

# **From Gaps to Solutions:**

## **The Intergovernmental Dimension of Public Investment Management**

**Jonas Frank**  
SDC

April 28, 2015

# Outline

- I. Motivation
- II. Understanding responsibilities: three layers
- III. Challenges
- IV. What explains inefficiencies?
- V. From gaps to solutions

**I. MOTIVATION: THERE ARE WIDENING  
GAPS BUT RESPONSIBILITIES FOR  
ADDRESSING THEM ARE ON DIFFERENT  
LEVELS**

# Public Investment – its current salience

## Everybody talks about Infrastructure...

***“We wish to use our oil revenues to invest in infrastructure which can benefit future generations”***

Mrs Kiwanuka, Minister for Finance, Planning and Economic Development of Uganda

***“What we need are viable, bankable and innovative projects which provide added value for investment and modernizing the economy”***

Werner Hoyer, EIB, November 2014

***“Time is right for an infrastructure push in countries where conditions are right”***

IMF, World Economic Outlook, October 2014

**Growing support for Asia Infrastructure Investment Bank**

**G-20 focus on infrastructure investment**

Emerging Asia to drive global infrastructure spend to 2025, says PwC

Jun 23, 2014 1:41pm by James Kynges Author alerts

[f Share](#) 9 [Twitter](#) 22 [in Share](#) 28 [Comments](#) 6



Accelerating urbanisation – especially in India and China – is set to boost emerging Asia's share of global spending on infrastructure and capital projects over the next decade, slashing the developed world's market share by 2025, according to a PwC report released on Monday.

The report, for which Oxford Economics researched trends in 49 countries on six continents, estimates that the world's urban population is currently swelling by around 1.5m people a week, mostly because of rural-urban migration in the emerging world. In India, for example, the urban population is likely to rise by some 500m over the next four decades. The Pakistan city of Karachi grew by 80 per cent to 13m in the decade to 2010.

Overall, global spending on infrastructure and capital projects is set to reach US\$9tn by 2025, up from US\$4tn in 2012, the report estimates. Emerging Asia – including China, India, Indonesia, Malaysia, the Philippines, Thailand and Vietnam – will be by far the fastest growing region, accounting for 47.7 per cent of the global spend by 2025, up from 30.4 per cent in 2012.

Home World Companies Markets Global Economy Less

Columnists The Big Read Opinion The A-List Editorial Blogs Letters Corrections

October 8, 2014 2:12 pm

### Why public investment really is a free lunch

By Lawrence Summers

The IMF finds that a dollar of spending increases output by nearly 83



I have been joked that the letters IMF stand for "it's mostly fiscal". The International Monetary Fund has long been a stalwart advocate of austerity as the route out of financial crisis, and every year it chastises dozens of countries for their fiscal indiscipline. Fiscal consolidation – a euphemism for cuts to government spending – is a staple of the fund's rescue programmes. A year ago the IMF was suggesting that the US had a fiscal gap of as much as 10 per cent of gross domestic product.

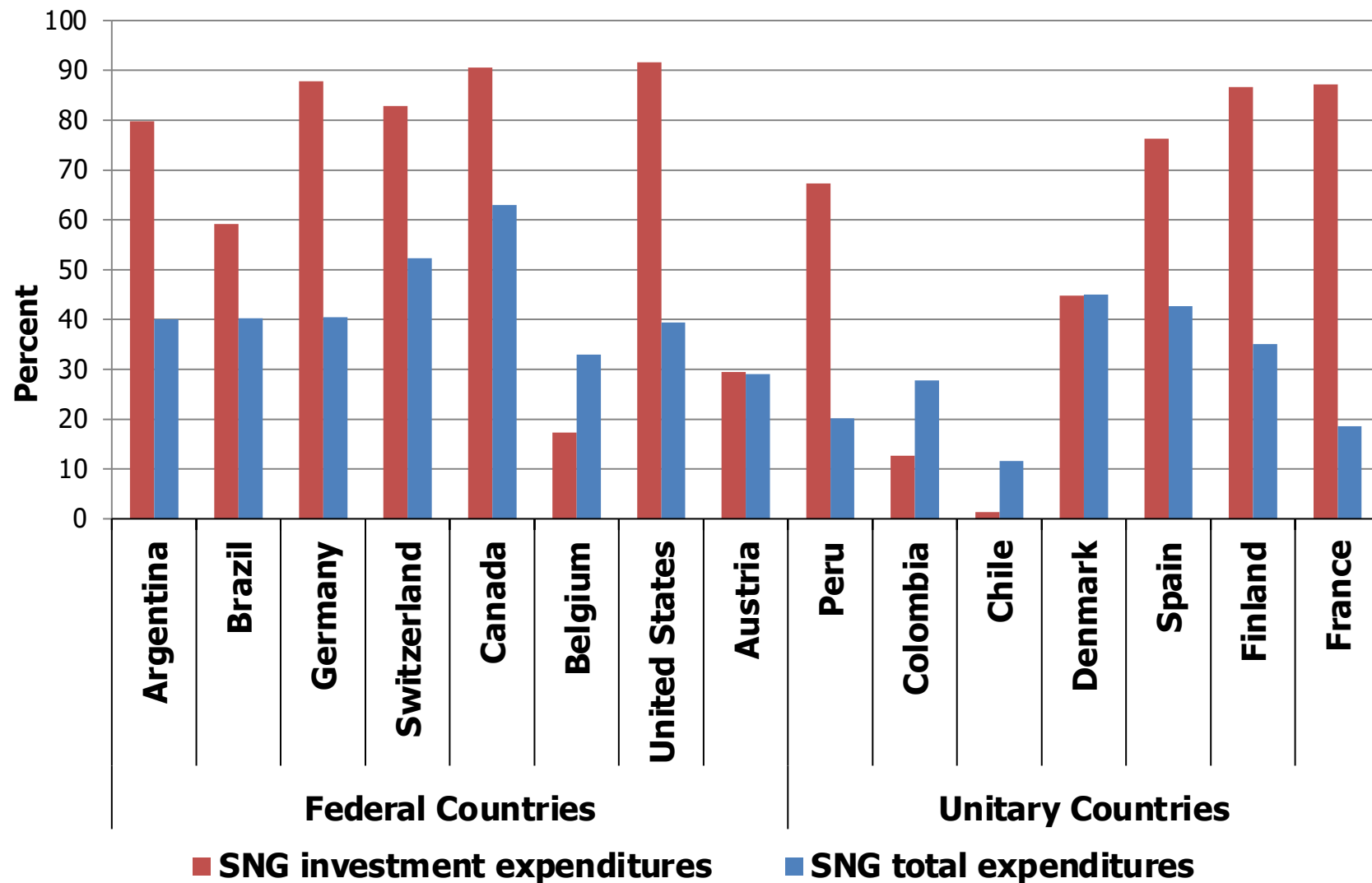
All of this makes the IMF's recently published World Economic Outlook a remarkable and important document. In its flagship publication, the IMF advocates substantially increased public infrastructure investment, and not just in the US but much of the world. It asserts that when unemployment is high, as it is in much of the industrialised world, the stimulative impact will be greater if investment is paid for by borrowing, rather than cutting other spending or raising taxes. Most notably, the IMF asserts that properly designed infrastructure investment will reduce rather than increase government debt burdens. Public infrastructure investments can pay for themselves.

