the forest with time. And then calculate that specific stand volume of the forest in combination with the species of the tree which is in the forest. Then we calculate the total biomass in the forest according to the BEF of different forests and calculate the specific carbon content in the forest. According to the curve of forest carbon sequestration over time, we obtained the forest size under the maximum carbon sequestration rate.

In Model II, we solve the problem of how to determine the best time and amount of logging in the case of considering economic benefits. After considering many factors such as inflation coefficient, logger's salary, logging efficiency, timber market unit price, and so on, we calculate the best logging time and the best number of loggers according to the Logistic growth model and the method

of differential equation. We obtained the forest size under the best economic benefit of the forest was determined.

In addition, we also predict the carbon sequestration of forests after 100 years and propose the best strategy for cutting down trees. And wrote a news report to educate the public about forest management.

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## 1 introduction

this is my first  $\text{\LaTeX}$ document ,i am a student of harbin engineering university. i will study  $\text{\LaTeX}$ in my best. $\text{\TeX}\text{\TeX}\text{\TeX}$ Wht the auto save function of  $\text{\LaTeX}$ is not working? i set the save function key of  $\text{\LaTeX}$ to f5, and it works well in my computer. but when i use the computer in the lab, it does not work. In Model I, we solve the problem of how to predict the future amount of carbon sequestration in forests and their products. To predict the amount of carbon sequestration in the forest, we first predict the future growth and development of the forest according to the Logistic Growth Model and obtain the change curve of the number of timber trees in the forest with time. And then calculate that specific stand volume of the forest in combination with the species of the tree which is in the forest. Then we calculate the total biomass in the forest according to the BEF of different forests and calculate the specific carbon content in the forest. According to the curve of forest carbon sequestration over time, we obtained the forest size under the maximum carbon sequestration rate.

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## 2 main

### 2.1 start

#### 2.1.1 end