

Rural Telecommunications - WBG experience

Village Power Conference
Washington, D.C., November 4, 2000

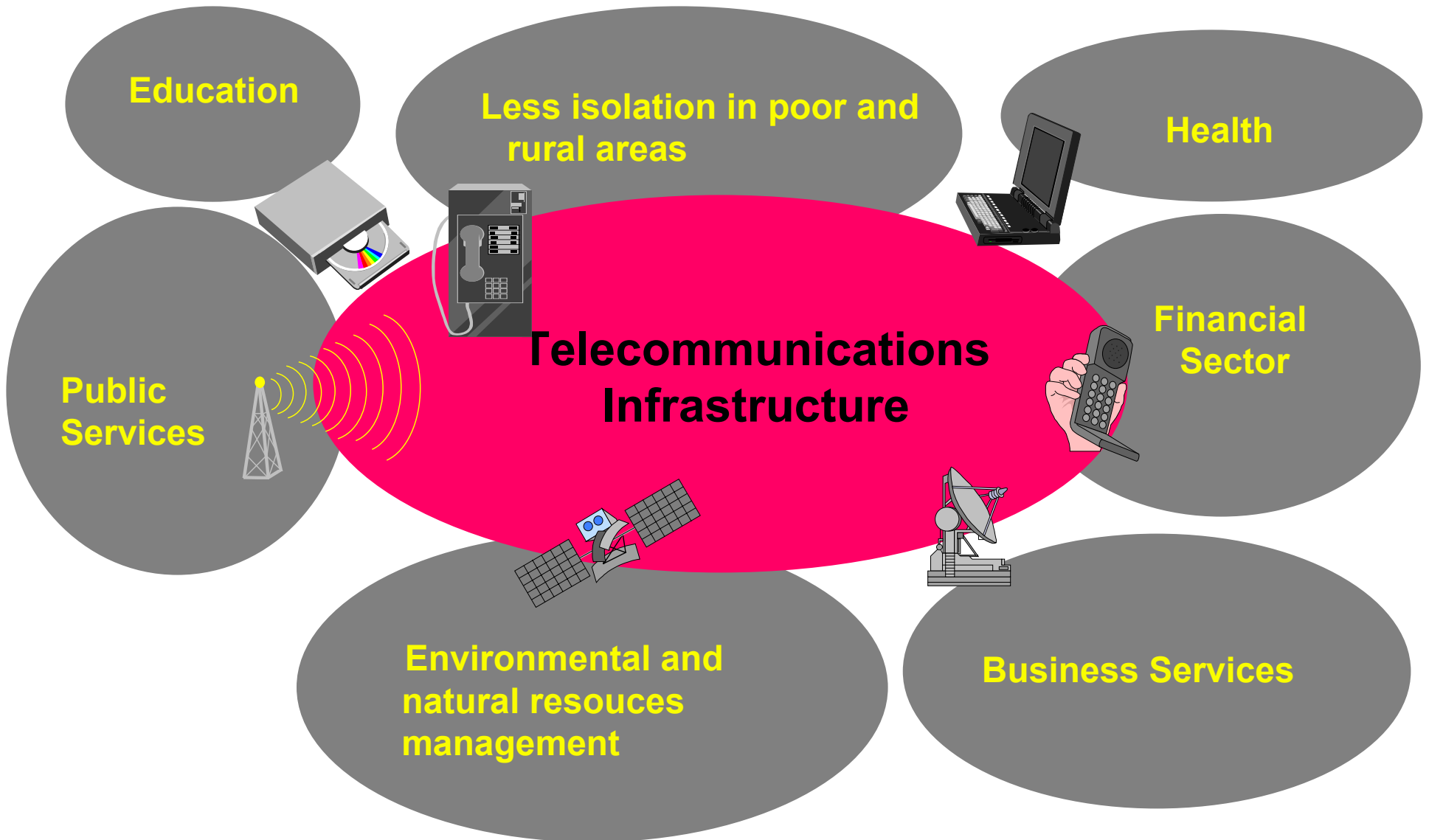
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An overview of the access problem

Rural communications are a key element of economic and social development ...



