

Rural and Urban Poverty

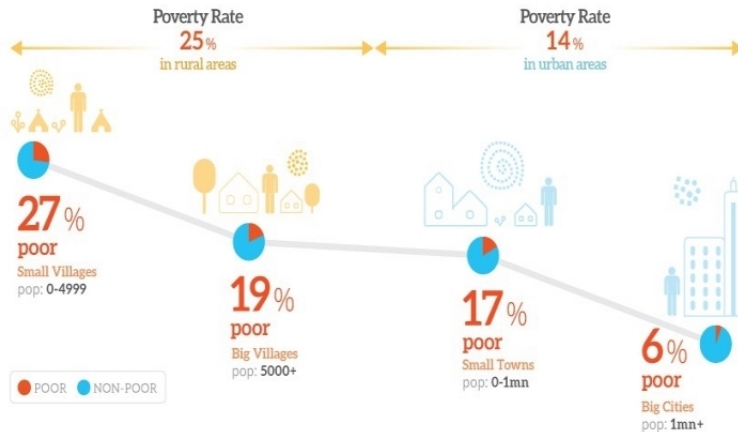
A Spatial Perspective

Dr. Kumar Aniket
University College London

Talk organised by PPF

10 January 2019

MOTIVATION



MOTIVATION

THE 7 LOW-INCOME
STATES HOUSE

62%

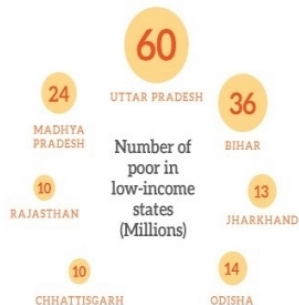
OF INDIA'S POOR

THE LOW-INCOME
STATES ARE HOME TO

45%

OF INDIA'S POPULATION

80% of India's poor
live in rural areas



INTERPRETING THE NUMBERS

Relative poverty versus absolute poverty?



What do we interpret these numbers?

Probability

Deterministic

Transitional component

Stable Component

How sensitive is *poverty* to *economic growth*?

Is there a notion of *entrenched poverty* in India?

OUTLINE

Space

Poverty

Economic Growth

Local Fiscal Loop

SPACE

“The present epoch will perhaps be above all the epoch of space.

We are in the epoch of simultaneity: we are in the epoch of juxtaposition, the epoch of the near and far, of the side-by-side, of the dispersed.”

— Foucault 1986

SPACE

*“Place is simply there, while space is produced or **invented**.”*

– Conley2012

*Lefebvre (1974) examines the spaces that those in power **impose** on the people who live in them and the alternative spaces these people can **invent** through the **act of resistance** to overcome alienation.*

SPACE

*“Place is simply there, while space is produced or **invented**.”*

– Conley2012

A **place** is located at a point, whereas **space** is the relationship between two places.

Human Experiential Space: space as humans experience it

Role of **fiscal policy** in shaping space

Prison, electrified railway lines, highways, expressways

AUTOMATED SURFACES

“Google cars don’t drive on road, they drive on maps ...”
– saying in machine learning community



AUTOMATED SURFACES

Automated surfaces

folds space

alienates neighbours

Rivers, Canals, Railways, Roads, Airports

Lefebvre (1974) examines the spaces that those in power impose on the people who live in them and the alternative spaces these people can invent through the act of resistance to overcome alienation.

LEFEBVRE AND AUTOMATED SURFACES

Lefebvre (1974) examines the spaces that those in power impose on the people who live in them and the alternative spaces these people can invent through the act of resistance to overcome alienation.

