

What can be learned from the experience of others?

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Universal access & universal service

- Universal access is when everyone can access the service somewhere, at a public place, thus also called public, community or shared access. In general there would be at least one point of access per settlement over a certain population size.
- Universal service describes when every individual or household can have service, using it privately, either at home or increasingly carried with the individual through wireless devices.

InfoDev, ICT Regulation Toolkit

Universal access in flux



- Because of mobile phones, universal service is feasible for voice. Payphones becoming obsolete
- For Internet use universal access is still relevant: WiFi hotspots and telecenters

Approaches to universal service, not necessarily mutually exclusive

- Cross subsidies
 - United States and Canada, actual
 - Most other countries, claimed
 - Mandatory service obligations
 - Malaysia in late 1980s
 - South Africa in 1990s
 - Requirements re telecenters in Myanmar mobile licenses issued in 2013-14
- First generation; tried and found wanting → 2G
-
- Market reforms
 - Started in UK/US in 1984; Most countries since 1990s
 - Universal service funds
 - Started in Colombia & Peru (1994 with levies on telecom operators/users)
 - Also Chile (1995), with funds coming from general taxation

Assessment of World Bank's efforts on equity in 2000-2010

- 4.28 Equity and integration of marginalized groups have been more effectively supported by Bank support for ICT policy and sector reform than by operations specifically designed to achieve these goals. ICT operations that supported reforms to introduce competition into the sector, when successful in supporting those reforms, have had significant impact, especially in access to cellular telephony services. This increase in overall access has had a spill-over effect of providing access to the underserved. Lower tariffs (especially in cellular telephony), falling handset prices, and the expansion of prepaid cellular services are all channels that facilitate access by the poor.

Is a third generation of universal service instruments emerging?

- LIRNEasia's research on broadband initiatives indicates it is, but 3G efforts are already showing cracks
 - Gunaratne, R.L. et al. (2015). National broadband networks of Malaysia, India, Indonesia and Australia: A comparative study. *Competition and regulation in network industries*. Vol 16(1): 23-46.