The FT's A-List



The A-List provides timely, insightful comment on the topics that matter, from globally renowned leaders, policy makers and commentators

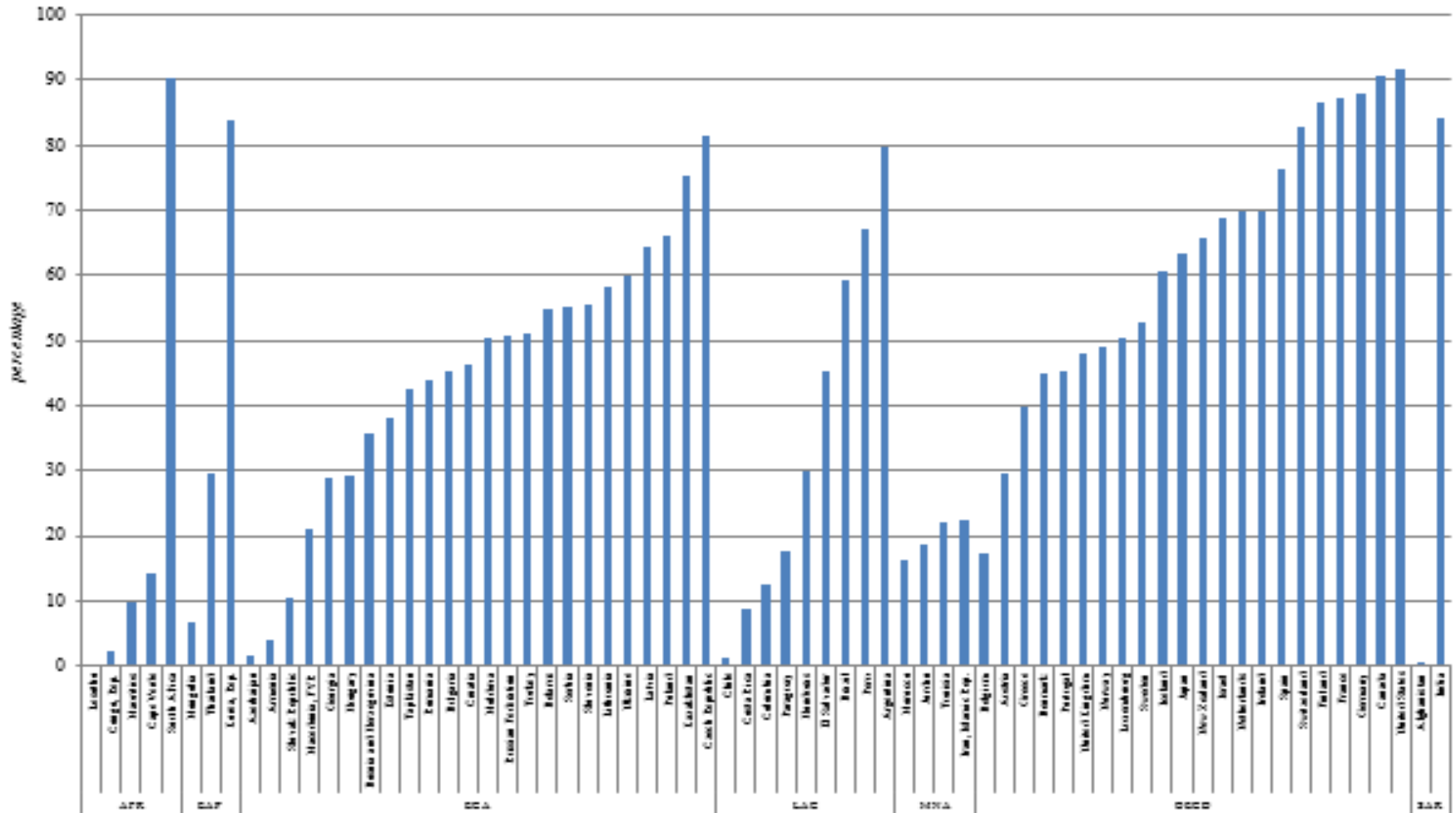
....but few about which level of government is actually responsible and the consequences



Data: 2011. Source: GFS and World Bank Fiscal Decentralization Indicators.

# A look across the world

## Share of Subnational Investment Expenditures



Data: 2011. Source: GFS and World Bank Fiscal Decentralization Indicators.

# Infrastructure Gaps around the World

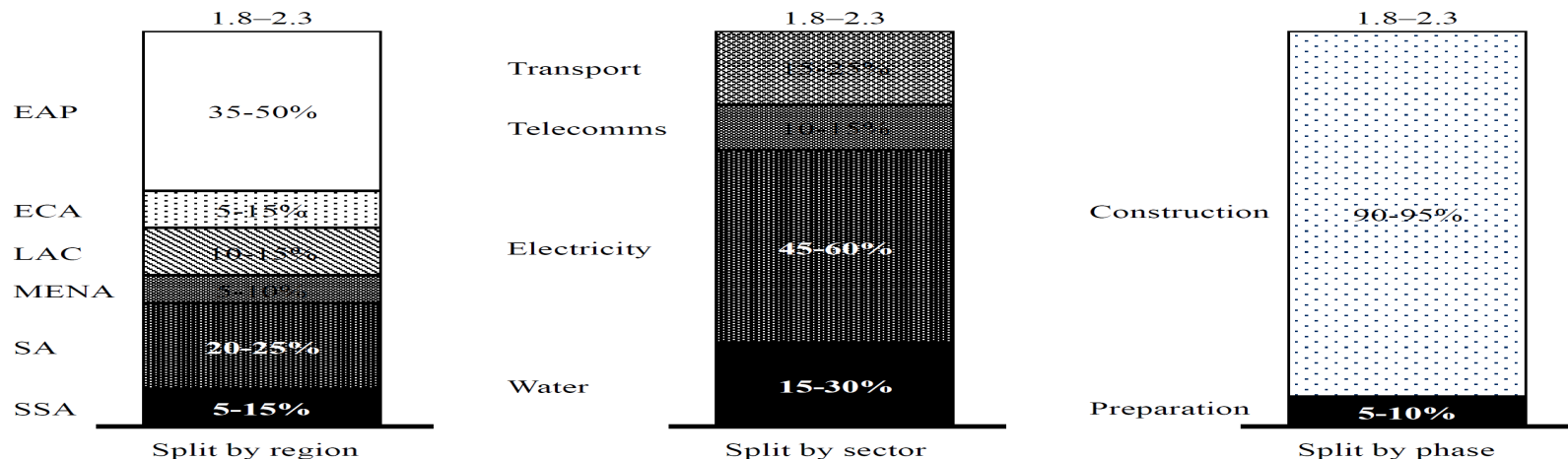
	Avg GDP Growth (2000-2011) <sup>13</sup>	Urbanization Rate (2011)	Telecom Access (per 100 people) (2011) <sup>2</sup>	Electricity Access (% of pop.) (2009) <sup>8</sup>	Access to Improved Sanitation (% of pop.) (2010) <sup>*</sup>	Access to Improved Water (% of pop.) (2010) <sup>6</sup>
EAP	8.9	49	105	91	66	90
ECA	5.1	65	157	100	84	96
LAC	3.6	79	125	93	79	94
MNA	4.3	59	105	90	88	89
SAR	6.7	31	72	62	38	90
SSA	4.6	36	54	31	31	61
World	2.7	52	103	79	63	88

Source: Andres, Biller, and Herrera Dappe (2013).

# “Vertical” gaps: supply vs. demand

- **Developing countries:** spend about USD1 tril. a year on infrastructure, but an additional USD1 tril./yr is required through 2020.
- **Asia and Pacific:** ca. USD 180 billion annually (demand vs. supply; public and private; UN ESCAP 2006)
  - Multilateral financing only represents a small fraction (about 5 percent) of the gap
- **Africa:** USD 93 billion a year (about 15 percent of the region’s GDP; Foster & Briceno-Garmendia)
  - Two-thirds: capital expenditure; One-third: operation and maintenance

## Annual infrastructure spending requirements in the developing world (\$tr, 2008)



NOTES: \$ trillion per year, (2008 real prices), capital investments only (excl. operation and maintenance costs)

SOURCE: Estimated annual infrastructure spending need for 2020 calculated by taking the Fay et al (2010) estimate of \$1.25-1.5 trillion annually in 2013 and assuming a 4% annual growth rate from 2013-20, and an additional \$200-300 billion annual requirement to make the infrastructure sustainable (both mitigation and adaptation); the split by region, sector, and phase are authors' own calculations taking ranges from Yepes (2008), MDB G20 working group on infrastructure (2011), and Foster and Briceno-Garmendia (2010); note the \$200-300 billion annual requirement for sustainability is assumed split in the same ratio as the other investments across regions, sectors and phases



# Urban-rural dynamics

## Rural areas

29.4% of rural population is poor

76% of the extreme poor live in rural areas

## Urban areas

11.6% of urban population is poor

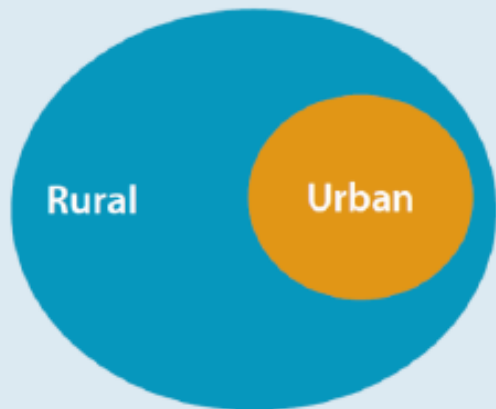
80% of Global GDP

3.6 Billion people in 2010

96% of the additional 1.4 billion people in developing countries between now and 2030 will live in urban areas

