

# Urbanisation and Double Burden of Malnutrition at the Household Level in South and Southeast Asia: Insights from Night-Time Lights Data

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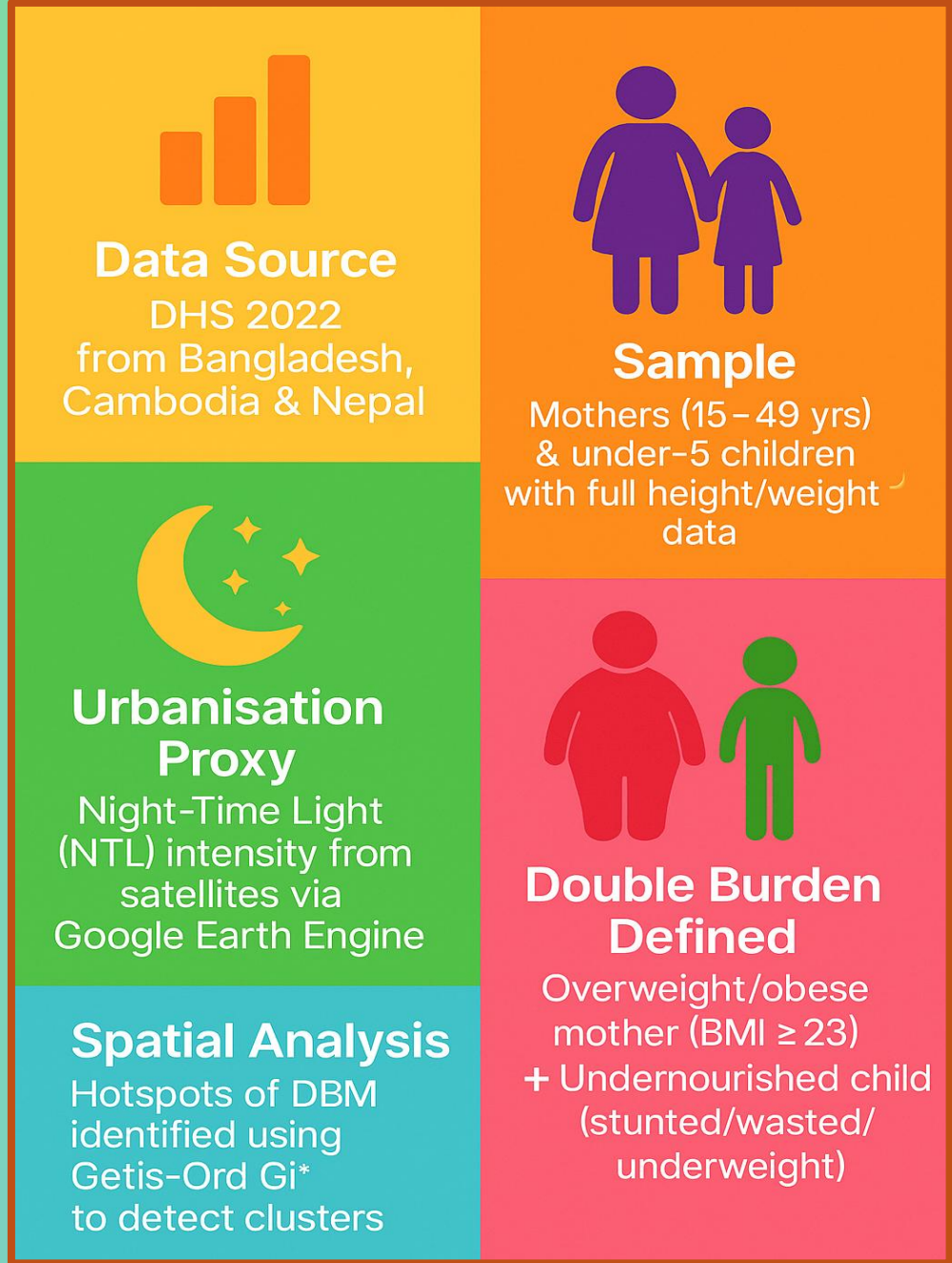
## Background

- Urbanisation in South and Southeast Asia is reshaping economic, social, and health systems—offering improved services and opportunities, yet also introducing complex health risks [1-3].
- One critical challenge is the Double Burden of Malnutrition (DBM)—the coexistence of undernutrition (e.g., stunting, wasting) and overnutrition (e.g., overweight, obesity)—reflecting the paradox where urban growth fails to deliver uniform improvements in nutrition and health outcomes [2,4].