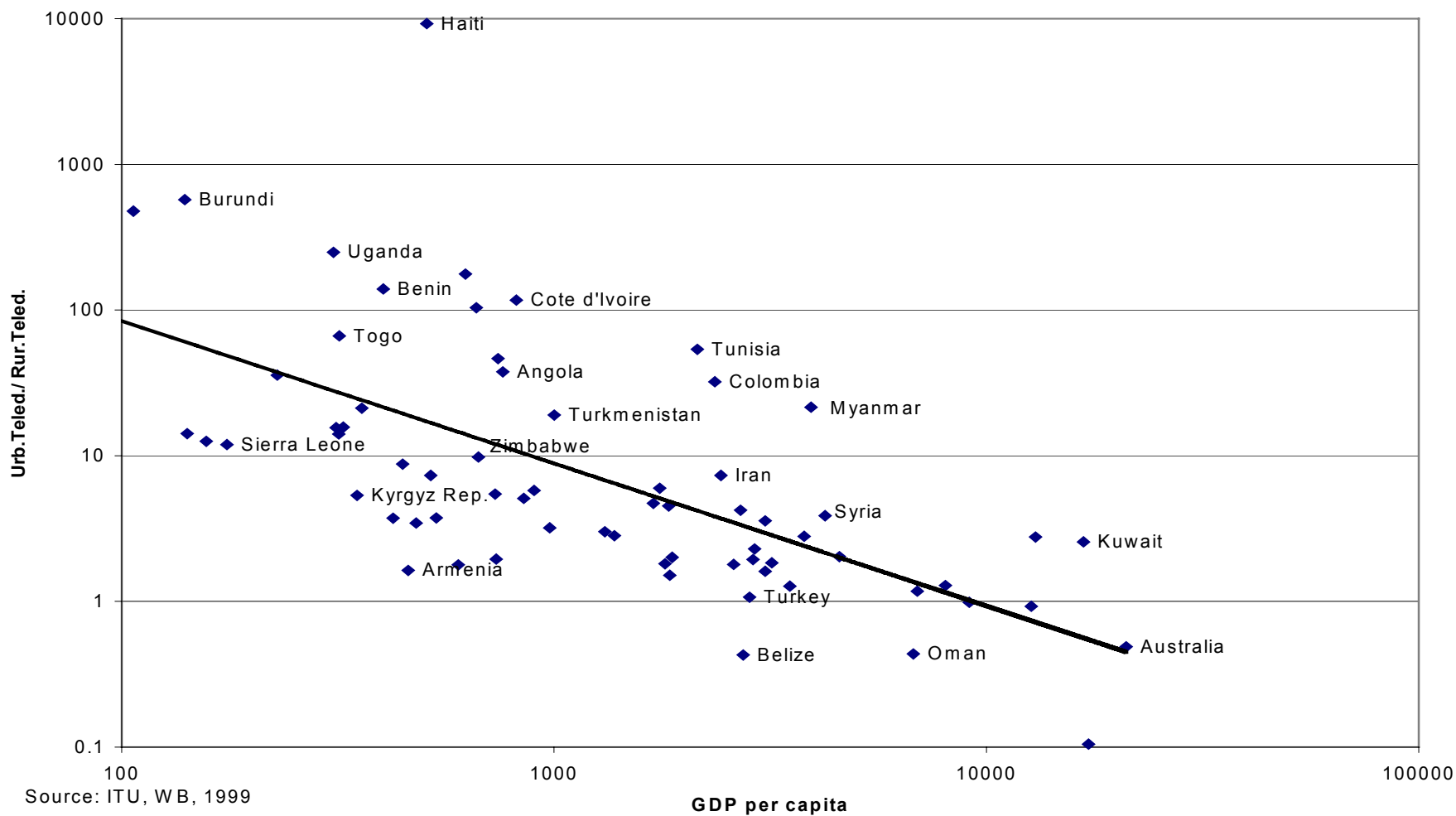
... and they are becoming increasingly more affordable

- Wireless/cellular explosion
 - subscribers growing globally at 30-50% per year, in Africa this rate is of 150%
 - substantial penetrations are being achieved, soon to overcome that of fixed lines worldwide
 - mobile phones are becoming a means of access for many:
 - pre-pay mass market
 - wireless payphones
- Satellites fill in the gaps:
 - offer cost-effective solution for remote locations, particularly if power systems are already available
 - deployed in rural areas of Chile, Guatemala, South Africa