## Poverty is located along a rural-urban spectrum

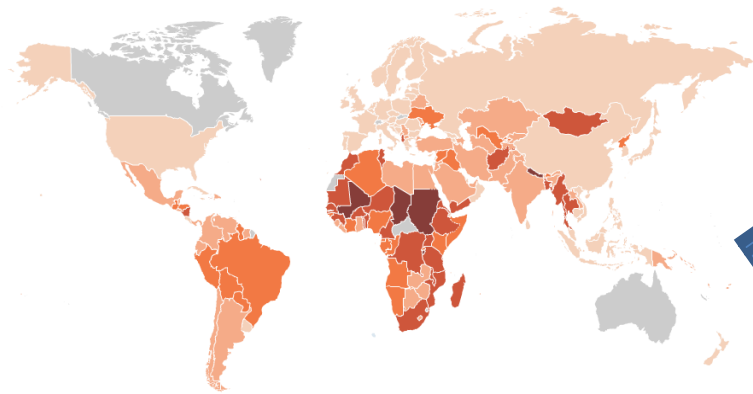
a. The simplified area economy



b. And a more realistic representation

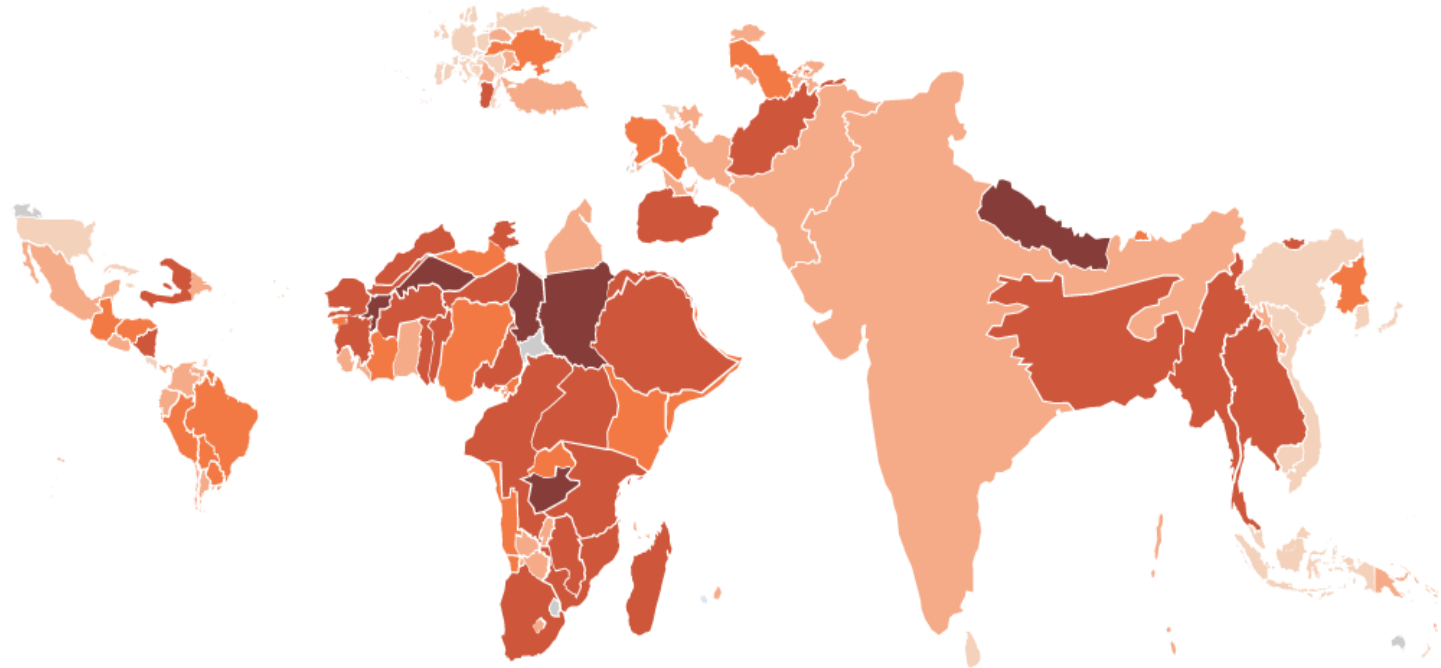
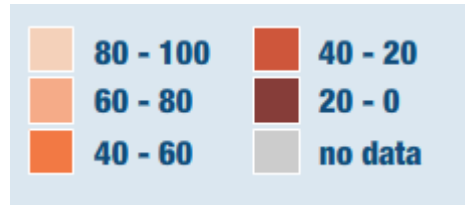


# "Horizontal gaps": Rural Access

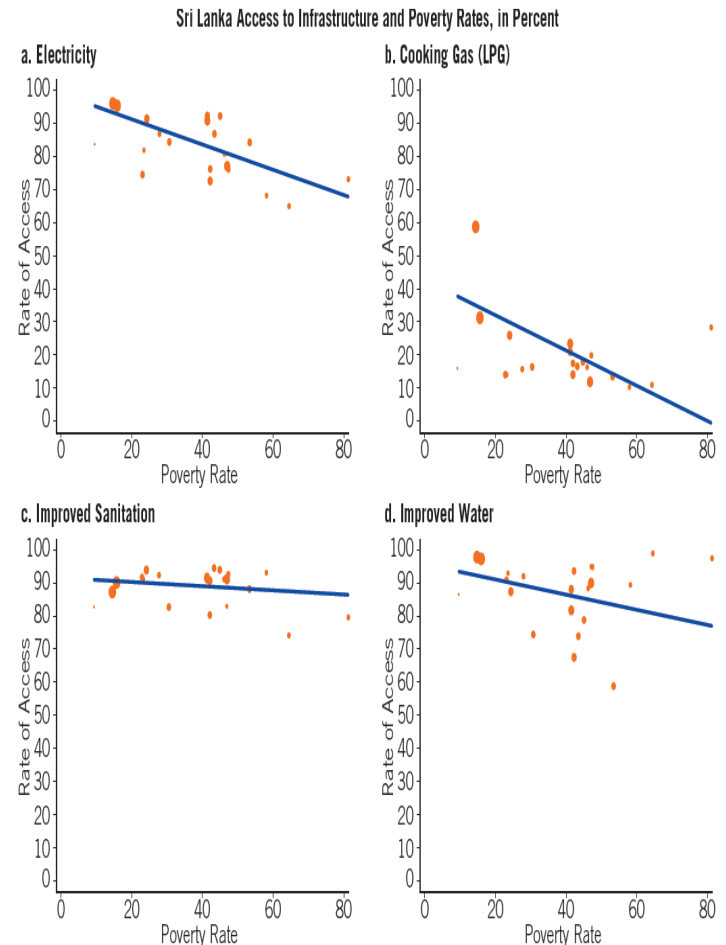
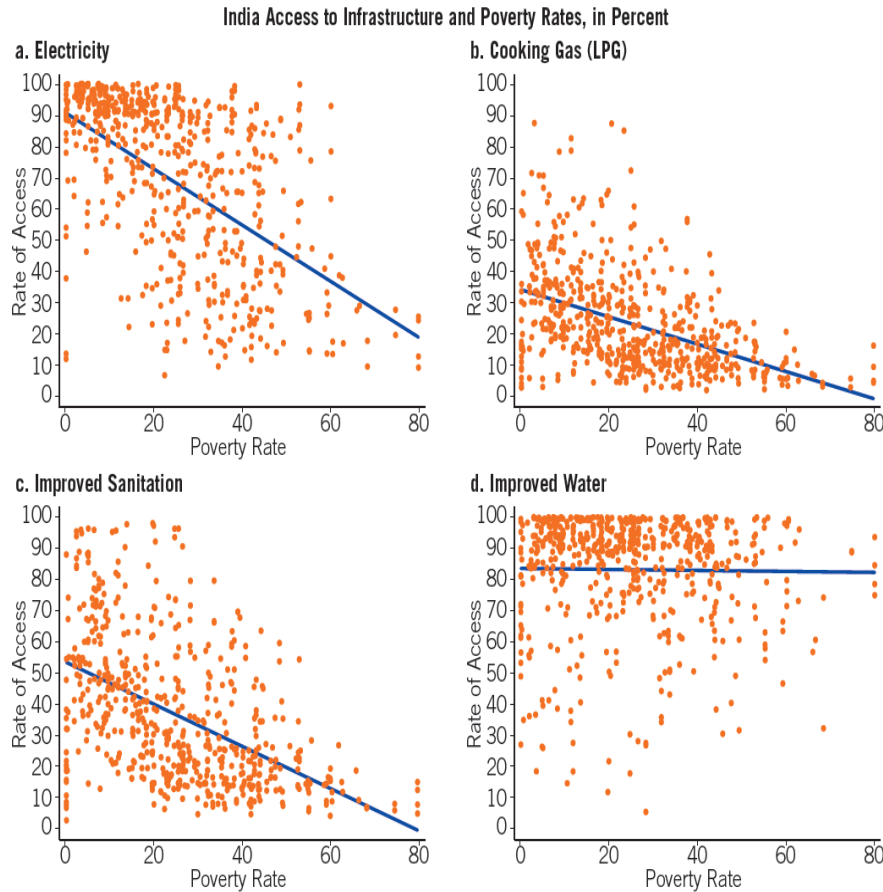


