Human Population Growth and Its Effect on the Forest Ecosystem

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Abstract- *Population growth is the increasing, in the number of people in a population dispersed group. Population growth alongside increased consumption is a driver of environmental concerns, such as biodiversity loss and climate change, due to resources utilized in human development. Natural woodland area making it a suitable place for a survival of biotic and abiotic components is usually termed a forest ecosystem. A forest ecosystem consists of various plants, animals, and other microorganisms, making it a natural habitat for them. Humans are Converting forest to agricultural and urban areas, exploiting species, and fragmenting wild lands, changed the demographic structure of forests, altered habitat, degraded the environment with atmospheric and soil pollutants, introduced exotic pests and competitors, and domestic favored species. Due to increasing human population on planet, the human habituated areas are increased and forest areas are decreased, This behavior causes deforestation.*

The deforestation affects on the forest animals ecosystem. The domestic animals like dogs. And cats can attack on the forest animals for their feeding and the forest Carnivores can attack on the domestic animals, cattle etc. as well as also on the human beings. Changing human behavior against forest animals, the hunting behavior against forest animals is also developed.

Key words**:** Population Growth, Forest Ecosystem, Biodiversity, Food chain and web, Deforestation

Introduction

The population is generally a group of individuals of a particular species occupying particular areas at specific time, some of the ecologists, however, recognize two types of population (i) monospecific population and (ii) Polyspecific population. It is the population of individuals of only one species, and mixed or polyspecific population, It is the population of individuals of more than one species. Polyspecific population is characteristic feature of a community, in which populations of different species share a common habitat interacting with each others.

Populations are characterized with such characteristics as dispersion function, in density sex ratio, birth rate, and death rate etc. The population of a species generally arises a result of reproduction active transport of individuals, or their passive transport by such agencies as wind,

water etc. All the three means of population growth are influenced by several factors of the environment as well as by the characteristics of the individuals of the specific itself.

A population is defined as any group of organisms of the same species occupying a particular space functioning as part of the biotic community, which in turn, is defined as an assemblage of populations that function as an integrative unit through co evolved metabolic transformations in a prescribed area of physical habitat, which, although best expressed as statistical variables are the unique possession of the group and are not characteristic of the individuals in the group. Some of these properties and density natality (birth rate), mortality (death rate), age distribution, biotic potential, dispersion, and r- and K-selection selected growth forms. Populations also possess genetic characteristics that are directly related to their ecology, namely, adaptiveness, reproductive success, and persistence (the probability of leaving descendents over long period of time).

Human Population Growth

We live in a world of have and have-nots, Despite an 8-gold increase in economic growth between 1950 and 2005, almost one of every two workers in the world fights hard to survive on an income of less than us $2 per day. Such poverty is the real polluter that affects environmental quality because many of to the poor deplete and degrade local forests, grasslands, soil and wildlife to survive. Human activities are causing premature extinction of the earth's species it an exponential rate of 0.1% per year an inversible loss of biodiversity of earth.

There is growing concern about increase human population and exponential growth of human activities such as burning fossil fuels and clearing forests, industrialization, urbanization etc. that will adversely affect the climate world during this century Between 1950 and 2005, world population increased from 2.5 billion to 6.5 billion. Unless death rates rise sharply, somewhere between 8 billion and 10 billion people will live on the earth by the end of this century i.e. 2100. The worlds human population is projected to increase from 6.5 billion more between 2008 and 2050 with growth occurring especially rapidly is developing centuries such as India and china.

India and China have largest population in world and the resource use per person in these countries is projected to grow rapidly as they become more modernized.

India already faces a number of serious poverty, mal nutrition, and environmental problems that could worsen us its population continues to grow rapidly. By global standards, one of every four people in India is poor. Nearly half of the country's labor force is unemployed or can find only occasional work.

Human Population and Forest Ecosystem

One characteristic of any system is organization, that is a unified group of components forming a systemized whole. O'Neil et al. (1986) note other properties of a biological organization, including ecosystem, as follows:-

- Ecosystem exist independently of specific components (e.g. an individual tree may die,. but the forest's organization remains)
- Its components are independent (e.g. when removed from its colony, a social insect does not often survive).
- An ecosystem has a function (e.g. the components parts each have functions. that, together, produce a function of the whole).
- It is active something dynamic past or present, is implied (e.g. change occurs or
- A sliding scale of organization exists (eg, two populations may independently coexist in an area or they may be intertwined in a complex relationship). These attributes of organization apply fully to ecosystem.

Human population growth is referred to the increasing of human population. At present days it is observed that the population problem creates the decreasing of natural resources and forest area. The ecosystem development, more often known as ecological succession involves changes energy partitioning species structure and community processes over time. The rapidly growing human population interferes the forest ecosystem development, in other words the forest ecosystem development is going to other ways. It is possible that the human beings may be set in the forest ecosystem; it is not only harmful for other lives but also harmful for human life. It results from the modification of the physical environment by the community and from competition coexistence interactions at the population level - that is, succession is community controlled even through the physical environment determines the pattern and the rate of change and often limits the extent of development. If succession changes are largely determined by internal interactions, the process is known as autogenic ("Self generated") succession. If outside forces in the input environment (such as storms and fine) regularly affect or control change, there is allogenic (external generated) succession.

