

Distributional Impacts of Infrastructure Privatization in Colombia

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Public Utilities Reform in Latin America

IADB, Washington D.C.

April 30th 2004

What have the most important distributional effects of infrastructure privatization been, in individual countries or looking across the region?

What are the implications for sustainability and the future direction of reforms?

What have the most important distributional effects of infrastructure privatization been in Colombia?

- Private investment in infrastructure 1997 – 2000

Sector	US \$ million
Electricity	4,964
Telecommunications	410
Water and Sewage	256

Source : National Planning Department

Expenses in public utilities consumption as a percentage of family income (2002)

	EUA	MÉXICO	ESPAÑA	COLOMBIA
Energía	3.7	3.3	3.1	2.0
Agua	0.9	N.D.	0.5	1.3
Teléfono	2.3	2.0	1.5	1.5
TOTAL	6.8		5.0	4.8

Source : National Planning Department

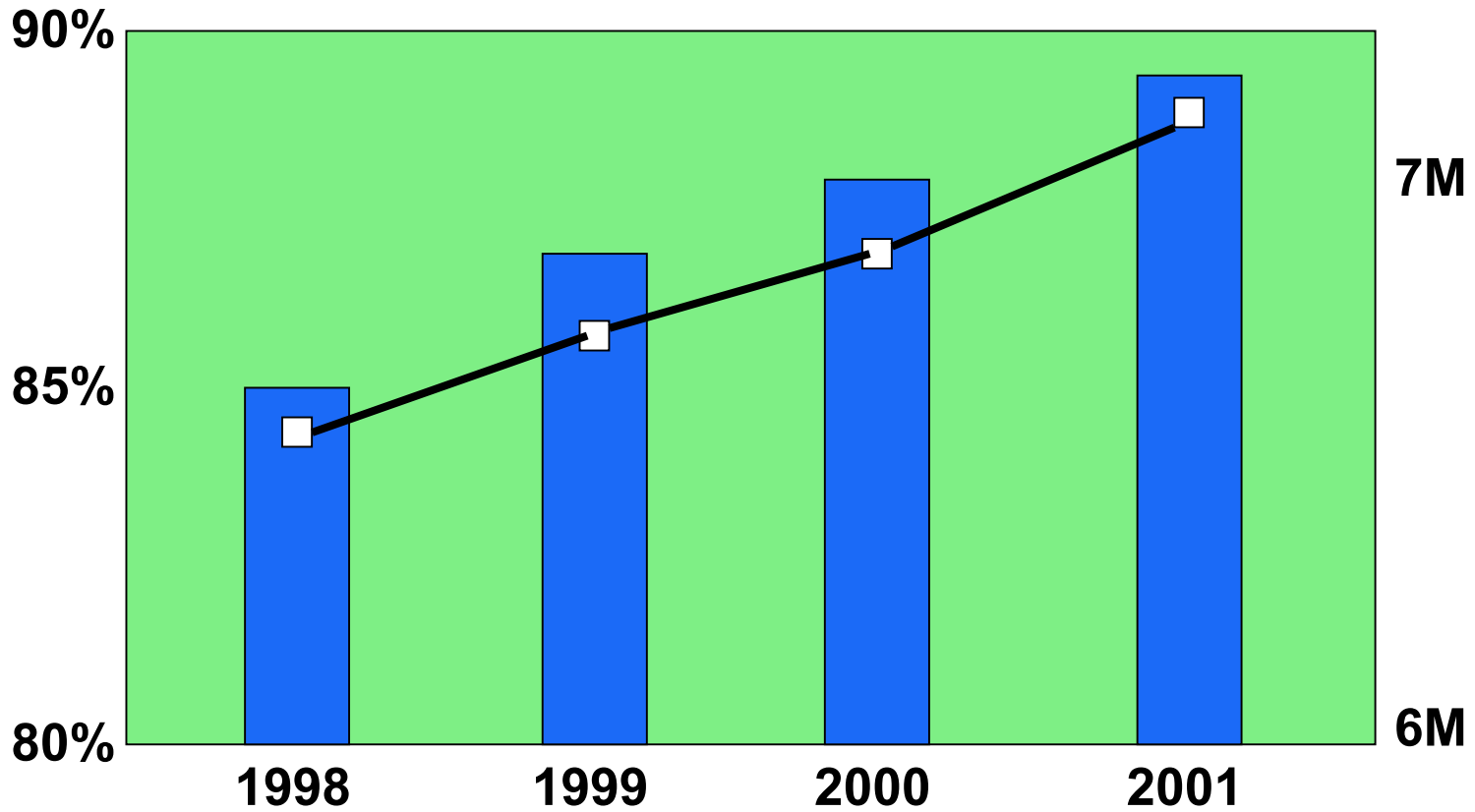
Electricity

In the last 6 years:

- Regulatory guidelines that allow private investment in transmission and generation
- Generation increase: 1234 MW
- Expansion of the transmission system 507 Km
- Coverage expansion 3 million people
- Strategies to reach non connected zones (ZNI) and the creation of a fund to support such strategies (FAZNI)
- Subsidies for COP \$2.5 billion (~ US \$1 billion) between 1998 -2001

Source : National Planning Department

Electricity



Coverage: percentage of total population - millions of households

Source : National Planning Department

Electricity

- (*ENERGIA SOCIAL* - Law 812 - 2003) Government has defined different policy tools to aim to increase the growth in the electricity coverage and consumption, among them:
 - A special fund (*Fondo de Energía Social* - FOES) to finance projects in very poor city areas, remote and inaccessible areas, and rural locations. Resources come mainly (80%) from “congestion rents” originated in the export of electric power to neighboring countries.
 - Non-connected areas fund (*FAZNA*) provides resources to run electricity programs in areas not connected to the national grid. The fund is mainly made of contributions from generators. (\$1/kWh)

