Broadband Quality of Service Experience

Chennai, India

November 3 2009

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Agenda

- Broadband: atwhat cost ?
  - Helani Galpaya, LIRNE*asia*
- Innovation in Regulation: BB QoS monitoring
  - Chanuka Wattegama, LIRNE*asia*
- Research Findings
  - Prof. Timothy Gonzalves, TeNeT/IIT-M
- Panel Discussion
  - Chair: Prof Ashok Jhunjhunwala, TeNeT/IIT-M
  - Operators

About LIRNE*asia*

- *"To improve the lives of the people of the emerging Asia-Pacific by facilitating their use of ICTs and related infrastructures; by catalyzing the reform of laws, policies and regulations to enable those uses through the conduct of policy-relevant research, training and advocacy with emphasis on building in-situ expertise"*
- A regional ICT policy and regulation think tank
  - Scope: Asia (Pacific)
- Research focused, not project implementation (except pilots)
- Current cycle research in: Afghanistan, Bangladesh, India, Indonesia, Maldives, Pakistan, Philippines, Sri Lanka, Thailand ('SAPTI')

Broadband : at what cost?

Some evidence from emerging Asia

Helani Galpaya

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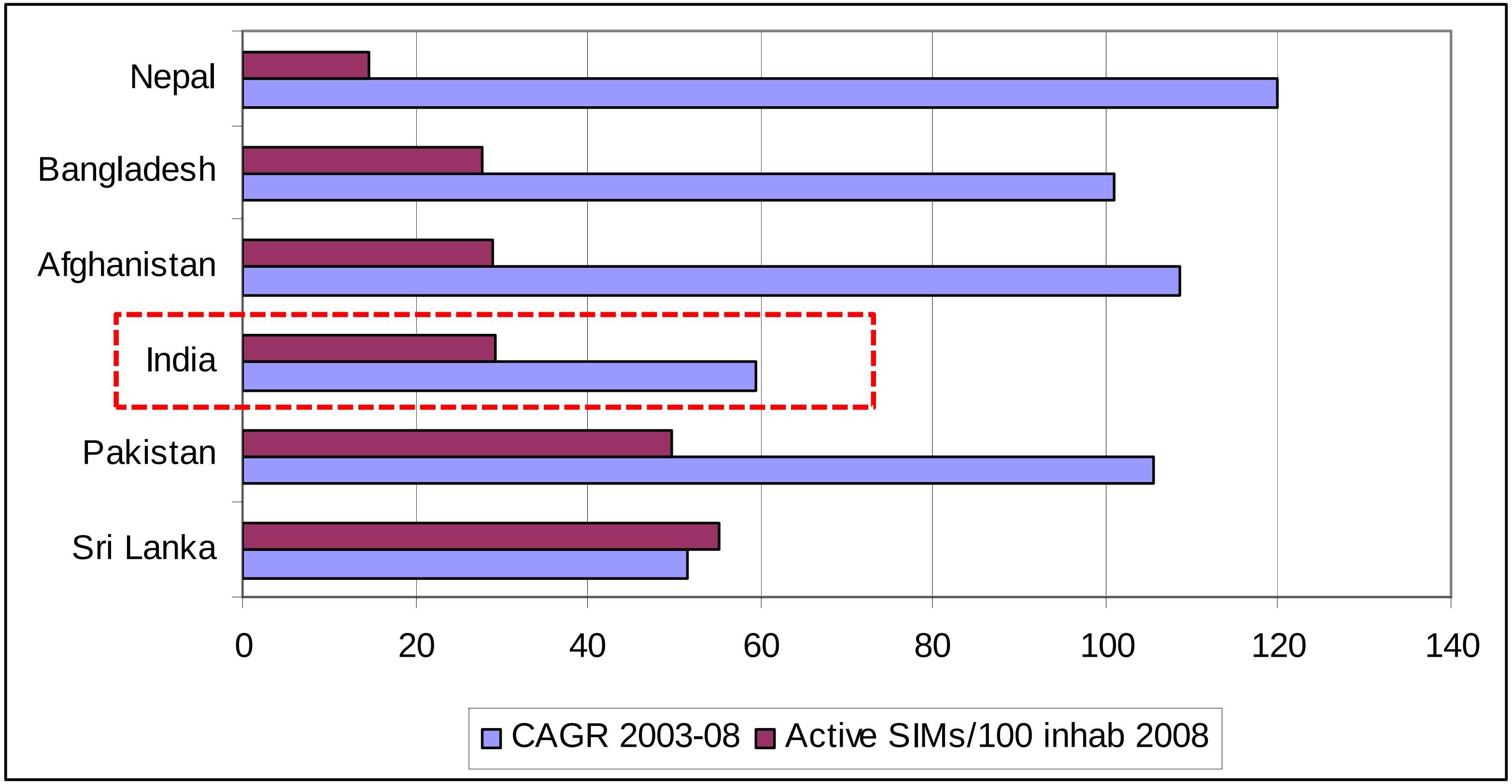
Mobiles: high growth through market mechanisms in Asia



