

UNEARTHING THE
STATISTICAL
PATTERNS OF
SOCIOECONOMIC
METABOLISM
(SEM) AT
NATIONAL AND
URBAN SCALES

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- **Multidisciplinary SEM Framework**

- Statistics
- Thermodynamics

- **Global/National Levels**

- Metals cycles
- Spatial and temporal characteristics
- Comparative analysis

- **Urban Levels**

- Energy/resource use and disposal
- Thermodynamics of city growth

- **Sub-city Levels**

- Built environmental stocks
- Drivers and interrelation analysis
- City mass index