Electricity

- Subsidies (Solidarity and redistribution principles)
 - Solidarity fund contributions from the non-regulated industrial users and upper consumer tiers (*estratos V y VI*) plus central government contributions.
 - Subsidies aimed to help the minimum consumption (“survivability consumption”, which is 200 kWh-month) of lower consumer tiers as follows:
 - *Estrato I* 50%
 - *Estrato II* 40%
 - *Estrato III* 15%
 - *Estrato IV* receives no subsidy (pays 100%)

User distribution

	No of connections	Percentage
ESTRATO 1	1415.941	20%
ESTRATO 2	2935.736	41%
ESTRATO 3	2023.163	28%
ESTRATO 4	510.847	7%
ESTRATO 5	224.355	3%
ESTRATO 6	132.765	2%

Source : SSPD, SIU

User consumption and billing distribution

	% CONSUMO	% FACTURACION
Estrato I	5	3
Estrato II	16	13
Estrato III	15	15
Estrato IV	4	6
Estrato V	3	4
Estrato VI	2	3
Industria no regulado	26	18
Comercio no regulado	1	1
Industria regulado	12	14
Comercio regulado	16	23

Source : UPME

Electricity

- There are inconsistent signals emanating from the regulation of public utilities and the redistribution policies.
- Reforms (privatization, deregulation) must come along with feasible subsidy/redistribution schemes.

Telecommunications

- In the public switched telephone business there's been liberalization rather than privatization; there are small private local telephone companies with no more than 5% of the total local lines and the third long distance operator (out of 3) has less than 50% of private ownership.
- There are about 30 telephone companies most of which are state-owned at different administrative levels (national, regional and municipal).
- The two oldest mobile telephone operators are private; the third and newest is a joint venture between two municipal telephone companies.

Telecommunications

- *Fondo de Telecomunicaciones* was created in 1998 for the administration of social telephony (universal access).
- 5% of each operator's gross income goes into the fund.
- Compartel is the *Fondo's* universal access project.
- Compartel designed a competitive bidding process by which winners get funds to install and operate telephone and Internet sites in small villages and remote places.

