

INCREASING OF POPULATION AND ITS IMPACT ON BIODIVERSITY (A SHORT ANALYSIS IN THE CONTEXT OF JEHANABAD DISTRICT, “BIHAR”)

Dr. Vijay Kumar

Asst. Pro.

Dept of Geography

DSWE College, Sohsarai, Biharsharif, Nalanda (India)

Abstract: The high population of Jehanabad district has affected to bio-diversity. For increasing population the need for food, space and raw materials has resulted in destruction of bio-diversity.

During the last twenty years 1991-2011 the population of Jehanabad district increased by 53.63 percent. Net sown area has been increased feed the growing population at the cost of forest and vegetation area decreases. This is the cause of decrease in the amount of rainfall, shrinkage in the shelter for animal.

The yield of crop plants per unit area of farmed land can be increased by intensive farming methods, such as the application of chemicals, fertilizers and wide spread use of pesticides. These methods have the advantage of increasing the quantity of food grain can be more produced, but can also have on adverse effect on the bio-diversity.

For the service of population the role of transportation sector is very important. Increasing number of vehicles more consumes fossil fuels and produced sulphur dioxide in the atmosphere, which cause acid rain effect less bio-diversity. Untreated sewage is released into rivers this results in decrease in species diversity. Deforestation and pollution is main caused to a decreasing of bio-diversity in the Jehanabad district. Bio-diversity can be maintained by the conservation of endangered species conservation of wildlife, breeding of captive animals, conservation of grazing land, wet land, major and minor source of water stores.

Key words: shrinkage, fossil fuels, sewage, deforestation.

INTRODUCTION: At the root of environmental pollution is the rapid growth of population and massive consumption of resources to fulfill endless and unrestricted human greed. Initially People were few in number and their needs were limited. Gradually their needs increased and they learnt to modify the bio-diversity according to their needs. The increase in interface with the environment has ultimately led to social and natural environmental pollution and consequent the degradation.

The study of environmental problems requires an integrated perspective, development, perception, education and awareness, monitoring and management and environment policies. Environmental pollution has attracted the attention of several Geographers. Sharma (1980) points out that the main cause of environmental pollution are the rapid industrialization, urbanization, use of fossil fuels, the construction of barrages and dams, the indiscriminate use of fertilizers and pesticides and finally increasing of population.

The impact of increasing of population has started to be felt on others walks of life as well. The standard of living and level of income of the people have improved. This has also brought about changes in the condition of their houses and household goods. The settlement pattern and land use pattern have changed.

OBJECTIVE: The present paper has the following objective;

1. To know the increasing of population accompanied by technological development in agriculture, industry and transport has been the most important factor responsible for Bio-diversity
2. The main objective of the present study to analysis the bio-diversity consequences of the growth of Population. Jehanabad district in south Bihar has been taken as the area of study.
3. This study aims to Analysis how for increasing population of the district has contributed to this change. Jehanabad district is situated in Magadh division of south central Bihar plain.
4. The changes in physical and cultural environment of the study area have been examined in the light Of growing population.

METHODOLOGY: This study is to caused or the assessment of bio-diversity

The methodology adopted in the present study includes collection of literature, data and maps, Selection of sampling, field work, data analysis and map analysis.

SOURCE OF DATA: The literary work was supplemented by published data. The only published data used in the present Study is the census of India, which helped in the study of demographic features.

FIELD WORK: A detailed field work survey was conducted from obtaining first hand information and to verify the Truthfulness of the data. Officials, senior citizens and teachers were contacted to know the impact of the growth of population on changing Bio-diversity of the area.

Growth of population:-

The population of a region keeps on changing over a period of time. The excess of in incidence of births over that of deaths causes on increase in population and this is termed as natured increase migration is another factor for population variation through, normally it does not have a substantial effect on the growth of population of a region rapid rate of increase in population has been held responsible as the most significant factors of bio-diversity degradation because ever increasing population put greater demands on the use of limited because resources of a country.

The population of the present Jahanabad district since 1951 has been calculated with great difficulty on the basis of the statistics of the villages falling in the present district.

