Assessing the Impact of COVID-19 Lockdown on Surface Urban Heat Island and Normalized Difference Vegetation Index in Dhaka Megacity, Bangladesh.

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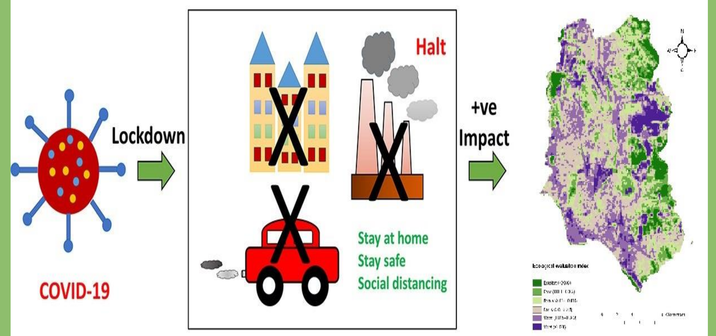
Introduction



Methods

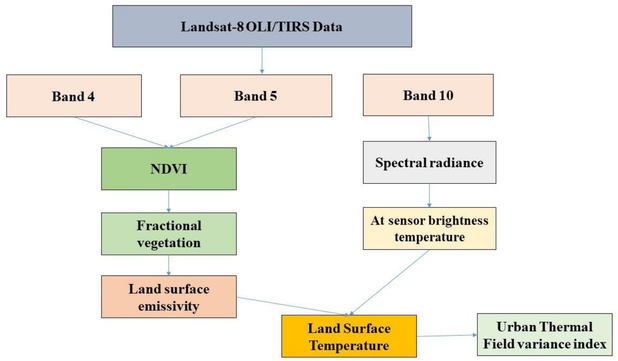


Figure 1. Flow diagram of study design.

Findings

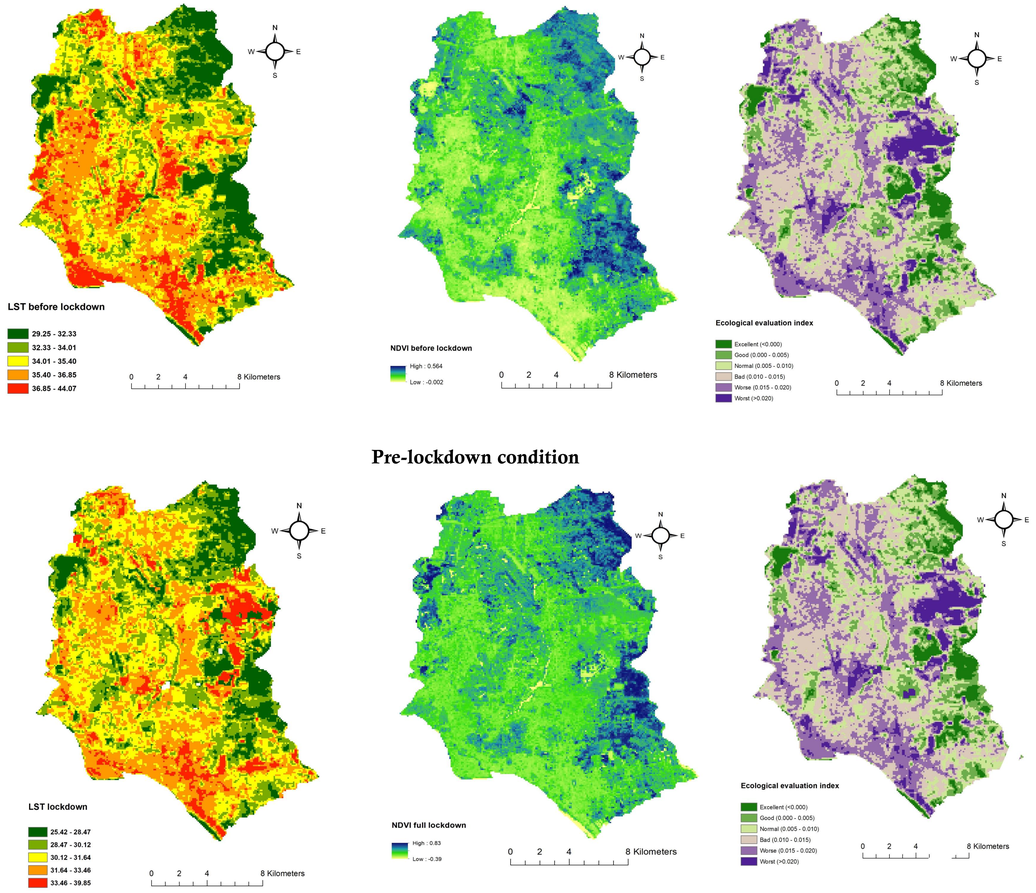


Figure 2. LST, NDVI and Ecological evaluation status before and during lockdown in Dhaka City.

Implications

- ✓ The findings show that the LST of Dhaka City decreased and the NDVI increased throughout the lockdown period, with the LST-NDVI connection becoming more negative.
- ✓ Additionally, the analysis demonstrates that the city's ecological status was improved during the lockdown.
- ✓ Numerous actions have been made at the global and regional levels to control increasing temperature and climate change, but no positive consequence has been achieved yet.

Conclusion

- While such a lockdown (temporarily) is detrimental to economic progress, it demonstrated the curative impact of urban climate.
- Thus, the findings of this study could provide a quantitative foundation for decision-makers for surface heat island mitigation and public health care.