Rethinking Design Approach of Public Open Spaces Through Renewable Energy Technologies

Abstract

Public open spaces are emerging as one of the imminent spaces in the urban fabric. It is a vital part of the cities as they help in enhancing city’s liveability, environmental quality and sustainability. It is a social place which is open to all. Public open spaces in urban environments include streets, plazas, parks, squares, and others; these areas are where people exchange goods, information, culture, and entertainment. It is a place where people can go for walks or rides through the streets, relax in parks, meet others, engage in social activities, and shop at markets. In the contemporary world, designing public open spaces in a sustainable way is essential because they reflect the quality of life. Due to climate change and rapid population growth in cities, it is important to make these spaces more smart and energy efficient. To deal with the challenge of climate change and energy security, renewable energy has been widely regarded as an increasingly important solution leading to a more sustainable future. Cities can lower their reliance on fossil fuels and improve the resilience, sustainability, and efficiency of their urban environments by utilising renewable energy sources like solar, wind, and geothermal.

In order to make public open spaces more intelligent and sustainable, this chapter aims to discuss the integration of renewable energy technologies in the design of public open spaces. The chapter will explain the thought process by offering potential examples and suggestions of how and where renewable energy could be used for designing meaningful environmental experiences that inexorably shape the experience of space in modern life. Additionally, every public open space has its own typology, design and purpose; therefore, elements of public open space are used to elucidate the integration of renewable energy technologies.