



Original scientific paper

Model Cities for Resilience: Climate-led Initiatives

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ARTICLE INFO:

Article History:

Received 18 February 2020
Accepted 20 July 2020
Available online 25 July 2020

Keywords:

Climate Change;
Sustainable Cities;
Sponge Cities;
Cities and Natural Disasters;
Cities and Climate Actions.

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ABSTRACT



Paris Agreement of December 2015 was the last official initiative led by the United Nations (UN) as the driver of climate change mitigation. Climate change was hence linked with an increase in the occurrence of natural hazards. A variety of initiatives were consequently adopted under different themes such as sustainable cities, climate-friendly development, and low-carbon cities. However, most of the initiatives targeted by global cities with urban areas being the focus in terms of taking action against global warming issues. This is due to the structural and environmental features of cities characterized by being populated, as such, they not only generate a large number of carbon emissions but also happens to be the biggest consumer of natural resources. In turn, they create a microclimate, which contributes to climate change. Masdar City, for example, was designed as the first fully sustainable urban area, which replaced fuel-based energy with electric-based energy. China, as another example, introduced the Sponge Cities action, a method of urban water management to mitigate against flooding. Consequently, architects and urban planners are urged to conform to the proposals that would mitigate global warming. This paper, as a result, examines some of the models that have been internationally adopted and thereafter provide recommendations that can be implemented in large urban areas in Turkey, primarily in Istanbul.

JOURNAL OF CONTEMPORARY URBAN AFFAIRS (2021), 5(1), 47-58.

<https://doi.org/10.25034/ijcua.2021.v5n1-4>

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1. Introduction

Human beings experience different types of natural disasters during their lifetimes. Some types of natural disasters strike certain locations because of seasonal and natural deeds. For example, in the Atlantic Basin from the beginning of June to the end of November, there is a high possibility of a tropical cyclone strike, which is called a hurricane. The most prone areas, therefore, are the Atlantic coast and the Gulf of the United States, and the islands of the Caribbean. The season of

cyclones in the South Pacific and the Indian Ocean is between November and April. Tropical cyclones striking the Northwest Pacific Ocean are called Typhoon and threaten the islands of Japan and the Philippines. Differently, the west coast of the United States is prone to

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How to Cite this Article:

Yilmaz, D. G. (2021). Model Cities for Resilience: Climate-led Initiatives. *Journal of Contemporary Urban Affairs*, 5(1), 47-58.
<https://doi.org/10.25034/ijcua.2021.v5n1-4>