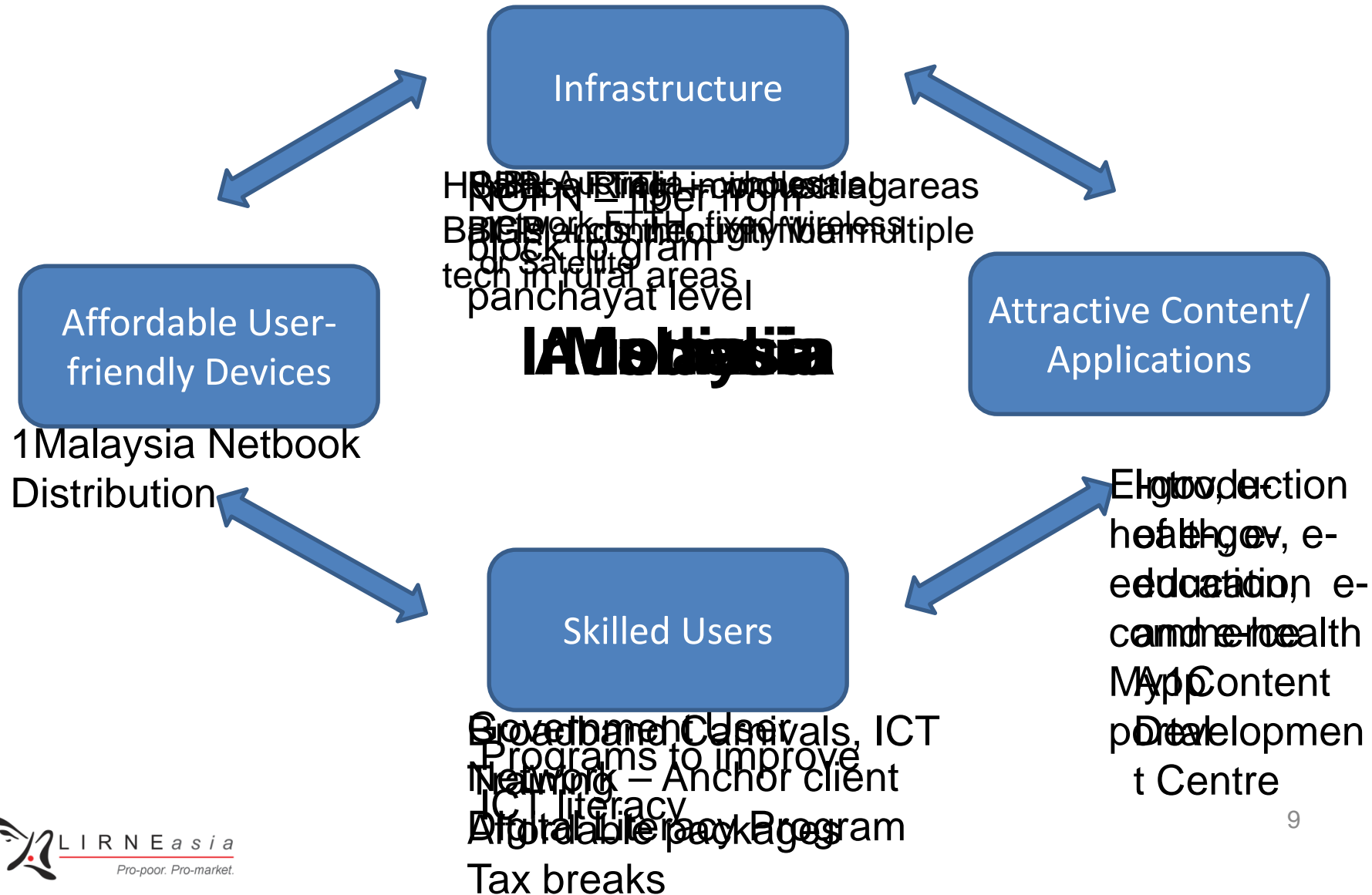
The screenshot shows a web browser displaying the homepage of The Economic Times. The main headline is "Rollout of national optical fibre network delayed yet again". The article text states: "KOLKATA: India's ambitious Rs 21,000-crore national broadband venture is set for another delay. The communications ministry is likely to miss the revised rollout targets of the venture with Bharat Sanchar Nigam, Power Grid Corporation of India and RailTel failing to award nearly Rs 6,000 crore of cable laying & trenching (C&T) contracts for the first phase." The browser's address bar shows the URL: articles.economictimes.indiatimes.com/2014-01-22/news/46463062_1_nofn-bbri-bharat-broadband-network-ltd. The Windows taskbar at the bottom shows the date as 7/29/2015 and the time as 6:43 AM.

Execution is the problem . . .

“We’ve informed telecom minister Kapil Sibal at a recent NOFN review meeting that it will be impossible to extend broadband connectivity to 1 lakh GPs by March 31, 2014, since BSNL, RailTel and PowerGrid have not finalised the C&T tenders,” a top telecom department official told ET. “Even if they manage to award the contracts by the month as promised, we will only be able to meet a tenth of the broadband coverage target in the first phase,” he added. A senior executive of Bharat Broadband Network Ltd (BBNL), which is the executing agency of the NOFN venture, complained that “umpteenth reminders had been sent to BSNL, which will award 70% of the C&T contracts to multiple vendors, but to no avail”.

