



Pictures by Emma Joseph, 'Manila Slum Life', BBC



Water supply in the Slums

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Slum population as % of urban population

Source: UN-Habitat

	2001	1990
SOUTH AMERICA		
Argentina	33	31
Bolivia	61	70
Brazil	37	45
Colombia	22	26
Ecuador	26	28
Guatemala	62	66
Mexico	20	23
Peru	68	60
Venezuela	41	41
ASIA		
Bangladesh	85	87
Cambodia	72	72
China	38	44
Afghanistan	99	99
Indonesia	23	32
Pakistan	74	79
Philippines	44	55
Viet Nam	47	61
MIDDLE EAST		
Algeria	12	12
Egypt	40	58
Turkey	18	23

	2001	1990
AFRICA		
Angola	83	83
Burkina Faso	77	81
Burundi	65	83
Cameroon	67	62
Chad	99	99
Congo	90	85
Cote d'Ivoire	68	51
Ethiopia	99	99
Ghana	70	80
Kenya	71	70
Madagascar	93	91
Malawi	91	95
Mali	93	94
Mozambique	94	95
Niger	96	96
Rwanda	88	82
Sierra Leone	96	91
South Africa	33	46
Sudan	86	86
Uganda	93	94
Tanzania	92	99
Zambia	74	72

Slum Management Approaches

- Forced or legal evictions
- Inert policies
- Slum upgrading

The whole process of managing slums is highly political.

Policy challenges for water supply

Technical difficulties

- Spontaneous development of slums may hinder building water network
- Buildings fail urban planning regulations
- Land occupied may not be suitable for water infrastructure (e.g. flood plains, hills, ravines)

Lack of land tenure & the obligation to serve

- “... [once] pipes are installed in areas, their permanence may be seen as providing a stamp of approval ...by the residents.” WUP (2003)
- Formalisation of settlement conditions can provide incentives for faster growth of slums.
- Formalisation may benefit the non-poor

Varieties of access to water in the slums

1) Access through formal network

- E.g. Public taps, kiosks , illegal use or connections

2) Other sources of access

- Use of private wells
- Purchase from neighbours with residential supply
- Purchase from water carts and trucks
- Community schemes
- Rivers, ponds, lakes

	Urban HHs w/o piped water, 1990	Urban HHs w/o piped water, 2004
Liberia	79	99
Uganda	76	93
Chad	90	90
Angola	99	85
Nigeria	68	85
Madagascar	72	84
Mozambique	67	82
Benin	82	75
Cameroon	74	75
Mali	92	71
Burkina Faso	76	69
Ethiopia	98	68
Mauritania	80	68
Rwanda	76	66

	Urban HHs w/o piped water, 1990	Urban HHs w/o piped water, 2004
Niger	81	65
Ghana	60	63
Zambia	47	59
Burundi	68	58
Eritrea	60	58
Tanzania	67	57
Sudan	25	54
Côte d'Ivoire	53	52
Kenya	41	48
Lesotho	82	47
Sierra Leone	-	40
Botswana	60	38
Senegal	50	25
South Africa	13	13

	Urban pop. w/o safe drinking water	Urban HHs w/o piped water
Latin America	2004	2004
Argentina	2	17
Bolivia	5	10
Brazil	4	9
Chile	0	1
Ecuador	3	18
El Salvador	6	19
Guatemala	1	11
Honduras	5	9
Mexico	0	4
Nicaragua	10	16
Paraguay	1	18
Peru	11	18

Neo-liberal Policy shift and provision in slums

- Privatisation and commercialisation – outcomes
- From ‘development state’ to ‘enabling state’: cuts in public investment, including WSS
 - e.g. See Calderon et al (2003) for LACs
 - See, Estache (2006) PPI
 - 70% of investment for PPI from governments
 - 22% from donors
 - 8% from private sector

