



ECO-INEQUALITY AND URBANIZATION: UNEQUAL PATHS TO CLIMATE RESILIENCE IN INDIA

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Abstract: Though urban infrastructure offers employment, good healthcare services, education and so on, urbanization prevails the ecological consciousness. Moreover, villages which maintain the ecosystem properly are being transformed into urban cities where the ecosystem and biodiversity are abandoned. Therefore, this research paper considerably responds to the questions of how urbanization contributes to eco-inequality and climate change in India and how eco-parks and eco-villages in India are employed in reducing the climate crisis. This paper hypothesises that urban infrastructure is strongly prone to the ecosystem and sustainability. Moreover, though the government announces many schemes and plans, such as eco-parks and eco-villages, to conserve nature from urban culture, the schemes sometimes create ecological inequality. Additionally, by providing a few examples, this paper explores the merits and demerits of urbanisation, and how urban infrastructure devastates the ecosystem and biodiversity in India. Moreover, the paper finds the gap in the previous research articles and other sources that explain the optimistic views of eco-parks and eco-villages. Enough research has not been done on pessimistic views of urban-eco-projects. The objectives of the paper are to explore the negative effects of urbanization on ecology and the ecosystem, analyze the contribution of eco-parks and eco-villages, and scrutinize how ecological inequality in India destroys biodiversity and leads to climate change. Eventually, the paper finds that urban projects encouraged by the Indian government will surely lead to environmental devastation and climate change in future.

Index Terms - Urbanization, Eco-inequality, eco-parks, eco-villages, climate change, urban infrastructure

INTRODUCTION

In the 21st century, urbanisation is a prevalent progress around the world that shows the desirous of the people to live in the cities and towns. Urbanization is commonly described or understood in various ways.. During the arrival of the urban culture, urbanisation meant that people from rural backgrounds moved to urban areas to fulfil their basic amenities, and the population rate was reduced in rural areas (Wikipedia; “Urbanisation”). Moreover, urbanisation is a developing process that occurs when the countryside and villages are being developed (“Urbanisation”) by implementing or increasing educational, economic, industrial and employment opportunities. Ultimately, after the modification, rural villages are transformed into cities where people can be satisfied by the facilities (National Geographic). Moreover, as the urban culture provides plenty of opportunities to people through education, employment, healthcare service, etc., urbanisation altered the way people “live, work, travel, and build networks” (Ritchie et al.). Eventually, urbanization, a man-made environment, is the “surroundings made by humans to provide facilities for satisfying human needs. These surroundings are made to have a place for people to do jobs or life or even educate other people and also recreating requirements for the concerned people’s day to day needs” (Urbanpro).

Besides, despite the fact that urbanisation assists in having basic services, it steers into severe environmental disasters such as climate change and global warming since urbanisation causes deforestation and excessive use of natural resources. The hypothesis is that urban infrastructure is strongly prone to the ecosystem and sustainability, and the urban ecosystem induces eco-inequality. Urban ecosystem is “an interface between biological communities of plants and animals and urban infrastructure. They can include urban forests, native plantings, or green infrastructure such as green roofs, community gardens, and rain gardens” (“Urban Ecosystems”). The objectives of the paper are to explore people’s knowledge about the negative effects of

urbanization on ecology and the ecosystem in India, analyze the contribution of eco-parks and eco-villages in India, and scrutinize how ecological inequality in India destroys biodiversity and leads to climate change.

MERTIS AND DEMERITS OF URBANISATION

The motives behind people's migration to cities and towns are that they feel convenient life in urban areas because of a better economy, education, housing, social life, effective medical facilities, easy access to electrical and internet facilities, police and security systems, availability of entertainment, more stores, tourist attractions, frequent transportations, industrial growth and so on (Thomas; Boppana 2; Layne; United Nations). Meticulously, as cities and towns highly focus on business and industries, there are more job opportunities with high wages in cities than in rural areas. Therefore, people can develop their economic status. Most of the eminent public and private schools exist only in towns in addition to colleges and universities, and they have many courses with modern learning methods (Myayan). Thus, the quality of educational institutions strongly negotiates the will of the people of rural areas to move to urban cities. It cannot be denied that medical facilities are better in cities than in rural countries, as getting medical facilities is easy in cities. Furthermore, only hospitals in the cities have high medical and surgical equipment. If it is about security, finding criminals and protecting valuable places are easy with advanced technology, as places in the cities are continuously monitored by police with CCTVs ("Advantages and Disadvantages of Urbanization - Javatpoint"). These are the little advantages of urbanisation.

