Comments
Spatial Analysis SDG

Naoyuki YOSHINO
Professor Emeritus, Keio University
Director, Financial Research Center/FSA/Government of JAPAN
Former Dean & CEO, Asian Development Bank Institute (ADBI)
yoshino@econ.keio.ac.jp

Satellites' Data
(Day time and Night time)

1, Night time light: Expansion of Urban Area

Data from electric power company

Business expansion, Sales, Human capital development

2, Day time: Land utilization. Deforestation, Croplands

Land ownership（large land lord in developing countries）

TAX data can be combined（Income disparities）

Amount of crops（number of tracks in autumn）

3, Degree of Connectivity:

Mobility of vehicles and mobility of people

4, Least cost path tree networks

It will depend on infrastructure（railway, expressway, river）

Difference in Difference: Night Time Light

(1) **Economists: Production Function**

　　Y = F (Capital, Labor)

　　Labor mobility can be captured by Satellite photo.

　　Capital mobility can not be measures by satellite.

(2) **Residential Area: increase in consumption**

　　Households' income tax and sales tax revenues

(3) **Endogeneity of explanatory variables**

　　such variables as "share of urban" and "area size".

(4) **R-squares are low. What are missing explanatory variables?**

Economic Corridors

1, Ports, Airports, Railway stations, Express ways
2, Electricity supply, water supply, sanitation
   Digital infrastructure (internet, broad band)
3, Human capital development
4, Reduction of income disparities
5, network of infrastructures
6, crime rate, safety