Internet services are also slowly becoming essential

- Very rapid growth of ISPs, Internet hosts & users
- Phoneshops:
 - basic public telephone
 - some are adding fax and PCs/e-mail
- Telecenters:
 - basic public telephone & fax
 - e-mail, Internet, computers
 - training resources, skills transfer, community role
 - access to gov't & commercial data, distance education, health & other info services

However, there is a wide urban-rural access gap



Source: ITU, WB, 1999

Affordability and closing the access gap

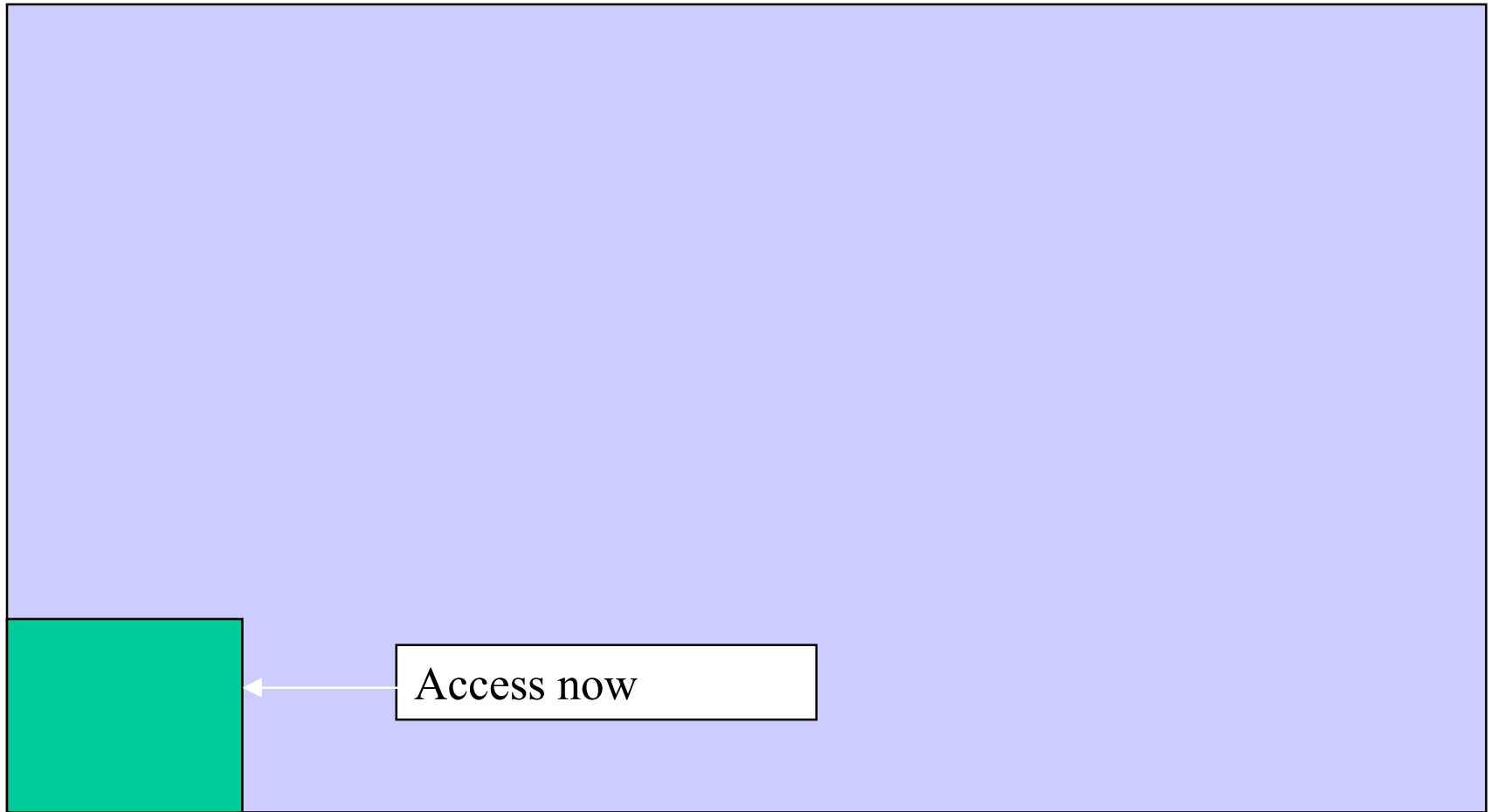
...including rural areas.