Even though urbanisation has many benefits for society and people's lives, it has many negative effects on the economy, society and others. To discuss elaborately, in urbanised cities, as things like goods and services will be expensive, the living cost always be high (Lettings). Then, the population is an important pernicious effect of urbanisation. Even small streets and stores will be crowded by the people and congested by the traffic (AspiringYouths). As the population is extreme, there will be heavy competition to get a proper education and good jobs. Sometimes, there will be inequality based on the economy and influence. Eventually, because of the busy and materialistic lifestyle of the city, people will surely have stress and depression due to work pressure. Despite the urban lifestyle provides good economic development, it is deleterious to mental health and leads people to stress and anxiety (Cronkleton; Srivastava 75). Natalie A. Akins explicitly declares, "Urban living is associated with chronic stress from more demanding and stressful social environments, environmental stressors like overcrowding, and greater social disparities" (12).

Moreover, Jitendra K. Trivedi and his fellow scholars have discussed in their research that "Children and adolescents in socioeconomically deprived urban areas are often drawn to antisocial behaviour. Although not exclusively an urban phenomenon, it thrives in inner cities where degradation, poverty, drug use, and unemployment result in an explosive blend favouring violent solutions" (163). Thus, urbanisation affects the mental health of people, especially old people, children and women and leads to "suicide, homicide, drug or substance abuse, violence, coronary heart diseases and traffic accidents" (Turan & Besirli 239). Thus, the negative effects of the urbanisation are increased these days.

IMPACTS ON NATURE AND THE ECOSYSTEM

Furthermore, increasing cities and towns have undesiring impacts not only on the economy, politics, society and health care but also on the natural environment and ecosystem of the territory or the world. Due to the extreme population, the farming lands and forests are destroyed and replaced by roads, airports, industries, housings and so on. Thus, everything is invested in urban infrastructure ("The Risks of Rapid Urbanization in Developing Countries"). Rebele explains how passion for urban infrastructure directs people to alter natural resources as, "a large number of urban habitats such as buildings, roofs, underground pipes are specifically related to human habitation. Natural soils are usually considerably modified by human settlement activities and production (soil is moved, substrates are mixed, there is compaction and sealing over" (176). Moreover, other amenities including transportation, and power plants for electricity cause pollution. Eventually, urbanization has detrimental effects on the natural environment including air, water, soil pollution, greenhouse gas emissions and loss of green landscapes (Provisions).

URBANISATION AND ENVIRONMENTAL CALAMITIES

The damaging impacts of urbanisation on the natural environment and ecosystem can be recognised even during the construction of cities. While establishing the habitats of urbanisation, nature is being devastated. Therefore, urbanisation is an essential process that leads the world into environmental and global change (Haase, D., et al. 19), because urbanisation and the way of living in it automatically decrease and affect the usage and ability of local and global ecosystems (Cumming, G.S., et al, 51; Hamann, M., et al., 224). Ivanova states the consequence that "Modern living spaces are urbanised territories with ecological problems. It is now generally acknowledged that the reason for all ecological disaster" (2). Because, for the sake of the sophisticated life in urban areas, people are ready to alter the environment. Additionally, Bill McKibben declares the truth, "We have changed the atmosphere, and thus we are changing the weather. By changing weather, we make every spot-on earth man-made and artificial (60). Indeed, McKibben is right when it is understood that the weather of the earth is changed when the ecosystem is altered by the people during the process of a human-made environment called urbanisation.