THIRD GENERATION: REGIONAL EXPERIENCE

Internet Ecosystem



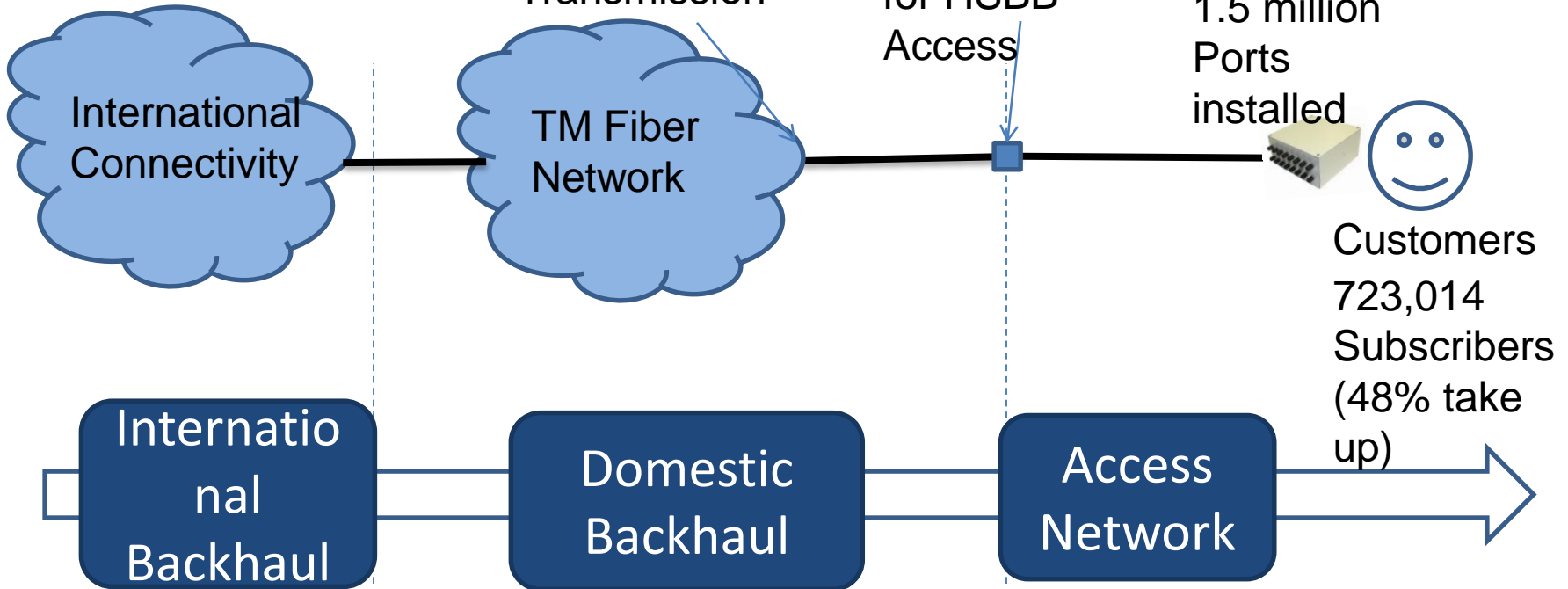
Malaysia – High Speed Broadband Network (HSBB) as at April 2014

1.74Tbps total International BW Capacity (from 682Gbps)

25 Operators for HSBB Transmission

5 Operators for HSBB Access

1.5 million Ports installed



Implemented by Telekom Malaysia, as a PPP with Gov. Total cost 3.5B USD, out of which Gov spent 0.75B. Conditions to access network commercially negotiated
Broadband for General Population – subsidizes BB in rural areas using USP

FUND DESIGN: REGIONAL EXPERIENCE

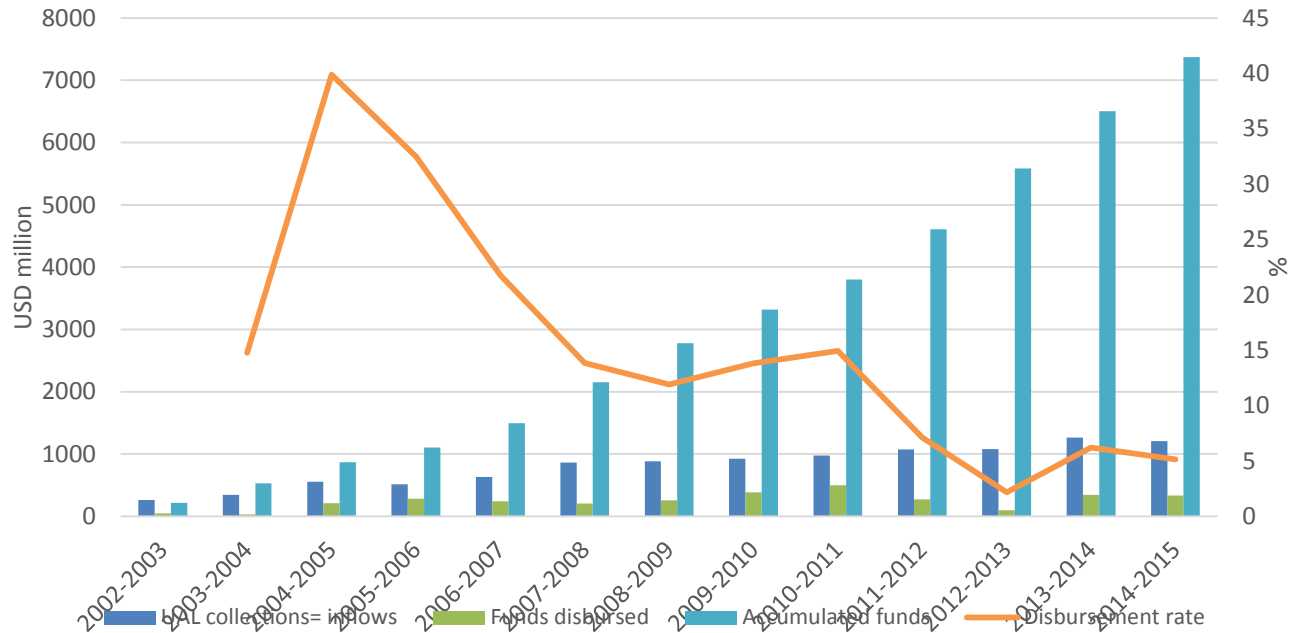
Where does the money come from?