## Objective

Explore how urban growth patterns contribute to DBM through spatial analysis.

## Methods



- Total Sample:**
  - Bangladesh: 4132 pairs
  - Cambodia: 3836 pairs
  - Nepal: 2596 pairs
- Analysis:**
  - Mapped NTL using georeferenced DHS clusters
  - Identified DBM hotspots using spatial autocorrelation (Getis-Ord Gi\*) [5]

## Results

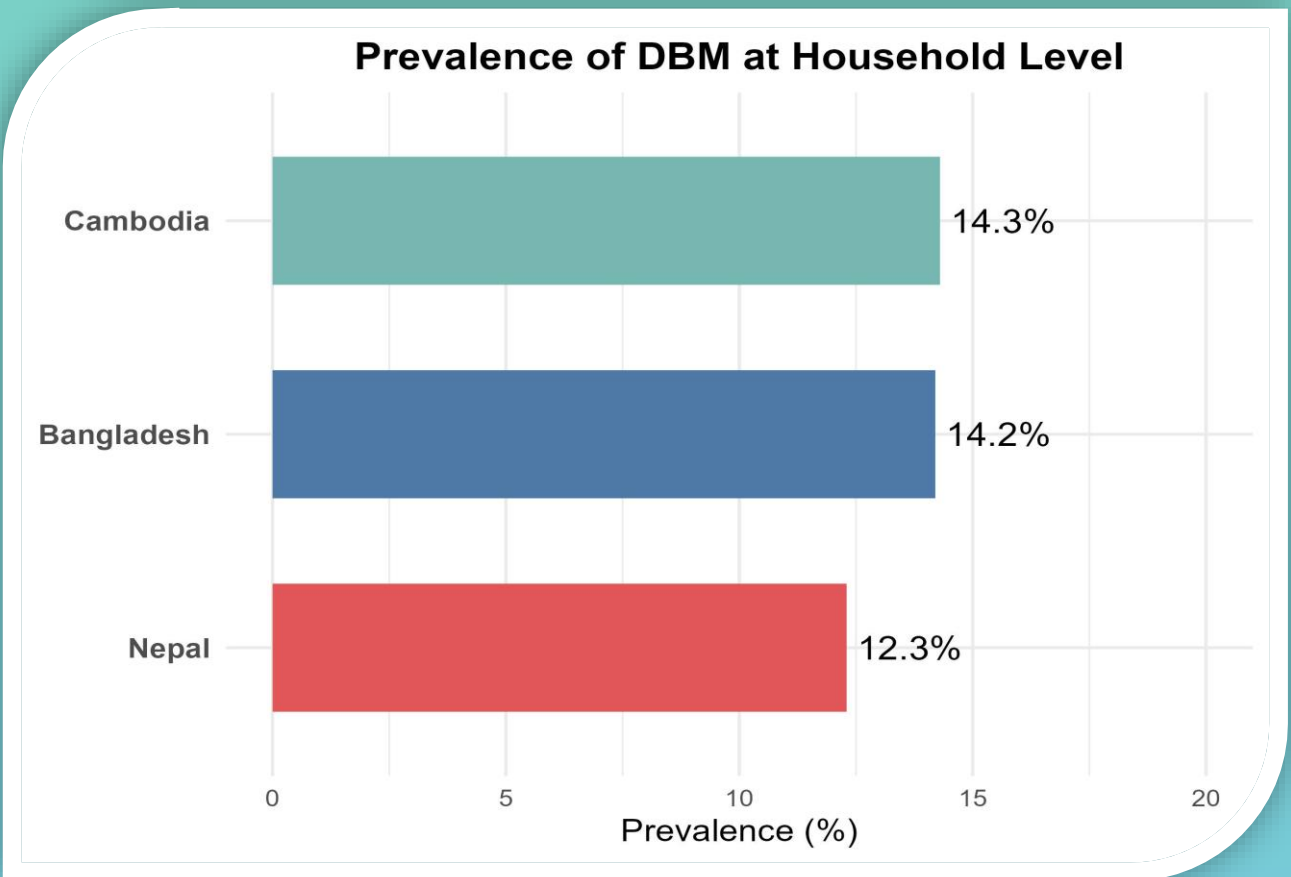


Figure 1: Prevalence of DBM at household level in Bangladesh, Cambodia & Nepal

- DBM affects 12–14% of households in Nepal, Bangladesh, and Cambodia
- High NTL areas are associated with higher rates of household-level DBM.
- Urban centers such as Dhaka (Bangladesh) and Kathmandu (Nepal) are prominent DBM hotspots, indicating a spatial overlap between urbanisation and malnutrition.