TABLE-1**JEHANABAD DISTRICT: GROWTH OF POPULATION**

CENSUS YEAR	TOTAL POPULATION	DECADE VARIATION	% DECADE VARIATION
1951	366451	34250	10.63
1961	417796	61345	17.21
1971	502901	85105	20.37
1981	601972	99072	19.70
1991	718936	116963	19.43
2001	924839	205903	28.64
2011	1125313	200474	21.55

Source: compiled from different census volumes

During the last fifty years (1951-2001) the population of the district increasing from 356451 to 924839, which was a little less than threefold increase. As against it, the population increased only by one and a half time (239353 to 356451) during the preceding fifty years (1901-1951). This shows that recently the population has increasing to 17.2% during 195761 as compared to only 10.63% during the preceding decade. After 1961. The rate of growth accelerated considerably to record 20.37% during 1961-71, 19.70% during 1971-81, 19.43% during 1981-91 and 28.64% 1991-2001. In this way, the rate of growth in the population of this district during 1901-2001 was the highest ever on record. During the last ten years the population of the district increased from 718936 to 924839, the total increase being 205903 persons. However, in 2001 census the district recorded 1124176 persons and during 2001-2011 the population increased by 21.55 percent

DEVELOPMENT OF SLUMS:

A slum can be described as an area where there is an overcrowding of house on land of persons in houses and where houses are huddled together in an unplanned manner without the provision of appropriate Street layout, drainage, sewerage, community facilities and other basic necessities of life, resulting in Insanitary and un—healthful living conditions. According to a report on Delhi, the term should be applied to those part of city which may be considered unfit for human habitation either because the structure there in old, dilapidated, grossly congested and out of repairs or because it is impossible to preserve sanitation for want of sanitary facilities including ventilation, drainage and water supply, etc. or because the sites, by themselves, are unhealthy.

Slums are a common phenomenon in the town of Jehanabad district. The level of urbanization is very low(12.07) in the district and there are only two towns here. Among them Jehanabad town is comparatively large with 103202persons, while Makhdumpur town is small having only 36109persons As per 2011 census. But both of these towns have experienced the formation of slums. In Jehanabad Town administrative, business, educational, medical and transport activities have caused a heavy influx Of people in low class residential areas, thus causing slums. Makhdumpur has attracted migrants for working as construction workers,

rickshaw pullers and other. The following four types of slums have developed in different parts of both Jehanabad and Makhdumpur towns:

1. Area with over-crowding and sub-standard facilities:

This type of slums is found in older parts of both towns of the study area. Such slum are more prominent In Jehanabad town in which Ramgarh, Ambedkarnagar, Babhana musahi, Gareria tola Kutwanchak Mohallas belong to his type slums. In Makhdumpur town also the centrally located Dhakni Bigha, Kayamganj and Saraiya Bazaar Mohallas are over crowded having sub-standard facilities.

2. Areas developed without proper planning:

This type of slums is found in Irki and kanandi of jehanabad and Musibra shamuchak and Mohamadpur Of makhdumpur town belong to this type of slum, where houses have developed with due to regard To planning standard or building regulations.

3. Areas of obsolescence:

This type of slums have developed due to shift in the center of gravity of these town. These areas have degenerated into slums due to old age of buildings. Dhangawan and Hazzaura Mohallas of Jehanabad and Kansara Mohalla of Makhdumpur town have this type of slums.

4. Rurban Pockets:

A few small villages previously lying on the outer fringes of these towns and now included within the Municipal limits have grown in the worst type of slums. Eastern and western parts of Jehanabad and Salhanda area of Makhdumpur town are the noteworthy examples of such rural-urban pockets.

CHANGES IN LAND USE PATTERN: There have been changes in land use of the study area due to human factor. it is because land use fallows human needs. With the growth of population and growing needs of the people more| and is given to farming, settlement including residence, roads, industries etc. This leads to the decrease in area under forest. pastures and trees & groves.