Country	Source of funds
India	5% of adjusted gross revenue, recommended to decrease to 3% in 2015 (but will it happen?)
Malaysia	6% of weighted gross revenue, levied on operators with revenues from designated services above RM 2 million
Nepal	2% of annual income
Pakistan	1.5% of adjusted revenue
Sri Lanka	USD 0.03 per minute on international calls terminated in the country

How efficient are the Funds?

India

Universal Service Obligation Fund (USOF)

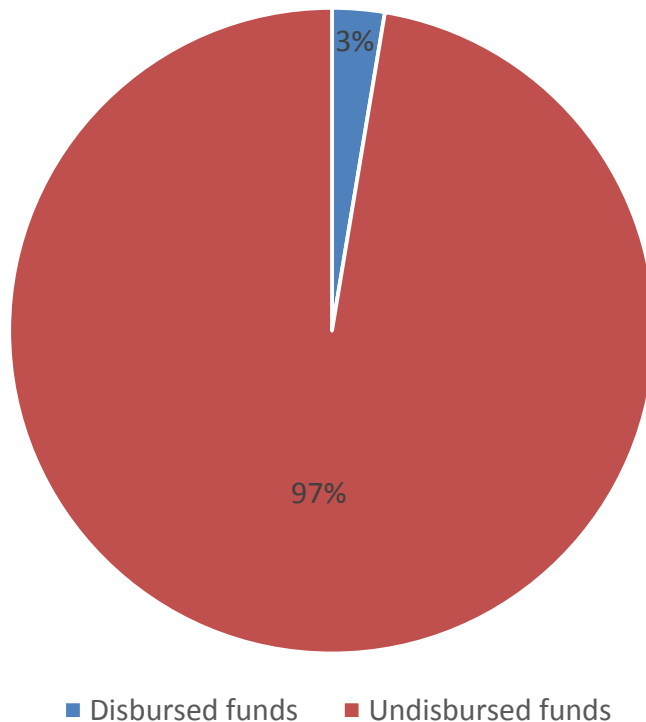


If UAL collections= inflows, funds accumulating, disbursement rate falling.

Nepal

Rural Telecommunication Development Fund (RTDF)

