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AN EVALUATION REPORT ON HOW THE ENVIRONMENT IS EFFECTED BY GREEN INFRASTRUCTURE

Dr. Savita Tiwari* Faculty of Science & IT, Madhyanchal Professional University, Bhopal, Madhya Pradesh, India. *Corresponding Author

ABSTRACT Green infrastructure and urban development go hand in hand. A network of natural and semi-natural areas, such as parks, green roofs, urban forests, and green walls, is referred to as "green infrastructure" and offers numerous environmental, social, and economic advantages. Green infrastructure may improve biodiversity, lessen the effects of urban heat islands, reduce air and water pollution, and give locals more recreational options. On the other side, urban development describes the process of constructing and increasing urban areas to meet changing urban needs and a growing urban population. Depending on the planning and administration of urban infrastructure, urban development can have either beneficial or bad effects on the environment and human health. Urban development that is resilient, sustainable, and egalitarian can be advanced by green infrastructure. Green infrastructure can be included into urban architecture and planning so that communities can: Green infrastructure can help to improve environmental quality by lowering water and air pollutants, reducing the effects of urban heat islands, and boosting biodiversity. This may result in a healthier, more sustainable urban environment and better environmental quality. Green infrastructure may offer citizens recreational activities as well as chances for learning and community involvement, which can improve quality of life. In addition to promoting social cohesiveness and community resilience, this can improve quality of life. Promote economic development: By luring tourists, assisting neighbourhood businesses, and generating employment in the green industry, green infrastructure can help boost regional economies. Overall, there is a strong connection between urban growth and green infrastructure, and including green infrastructure into urban design and planning can support equitable, resilient, and sustainable urban development.

KEYWORDS : Environment, Infrastructure, Urban Development, Green infrastructure

INTRODUCTION

Human health and the environment are strongly related. The physical, chemical, and biological elements that are all around us, such as the soil, water, and living things, are referred to as the environment. The effects of these factors on human health can be both favorable and unfavorable. For instance, exposure to clean air, water, and nutritious food can promote good health, but exposure to noxious chemicals, infectious agents, and contaminated air and water can result in illnesses and diseases.

The connection between the environment and health is intricate and multifaceted. Environmental variables can have an impact on human health either directly (such as job exposure to hazardous materials) or indirectly (through their effects on ecosystems and climate change).

Studying these interactions, identifying and evaluating environmental dangers, and developing and putting into practice prevention or risk-reduction methods are all aspects of environmental health.

Physical, emotional, and social well-being are just a few of the facets of life that environmental health problems can have an impact on. Air pollution, water pollution, climate change, toxic chemicals, food safety, and newly developing infectious diseases are just a few of the significant environmental health worries. Collaboration amongst a variety of stakeholders, including government organisations, business, healthcare providers, and the general public, is necessary to address these concerns.

In conclusion, the environment and health are closely related, and fostering both individual and communal well-being depends on a knowledge of this relationship.

Effect of Urban Development of Human Health

The process of constructing and enlarging cities and other urban areas is referred to as urban development. Urbanization can have positive effects on the economy, job opportunities, and living standards, but it can also have severe effects on health. The following are a few impacts of urban growth on human health:

Due to the concentration of automobiles, industrial activity, and energy generation, urban areas are frequently linked to high levels of air pollution. Cancer, cardiovascular disease, and respiratory illnesses have all been related to air pollution exposure.

High levels of noise pollution from industrial, building, and transportation activities are another characteristic of urban environments. Hearing loss, disturbed sleep, and stress can all result from prolonged exposure to loud noise.

Physical inactivity:

Neighborhoods with restricted access to parks and green areas are frequently created as a result of urban growth, which can discourage physical exercise and promote sedentary lifestyles.

Heat island impact:

The "heat island" effect, when temperatures are much higher than in nearby rural areas, can be caused by the concentration of buildings and other infrastructure in urban areas. Heat-related ailments including heat exhaustion and heat stroke may become more likely as a result of this.

Mental health:

Stress, anxiety, and sadness can all have detrimental effects on mental health in urban locations. These detrimental impacts may be attributed to elements like social isolation, noise pollution, and a lack of access to green spaces.

Urban planning and development should place a high priority on the construction of walkable communities with access to parks and green spaces, effective public transit, and regulations that decrease noise and air pollution in order to counteract these negative consequences. In order to encourage healthy habits and lessen health hazards related to urban growth, laws and regulations need also be implemented.