Total area: 1 billion people

The Rural Access Index measures the number of rural people who live within two kilometers of an all-season road as a proportion of the total rural population

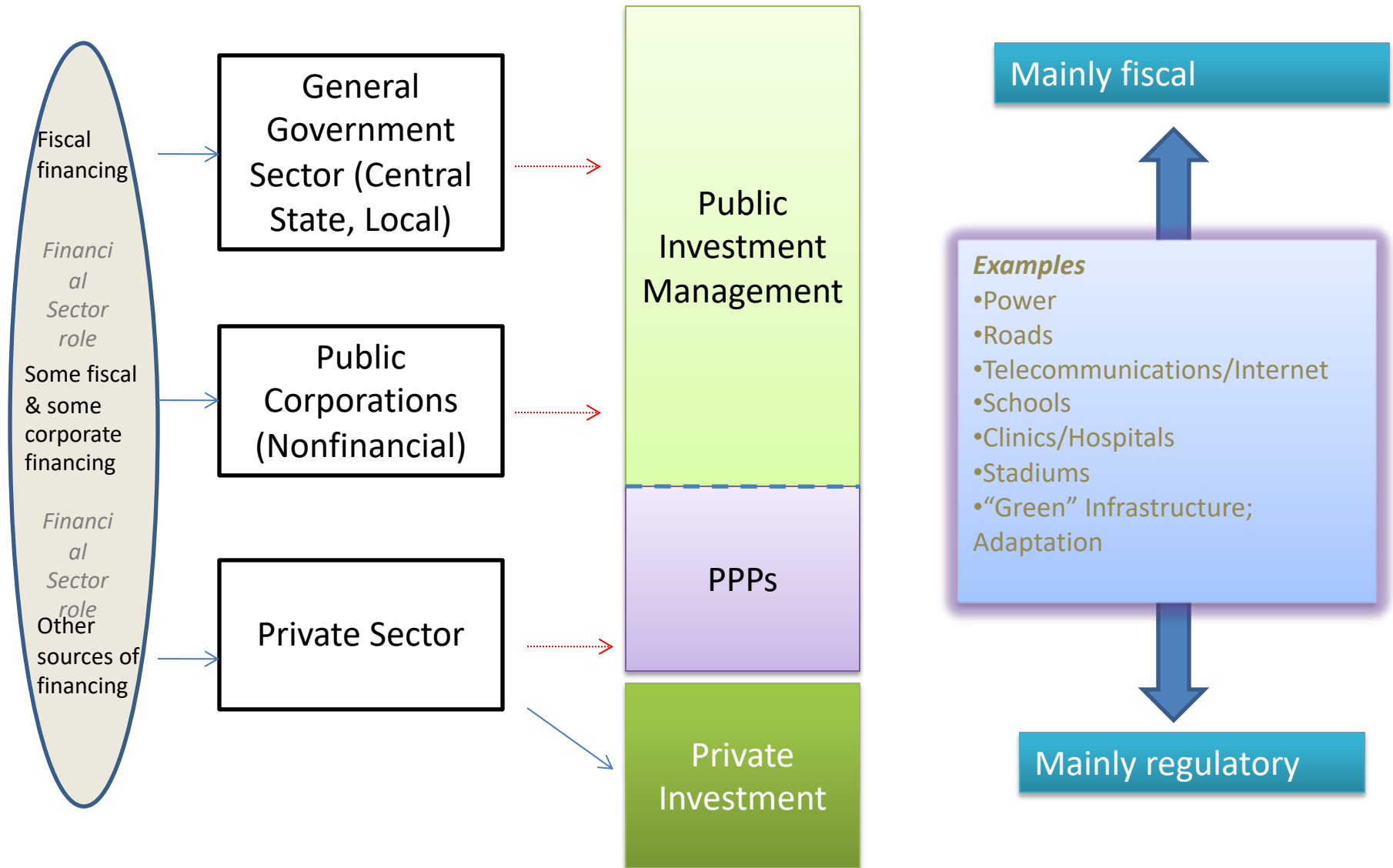


# Regressivity of Infrastructure Access: Comparing India and Sri Lanka




## **II. UNDERSTANDING RESPONSIBILITIES: THE THREE LAYERS**

# A complex multi-actor process



# The intergovernmental dimension: three layers of responsibilities

<b>«End services»</b>	<b>Network infrastructure:</b> Roads, water,.. <b>Point infrastructure:</b> Hospitals, schools...
<b>Project cycle</b>	
<b>Regulation</b>	<b>Market structure, access regimes, and pricing</b> <b>Standard setting:</b> end-services and project cycle

# **Organizational approaches at national and subnational levels**

- Sector agency
- Center of government: Ministries of Finance/Planning
- Community management

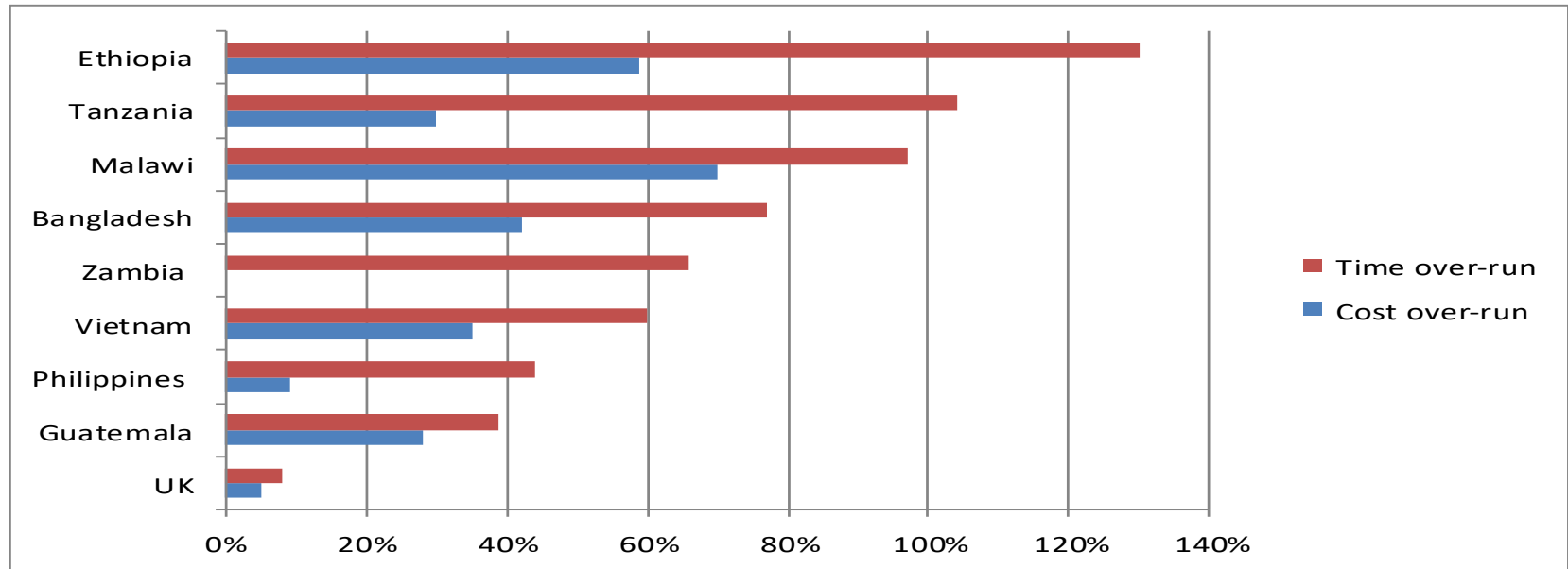
### **III. CHALLENGES**



# Progress is not assured

*Source:* Based on data from World Economic Forum (2006 and 2010) and IMF-WEO (2002-2010).