These changes in the weather eventually lead to global change as well as climate change. V H Dale decently discloses that, for centuries, humans have modified terrestrial and aquatic systems to meet basic energy needs as well as to satisfy other requirements, leading to major changes in global land cover, atmospheric concentrations of greenhouse gasses, and the land's future capacity to sequester carbon (755). Thus, urbanization leads to “environmental crises, such as species extinction, global warming, air and water pollution, and wildland destruction, are some of the most important problems currently facing our society” (Kortenkamp and Moore 261). For instance, as per the UN-Environmental Programme report, since urban activities are significant producers of greenhouse gas emissions, cities play a vital role in climate change. 75 per cent of the world's CO₂ emissions are believed to originate from cities, with transportation and buildings accounting for the majority of these emissions (“Cities and Climate Change”) and the emission is up from 62% in 2015 (Trotta). Moreover, UN-HABITAT reports, “Global warming is likely to reach 1.5°C between 2030 and 2052, and approximately 3°C in 2100 based on current national government commitments” (*Climate Change | UN-Habitat*).

Hence, urbanisation lays more carbon footprints which causes climate change. In regard, this paper further explores how India and its sub-governments contribute to climate change by converting rural areas into urban. Nowadays, even the government has many projects regarding the growth of cities for the sake of developing the economy of the country. Smart City Mission is one of the major plans of the Indian government to increase the number of cities.

URBANISATION AND INDIA

Since India is an urbanising country which has been hastily updated with urban infrastructure, the population is regularly increasing in the cities. In the future India, over 600 million people will have their residences in urban cities, approximately 40 per cent of the population (ZeeBiz). As a massive multitude is migrated into cities and towns, constructing and offering enough infrastructure is a major challenge for the government. Therefore, the government invests more money in the urban projects (Urbanet). In the Smart City Award Concert on September 27, 2023, during the felicitation ceremony, Ms. Droupathi Murmu, the President of India said that India had increased its investment in urban development (The Hindu Bureau). Thus, with the rapid development of urbanization, India has lost its natural environment, ecological system, sustainability, and green landscape. According to Dr Vanita Ahuja, there are eight important urban infrastructures; “water supply, sewerage, solid waste management, stormwater drains, urban roads, urban transport, traffic support infrastructure and street lighting” (2). To accomplish this structural development of urban India, both central and state governments have been launching many schemes and plans.

SMART CITY MISSION, ENVIRONMENTAL DEVASTATION AND ECO-CALAMITIES

Smart City Mission is one of the urban development programmes employed by the government through which the cities and towns are renewed or upgraded (Jose). It was implemented by the Ministry of Urban Development that covers more than a hundred cities. This mission believes, “to achieve sustainable growth, cities must become more liveable, safer, and offer clean air, reliable infrastructure, utilities, and opportunities for learning and employment ... and have opened up opportunities for local industries and global players to participate in the development of cities across various sectors, including utilities, housing, mobility, telecommunications, information technology, healthcare, education, and recreational facilities” (Edukemy). Thus, the prominent goal of the Smart City Mission is redeveloping or transforming the existing areas into “better planned human settlement” (Mishra 1).

After the implementation of the Smart City Mission, another significant plan initiated by the Indian government is the Rurban Mission. The Mission is “to strengthen rural areas by providing economic, social and infrastructure amenities, thus leading to sustainable and balanced regional development in the country” (Shyama Prasad Mukherji Rurban Mission (Spmrm) | Rural Development Department | India). Eventually, the Rurban Mission also contributes to altering the natural environment and agricultural land in order to increase the economy and infrastructure. However, the developments through the missions bring environmental catastrophes in the regions, especially the urbanized cities.

For instance, Kodagu, a district in Karnataka, where thousands of huge trees were cut down in 2015 to make way for the installation of a high-tension electric wireline. Unchecked sand mining has limited river flows, and the soil has been damaged by the rapid construction of tall buildings on precarious hill slopes. Due to the hasty development, the region is now vulnerable to landslides and flash floods brought on by a combination of excessive rainfall and trees falling on steep hillslopes (Nagendra).

