Position Paper 2

[Name of the Writer]

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**Introduction**

Growth in any sector of business is subsequently achieved. Same can be said for a *Logistic Growth Model* which defines the accuracy of the human population growth. The variables needed to be considered in understanding this model would be the core of this essay. However, an understanding of the logistic growth model is still tirelessly crucial as it would help develop an understanding of the human population growth. While crafting a response to the logistic growth model, it is essential to understand and integrate ethics and ecological principles. Ethics restrain us humans from making a much inhumane decision which can have a considerable impact and only one person but the entire environment (Rogers, Smith, & Lieberman, 2006). The question of whether the logistic growth model an accurate predictor of human population growth would be answered in the discussion of this essay. It would be stated through an understanding of the models and their variables.

**Discussion**

**Identification**

What is evident is that every natural resource existing is not ever going to last a lifetime but would undoubtedly end before then. A logistic growth model is an accurate tool to measure human population growth. When there are many resources and little people to consume them, the resources can probably last an infinite time without ending anytime shortly. However, a rise in population would slowly consume all natural resources. Leaving only less and few natural resources in the end that would be left to consume by the remaining population. Thus, when it comes to infinite amounts of resources, exponential growth is a sustainable state of affairs. But when resources are depleting, the logistic growth model can calculate the human population growth more accurately from the mathematical model of the S-shaped curve (Jin, McCue, & Simpson, 2018). Subsequently, the logistic equation is a model of population growth that exerts negative feedback on its growth rate.

When the growth model represents an S-shaped curve, it means that the given resources are limited due to the increasing population. Exponential growth can be referred to when the population size is, and there are endless resources. However, when it comes to acknowledging theory, the logistic growth model fails spectacularly. The reason why it does is that of its mechanisms principles which were based on mathematical foundations rather than theoretical foundations. Sometimes the population growth predictions are wrong because of the complications involved in understanding the mechanisms in the phenomenological model. Consequently, the logistic model fails to elaborate on the growth model due to an increase in the population density. There are many reasons why such an effect may occur, and these are due to abdominal deaths, births, and affected. Thus, the accuracy in terms of the logistic growth model as an accurate predictor of human population growth remains a question.

Demonstrating an understanding of the logistic growth model requires discussion on some variables which can be found from a biological and scientific perspective. With plenty of resources such as food and space, continuous growth can be relatively calculated. However, with constrained resources and limitations, the growth of a population would only lead to barriers in consuming natural resources. The exponential and logistic growth curves are always mathematically represented on a graph that shows the human population growth. The variables for calculating the logistic growth model can be identified as *P* (Population) and *K* (Resources). While constructing a personal plan of action on such an issue, it is important first to develop a method which can proportionately and accurately predict human population growth. Even with variable resources and population growth, a method that people can rely on is subsequently important to have a defensible position on such ethical issues.

To overcome such issues, the plan of action would require increase agricultural productivity or an increase in the amount of time spent on agricultural production to increase the overall food ratio for the growing population. Moreover, another method would be to increase baseline survival so that the population growth rate decreases the food ration increases. Lastly, declining fertility would curtail the growth rate however the food ratio would remain unchanged in this matter. Different effects leading to a possible decrease in growth level can be identified from increasing death rate and decreasing birth rates. This would qualitatively leave the environment with less population and more resources. It would also be stated as exponential growth where it is easy to calculate the human population growth given the above variables. Ethics are fundamental to consider when implementing certain environmental variables that can affect the overall human population growth (Brandt et al. 2017).

**Conclusion**

Variables discussed in the proposed plan of action. A theoretical demonstration exercises a basic need for a phenomenological order of the given social response. These responses help understand The aforementioned proposal plan based on the logistic growth model illustrates some basic concepts that are useful in understanding the model and its variables. To understand the implications and dynamics of resource allocation with exceeding population growth, it is essential to use the criticality of the logistic growth model and how accurate or inaccurate it can be at times depending on the environmental changes in population growth and resource availability. Implicit understanding of the given variables and the method used to calculate the resources and population growth is an effective way. It can show if exponential growth or logistic growth is required in the given sectors of the economy.

**References**

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