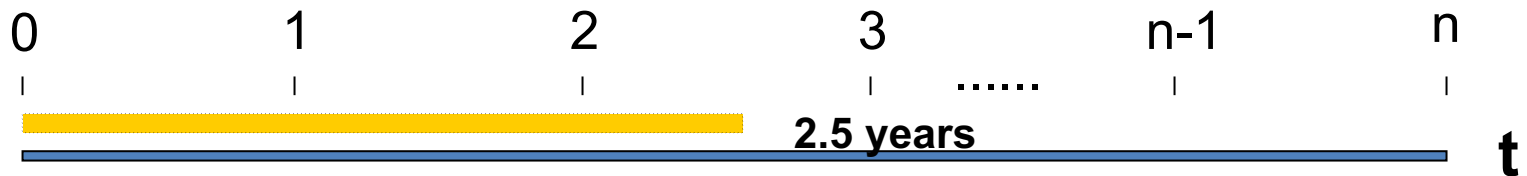
# Cost and time overruns



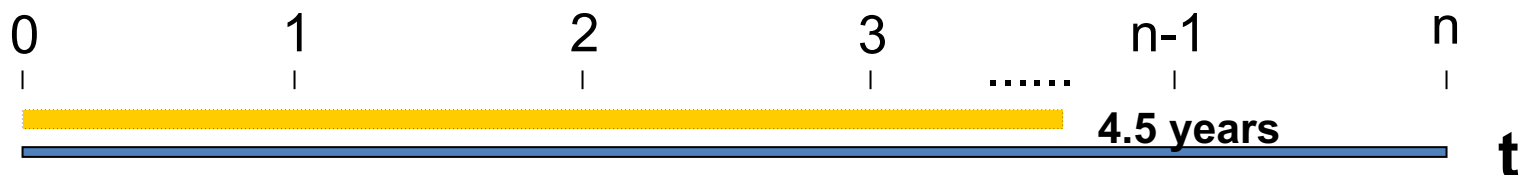
Source: CoST (2011), IMED for Bangladesh

## Peru: sample of regions (*departamentos*)

Average time estimated at pre-investment stage



Average time for executed investments

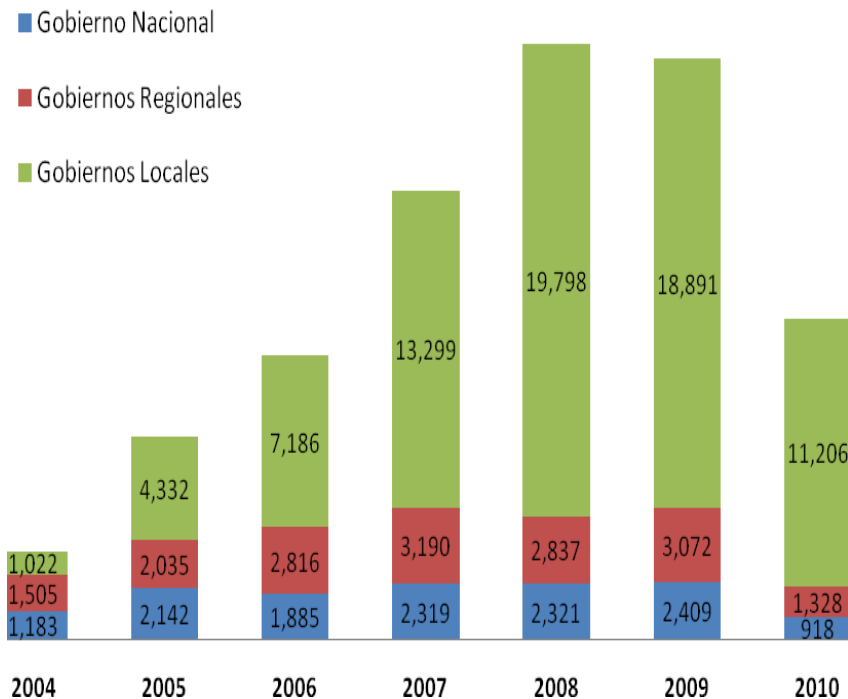


Source:  
WB estimates

# Fragmentation combined with limited checks and balances

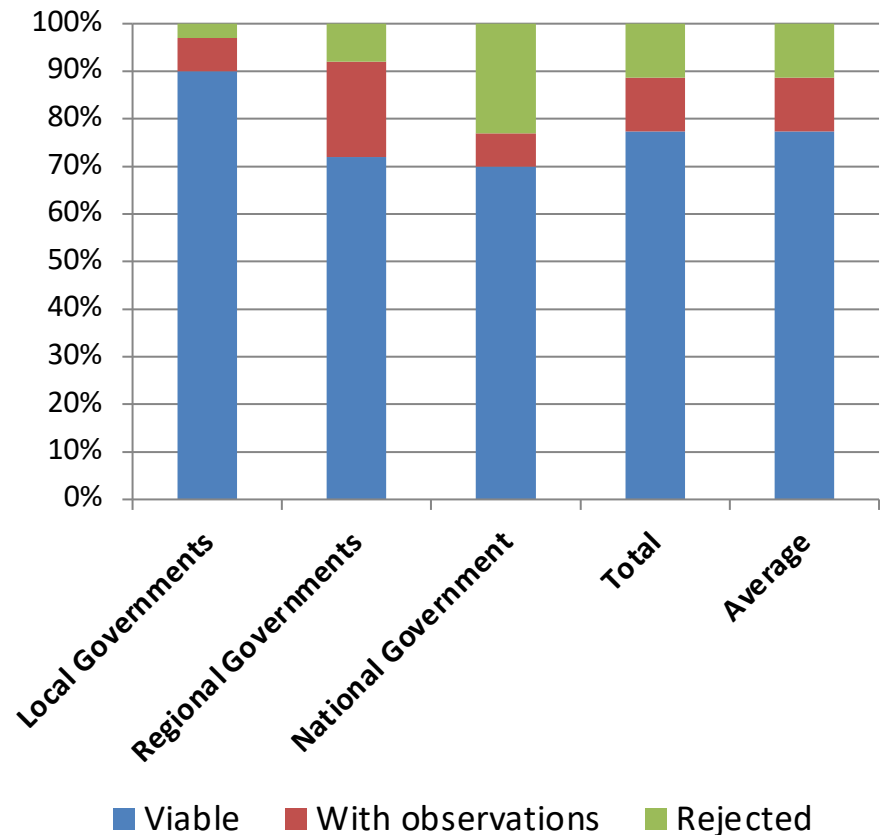
## *Example of Peru*

Number of viable projects (pre-investment)



