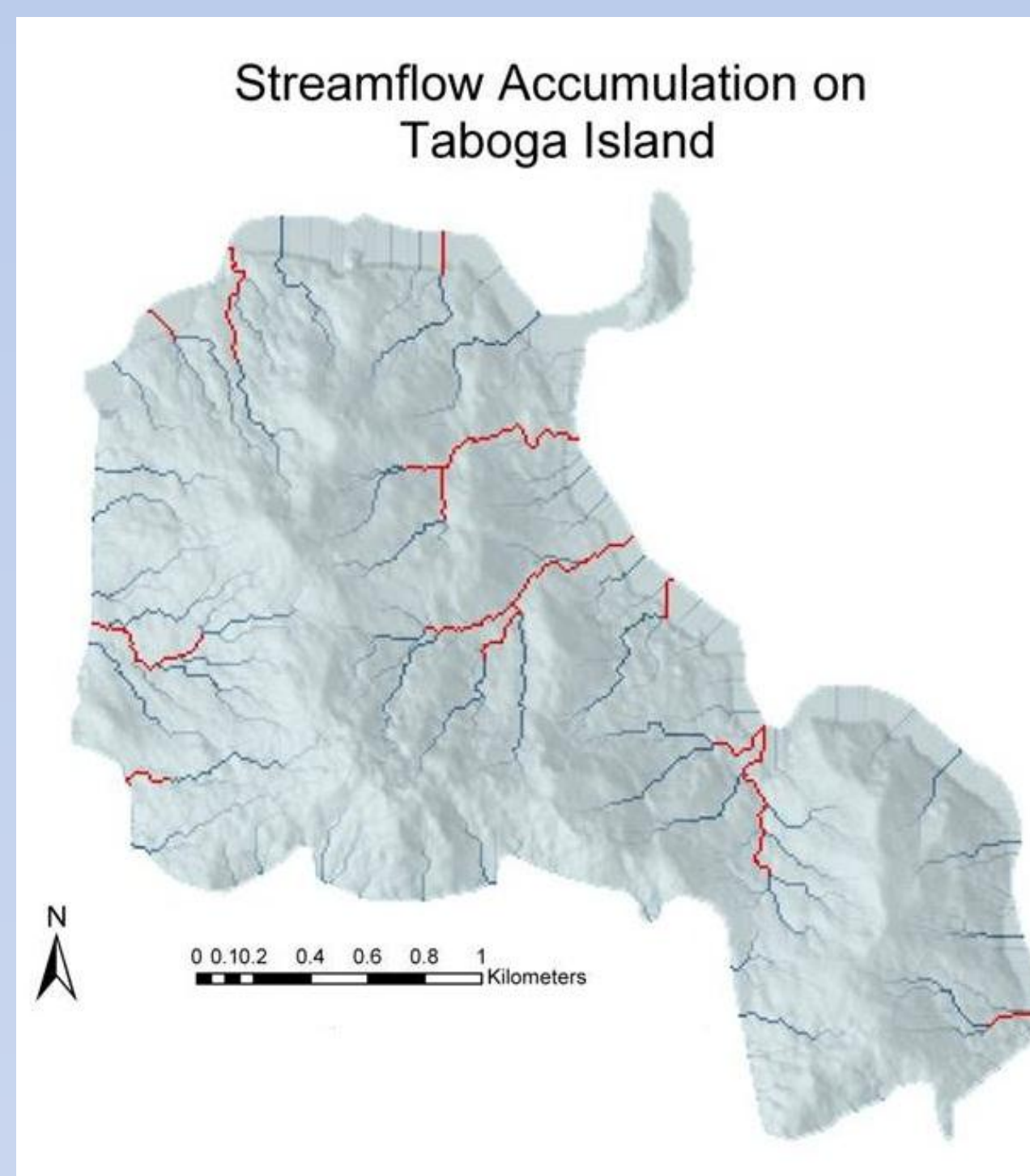


An Analysis of Taboga Island's Water Shortage

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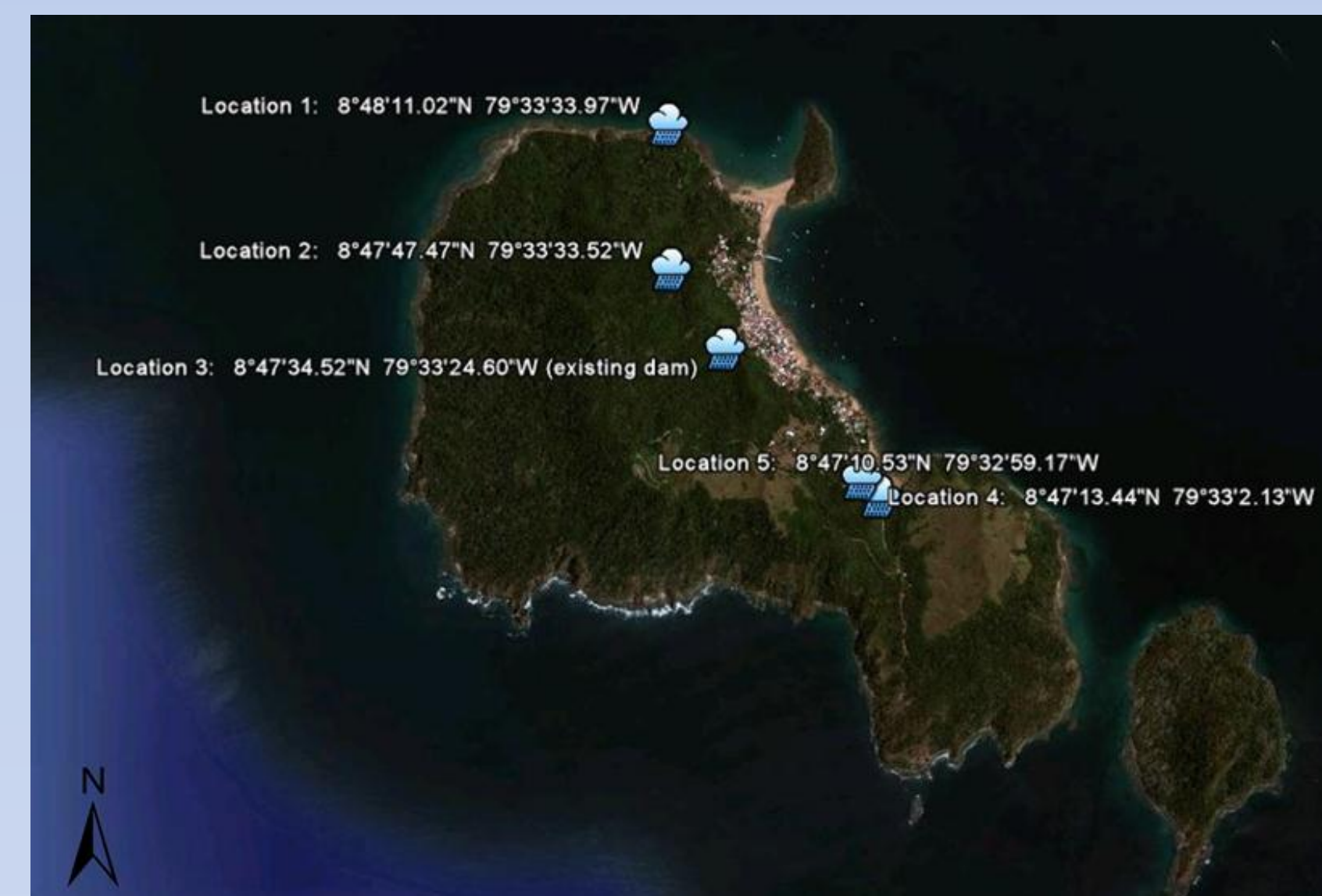
Overview

Like many small islands, Taboga Island in Panama faces a water shortage that significantly affects the lives of its inhabitants. Currently, the island is home to just over 900 people and the majority of its income is based on tourism. During the dry season, residents often must rely on imported water from Panama City, which they receive twice monthly. As the supply is minimal and hoarding has become the norm, many residents and business owners have come to accept the shortage as a part of daily life.



Key Findings

Our research explored the water conservation methods presently being practiced on the island as well as outlined the successes of three small islands facing similar problems. We also implemented digital elevation models in a GIS to determine the optimal locations for rainwater harvesting structures. These locations were subsequently visited on foot and five were determined to be viable for collecting rainwater.



Impact

Implementation of effective ways to alleviate the water crisis on Taboga could stimulate the local economy and improve quality of life for its residents. If key actors are informed of the island's capacity for sustainable water management, critical action, such as small and large-scale rainwater harvesting, has the potential to be implemented.



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Explanation

The digital elevation models used in our analysis were sourced from the Shuttle Radar Topography Mission. Our work is an example of how high resolution remotely sensed data can be applied to hydrological and sustainability issues.