

# Regional Development Strategies

## Selected international experience

Roundtable Discussion  
Policy Responses to the Spatial Concentration of the  
Poorest in Lagging Regions

Somik V. Lall  
Spatial and Local Development Unit  
Sustainable Development Network  
World Bank  
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# Motivation

- ❑ Large and sustained differences in the economic performance of sub national regions in most industrial and developing countries
- ❑ 'Lagging region' problem more severe in developing countries as in addition to lower relative incomes and standards of living, these regions are home to significant poverty
- ❑ Policy tension between the market solution of out-migration or labor flows - "moving people to jobs" and the interventions solution of "moving jobs to people" or promoting capital flows
- ❑ Due to **limited labor mobility** and large number of people in lagging regions - governments have focused on **place based interventions**

# Policy Interventions to stimulate economic growth in lagging regions

- **Standard intervention tools**
- providing infrastructure
  - to improve linkages to network -- such as transport and communications,
  - vs. to improve productivity of a node -- such as power and water;
- fiscal incentives; financial deepening
- **Newer intervention tools**
  - improving urban management
  - innovating and adapting institutions to deal with new problems
  - addressing regulatory issues -both under and over regulation
  - investment in human capital and social capital
- In this presentation, highlight role of fiscal incentives, network infrastructure, and urban service delivery

# Examples of regional incentives

<b>Instrument</b>	<b>Examples</b>		
Investment subsidies	Brazil – interest rate subsidies – FNE, FNO – constitutional funds	India – concessional finance (Fifth Five Year Plan)	Thailand – subsidized credit for locating in secondary cities
Tax holidays	Brazil: Corporate tax exemption granted to enterprises during the first 10-15 years of operation	Korea – corporate income taxes exemption for 3 years to locate in regional industrial estates	Thailand – income tax exemptions; sales tax reductions for firm locating in industrial processing zones (IPZ)
Reductions in import Duties	Mexico – import duty exemption for locating outside of the three largest metro areas	Thailand – reduction in import duties on raw materials	
Industrial estates	Brazil :provision of industrial land and infrastructure	Japan: industrial estate development (industrial relocation policy 1975-80)	Thailand – Development of industrial estates
Regulation	India – preference to backward areas in industry licensing (Fifth Five Year Plan)	Korea – controls on new industrial development in Seoul	

# 1. Regional Subsidies - *Efficiency and Equity Issues*

- Do regional incentive policies enhance welfare?
  - new entry or just re-location
  - re-location costs
  - productivity effects
  - cost of public funds
  - value of increased equity
- These are hard questions to answer with available data (mostly from secondary sources)

# Modest Evaluation Questions (Effectiveness)

- Did regional incentives induce economic activity in lagging regions?
- Considerable research finds that regional funds have little impact on GDP growth or firm performance in lagging regions
  - U.S. literature (Bartik et al)
  - Brazil (Ferreira)
- Many US studies show that these are effective if regions are comparables in terms of non tax attributes - but this may not be the case for lagging and other regions

# Example from Brazil

- Strategy focused on industrialization of the Northeast through various kinds of subsidies:
  - Fiscal incentive schemes: FINOR/FINAM, Zona Franca de Manaus
  - Subsidized lending: Constitutional Funds, regional development banks
- Substantial amount of resources, unevenly distributed
  - US\$3 to 4 billion per annum in recent years
  - About 60% for the North (mostly ZFM) and 30% for the NE
- Generally poorly managed

# Evaluation Complications

- *Regional incentives are remedial*, and allocated to compensate for deficiencies in amenities, infrastructure, local public goods, and natural endowments.
  - Failing to account for inter-regional differences in these factors will lead to understated role of regional incentives.
  - Data constraints make it hard to account for these differences.
- Multi-establishment firm location decisions are driven by firm's spatial distribution. (Based on recent research in Brazil)
  - HQ's located in unsubsidized areas will induce entry in unsubsidized areas.
  - Failing to account for HQ locations will lead to understated role of regional incentives.