Another example of urban development is the Kochi International Airport. The airport, which stretches up to the river's banks on one side, was constructed on the marshes and rice fields next to the Periyar River. Kerala experienced historic floods in August 2018 as a result of exceptionally high monsoon season rainfall. The airport was supposed to close for 14 days on August 15 due to floodwaters inundating the airside facilities and terminal buildings. The international terminal's first level was damaged by the 8.8-meter-high flooding at the airport. The area's inhabitants assert that the inexpensive cost of the property led to its selection, and that flooding during periods of extreme weather was disregarded. Additionally, they believe that changing the river's natural path was the direct cause of the floods (Badri).

For instance, Goa's native wetlands are being destroyed by road construction projects. In Goa, extensive infrastructural development is endangering a special wetland system that keeps the state safe from flooding. Lands in Khazan are currently being seized for the construction of infrastructure. Without authorization, an impact assessment, or a hydrology study, land was acquired. This road obstructs freshwater flow into the Sal's catchment area in addition to crossing through the lake. It has utterly devastated the agriculture and fauna of the area (Venkatesh).

In Tamil Nadu, farmers opposed the project that the acquisition of land in their villages for the construction of an artificial greenfield would result in the annihilation of agriculture and the elimination of the region's self-reliant economy. The farmers from Ekanapuram, Tamilnadu, are also encountering a similar problem that the airport is to be constructed on farming land. The farmers fear that the airport should affect the water body and land, the natural environment of the village, and the life of farmers (The Hindu, 2022). Thus, the government consents to construct bus stands, railway tracks, industries, road extensions and housing apartments on lakes, farming and agricultural lands. Therefore, natural resources are destroyed by the urban infrastructure and littering waste garbage in resources. Accordingly, the sustainability of the territories is affected and people are struggling due to environmental calamities such as hot weather, heavy rain and floods.

Despite the fact that both urban and rural offer many beneficial effects in many ways, they spoil the environment and ecosystem of the country and affect sustainability. Even though urban and rural cities have some infrastructure to maintain sustainability, it cannot be denied that urban culture devastated sustainability. Urbanization will completely transform the future world in a way that is fundamentally different. In the future, there must be 'innovative districts' which will provide the future with extreme technology and internet. In addition, there must be 'eco-districts' which are associated with "urban planning to reduce a development's carbon footprint and environmental impact" (Pobiner). Thus, urban planning has both negative and positive effects in the future.

URBAN-INDUCED CLIMATE CHANGE IN INDIA

Mrityunjay Bose, in his report, quotes the sentences of Mahesh Palawat, Vice President – Meteorology and Climate Change Skymet Weather, "Global warming-led changes in monsoon patterns have made a difference. There has been a constant rise in both land and sea temperatures, which has increased the capacity of the air to hold moisture for a longer time. Thus, the role of climate change in the increasing extreme weather events in India has been strengthening with each passing year" (Mrityunjay Bose et al.). Additionally, the Council on Energy, Environment and Water (CEEW) analyzed climatic disasters from 1971 to 2020 and found that around 75% of India's districts are vulnerable to severe hydro-meteorological disasters such as cyclones, floods, and droughts. In addition, about 40% of these regions have a pattern of shifting between floods and droughts, which increases risk (Prabhu and Chitale 6, 2024). Prabhu and Chitale have mentioned in their report that "By the end of the 21st century, India is projected to experience a 10-14% increase in southwest monsoon rainfall due to climate change" (8). Because of this severe rainfall, not only urban cities and towns but also rural areas encounter floods. In recent years, the monsoon has coincided with a low-pressure weather system in the Himalayas, resulting in very heavy rainfall, which officials and scientists have attributed to rising temperatures. Shivam Patel in his report quotes the words of Kuldeep Srivastava, head of the India Meteorological Department's regional centre in New Delhi, "It causes significant rain, or even cloudbursts... we are noticing in the last few years, intense spells of rain lasting short durations," and attributed this to climate change brought on by a rise in world temperatures (Patel 2023).

