## **Urban Stories of the Majority World**

## Melinda Laituri

Rapid urbanization is the hallmark of the Anthropocene Age. With the human population concentrated in urban areas, it is essential to examine the relationship of humans and nature within the context of the built environment. Urbanization modifies the landscape to accommodate larger concentrations of humans where nature, ecosystems services, and open space are tightly circumscribed to specific places and functions. Urban growth patterns in the majority world are the highest around the globe, revealing the need to identify strategies for resilience and human security.

I have been the Principal Investigator of the US Department of State <u>Secondary Cities2</u> (2C) project. This project is global in scope and focuses on secondary cities (or non-primary cities) in the Majority World for emergency preparedness, human security, and resilience. Using geospatial tools and technology, our city partners have identified specific data themes to target for data collection and analysis. For example, projects in Medellín, Colombia and Cusco, Peru have focused on urban flows of waste management and neighborhood strategies for recycling. Denpasar, Indonesia has also targeted waste management, focusing on efforts to reduce ocean waste streams. An initial outcome of the 2C project has been the creation of <u>Story Maps</u>, which describe each individual city project.

The 2C project has been an applied approach to facilitating capacity building with university partners for future planning and development. What has been missing from this project is a historical context of these cities that examines the environmental drivers contributing to current conditions. This proposed research project will use a comparative framework to assess urban change in the 2C projects. The expansion of secondary cities in the Majority World has occurred in the latter half of the twentieth century and unprecedented urban growth continues. We have conducted a preliminary change detection analysis using geospatial data and satellite imagery (LandSat3) for each city that tracks the changing urban form from the 1970s to present. This analysis reveals a compelling visualization of change over time—but satellite images do not tell a story. These change detection analyses need to be situated within the political, social, cultural, and economic context to further our understanding of urban growth in urban areas.

Story Maps are a way to integrate disciplines and display multiple types of data. Using spatial data and perspectives as the basis for the story, other approaches can be interwoven to include text, photographs, videos, as well as links to other internet sites. Each of the 2C cities has a unique story that reflects outcomes and impacts of globalization. Many of these outcomes are spatial in nature and can be visualized through maps and other spatial products. Using the Story Map platform, I will conduct research that is twofold: 1) to assess urban change in 2C cities through a comparative lens and 2) to include the historical context of these 2C cities. The result will be a story map of the impact of globalization on secondary cities.

This project contributes to environmental humanities by highlighting the impact of urbanization upon the natural environment through the use of geospatial technologies. Nature in the urban environment and in the majority world is very different from the earlier conceptions of the human/nature dichotomy. In 2C cities, nature is reflected in open space, parks, and transformed hybrid environments that are used for waste disposal, development, unplanned settlements, and peri-urban areas. Unpacking this modified landscape of urban development in the majority world will contribute to furthering environmental humanities.