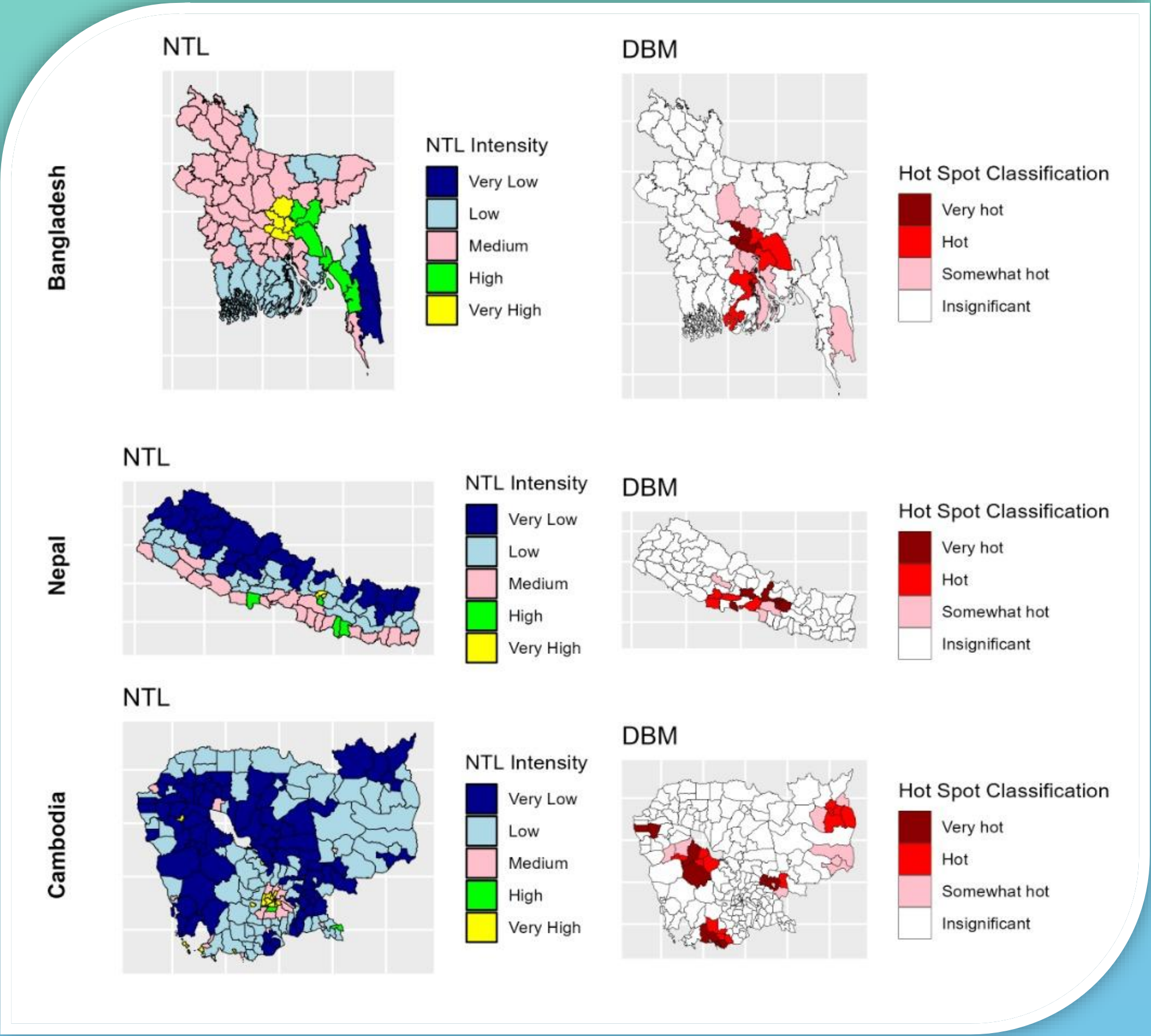


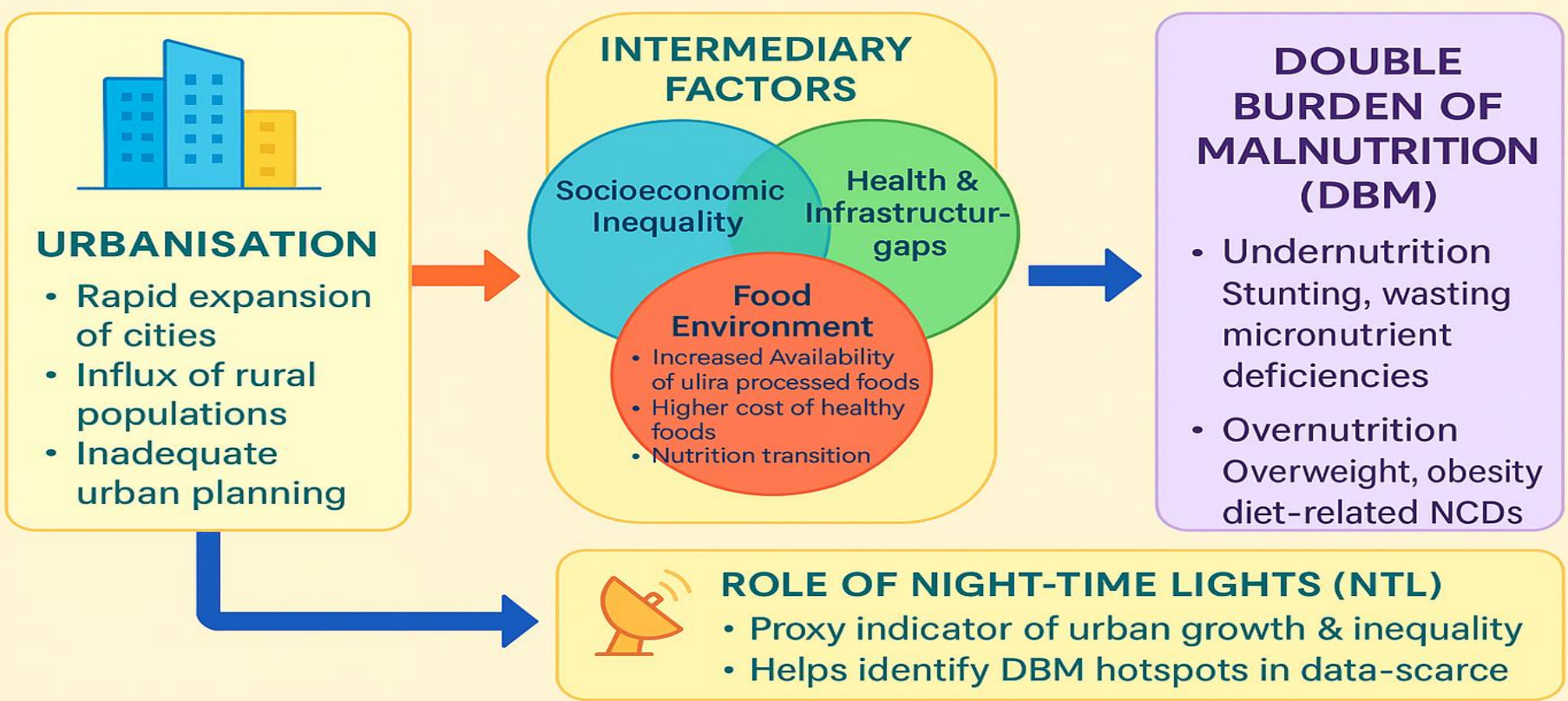
Figure 2: Night-time-light intensity (NTL) and DBM hotspots for Bangladesh, Cambodia & Nepal

## Key message

Urbanisation, reflected by NTL, is a strong predictor of household-level DBM, highlighting the need for integrated health and nutrition policies in rapidly expanding peri-urban areas.

## Conclusion

### PATHWAYS LINKING URBANISATION TO THE DOUBLE BURDEN OF MALNUTRITION (DBM)



## References

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