% GDP

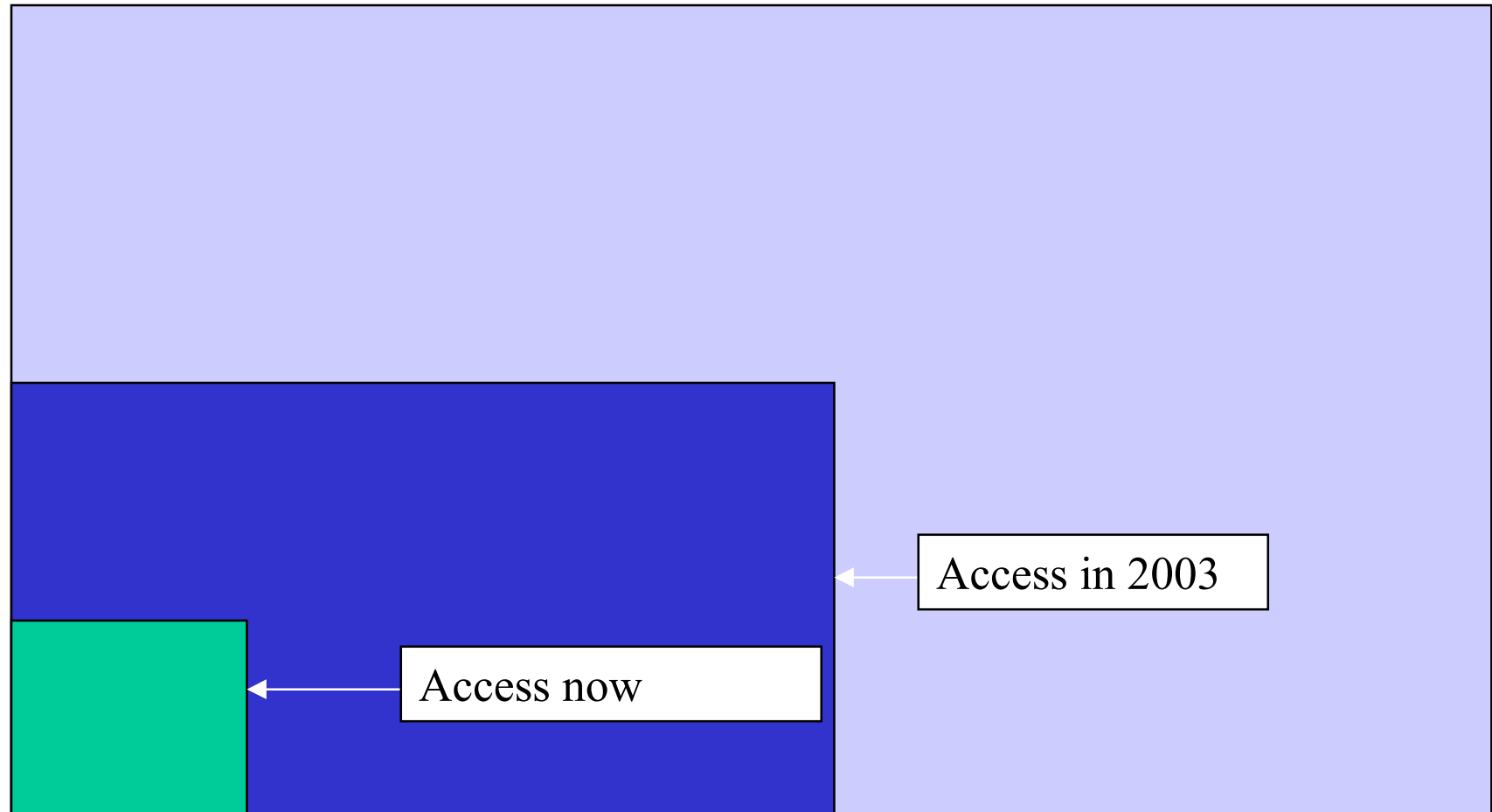
	Country	Rural Areas
Malaysia	2.3	1.3
Tanzania	2.1	1.9
Botswana	1.6	1.3
Perú	1.2	1.5