Telecommunications

Phase I 1999 - 2000

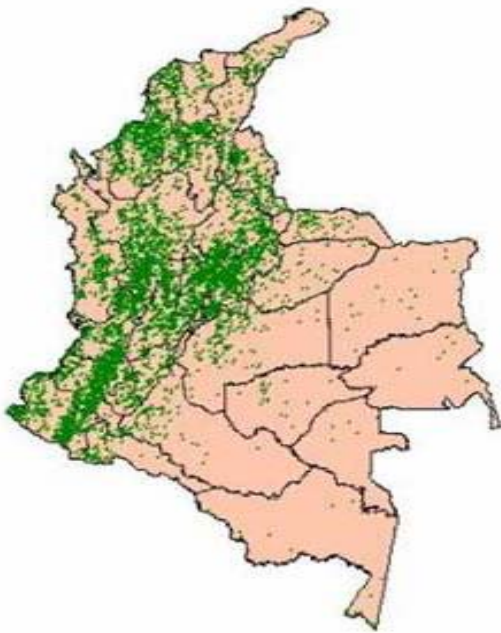
- 6.745 Telephone sites
 - 4,913 Type A site (One telephone line)
 - 1,282 Type B site (One telephone line and fax)
 - 550 Type C site (Two telephone lines and fax)
- 670 Internet sites (Two computers, printer and One telephone line
 - Total Investment US \$ 31 million (1999- 2000)

Phase II 2000 - 2002

- 270 Internet community sites
- 40 Internet switched access local sites
 - Total Investment US \$ 8 million (2000)
- 1,359 Telephone sites
 - Total Investment US \$ 12 million (2002)
- 33 Telecenters
 - Total Investment US \$ 40 million (2002)

Source : Compartel – Fondo de Comunicaciones

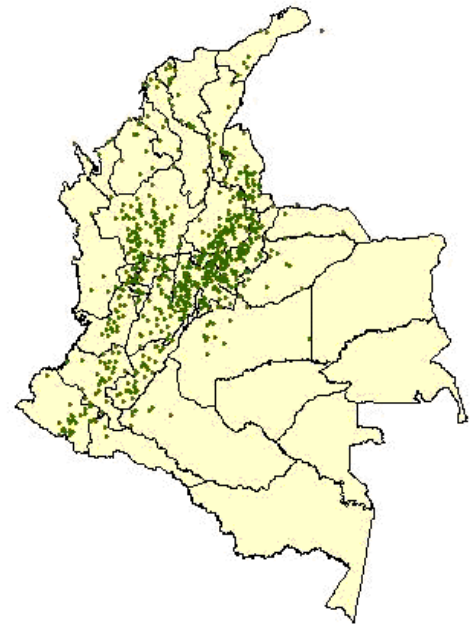
Telecommunications



Gilat
Colombia
(6,745 Sites)



Gilat
Colombia
(670 Sites)



Telefónica Data
Colombia
(270
Telecenters)

Source : Compartel – Fondo de Comunicaciones

Water and sewage

- Coverage (1999)