Green: municipalities  
 Red: regional governments  
 Blue: national government

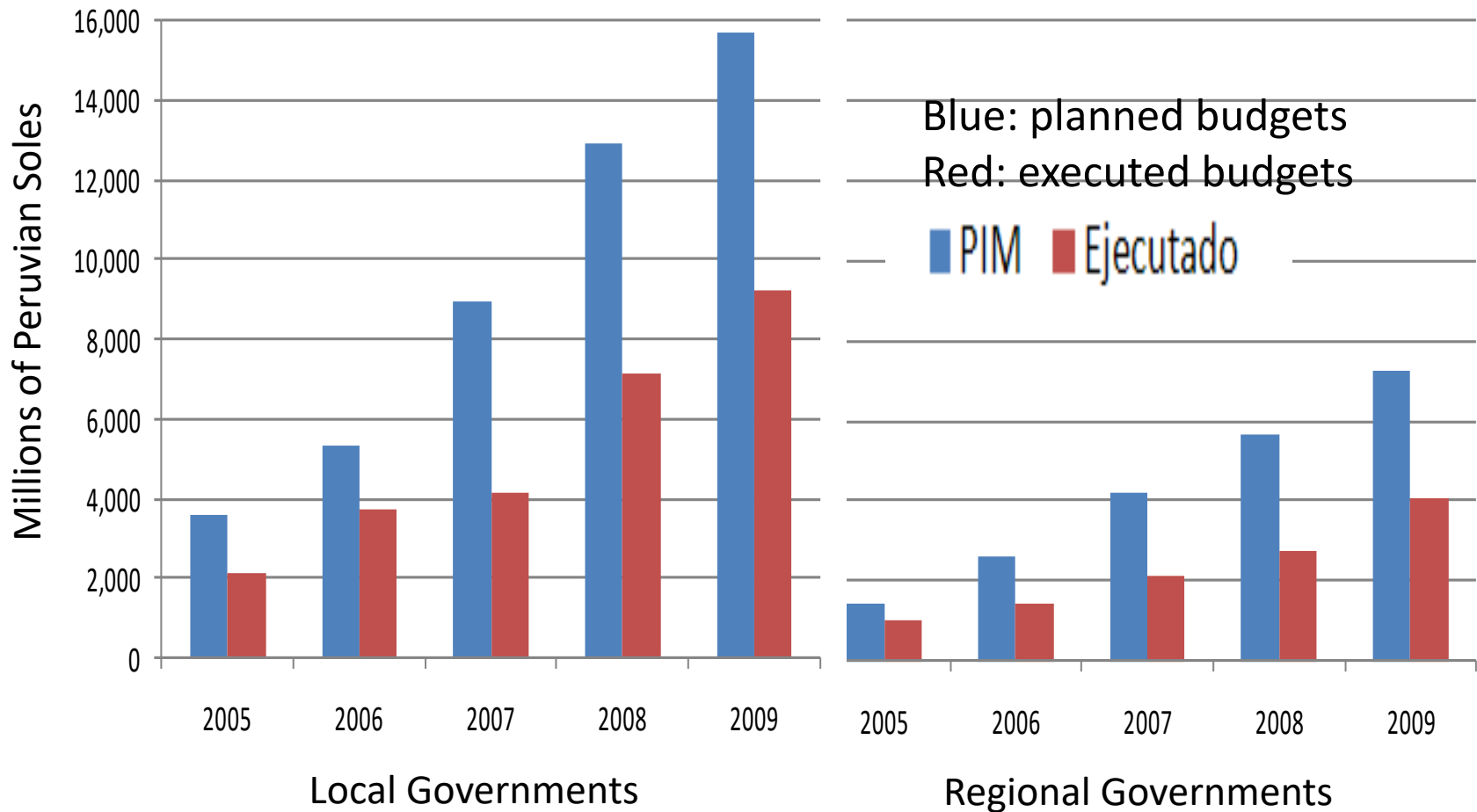
Rate of rejected and viable projects



Source: Frank and Garcia-Garcia, 2012, based on MEF-SIAF, SNIP

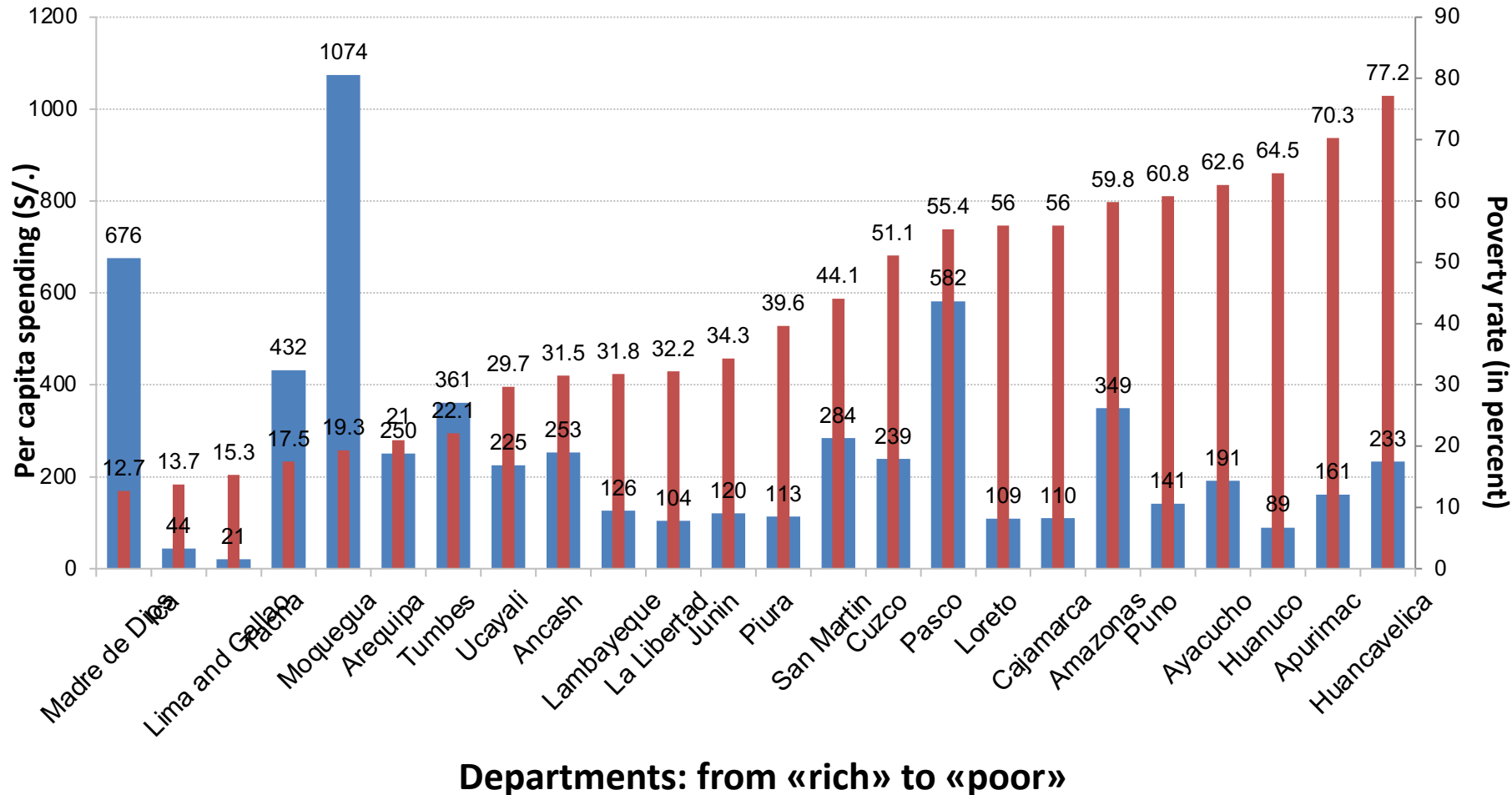
# Absorption capacity

## *Example of Peru*



# Equity

## Peru: Horizontal Inequities in Subnational Investment Spending (S/. per capita), 2009

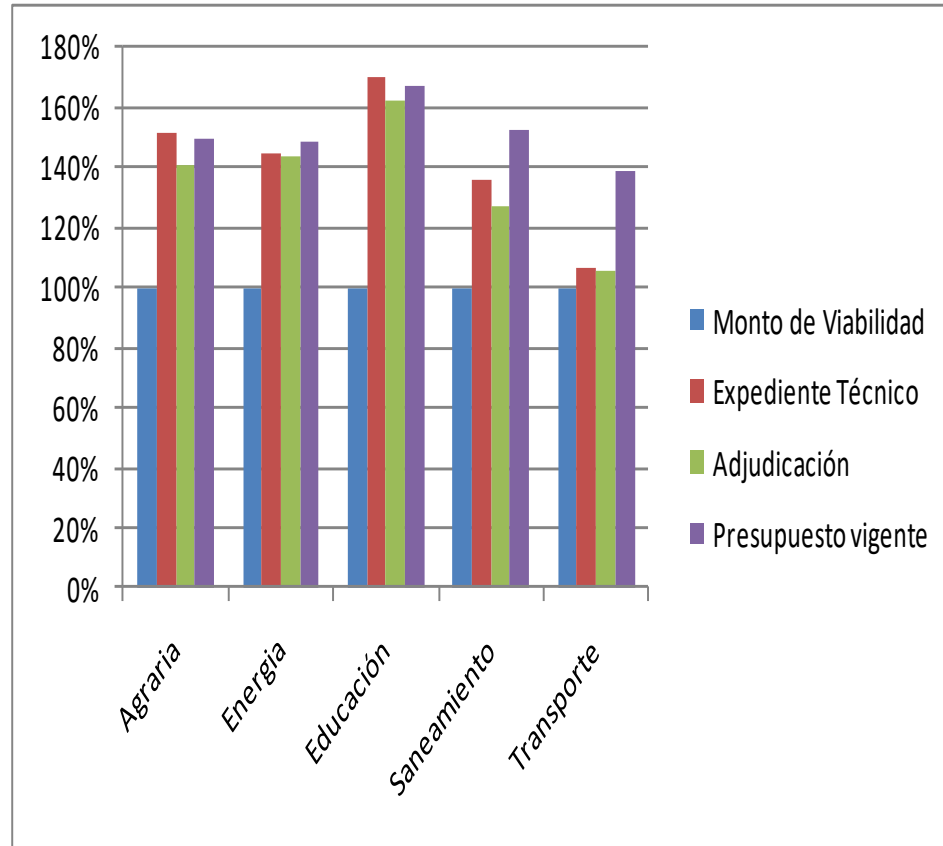


Source: Frank and Guerra-Garcia 2013,  
based on MEF (SIAF), INEI.

