Population pressures on tiger habitat in India

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Persistent link:

2013

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Abstract: With only 3,200 tigers left in the wild, protecting the remaining habitat of this big cat is critical to preventing extinction. However, human overpopulation is putting pressure on these remaining fragments like never before, resulting in habitat loss and poaching. India, the country that holds more than half of the world's remaining tigers, is also the second most populous nation on earth. GIS was used to (clockwise from right) present an overview of all Tiger Conservation Landscapes (TCLs) in India compared with major cities, demonstrate the pressures surrounding three TCLs in the Bay of Bengal area as a case study, and show how many cities are within 50 miles of a TCL.
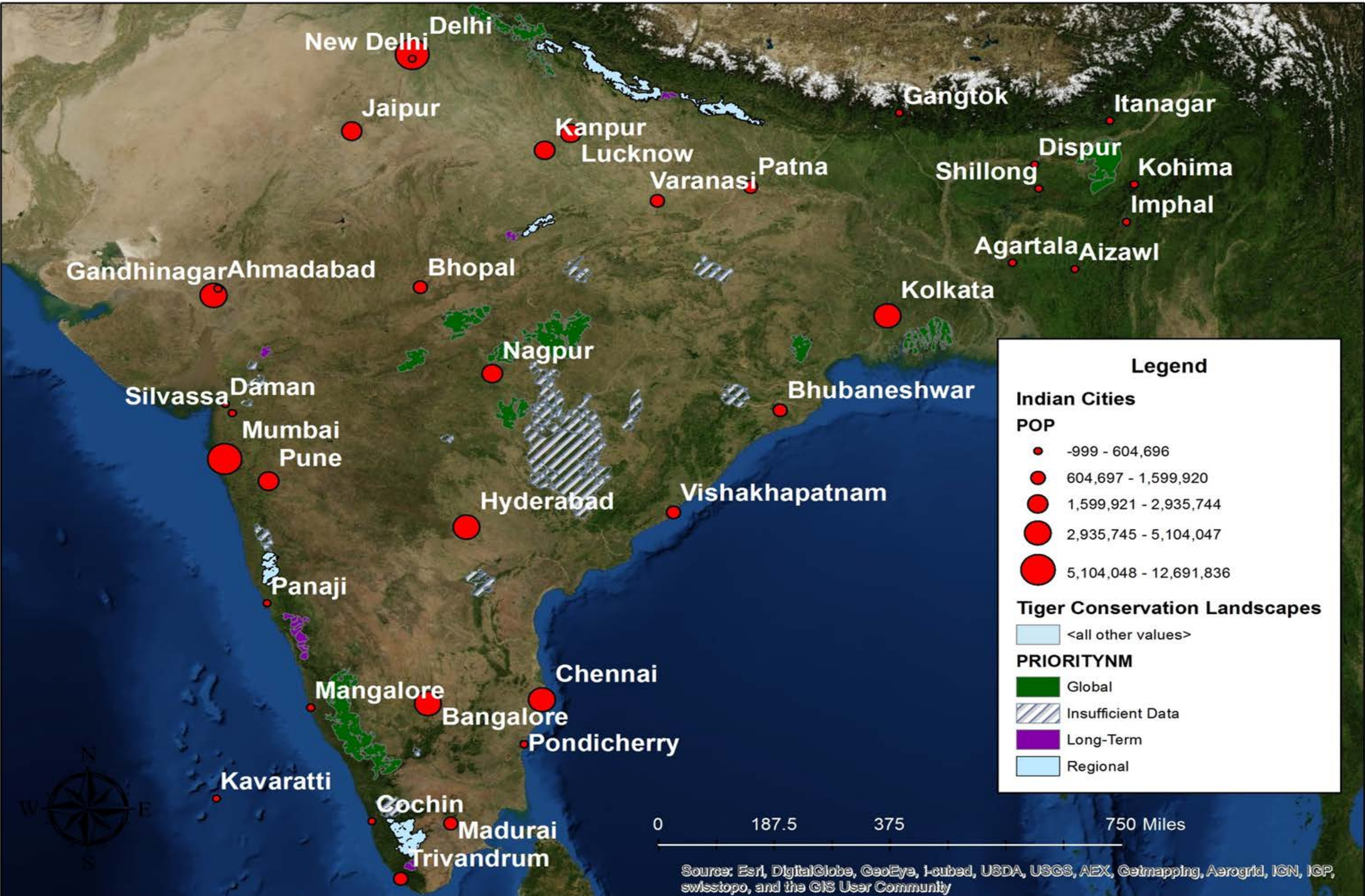
Using this information, conservationists and government officials can prioritize which TCLs to protect when planning infrastructure and development projects in such a way that these sanctuaries are not encroached upon, as well as work on preserving and creating corridors of habitat between the different TCLs to allow for gene flow and combat inbreeding.