TABLE-2

JEHANABAD DISTRICT : CHANGES IN LAND USE PATTERN

S. NO	LAND USE CATEGORIES	PERCENT IN LAND		
		1984-85	2004-2005	PERCENT CHANGES
1	forest	0.69	0.41	0.28
2	BARREN & UNCULTURABLE	5.61	3.50	2.11
3	LAND PUT TO NON-AGRICULTURAL USE	11.68	15.53	3.85
4	CULTURABLE WASTE	1.5	0.17	0.98
5	PERMANENT PASTURE&OTHER GRAZING LAND	1.02	0.25	0.77
6	Miscellaneous Trees Groves	2.13	1.26	0.87
7	other fallows	4.83	1.62	3.21
8	current fallows	10.53	10.87	0.34
9	Net area sown	62.36	66.39	4.03

Source: Atallah. M(2008) “Bihar ka Adhunik Bhugal”, Brilliant Prakashan, Patna P. 60 and Directorete of statistics and evaluation, Bihar, Patna.

Table 2 shows the changes in the land use of Jehanabad district and substantiates the above fact. Current fallows have also increased in area from 10.53 percent to 10.87 percent, though the increase was marginal.

Urban land use of the towns of Jehanabad district have also experienced remarkable changes. The population of these town increased rapidly within the last few decades. Thus resulted in the increase in their built up areas.

CHANGING BIO –DIVERSITY AND ITS IMPACT ON HUMAN

POLLUTION – The burning of fossil fuels leads to on increase on sulphur dioxide in the atmosphere, which causes acid rain, Acid rain has devastating consequences on bio-diversity as many plants and animal species can not survive these conditions. As the rain becomes more acidic, bio-diversity decreases.

DEFORESTATION- It describes the removal of vast areas of natural forest for the benefit of humans this can result in habitat destruction, a reduction in soil fertility and poor soil structure leading to decrease in bio-diversity.

DESERTIFICATION- Desertification describes the conversion of large areas of land to desert as a result of human activity. This decreases bio-diversity as only species that can survive in a dry habitat will remain in these areas.

PESTICIDES- Chemical pesticides are substances that are sprayed on crop plants to kill organisms such as weeds, insects and fungi that can reduce crop growth. Weeds compete with the crop plants for resources. Fungi can cause plant diseases and insects may consume the plants and damage them.

SEWAGE- Sewage must be treated before it is released into the environment. If untreated sewage is released into rivers it provides food for bacteria, which will increase in numbers and use up the oxygen supply of the water. The result is a decrease in species diversity since only species that can live in areas with low oxygen concentrations will survive.

CONCLUSION- Increasing population and consequent increase in the number of vehicles, factories, etc. have affected bio-diversity. Bio-diversity loss varies among regions and affects genes, species and ecosystems. Land and soil water and air have been degraded and polluted. Increasing population and consequent increase in the number of vehicles, factories etc. have resulted in loss of bio-diversity. It is important to educate people on living in equilibrium with the environment.

BIBLIOGRAPHY

- 1 **KAYASTHA, S.L** (1999) "ENVIRONMENTAL PROBLEMS" in Gossal G.S fourth survey of research in Geography, Manak publication Pvt. Ltd. New delhi.
- 2 **Ali mohmad** (2007) "LAND WATER DEGRADATION" 94th Indian science congress chidambaram, Section of earth system science.
- 3 **BOSE P.K** (1977) population- food-nutrition equation in India, everyman science vol xii no 1 pp 17-34
- 4 **Choudhary s.K** (2006) " climatic changes, Its impact on national security " in pandey D.D
- 5 **das K.N** (1978) India's human resource: Need for reshaping policy" Indian geographical studies PP 152-161
- 6 **Attulah .M** Urban Land use: Its use and misuse amar Prakashan, delhi pp 203-204
- 7 **kumar . j** Land use analysis, Inter-India publication new Delhi p.1
- 8 **Mitra S** (1977) Urbanisation boon or bane? Hindustan times patna 15th dec. 1997
- 9 **slums of old delhi** : A report of socio-economic survey of slums conducted by Bharat sevak samaj
- 10 **Sinha V.N.P** and m. attulah (1987) Migration :An inter disciplinary approach, seema publications New delhi 1958 P 9.