Source: A. Dymond, Intelecon

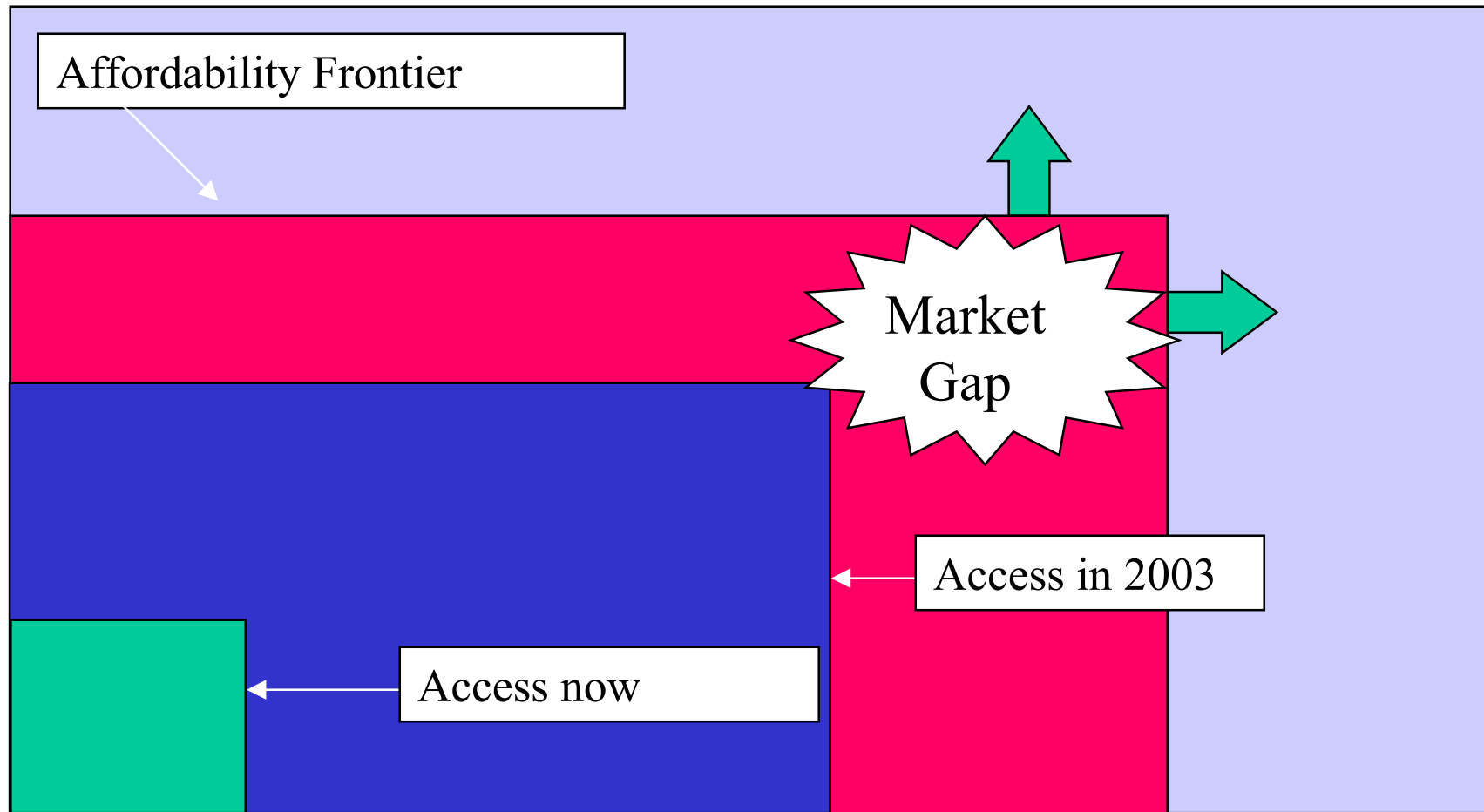
Closing the Access Gap



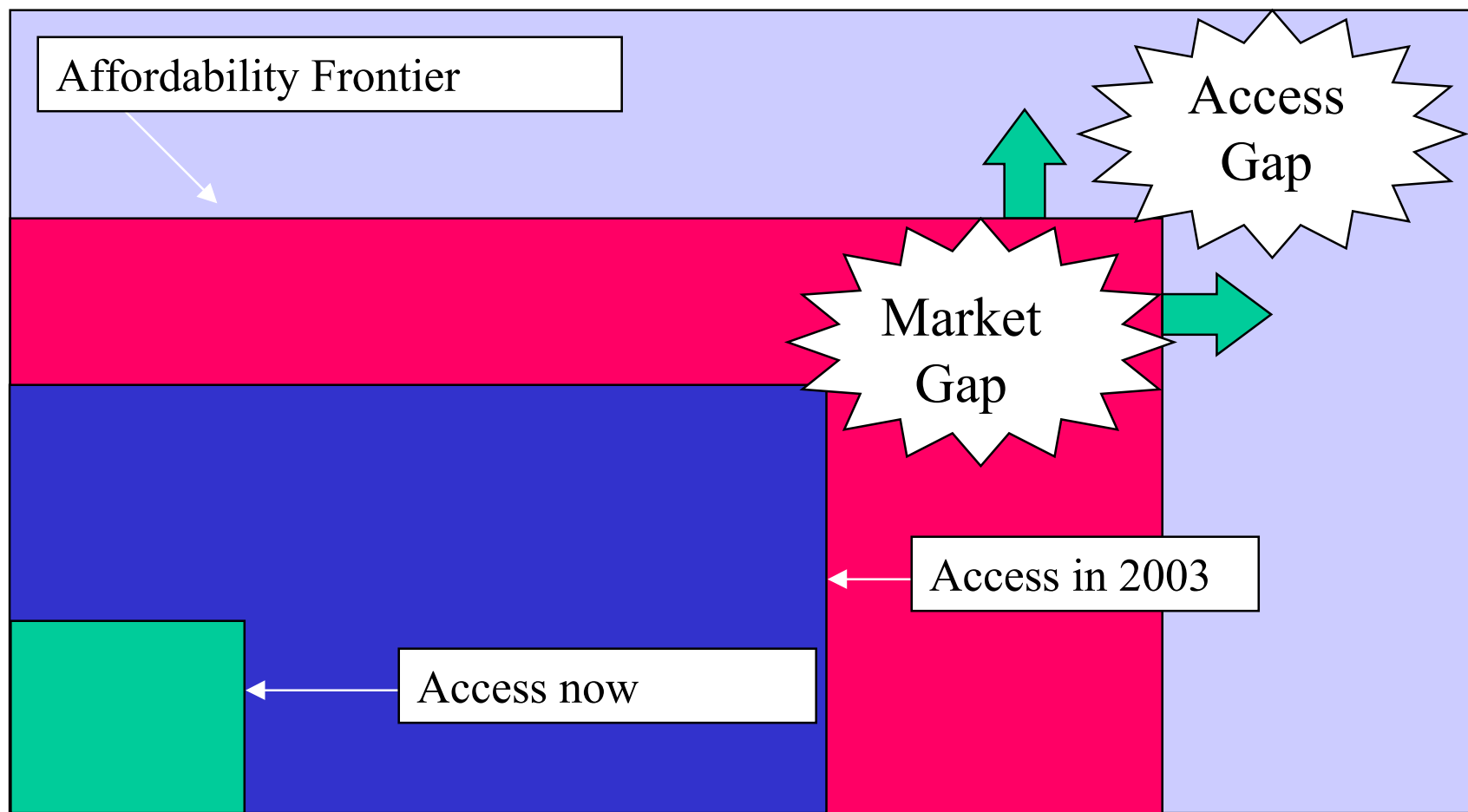
Closing the Access Gap



Closing the Access Gap



Closing the Access Gap



How the gaps can be bridged

- Market efficiency gap
 - privatization & liberalization
 - stable & transparent regulatory framework
- Access gap
 - specific universal access targets & policies
 - special targeted finance