A TCL is defined as "a block or cluster of blocks of habitat meeting a minimum size threshold specific to habitat-type, where tigers have been present in the last 10 years and are not known to be extirpated". The NGO Panthera defines the different types of TCL classes as follows:
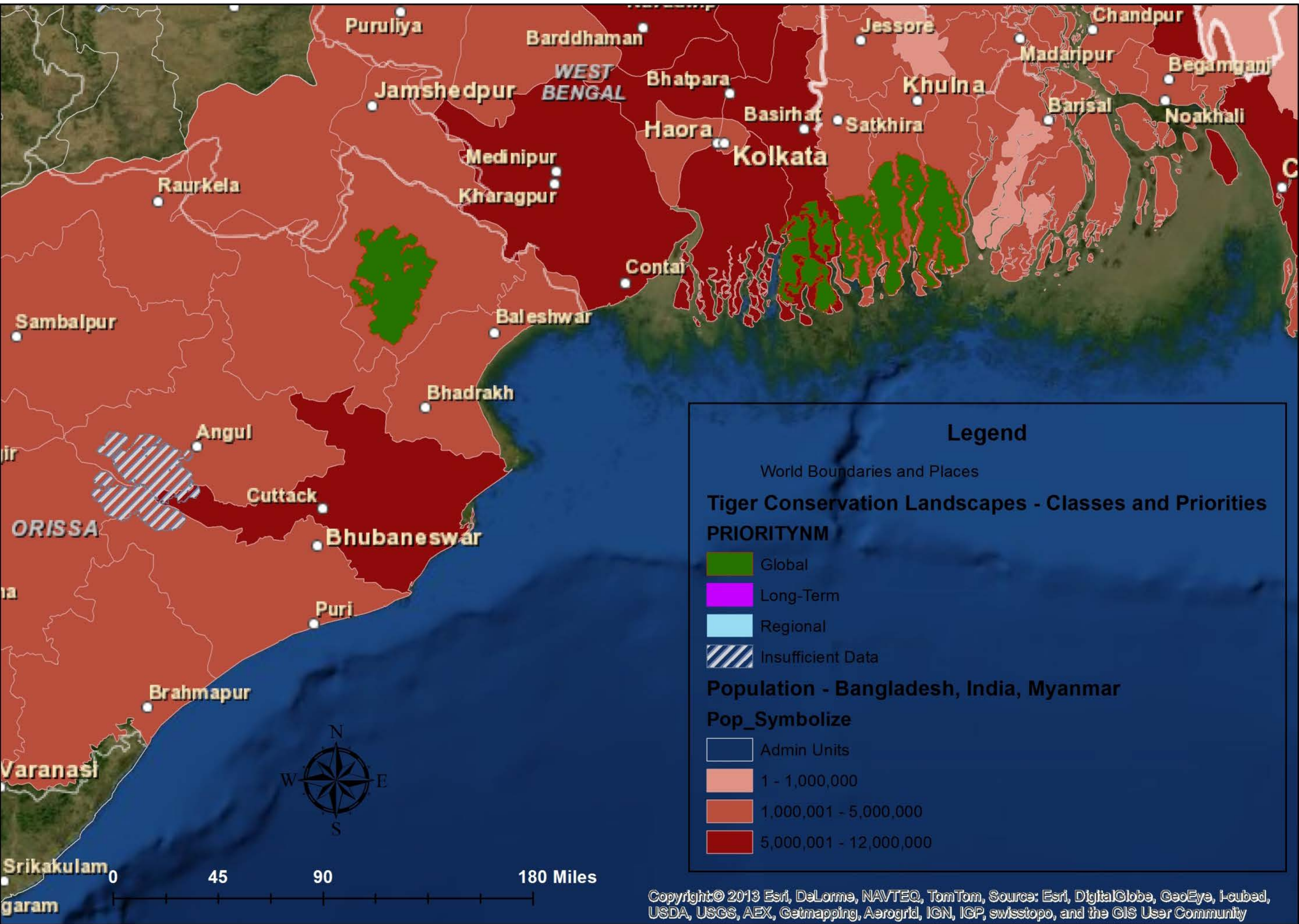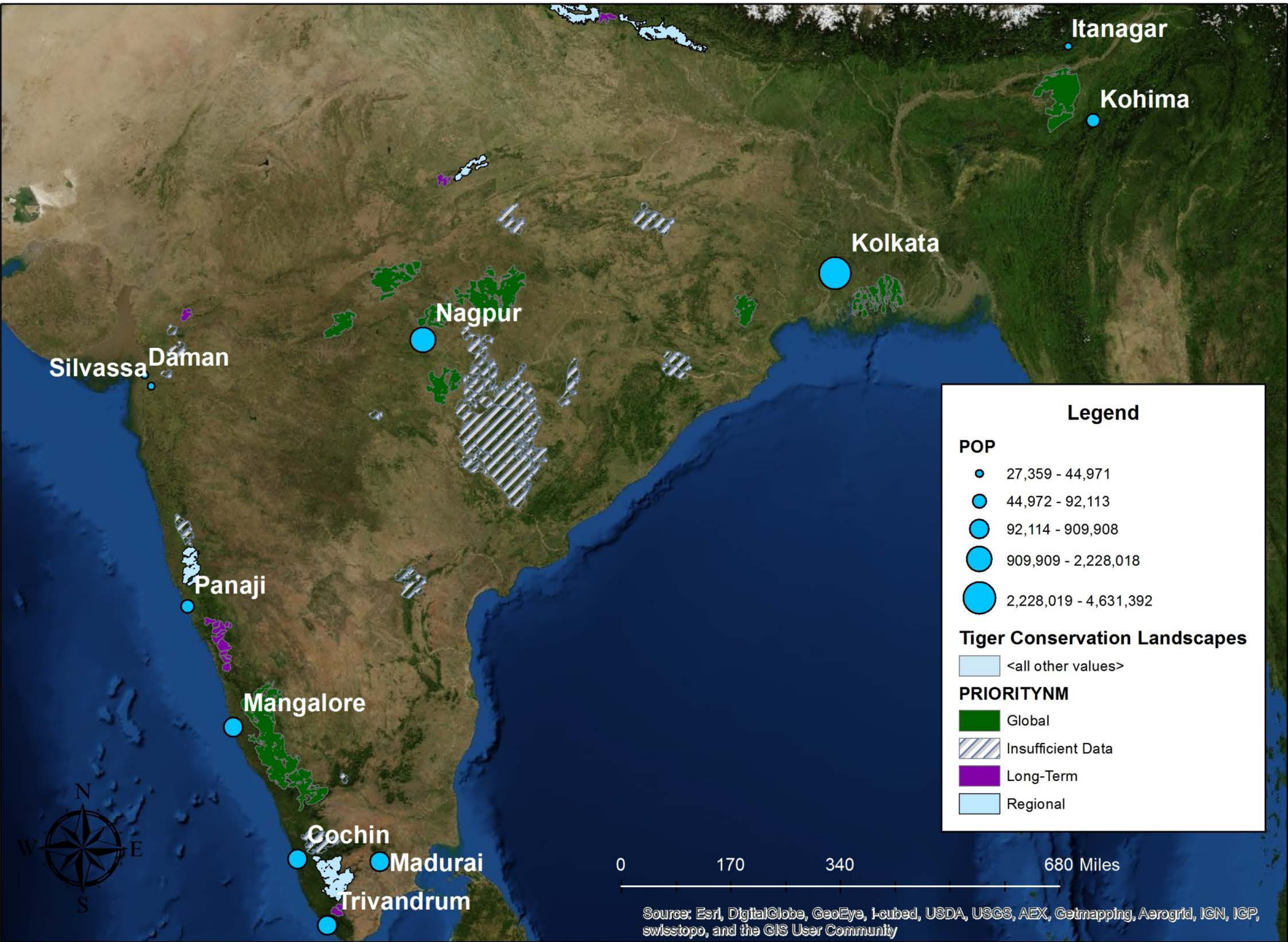- Global Priority: Highest probability of persistence of tiger populations over the long term.
- Regional Priority: Moderate probability of persistence of tiger populations over the long term.
- Long-term Priority: Questionable persistence of tiger populations over the long term.
- Insufficient Data: Insufficient information to make a determination of the conservation priority of the habitat area.

Cities and Tiger Conservation Landscapes in India

Cities within 50 Miles of TCLS

Case Study: Population and Political Pressures in Bay of Bengal

Sources

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