Automated surfaces provide *freedom of movement* at cost of some *restriction* placed upon people and people outside

Restriction: self-imposed social rules and externally enforced rules
E.g. *Queuing*

Human experiential space influences and is influenced by the range of *social rules* that exist within it

AUTOMATED SURFACES

Automated surfaces

naturally lead to congestion

Formal (de jure) rules

Informal (de facto) rules

Social rules prevailing in an *automated surface*
share and are shaped by the *nature of congestion*

Urban landscape is a jumble of capital-intensive *automated surfaces* and
resultant *social rules*

LONDON MILLENNIUM FOOTBRIDGE

Designed to vibrate like a old wooden bridge

Turned into a bridge that *swayed beyond control*

“pedestrian synchronous lateral excitation” effect or

“pedestrian lock-in” effect.

Coordinating device that *synchronised* pedestrians' footsteps

Compare the *Millennium bridge* to the *simple rope bridge*

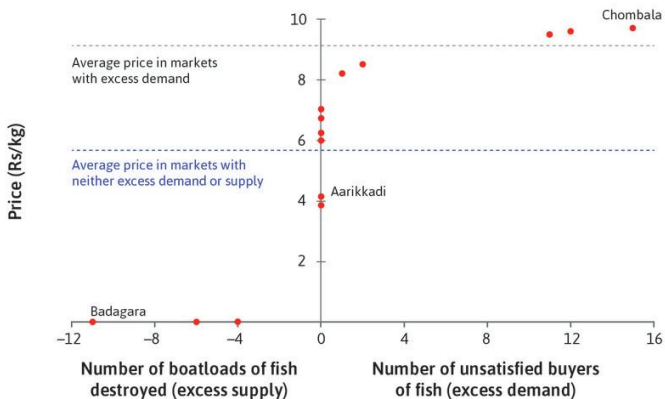
THE ROPE BRIDGE

Compare the *Millennium bridge* to the *simple rope bridge*



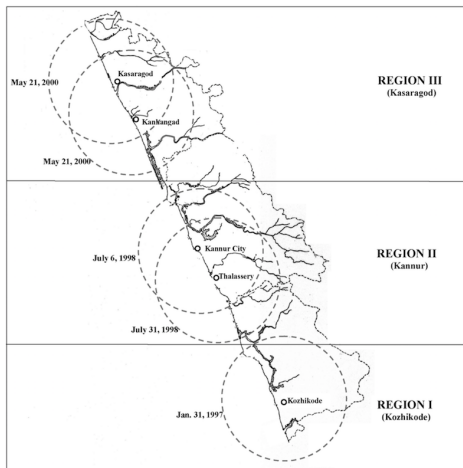
KERALA FISH MARKET ON 14 JANUARY 1997

Jensen, Robert (2007). "The digital divide: Information (technology), market performance, and welfare in the South Indian fisheries sector." *The quarterly journal of economics*.



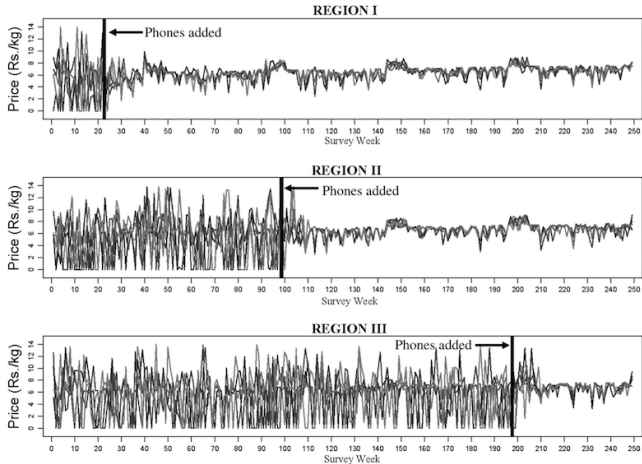
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WATER BODIES

Water bodies as natural automated surfaces

Crucial to development of markets in *early urban agglomerations*

Varanasi

Venice

Suez Canal

Erie Canal

Large parts of India are *landlocked* with very little *access to automated surfaces*