Green Infrastructure Contributes To A Healthy Environment

The phrase "green infrastructure" refers to natural or semi-natural characteristics that have been planned, restored, or improved to have positive effects on the environment, the economy, and society. Green infrastructure includes things like wetlands, parks, green roofs, rain gardens, and urban forests. There are many ways that green infrastructure can aid the environment, including:

Enhancing air quality:

By photosynthesis, green infrastructure may absorb air pollutants including carbon dioxide, nitrogen oxides, and particulates and release oxygen. This aids in lowering air pollution levels and raising air quality.

Providing shade and evaporative cooling, green infrastructure can help to lower the urban heat island effect and lower temperatures in populated regions.

Handling storm water:

By catching and storing runoff, lowering the quantity of pollutants that reach rivers, and lowering the risk of floods, green infrastructure elements like rain gardens, green roofs, and bios wales can help manage storm water.

Green infrastructure can provide habitat for a range of wildlife, such as birds, insects, and small mammals, supporting biodiversity and fostering ecological resilience.

Access to green infrastructure has been associated with enhanced mental, physical, and social well-being, which improves human health and wellbeing. Greenery offers possibilities for exercise, relaxation, and social connection, all of which can improve wellbeing and lessen stress.

Green Infrastructure Improves The Socio-environmental Situation

On socio-environmental situations, green infrastructure, which is defined as natural or semi-natural features developed, repaired, or enhanced to give ecological, economic, and social benefits, can have a positive effect. The following are some ways that green infrastructure might enhance the socioenvironmental situation:

Access to green infrastructure, such as parks and community gardens, can help to foster social cohesiveness by offering locations for neighbourhood gatherings, cultural activities, and social interaction. This can support a sense of belonging and help to establish communal ties.

Exposure to green infrastructure has been associated with better mental health, including lowered stress, anxiety, and depressive symptoms. The availability of green areas can increase possibilities for social engagement, physical activity, and relaxation, all of which can enhance general wellbeing.

Property value enhancement:

Green infrastructure can raise property values and draw people and businesses to a community. Homes next to green infrastructure elements like parks and greenways are frequently more sought-after and might fetch a higher price.

Economic opportunities:

The construction and upkeep of green infrastructure components can lead to the creation of jobs, as well as the growth of new markets for environmentally friendly goods and services.

Providing access to green areas and other environmental amenities in marginalised communities is one way that green infrastructure can help to mitigate environmental justice issues. This may support equity and raise these communities' general standards of living.

Environmental Effects of Green Infrastructure

Green infrastructure, which is defined as natural or semi-natural elements created, improved, or restored to give ecological, financial, and social advantages, can have a number of favourable effects on the environment. The following are a few ways that green infrastructure can help the environment:

Enhancing air quality: By photosynthesis, green infrastructure may absorb air pollutants including carbon dioxide, nitrogen oxides, and particulates and release oxygen. This aids in lowering air pollution levels and raising air quality. Providing shade and evaporative cooling, green infrastructure can help to lower the urban heat island effect and lower temperatures in populated regions. Handling storm water: By catching and storing runoff, lowering the quantity of pollutants that reach rivers, and lowering the risk of floods, green infrastructure elements like rain gardens, green roofs, and bios wales can help manage storm water.

Green infrastructure can provide habitat for a range of wildlife, such as birds, insects, and small mammals, supporting biodiversity and fostering ecological resilience. Climate change mitigation: Carbon sequestration, energy savings through shade and cooling, and a decrease in the demand for power-hungry storm water management systems are all ways that green infrastructure can assist to slow down global warming. Enhancing water quality: By filtering pollutants and lowering runoff, green infrastructure can enhance water quality and aid in the preservation and restoration of aquatic ecosystems.

Result And A Judgment

Many social, economic, and environmental advantages can be obtained through green infrastructure. We can make cities that are more livable, sustainable, and resilient as well as improve the natural environment for both humans and wildlife by incorporating green infrastructure into urban design and development.

By fostering social cohesion, strengthening mental health, boosting property values, offering economic possibilities, and solving environmental justice issues, green infrastructure can have a positive impact on socio-environmental situations. Urban design and development can be made to be more livable, sustainable, and egalitarian for all by using green infrastructure.

Green infrastructure can benefit the environment in a number of ways, including by promoting biodiversity, lowering the urban heat island effect, managing storm water, enhancing air quality, minimising the impact of climate change, and enhancing water quality. We can build more resilient, sustainable communities and contribute to the preservation and restoration of the environment by including green infrastructure into urban design and construction.

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