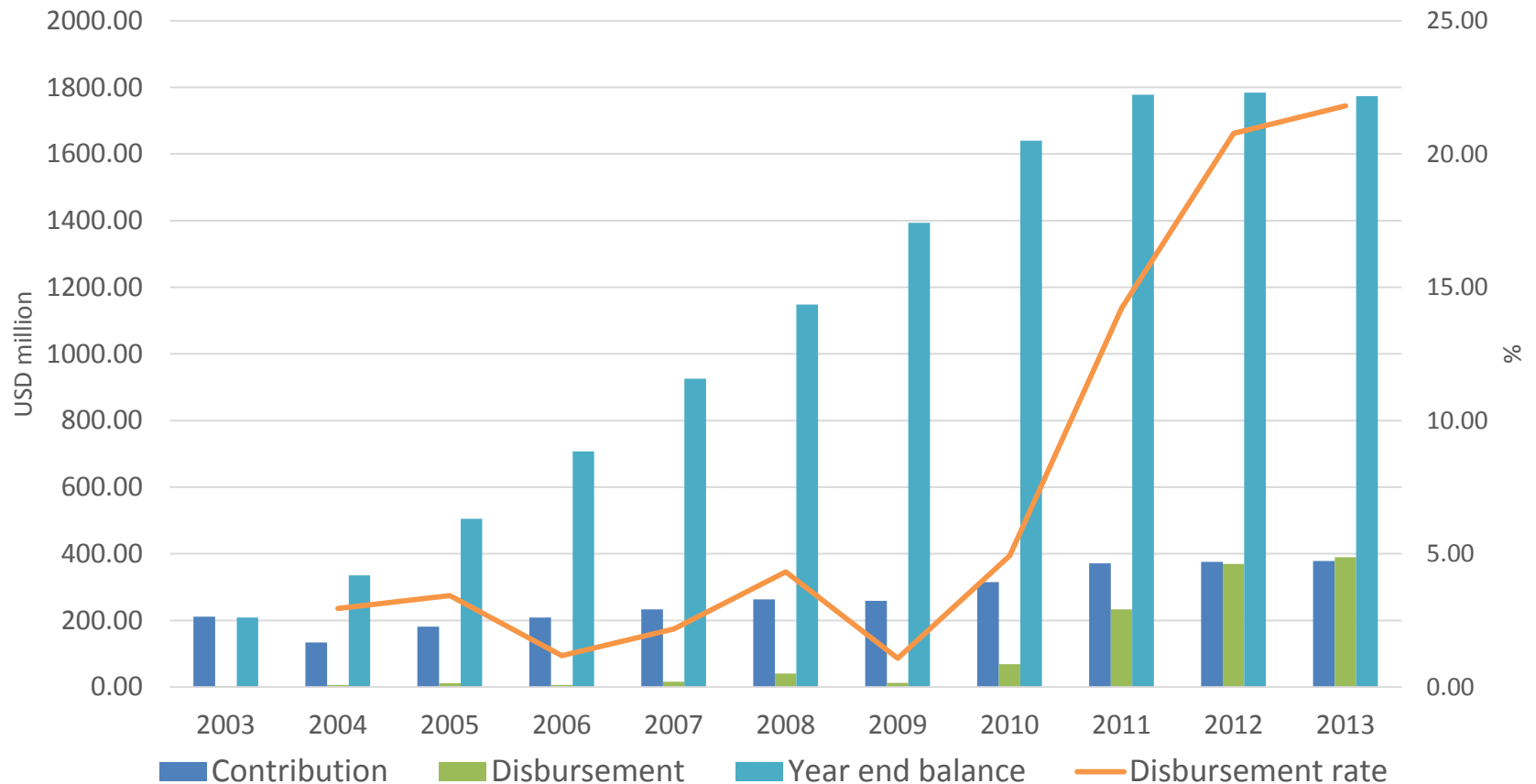
RTDF disbursements %



- Established in 1997, Nepal's RTDF funds were unutilized for 17 years.
- At end 2014, the RTDF committee decided to channel funds towards projects including 'connect a school, connect a community' and the 'district fibre optical project'.
- Telecom operators Ncell and Nepal Telecom are looking to use RTDF funds to rebuild damaged infrastructure following the April 2015 earthquake.

Malaysia

Universal Service Provision Fund (USPF)



Low disbursement in initial stages. Contribution and disbursement roughly equal in 2012 and 2013

Little sunshine in Sri Lanka

- Sri Lanka
 - Funds collected from 2003
 - First disbursements in 2009
 - Opaque
 - Only data available from financial statements of two listed companies

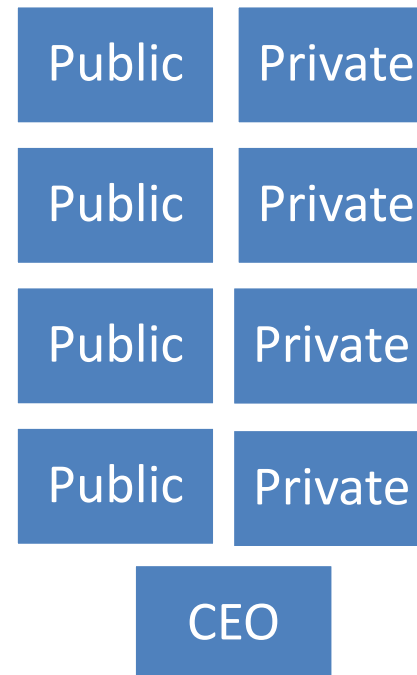
Cause of inefficiency could be management of the funds . . .