ERIE CANAL

Opened on October 26, 1825

it ran 584 km from Hudson River to Lake Erie

It was faster than carts pulled by draft animals and cut transport costs by about 95%



RAILWAY NETWORK SIZE

<i>Rank</i>	<i>Country</i>	<i>Length (km)</i>	<i><u>Area</u></i> <i>km</i>	<i><u>Population</u></i> <i>km</i>
1	United States	257,722	43.71	1,373
2	China	127,000	75.60	10,945
3	Russia	85,500	199.98	1,678
4	India	67,368	48.80	19,656
5	Canada	46,552	214.48	716
6	Germany	43,468	8.22	1,881
7	Australia	38,445	199.94	572
8	Brazil	37,743	299.60	6986
9	Argentina	36,966	77.45	1117
10	France	29,640	21.53	2201
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Introduction
○○○○

Space
○○○○○○○○○

Fish Market
○○○○○

Railways
○○

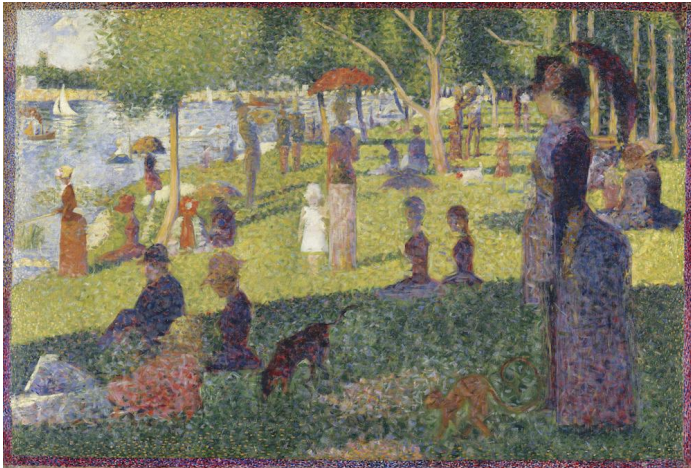
Unit of Analysis
●○○

Growth
○○○○○

Poverty
○○○○○○○○○

POINTILLISM

Georges Seurat's *Un dimanche après-midi à l'Île de la Grande Jatte*. Painted in 1884



POINTILLISM

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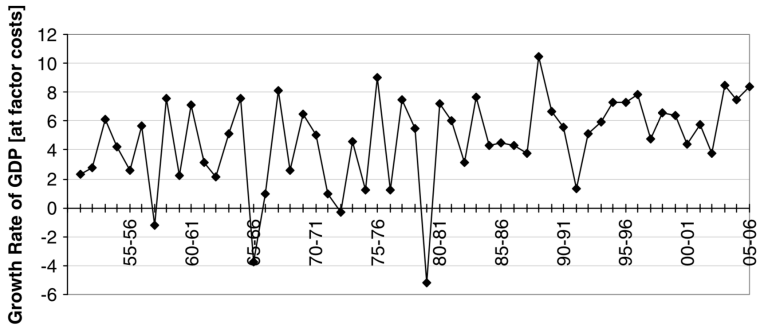


POINTILLISM

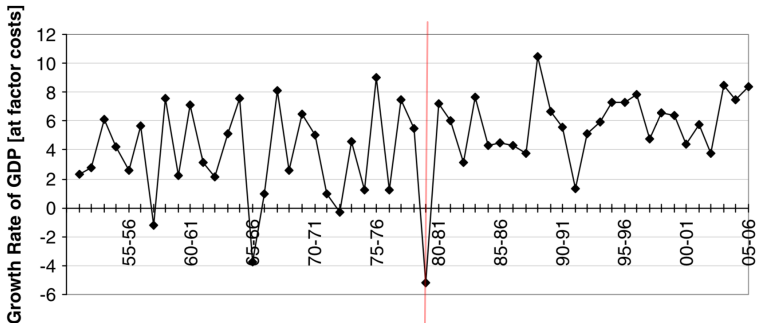
Georges Seurat's *Un dimanche après-midi à l'Île de la Grande Jatte*. Painted in 1884