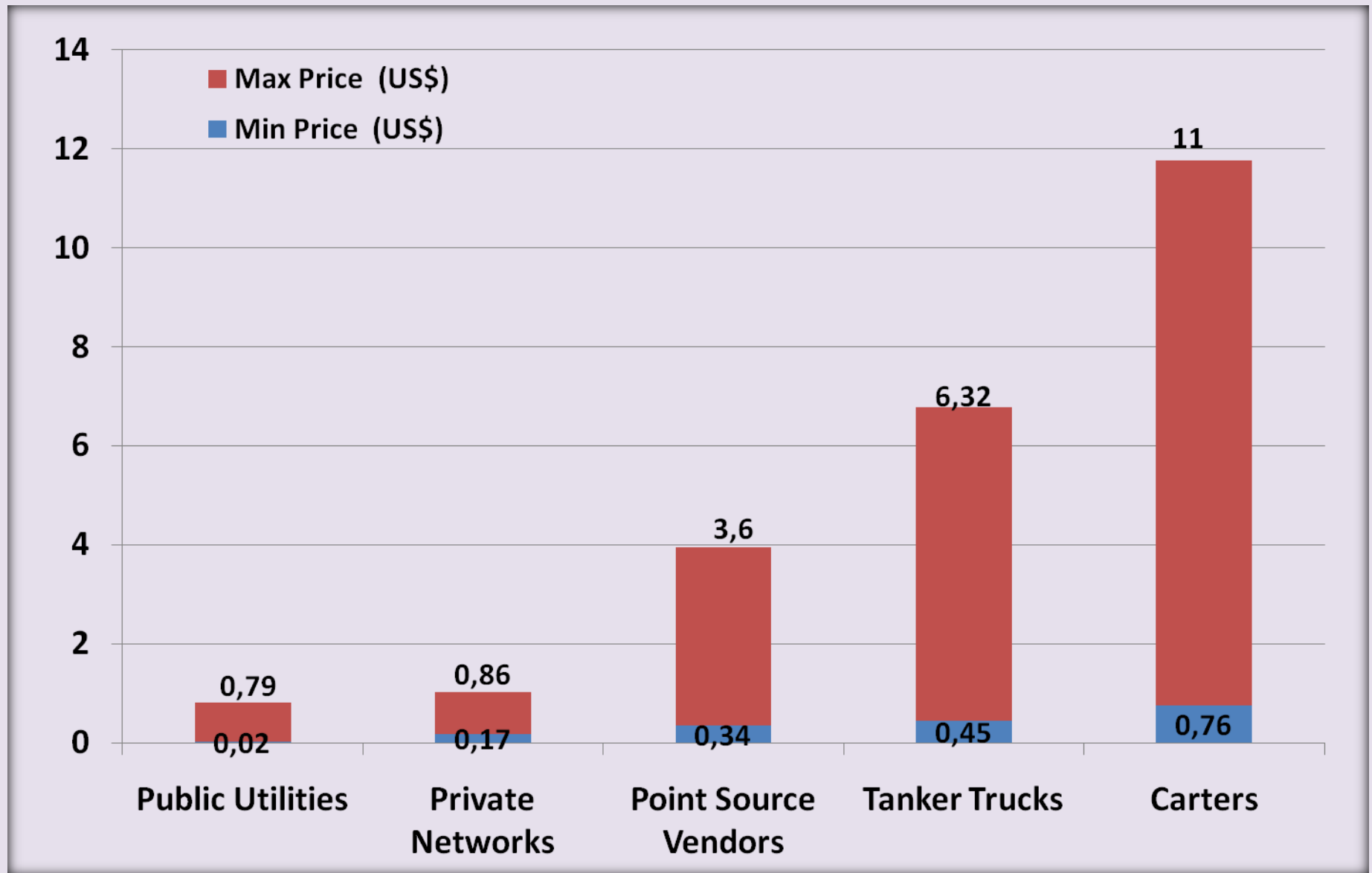
Failures of market based solutions

1) **Private concessionaires:** Problems of contract design, tension between affordability & profitability; who bears the cost of connection & subsidies

2) **Community and small scale public schemes :** cost-recovery, maintenance, exclusion of poor users

3) **Private small scale providers:** high tariffs, low quality water, unregulated, low quality access

Water tariff by different providers (per m³)



Source: Reproduced from Kariucki & Schwartz, 2005 (Based on 47 countries, 93 locations)

Why is a more proactive public policy necessary?

1) Failure of private solutions

2) Human and environmental hazards of low quality and inadequate access and associated negative externalities :

- Health hazards
- Environmental pollution

Annual cost estimates for achieving universal coverage for WS

(from 2006 to 2015, US\$ millions)

	Water	Water & Sanitation
Sub Saharan Africa	777 (1.2%)	4,156 (6.6%)
East Asia & Pacific	891 (0.3%)	5,468 (1.8)
South Asia	189 (0.2%)	5,222 (5.1%)
Latin America	87 (0.034%)	821 (0.322%)

Cost-benefit ratio of achieving universal WS coverage

	Water	Sanitation	W&S
Sub Saharan Africa	3.9	6.5	5.7
Arab States	5.9	12.7	11.3
East Asia and Pacific	6.6	13.8	12.2
South Asia	3.9	6.8	6.6
Latin America	17.2	39.2	36.3

Source: Hutton et al. (2006)

Policy Issues (1) Medium to Long term

Public network supply is the best form of provision in terms of cost and quality

But need to think 'outside the water box'

- Wider planning for housing, sanitation, transport
- Use of public land and investment in affordable housing for the poor and low-income families
- Provision of low interest & long-term credit for housing
- A strong state and administrative system

Policy Issues: Short to Medium Term

- Essential services, including water, must be supplied irrespective of the ownership of the tenure for land in the informal settlement areas.
- When technically feasible for connection to public network, the provider (be it public or private) should have the obligation to serve the population in the slums.
- Where the above option is technically unfeasible, then alternative providers can be incorporated into the supply system with a degree of regulation, especially involving penalties in cases of excess charges and poor water quality