Alternative Models to Bridge the Access Gap

Universal Access Models

- Monopoly or dominant operator with rural service obligations (Mexico, S.Africa)
- Rural operators (Bangladesh, Chile, Peru)
- Regional concessions for rural and urban service (Venezuela, Kenya)
- Mobile operators with rural mandate (Venezuela, Bangladesh)
- Cooperatives owned by subscribers (Bolivia, Poland)
- Universal Access Funds (Chile, Peru, Dom. Rep., Guatemala, Ghana, Uganda, South Africa)

South Africa: monopoly with obligations and Universal Service Fund

- Incumbent must install 1,7 million mainlines in disadvantaged areas and 120,000 rural lines (payphones in 3,204 villages and lines to 20,000 priority customers)
- If 90% of roll-out is met, an extra year of exclusivity may be awarded; financial penalties if not met
- Two cellular operators must install 29,500 community public telephones by 2002 in under-served areas
- Universal Service Agency manages fund levied from licensees as an annual contribution of 0.16% of their annual turnover: subsidies allocated to large telecenters, which have not reached sustainability

Bangladesh: Grameen Phone's experience

- Grameen Phone is a mobile telephony operator with national coverage
- Part of its subscribers are franchises for mobile public telephony service, “mobile payphones”, which are granted a discount by Grameen Phone
- Franchisees: women entrepreneurs in rural areas
- They buy the terminal on credit, which is repaid after 2 years with the profits of the service provided to the rural community
- 68,000 villages will have access to this service

Chile and Peru: best practice cases

- Universal access fund financed through gov't budget (Chile), or 1% levy on operator revenues (Peru)
- Funds awarded to operator requiring minimum subsidy in provision of public phones and/or telecenters
- Competition in both provision of services and access to subsidies reduces need for state financing
- Small subsidies mobilize substantial private investment and are enough to reduce the rural-urban access gap
- Market forces rather than the government determine adequate level of subsidy

Financing options for universal access

- Universal access funds, financed by:
 - government budget
 - cellular, basic service or radio frequency license fees
 - operator revenue contributions (typically 1-2%)
 - interconnect levies and ‘virtual fund’ transfers
- Low interest operator loans
 - national sources can be successful (e.g. USA’s REA loans)
 - aid agency sources (not a good record)
- Micro loans for phonestops or other retailers
 - e.g. Grameen Bank ‘phone ladies’
 - part financing by telecom operators

The World Bank Group experience

The World Bank's portfolio in this field is growing

- We are active in rural telecommunications in 20 countries (out of about 60 telecom operations):
 - ✓ *Studies*: Chad, Ghana, India, Indonesia, Malawi, Mali, Mauritania, Morocco, South Africa, Tanzania, Togo, Uganda
 - ✓ *Pilot Projects*: Ghana, Indonesia, Kenya, Mali, Togo
 - ✓ *Creation of Rural Fund* : Bolivia, Dom. Rep., Ecuador, Nepal, Nicaragua, Uganda, Nigeria
 - ✓ *Seed investment into rural fund*: Nepal, Nicaragua, Uganda, Bolivia, Nigeria
 - ✓ *Integrated rural telecoms and energy projects*: Bolivia, Uganda

The World Bank's portfolio in this field is growing

- Numerous *infoDev* projects:
 - ✓ rural pilot in Kenya
 - ✓ telecenter network in Ghana
 - ✓ Internet access for schools in Colombia and Jamaica
 - ✓ GMPCS mobile satellite services regulatory toolkit for Africa
 - ✓ information system for rural development in Perú
 - ✓ IT for health services in India

The World Bank's portfolio in this field is growing

- Growing area for IFC investments:
 - ✓ Grameen Phone, Bangladesh: cellular operator and franchise network of “village telephones”
 - ✓ Datel, Tanzania: Internet access to remote businesses and schools
 - ✓ MSI, Africa: multiple investments in cellular operations around Africa, with rural roll-out
 - ✓ Lattelekom, Latvia: expansion of fixed-line and payphone services into rural areas

Conclusions

- Access to communications of all kinds is essential for the development of rural areas
- Affordability is not such a large barrier: if service is available it is used
- Privatization, liberalization and efficient regulation can go a long way in providing universal access
- Private operators can find it profitable to provide service in rural areas under certain circumstances
- Smart subsidies, however, can be used to complement the market at the margin

More information...

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