# **IV. WHAT EXPLAINS INEFFICIENCIES? A LOOK AT SOME OF THE DRIVERS AND INCENTIVE PROBLEMS**

# Optimism bias: differences in amounts between planned and approved budgets

## *Cajamarca case - Peru*



*Blue:* planned budget (pre-investment stage); *Red:* evaluated projects;  
*Green:* approved budget; *Purple:* approved budget

*Source:* Cajamarca Regional Government

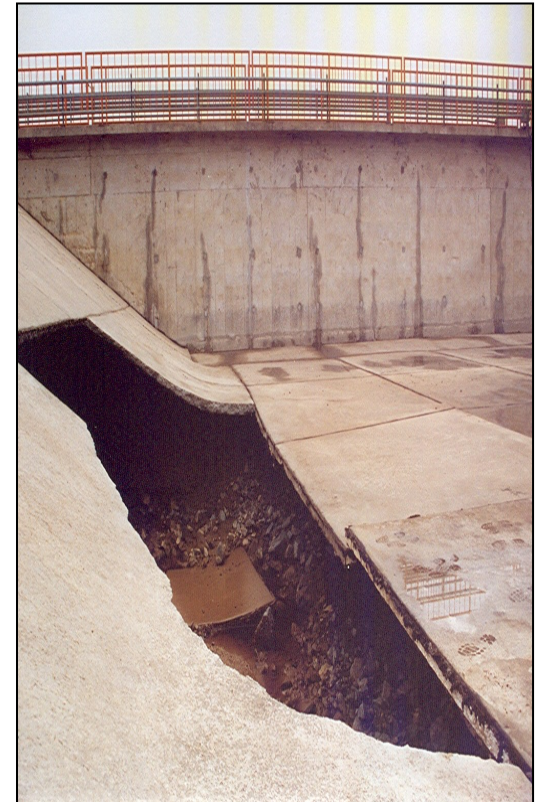
# Volatility in funding – multiple root causes

- Public investment as fiscal adjustment variable:
  - Upwards, downwards
  - Fiscal stimulus plans post-2008/9 crisis
- Co-financing
- Competitive allocation
- Transfers to SNG: different level of risk sharing among levels
- Natural resources
- Differing preferences



# Dilemmas of un-bundling: Operation and maintenance

- Some O+M is invisible: not always local advantage
- Optimism bias - favor new works over O+M
- Incentives for O+M if infrastructure not in line with local interests?
- Technical capacities
- Cross-subsidies for O+M? –  
Exception: user fee financed



Picture: A. Zamalloa

***“I think they just ate the funds. Do you see a school here?”***

A man from Likoni, a poverty ridden area on the outskirts of Mombasa, Kenya

Source: Open Budget Survey 2012

## **Vulnerability to Corruption – Selected Sectors**

<b>Water and Sanitation</b>	Land acquisition, selection of contractors, bid rigging, compromising quality, bribes for connections, meter tampering, conflict of interest with officials involved in private provision, collusion with companies offering bottled water or tanker provision
<b>Roads</b>	Land acquisition, rehabilitation, selection of contractors, false procurement and maintenance expenditures, quality of construction
<b>Electricity</b>	<u>Public utilities:</u> Land acquisition, rights of way, rehabilitation, equipment purchase and repair mark ups, patronage appointments, defective meters, meter tampering, theft of electricity by tapping distribution lines with side payments, connections delays, false billing, response to non-payment of bills, false subsidy payments <u>Private utilities:</u> Selection, regulatory regime, price hikes, blind eye to capital deterioration
<b>Hospitals</b>	Ghost hospitals, false procurement and construction
<b>Schools</b>	Ghost school, false procurement and corruption

Source: Shah 2015, forthcoming

## **V. FROM GAPS TO SOLUTIONS: SELECTING ENTRY POINTS**

# Principles of decentralization: important additions

- Assymetry → tailored to gaps
  - Metro/Urban vs. Rural SNG
- Flexibility → tailored to sectors and projects
- Gradualism → quick gain
  - Choose sectors
  - Steps: procurement

# Where to start: Preparation, implementation, or ex-post evaluation?

**Project preparation**

Stronger capacity could help stop unjustified projects

Easier to attract new resources with pre-appraised projects.

**Project implementation**

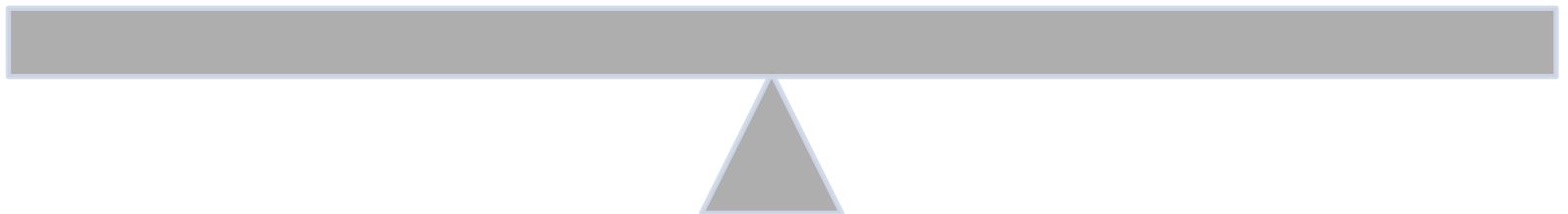
Most spending often on ongoing projects.

Quick wins from improved implementation

**Ex-post evaluation**

Holding politicians accountable

Feed lessons learned into project cycle

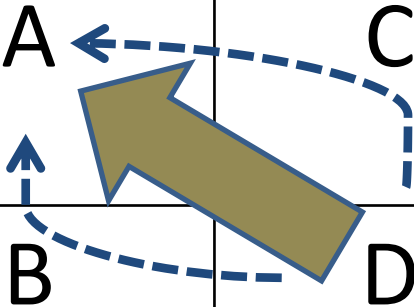




# Gate keeping



# Set incentives for whole investment cycle ... but there are trade-offs: strengthen appraisal or implementation first?

		Strengthen implementation	
		Well executed	Poorly executed
Strengthen appraisal	“Good” projects		
	“Poor” projects		

# Fiscal incentives

- Subnational tax sets desirable incentives (Viñuela 2015)
- Co-financing schemes:
  - Signalling of priorities
  - Reveals demand of SNG
  - Technical Assistance
- Maintenance grant
- Earmarking: once responsibilities are consolidating



# Enhancing equity

- **Social services (hospitals, schools):**
  - Incorporate into recurrent equalization grants (large operation and maintenance costs)
- **Fee recoverable infrastructure (utilities):**
  - Credit facilitation + fiscal responsibility
- **Non-fee recoverable infrastructure (no-toll roads):**
  - Conditional grant

# **Procurement: example for intergovernmental capacities**

- **Differentiate responsibilities:**
  - Central: complex, tailor-made projects (irrigation; hydraulic structures; solar energy; etc)
  - Local: modular projects (school buildings; etc)
- **Approaches:**
  - By size of SNG
  - By financial cost
  - By sector
  - By type of project

# Towards further integration of financial management and information systems

Country	Interface IFMIS vs SNIP	Single project code in IFMIS
Brazil	yes	yes
Colombia	yes	yes
Chile	yes	yes
Costa Rica	no	no
Guatemala	no	no
Honduras	yes	yes (social investments)
Paraguay	no	yes (in execution stage but not at pre-investment level)
Perú	no	yes
Bolivia	no	yes
Uruguay	no	yes