Moreover, air pollution is unquestionably one of India's most serious environmental issues. In accordance with the 2021 World Air Quality Report, 63 out of the 100 most polluted cities internationally are located in India, with New Delhi being the capital with the poorest air quality globally. The survey also discovered that in 48% of the nation's cities, PM2.5 concentrations—tiny airborne particles with a length of 2.5 micrometres or less—are more than ten times higher than the WHO air quality guideline limit for 2021. In India, the main causes of air pollution include power generation, vehicle emissions, industrial waste, kitchen smoke, the building industry, and crop burning. Due to widespread electrification, India is the third-biggest polluter in the world, releasing approximately 2.65 billion metric tonnes of carbon dioxide into the atmosphere annually, since it is heavily dependent on gas, oil, and coal (Igini, 2024). Thus, carbon dioxide and other greenhouse gases emitted from urban countries increase the temperature and reduce the high-rich oxygen in the air. Therefore, the regions across the countries become tropical areas and are affected by extreme rainfall. As urbanisation leads to climate change and global warming, the regions in India have been prone to ecological disasters every year.

ROLE OF ECO-PARKS

To avoid the undesirable effects, especially the ecological effects, recently Indian government has been developing urban sustainability. When urbanisation and its planning arrived, people didn't consider the negative effects on the environment and sustainability. However, the urban planning and infrastructure have started to harm the nature and sustainability. Therefore, recent urban plannings are incorporated with sustainability and ecological consciousness. For instance, eco-parks, eco-villages and eco-districts are initiated to insist on the development of sustainability. Moreover, the urban development department has decided to halt the developments if they lead to everlasting impairment to the environment. And, they have suggested to the

developers' team to "keep in mind that conserving ecology, agrarian lands and cultural heritage is the pre-requisite for a successful urban settlement" (Kumar) while constructing a city or an urban area.

The reasons to introduce eco-parks and eco-villages are that urban planning and infrastructure let the world into climate change and global warming. Due to the emission of greenhouse gasses from urban areas, the global temperature has been increasing. Moreover, people in India are encountering "two significant challenges heavy rains and flooding in certain Mtrends are pointing to a worrying reality - our cities are steadily becoming hotter due to the ongoing impact of climate change" (Vaidya).

Eventually, after witnessing these environmental calamities due to climate change, people of the present age have robust ecocentric behaviour rather than anthropocentrism (Thompson and Barton, 156), resulting in the people and government of India's urge to construct eco-parks and other ecological projects. Generally, an eco-park is an area of conservation that enhances human values and animals while utilizing ecological landscape elements to minimize watering and maintenance. India has many eco parks that are dispersed around the nation due to its size and abundance of natural resources. The Indian states with the greatest concentration of eco-parks are Madhya Pradesh, Kerala, Karnataka, Rajasthan, Uttaranchal, West Bengal, and so on. As well, these states are well-known for possessing the widest range of plants and animals (IndiaNetZone). Finally, India's natural resources are protected, enhanced, and conserved via its eco-parks.

Moreover, an eco-park has communal, economic and environmental benefits. It contributes to the decreased emission of greenhouse gases and pollution of surface and groundwater. Additionally, it encourages people to practice 'reduce, reuse, recycle, recover'. It is employed for the conservation of water and other resources. Eventually, it promotes green technologies and regenerates the surface from brown to green (Restoration Land Inc. 2022).

IMPEDIMENTS FOR ACHIEVEMENTS OF ECO-PARKS IN INDIA

Despite the government prompting people's ecological consciousness through eco-parks, people adore eco-parks only as tourist parks. They just want to visit parks seasonally and admire the beauty of nature. Therefore, there is no realization to preserve and restore nature. As a result, the purpose of constructing eco-parks becomes ineffective as people need the existence of an ecosystem to spend a day but do not realise how to keep an ecosystem safe. Moreover, even the government of India is involved in deforestation. Though government initiates the ecological schemes like eco-parks, Nagar Van Yojana, School Nursery Yojana, National Mission for a Green India, etc., for eco-restoration, deforestation is approved due to the urban infrastructure. On one side, the Forest (Conservation) Act of 1980, the Indian Forest Act of 1927, the Wildlife Protection Act of 1972, and other central/state laws are executed by the government of India (PIB Delhi 2023). On the other hand, as Ambika Sharma notes, "Each year, 6-9 million hectares (an area roughly the size of Denmark) of forests are permanently cleared and many millions more are degraded. But many decisions affecting forests happen in cities that are home to government officials who set land policy, businesses that sell and buy the commodities that displace forests, and investors who finance it all" (Sharma 2022). Moreover, Isabelle Gerretsen denotes that by reckoning trees and urban eco-parks as forests, the Indian government is hiding constant deforestation caused by industrial projects (Gerretsen 2022).