INDIA'S ACCIDENTAL GROWTH

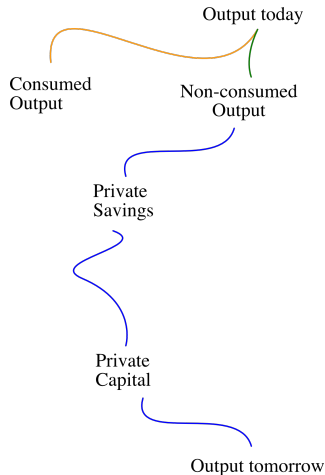


INDIA'S ACCIDENTAL GROWTH



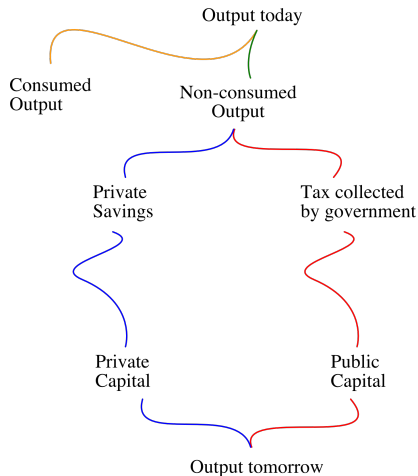
SOLOW GROWTH MODEL

Output gets transformed into *private capital* through the *saving channel*



AUGMENTED SOLOW GROWTH MODEL

Output also gets transformed into *infrastructure* through *fiscal channel*



COMPLEMENTARITY AND SUBSTITUTABILITY

Kremer, Michael (1993). The O-ring theory of economic development. The Quarterly Journal of Economics.

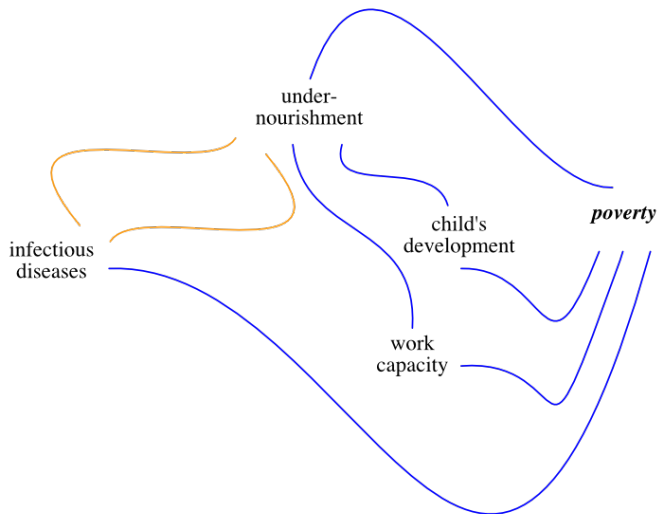
O-ring production and the Challenger disaster:

complementarities between factors

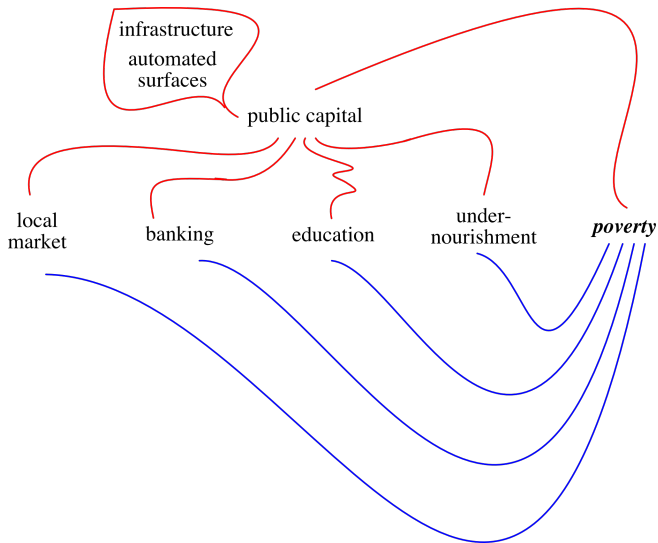
chair with three legs

Are *congestible public goods* and private capital investment
substitutes or *complements*?