# Effect of regional Subsidies in Brazil

**Table 1: The effect of subsidized credit on firm entry in Brazil's lagging regions**

	(a)	(b)	(c)
Manufacturing Sectors			
Metallurgy	-0.653 (-12.95)	-0.656 (-13.03)	-0.006 (-1.01)
Machinery	-0.555 (-6.70)	-0.572 (-6.91)	0.055 (4.22)
Communications and Electronic Equipment	-0.250 (-1.76)	-0.250 (-1.76)	0.015 (0.85)
Transportation Equipment	-0.660 (-8.70)	-0.659 (-8.69)	0.032 (3.80)
Wood and Furniture	-2.684 (-18.53)	-2.694 (-18.61)	0.024 (2.25)
Paper and Publishing	-4.157 (-20.68)	-4.157 (-20.69)	-0.002 (-0.13)
Rubber, Tobacco, and Skins	-4.574 (-23.91)	-4.662 (-24.48)	0.011 (0.62)
Chemicals, Pharmaceuticals, Veterinary & Perfume Products	-4.125 (-23.16)	-4.154 (-23.33)	0.013 (0.71)
Textiles	-3.452 (-23.57)	-3.455 (-23.59)	0.054 (2.40)
Shoes	-1.458 (-10.02)	-1.440 (-9.90)	0.003 (0.14)
Food, Beverages, and Alcohol	-2.968 (-24.71)	-2.969 (-24.72)	0.039 (2.70)
Year Fixed Effects	Yes	Yes	Yes
Local Covariates	No	Yes	No
Agglomeration Fixed Effects	No	No	Yes

Source: Carvalho *et. al* (2005) ; t statistics in parentheses.

## 2. Assessing Transport Improvements

- In principle, transport improvements should
  - Improve regional productivity (access to markets)
  - Induce new economic activity (reduce remoteness)
  - Enhance local quality of life (reduce cost of goods; enhance mobility and information flows)
  - Labor force participation
  - Real estate markets
- Valuation of benefits using aggregate / regional data (infrastructure and growth literature of the 1990s)
- Micro analysis provides complementary evidence on project level interventions (on households and firms)

# The economic geography of Indonesian manufacturing sector is highly uneven

- Half of total manufacturing employment in just 15 districts
- 65% of districts share only 10% of manufacturing employment
- Gini across districts is .75 for total manufacturing employment; above .9 for many individual sectors

# Importance of Transport Infrastructure in location decisions of Indonesian firms

- Proximity to ports is important for export oriented sectors (e.g. garments, wood and paper products)
- Road density is statistically important for seven industry sectors; considerable variance among sector in sensitivity to transport
- Transport infrastructure has important impacts on increasing the investment attractiveness of regions
  - But is it enough to offset benefits from agglomeration economies?
  - And can transport investments by themselves change the economic fortunes of lagging regions?

## Selecting industries by transport sensitivity and agglomeration economies

Industry Sector	Transport Ranking	Transport Sensitivity	Agglomeration Effects
Garments	2	High	Low
Rubber and plastic	5	High	High
Wood Products	8	Moderate	High
Food and Beverages	9	Moderate	Low
Leather work	10	Low	Moderate
Office Computing	14	Low	High

### **Sectors highly sensitive to transport**

Some relocation to peripheral areas may occur after transport improvements  
 - extent also depends on the availability of other factor inputs and amenities