Therefore, this is impossible to preserve nature by constructing eco-parks on a few acres, after eliminating many acres of forests and ecological lands for the sake of urban infrastructure persistently. Hence, recreation or restoration of forests is the only way to mitigate climate change and global warming caused by urban culture. This is acceptable that people cannot survive without some urban amenities but a country needs trees and plants more than concrete buildings to get rid of climate change.

In urban countries, for ecological consciousness, eco-parks and farms are constructed. Even though urban thoughts dominate and redesign the entire ecosystem with eco-inequality, urbanisation indeed leads to ecological inequality. According to the General Multilingual Environmental Thesaurus, ecological inequality is defined as "Any imbalance or disparity among inhabitants of the same living environment deemed inappropriate, unjust or detrimental to that environment's integrity" (GEMET, 2021). Generally, ecological inequality discusses "Communities with lower levels of income and education are often more impacted by air, water and noise pollution, as well as climate change" (European Environment Agency, 2024). Despite the fact that ecological inequality generally deals with the struggle experienced by the people caused by ecological crisis, on the other hand, ecological inequality can be defined as every species in the biodiversity is treated based on its benefits. The species in the ecosystem are not given priority equally.

Indeed, after the arrival of urbanization, everything has been mostly concerned with economic benefits. Therefore, the economic benefit has overcome the ecological benefits. Considerably, the forests have been destroyed and economically benefitted trees and plants are raised. Today, humans are interested in benefiting economically, not ecologically.

For instance, trees and plants contribute to ecological benefits such as improving air quality, increasing rich oxygen in the air, and removing dangerous dust and airborne contaminants like Sulfur dioxide, carbon monoxide, and ozone from our lungs. Moreover, they contribute to reducing erosion and pollution in waterways, reducing the effects of flooding and providing food

and shelter for all the species. Additionally, they reduce the temperature caused by urban infrastructure (Bowling Green Kentucky 2024; Savatree 2024; Killocoat et al 2002). According to the report of the U.S. Department of Agriculture, “100 trees remove 53 tons of carbon dioxide and 430 pounds of other air pollutants per year” and “One hundred mature trees catch about 139,000 gallons of rainwater per year” (USDA). Thus, though the forests and other ecosystems have environmental benefits, the urban culture easily turns the people to the economic benefits.

Furthermore, urbanisation prompts people to destroy the forests and create orchards and woodlots for the sake of the economic development of a country. Thus, urbanisation causes ecological inequality by turning the people into economic development rather than environmental or ecological benefits. Including, people who live in urban areas are manipulated to extend their buildings and construct their houses beautifully but not to maintain sustainability and biodiversity in their areas. People are eager to raise trees which give economic and social benefits but not the trees for sustainability.

Another experience Leopold related to ecological inequity induced by urbanization was Wisconsin farmers who were given a five-year mandate to preserve the topsoil. They stopped doing conservational activities when the conservation time was over. Surprisingly, in their quest for economic expansion, farmers also abandoned their environmentally conscious approach toward the soil. His essay illustrates the situation;

By 1930 it had become clear to all except the ecologically blind that southwestern Wisconsin's topsoil was slipping seaward. In 1933 the farmers were told that if they would adopt certain remedial practices for five years, the public would donate CCC labor to install them, plus the necessary machinery and materials. The offer was widely accepted, but the practices were widely forgotten when the five-year contract period was up. The farmers continued only those practices that yielded an immediate and visible economic gain for themselves. (208)