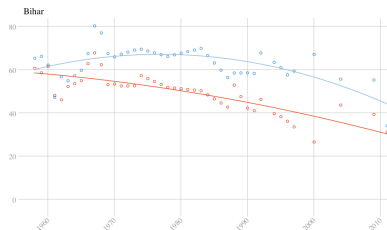
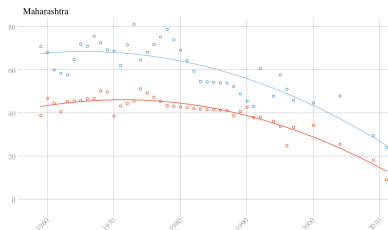
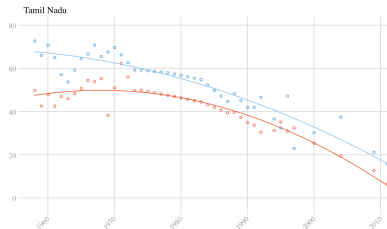
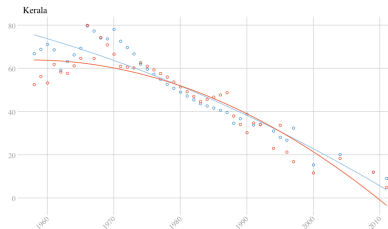
POVERTY TRAP: NUTRITIONAL PATHWAY



POVERTY TRAP: MULTIPLE PATHWAYS

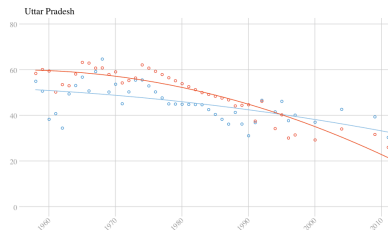
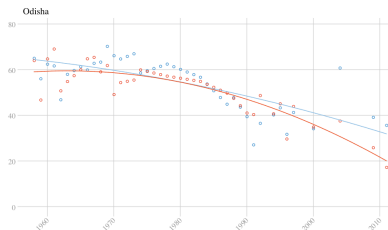
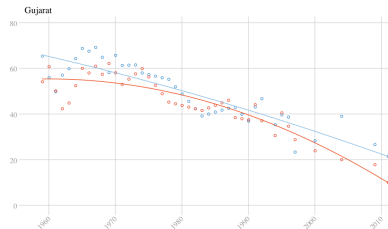
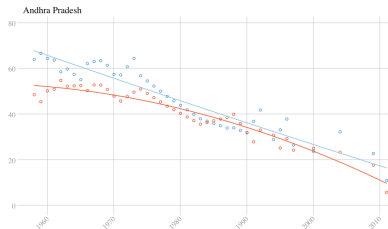


HIGH POVERTY RATE IN THE 1960s



● Poverty rate in rural areas (%) ● Poverty rate in urban areas (%)

MEDIUM POVERTY RATE IN THE 1960S

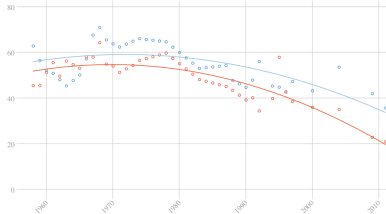


● Poverty rate in rural areas (%)

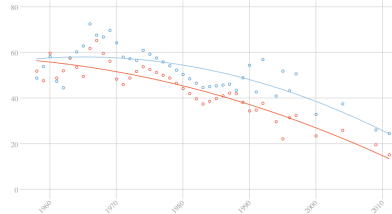
○ Poverty rate in urban areas (%)