# Strengthen the demand side

- Interactive tools open to citizens and users
- Geo-referencing
- Expenditure tracking
- Benchmarking
- Ex-post evaluation

**Gobierno de Chile BIP Consulta**

**RESULTADO DE BUSQUEDA**

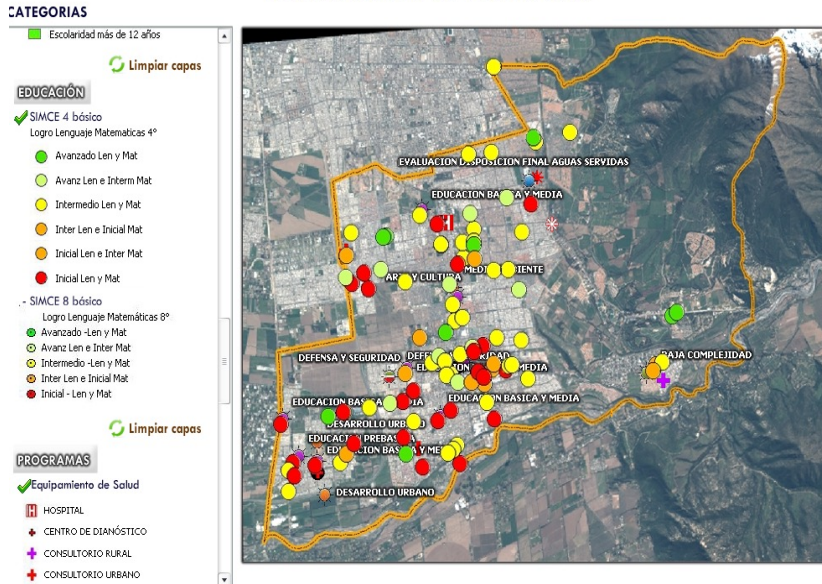
Código

Ascendente Descendente

Anterior 1 2 3 4 5 6 7 8 - 29 30 Siguiente

CÓDIGO	DESCRIPCIÓN	COSTO TOTAL M\$	COMENTARIOS
30108081-0	ADQUISICION CAMION RECOLECTORES DE 18 M3 Año y Etapa a Financiar: EJECUCION-2012	73.021	0
30108080-0	ADQUISICION EQUIPOS DE BARRIO Año y Etapa a Financiar: EJECUCION-2012	22.760	0
30108079-0	ADQUISICION CLINICA DENTAL MOVIL Año y Etapa a Financiar: EJECUCION-2012	31.748	0
30108077-0	ADQUISICION VEHICULO DE EMERGENCIAS COMUNALES Año y Etapa a Financiar: EJECUCION-2012	24.399	0

## Piloto Comuna de Puente Alto



**Gobierno de Chile BIP**

**ALGO QUE COMENTAR?**

Escríbe tu comentario debajo.  
Tu email no se publicará.

Nombre  
Carlos Pozo

Correo Electrónico  
cpozo@gmail.com

He leído las Normas de Uso ☒

Me parece fundamental este proyecto para el desarrollo de la Comuna

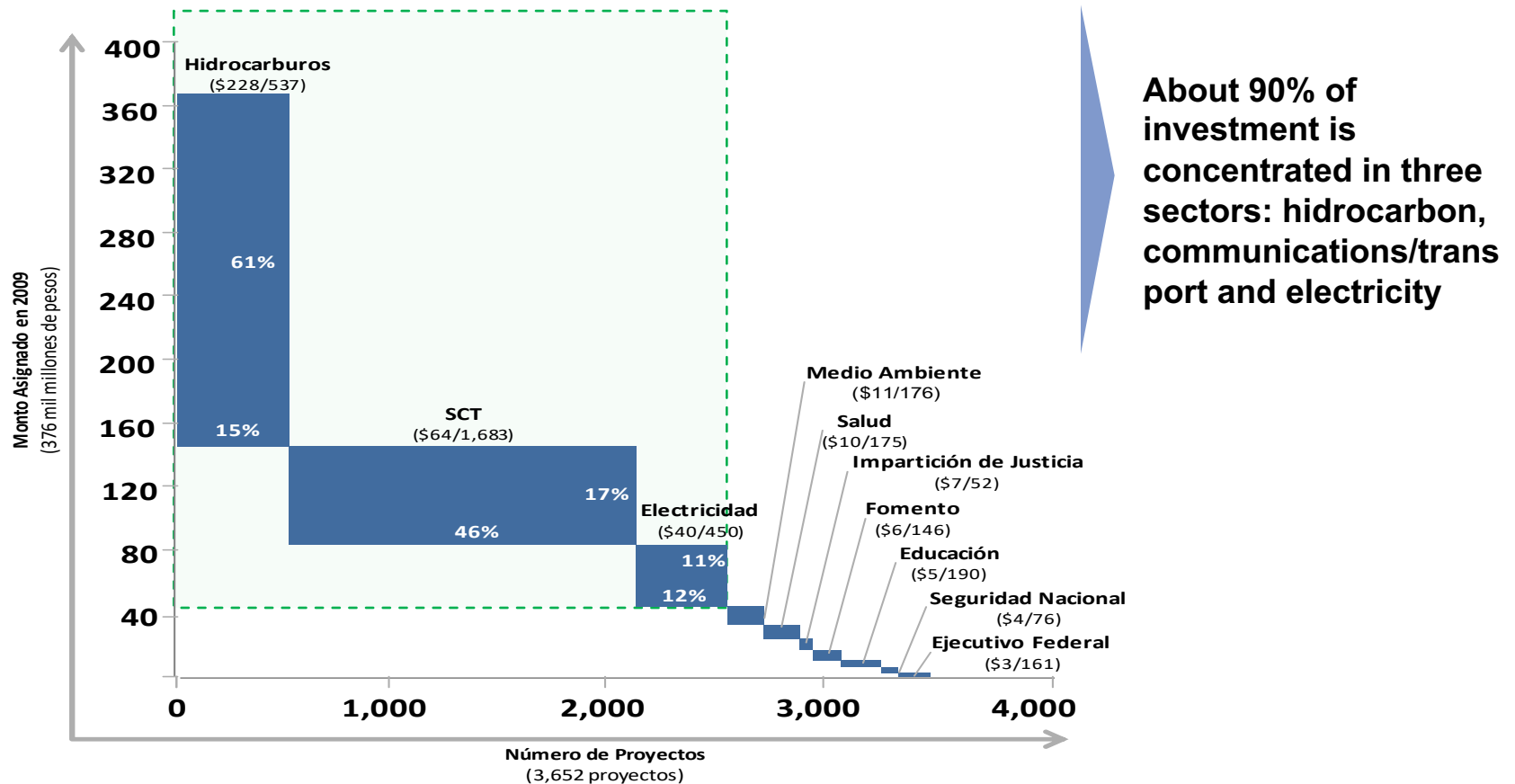
Caracteres Restantes: 433

**PUBLICAR UN NUEVO COMENTARIO**

**PUBLICAR COMENTARIO**

# Quick-gain strategy can prove effective - but do not lose sight of overall coherence

Quick-gains strategy in Mexico: focus on high expenditure areas



# Investing into the Invisible: Coordination

- Not a substitute for proper definition of responsibilities
- Signaling – Conditionalities - Contracting
- Approaches:
  - Vertical and horizontal
  - Sector and territories
- Fitting the intergovernmental context

# Main messages

- SNGs play a fundamental and increasing role in provision of infrastructure
- Needs systemic view, but focus on the «good enough»
- Place- and context-specific approach
- Future drivers:
  - Better informed and more demanding citizens
  - Politicians' renewed interest in planning and budget goals

INTERNATIONAL  
CENTER FOR  
PUBLIC POLICY

International Center for Public Policy  
Working Paper 14-05  
January 2014

## Decentralization and Infrastructure: From Gaps to Solutions

Jonas Frank  
Jorge Martinez-Vazquez



ANDREW YOUNG SCHOOL  
OF POLICY STUDIES



DIRECTIONS IN DEVELOPMENT  
Public Sector Governance

# The Power of Public Investment Management

*Transforming Resources into Assets for Growth*

Anand Rajaram, Tuan Minh Le, Kai Kaiser, Jay-Hyung Kim,  
and Jonas Frank, Editors



WORLD BANK GROUP