Most funds are managed by the public sector

	Public Sector	Quasi independent entity
India	✓	
Malaysia	✓	
Nepal	✓	
Pakistan		✓
Sri Lanka	✓	

Pakistan follows a corporate model with representatives from the public and private sector

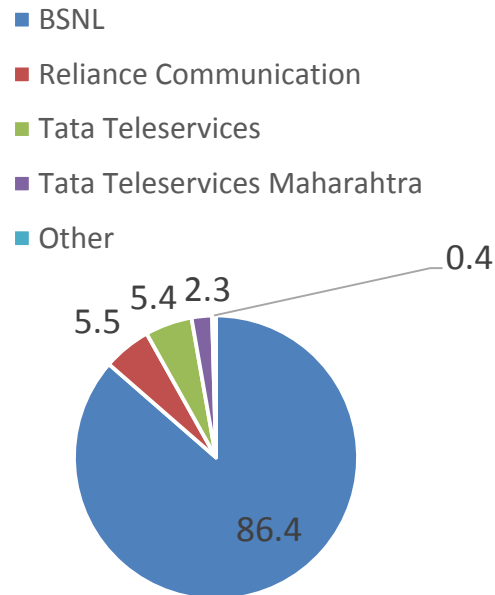
Pakistan USF Company Board



Who utilizes the funds?

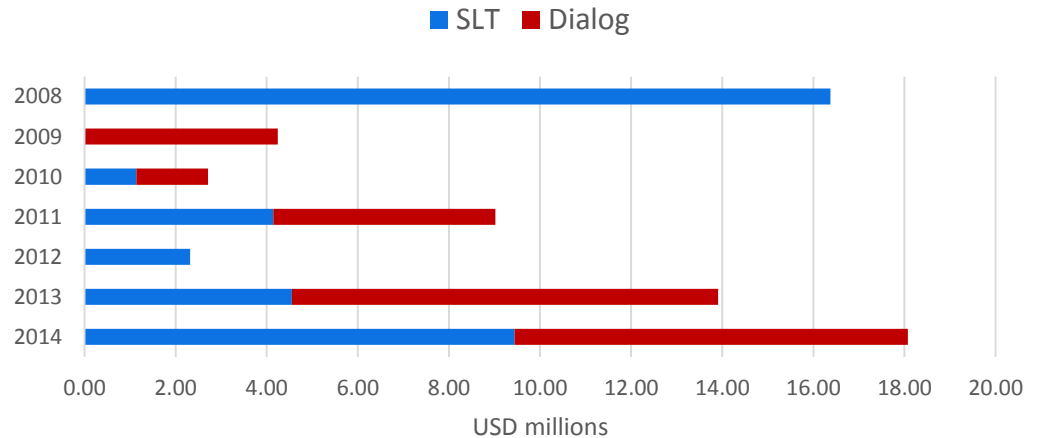
India

Disbursement of USOF funds by service provider 2002 to 2011



Sri Lanka

Telecommunication Development Charge (TDC) refunds by service provider



India: USOF funds have been utilized primarily by state owned BSNL

Sri Lanka: SLT, incumbent with gov't ownership, and Dialog Axiata, largest mobile operator, have received significant refunds

Recommendations

- Reduce /eliminate distortions from mobile-only taxes by **financing subsidies from general taxation funds or out of available concessionary credits** (Chile, not Colombia)
- **Focus one-off subsidies solely on capital expenditures**
 - E.g., a domestic backhaul network that will be made available on cost-oriented and non-discriminatory terms to all access-network operators
 - Towers and renewable energy in defined rural areas
- **Create a special purpose vehicle to disburse the funds**, preferably with significant private-sector participation on the board
 - Create specific mechanisms to ensure rapid disbursement
- **Sunset the fund/levy**, or at least require reauthorization following proper evaluation
 - Stepping down percentages in a levy will still yield adequate revenues in a growing market