MEDIUM POVERTY RATE IN THE 1960S

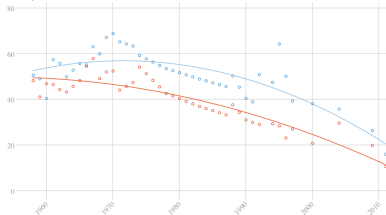
Madhya Pradesh



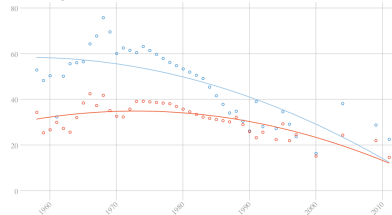
Karnataka



Rajasthan



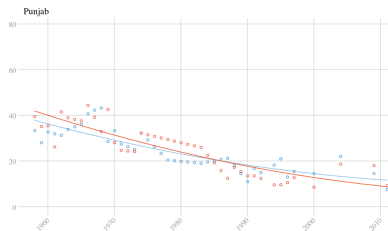
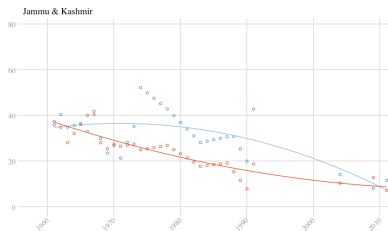
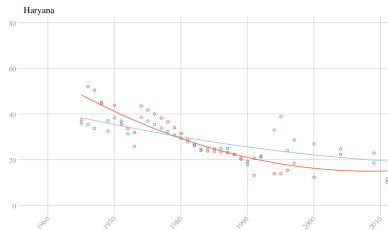
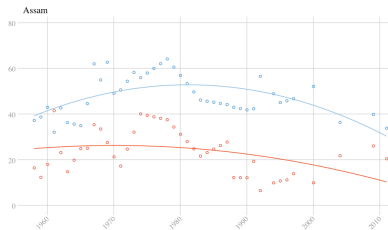
West Bengal



● Poverty rate in rural areas (%)

○ Poverty rate in urban areas (%)

LOW POVERTY RATE IN THE 1960s



● Poverty rate in rural areas (%) ● Poverty rate in urban areas (%)

IMPACT OF THE GOLDEN QUADRILATERAL

Ghani, E, Goswami, A, & Kerr, W (2015). Highway to success: The impact of the Golden Quadrilateral project for the location and performance of Indian manufacturing. The Economic Journal.

Impact of being on the path of the Golden Quadrilateral (GQ)

Account for endogeneity by excluding urban areas

Districts that are 0–10 kilometres from the GQ:

Output grew by 49% in decade after construction began

Districts that are 10–50 kilometres from the GQ:

No growth in output

IMPACT OF BANK NATIONALISATION

Burgess, R, & Pande, R (2005). Do rural banks matter? Evidence from the Indian social banking experiment. American Economic Review.

1969 bank nationalisation programme

Banks opened in previously unbanked rural areas

Paper account for endogeneity using a clever instrument

increased savings mobilisation, credit provision in rural areas and
reduced poverty where banks were opened

UPSHOT

Social equilibrium between *automated surfaces* and social rules *create boundaries*

Urban landscapes large automated surface islands with a distinct boundary

Rural areas are islands with limited infrastructure with tenuous links to the rest of the society

Exception: states with rural urban continuum, Kerala and Goa

Understanding growth in various distinct spaces and how they are interlinked

UPSHOT

What kind of *spatial relationship* would India like to see between its urban areas and rural areas?

Rural urban continuum or

Large inter-linked urban agglomerations

and hoping for some *trickle-down effect*

Hirschman and Rothschild (1973) tunnel parable.

We require more studies that look at the myriad impact of fiscal policy on human experiential space