Human Interaction in Forest Ecosystem

A large number of individuals belonging to different species which adjust, adopt, interact with each other and share the same general environment and resources form a biotic community or the biosphere, based on the function and the general manner in which organisms obtain their food material, individuals within a biotic community can be grouped into:

(1) **Producers:** The community of green plants, called primary producers absorbs carbon dioxide, mineral nutrients, water and built up organic matter with the help of solar energy releasing oxygen in the process. Minerals nutrients enter the biosphere through green plants. Human activities may affect the producers, available in the forest and create the improper quantity of producers, available in forests. The rapid increasing the population of human is responsible to creation of human activities against forest life and ecosystem.

(2) **Consumers:** Producers are consumed by herbivorous animals, the primary consumers which are in turn consumed by carnivorous animals, the secondary consumers, and so on. This ad chain of organisms based on trophic relationship is established which is known as

good chain. The energy trapped by green plants is released to be used by consumers when organic matter is degraded or oxidized,

Oxygen is used and carbon dioxide is released in the process, in a complicated ecosystem where each trophic level consists of a number of species, there may be several inter linked good chains and the trophic structure assumes the shape of a complicated food web. Due to rapidly increasing of human population the urbanization is also increasing with human population, with the increasing of an areas of city, village etc. The forest areas are also decreased with increasing of cities, village etc. the deforestation is increased. Due to deforestation the forest areas becoming shorter than the human populated area.

PROPER FOOD CHAINS IN FOREST

Herbs → Forest Herbivores → Forest Carnivores

Herbs (Producer) → Forest Herbivores (Primary Consumers) → Forest Carnivores (Secondary Consumers)

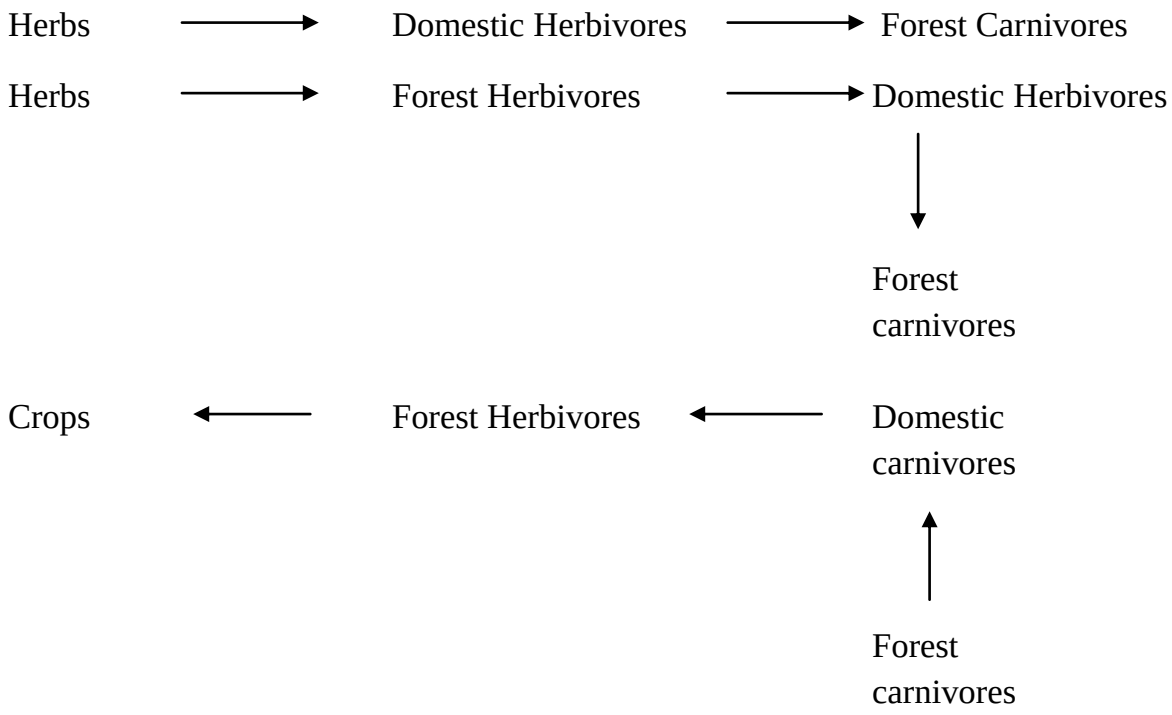
Improper food chain
(After involvement of Human Beings)

Herbs → Forest Herbivores (Primary Consumers) → Human

Human → Forest Carnivores (Secondary Consumers)

Forest Carnivores (Secondary Consumers) → Human

Human → Carnivores (Tertiary consumers)



Conclusion and Recommendation

After a rapidly increasing human population the deforestation is developed, due to deforestation the sheltering and homing of wild animals shall be disturbed, hence the migratory behaviors of forest animals is developed, they immigrate towards the domestic areas (cities and villages etc.) and influence the lives of human as well as domestic animals. Similarly the domestic carnivores / omnivores e.g. dogs and cats etc. may be migrated towards forest areas and make dependencies on the forest herbivores.

The rapid advances and technology have but the scientists and technologists on their heals to cope up with the simultaneous changes that have occurred during the past decades. Various types of revision, rectifications as well as modifications and sometimes even together innovated ideas that developed in numerous fields of specializations have required to be incorporated with the advanced to the field concerning of the study. The Innovative techniques have but the researches on consistent think and rethink) level on the entertain high concepts related to the population Education. The human population growth also creates the deforestation due to deforestation various harmful effects will be created on animal lives and ecosystem. The proper balancing among animals, plants natural resources and atmosphere gases will be disturbed by the rapidly increasing human population and decreasing wild lands,

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