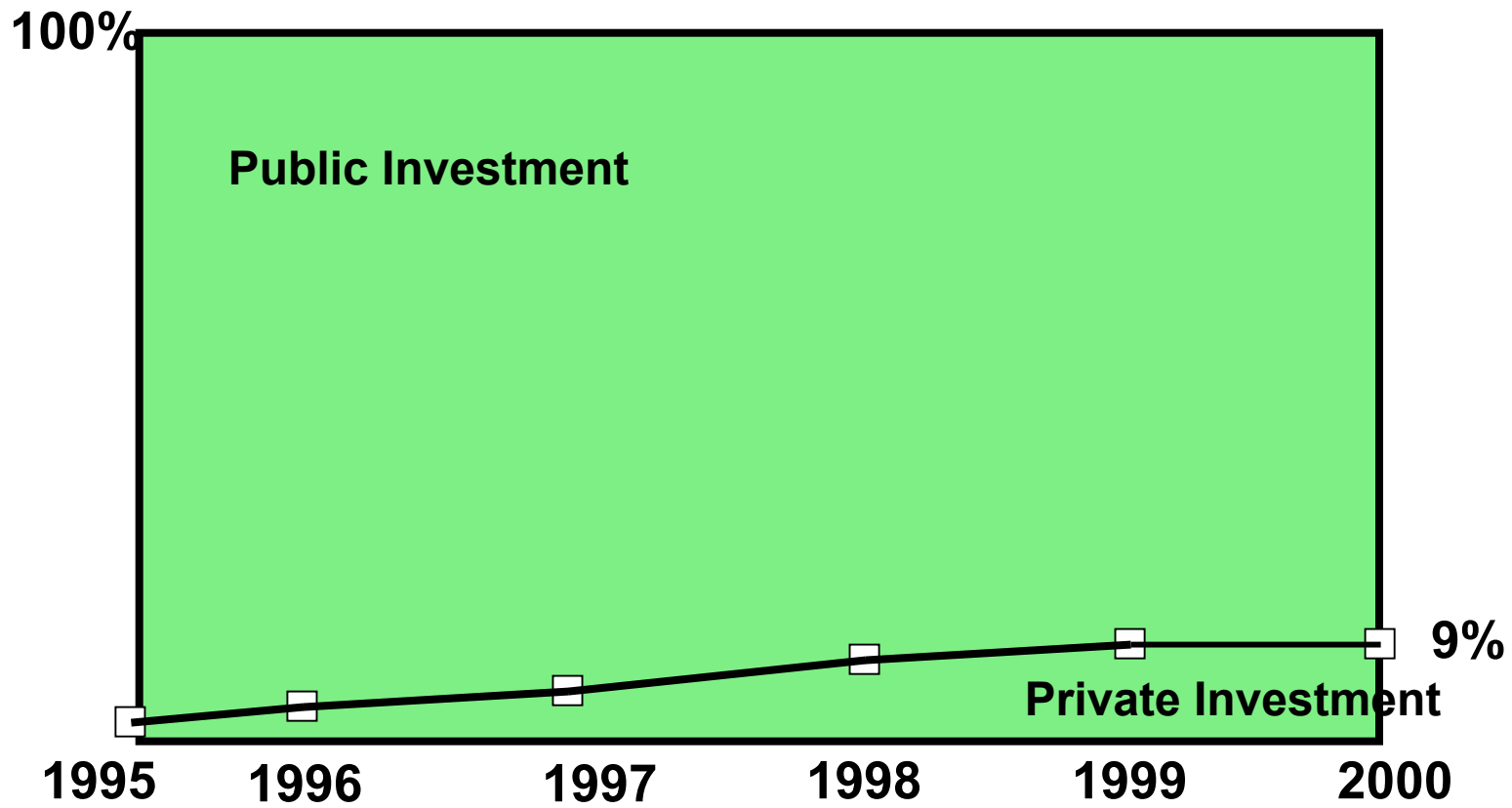
Urban	Water 94%	Sewage 80%
Rural	Rural 42%	Sewage 17%

- Water quality is hazardous for at least 60% of the population
- Private participation processes do not have an adequate financial, legal or technical structure.

How many in need and how much will it cost to supply it?

- COP \$53 billion to keep the system working and COP \$ 3,5 billion for investment in the next 15 years.
- Annual subsidies in the amount of COP\$ 500.000 million

Water and sewage



Water and sewage

- Water companies are constrained by environmental regulations (“retribution rates” a tax on polluting activities) and are not allowed to recover such expenses via tariffs.
- Maintenance and quality are poor in general. Private participation is low and there are no clear incentives for private investment.
- In essence the water sector main problem is the “engineering of regulation” (Spiller and Guasch).

Source : CRA Water Commission