

PREFACE

Urbanization refers to a process wherein there is growth and development in cities. More and more areas are converted into cities and there is large scale population increase in the cities. For the past few centuries this has become a trend in every country around the world.

With globalization, this process has been accelerated. Due to rapid urbanization, there is development in the economic conditions, however, it has an adverse effect on the environment. This project studies the impact of urbanization on the environment among different cities across the globe over a period of 10 years and focuses on transmitting the information to the mass through GIS Story Maps.

In this project, we have analysed the urban growth using the Normalized Difference Built-up Index (NDBI) and its impact on vegetation cover, analysed using the Normalized Difference Vegetation Index (NDVI) across different cities. We have analysed the Urban Heat Islands (UHI) as a result of urbanization and its impact on urban air quality (in terms of Carbon Monoxide (CO), Nitrogen Dioxide (NO₂) and Sulphur Dioxide (SO₂) content).

In a nutshell, this project analyses and compares the impact of urbanization in terms of urban growth and population increase on the vegetation cover and urban air quality in terms of NO₂, SO₂ and CO concentration among the different cities.