Tracing the Growth of the Global Community: A Population Forecasting Analysis

Introduction :

**Population growth is the increase in the number of people in a population or dispersed group. Actual global human population growth amounts to around 83 million annually, or 1.1% per year.The global population has grown from 1 billion in 1800 to 7.9 billion in 2020.**

**The UN projected population to keep growing, and estimates have put the total population at 8.6 billion by mid-2030, 9.8 billion by mid-2050 and 11.2 billion by 2100.However, some academics outside the UN have increasingly developed human population models that account for additional downward pressures on population growth; in such a scenario population would peak before 2100**

**1.1 Overview**

Population growth alongside increased consumption is a driver of environmental concerns, such as biodiversity loss and climate change ,due to overexploitation of natural resources for human development.

International policy focused on mitigating the impact of human population growth is concentrated in the Sustainable Development Goals which seek to improve the standard of living globally while reducing the impact of society on the environment while advancing human well being.

A positive growth rate indicates that the population is increasing, while a negative growth rate indicates that the population is decreasing. A growth ratio of zero indicates that there were the same number of individuals at the beginning and end of the period—a growth rate may be zero even when there are significant changes in the birth rates, death rates, immigration rates, and age distribution between the two

A related measure is the net reproduction rate. In the absence of migration, a net reproduction rate of more than 1 indicates that the population of females is increasing, while a net reproduction rate less than one (sub-replacement fertility) indicates that the population of females is decreasing.

Most populations do not grow exponentially, rather they follow a logistic model. Once the population has reached its carrying capacity, it will stabilize and the exponential curve will level off towards the carrying capacity, which is usually when a population has depleted most its natural resources.In the world human population, growth has been following a linear trend throughout the last few decades.