Thus, urban and rural cultures strongly contribute to ecological inequality. Eventually, a number of researches have explicated urbanisation and its infrastructure that elucidate the harmfulness of urban infrastructure. As well, in exploring urbanisation and its consequences on the environment and ecology, the contribution of literary works such as poems and fiction is remarkable. For instance, “Urban Warming”, a poem by Truth Thomas, pictures poisonous food in urban culture. Furthermore, the poem depicts the everyday scenario of a man who lives in an urban area where everything is unhealthy and risky due to improvised urban infrastructure. Another poem titled “Crossing a City Highway” by Yusef Komunyakha explains how people in the present age have lost the value of nature. Moreover, Yusef bothers that the beauty of nature has been destroyed by ‘eighteen wheelers’ which cause the depletion of trees and plants. The next poem titled “If Oil Is Drilled in Bristol Bay” by Nanouk Okpik tells how oil drilling destroys the ecosystem in Bristol Bay. Southwest Alaska's Bristol Bay is home to one of the world's largest wild sockeye salmon fisheries, which is regarded as an important ecological and commercial resource. The possible effects of oil drilling in the region have raised concerns since they pose a risk to the health of the salmon fishery and the livelihoods and cultural practices of the indigenous populations that depend on it. Yet, there are many poems which explore the consequences and difficulties of urban progress in the ecosystem.

Like poems, there are novels to explicit the effects of urban culture. For instance, *Nectar in a Sieve* by Kamala Markandaya explains urban modernity and industrialisation cause the devastation of nature and its sources. As it is happening today, Markandaya has penned the impacts of industrialisation. In the novel, a tannery is built and developed splendidly. Moreover, the tannery occupies the farming lands around it for its expansion and people of the village join the tannery to get high salaries. Moreover, the novel depicts the impacts of the tannery;

Somehow I had always felt the tannery would eventually be our undoing. I had known it since the day the carts had come with their loads of bricks and noisy dusty men, staining the clear soft greens that had once coloured our village and cleaving its cool silences with clamour. Since then it had spread like weeds in an untended garden, strangling whatever life grew in its way. It had changed the face of our village beyond recognition and altered the lives of its inhabitants in a myriad ways (Markandaya 136)

Hence, poems and fiction have been discussing urbanisation and its consequences such as scarcity, running out of resources, global warming, and climate change.

DISCUSSION

Generally, although urbanisation has many schemes and plans based on ecological consciousness, there is a conflict between anthropocentrism and eco-centrism. Considering the species, providing economic development, in the ecosystem is also a kind of anthropocentrism. As discussed earlier, according to urban ecological consciousness, eliminating the forests is equal to creating orchards and woodlots, and planting hundreds of trees aside the roads. This behaviour towards sustainability is exactly anthropocentric. Thus, anthropocentrism manipulates people to contemplate economic and social, not environmental and ecological. Therefore, ecocentric behaviours are essential to cope with climate change and global warming caused by urban infrastructure. Washington states, “Ecocentrism expands the moral community (and ethics) from being just about ourselves. It

means we are not concerned only with humanity; we extend respect and care to all life, and indeed to terrestrial and aquatic ecosystems themselves. Ecocentric care for life has been an important theme for many individuals and some societies for millennia” (5).

Recreating the forests with ecological supporting species is the only way to reduce the urban-induced world temperature. There are plenty of trees and plants supporting the ecosystem and sustainability. Moreover, as the existing eco-parks are not sufficient to cope with the heat caused by urbanisation, the government may try to create forests in waste and barren lands with the help of environmentalists and eco-activists. It has been already done by some. For example, Jadav Payeng, known as The Forest Man of India, has created a forest himself in Majuli after witnessing that his village is being washed away every monsoon due to climate change. He dedicated his life to taking care of the forest he created. Though he is a milk seller, he goes to the forest every day. Moreover, he began reforestation at the age of 16 (Joe McCarthy 2018; Singh, 2023; Schueman 2023; Borah, 20SSSSS20),

CONCLUSION

In the end, building urban infrastructure on barren and unfruitful land is preferable to destroying forests and other natural resources. Factories and buildings are often placed near forests and rivers to exploit natural resources directly. As a result, human activities that harm nature must be stopped to protect the environment from urbanization. To combat climate change and prevent ecological imbalances, both the government and the public should engage in reforestation efforts.

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