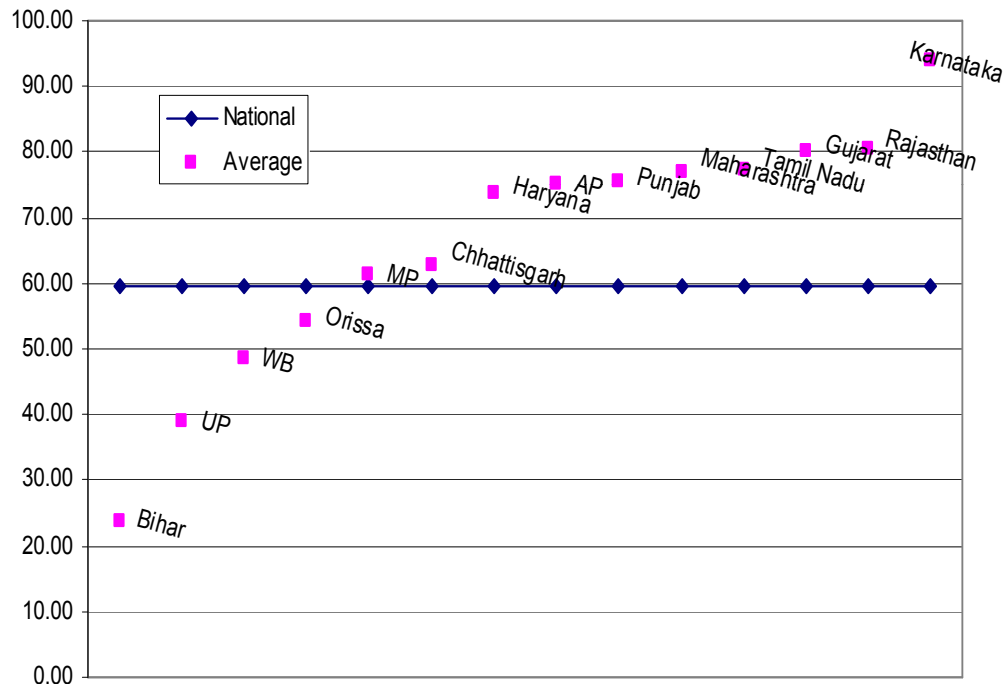
### **Moderate transport sensitivity**

For wood products, firms will locate near raw materials.

For food and beverages, there are low returns to agglomeration and returns to scale - sector will be distributed throughout the country.

# 3. Local infrastructure and urban service delivery

Figure 1: Share of Households with access to tap water (Pop > 100,000 ; 2001 Census Data)



- In India, urban service delivery is considerably worse in lagging states (Census 2001)
- Weak fiscal capacity and under spending by ULBs are core issues that need to be addressed

# Low Income states underspend on urban infrastructure and urban bodies collect lower own tax revenues

Expenditure Categories	Expenditures relative to Zakaria commission norms		
	Other region	Lagging Regions	Total
Overall	0.780	0.133	0.721
Water	0.812	0.073	0.744
Sewer	0.448	0.122	0.418
Roads	2.549	0.567	2.367
Lighting	0.709	0.130	0.656

- There is considerable under-spending in cities in lagging regions compared to Zakaria commission norms (87%) and compared to the higher income states (22% shortfall)
- Zakaria Committee (1963), calculated per capita O&M expenditure norms on four core infrastructure services: (i) water supply, (ii) drainage and sewerage, (iii) roads and works, and (iv) street lights and electricity distribution
- However, as in the case of states, own revenue generation is closely linked to better infrastructure services. LIS lag behind.
- Higher transfers to cities without proper incentives may replace own expenditures.

## Local service delivery is most responsive to local tax efforts and institutional arrangements

- Improving own source revenues has the largest effect on increasing infrastructure spending and service delivery
- Allocating expenditures to key infrastructure sectors is important, but rising wage bills undermine service delivery efforts
- Municipal corporations do better than councils in providing services, even controlling for scale effects.



# Some issues to consider while designing regional development strategies

- First mover advantages and Agglomeration Economies
- Strategies need to build on complementarities
  - Package of interventions work better than single instruments; but these may be fiscally unsustainable
- Creating new centers is like throwing a dart
  - High probability of missing the target
- Manage existing cities and assets better
  - The 'small' things (administrative reform; maintenance) when done well can have considerable benefits
- Identifying regional comparative advantages is challenging