Source: ITU, data as of end 2008

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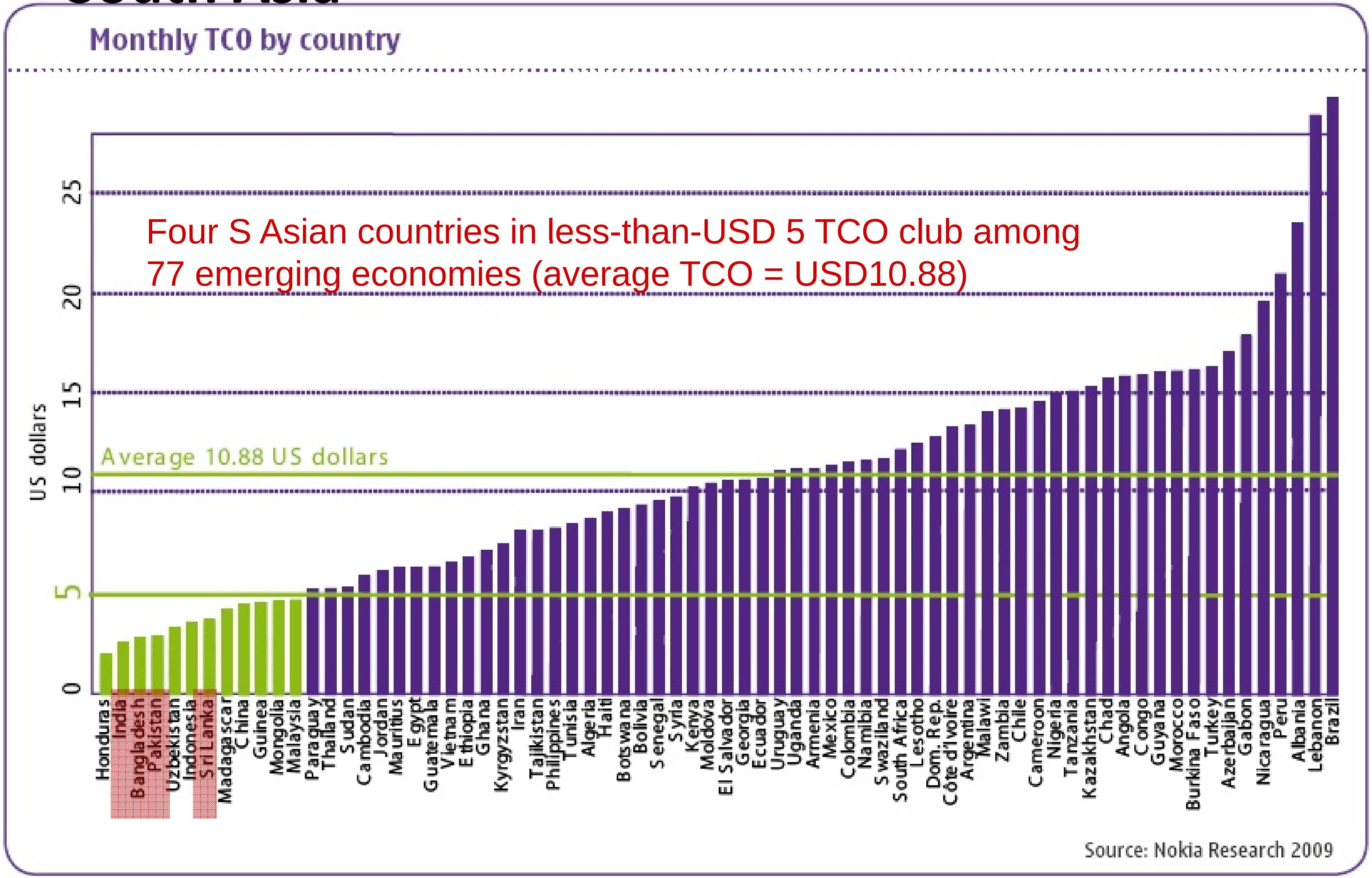
Lowest Total Cost of Ownership in the world in South Asia



Helped by budget telecom model that is characterized by…

- Low ARPU’s
  - Average ~USD 5 (Bangladesh USD 2 for some operators)
- Mostly (over 80%) prepaid
  - low cost of serving (no bills, electronic re-load, minimal 1-800 customer care)
  - low customer acquisition cost (~USD 3.5)
  - low/no credit risk (pre-paid and cash)
  - Regional negotiations for equipment; managed networks;
- Low(er) Quality → necessary feature in early stages
  - “acceptable” call drop rates x2 of US/EU
- High margins for operators (decresing)

Has given access to basic voice services even to those at the Bottom of the Pyramid (BOP) in Asia

Used a phone in the last 3 months

	Bangladesh	Pakistan	India	Sri Lanka	Philippines	Thailand
% of BOP (outer sample)	95%	96%	86%	88%	79%	77 %

	Bangladesh	Pakistan	India	Sri Lanka	Philippines	Thailand
% of BOP (outer sample)	82%	66%	65%	77%	38%	72%

- Sample of over 11,000 BOP (SEC D and E) citizens. Indian sample size over 3,500.

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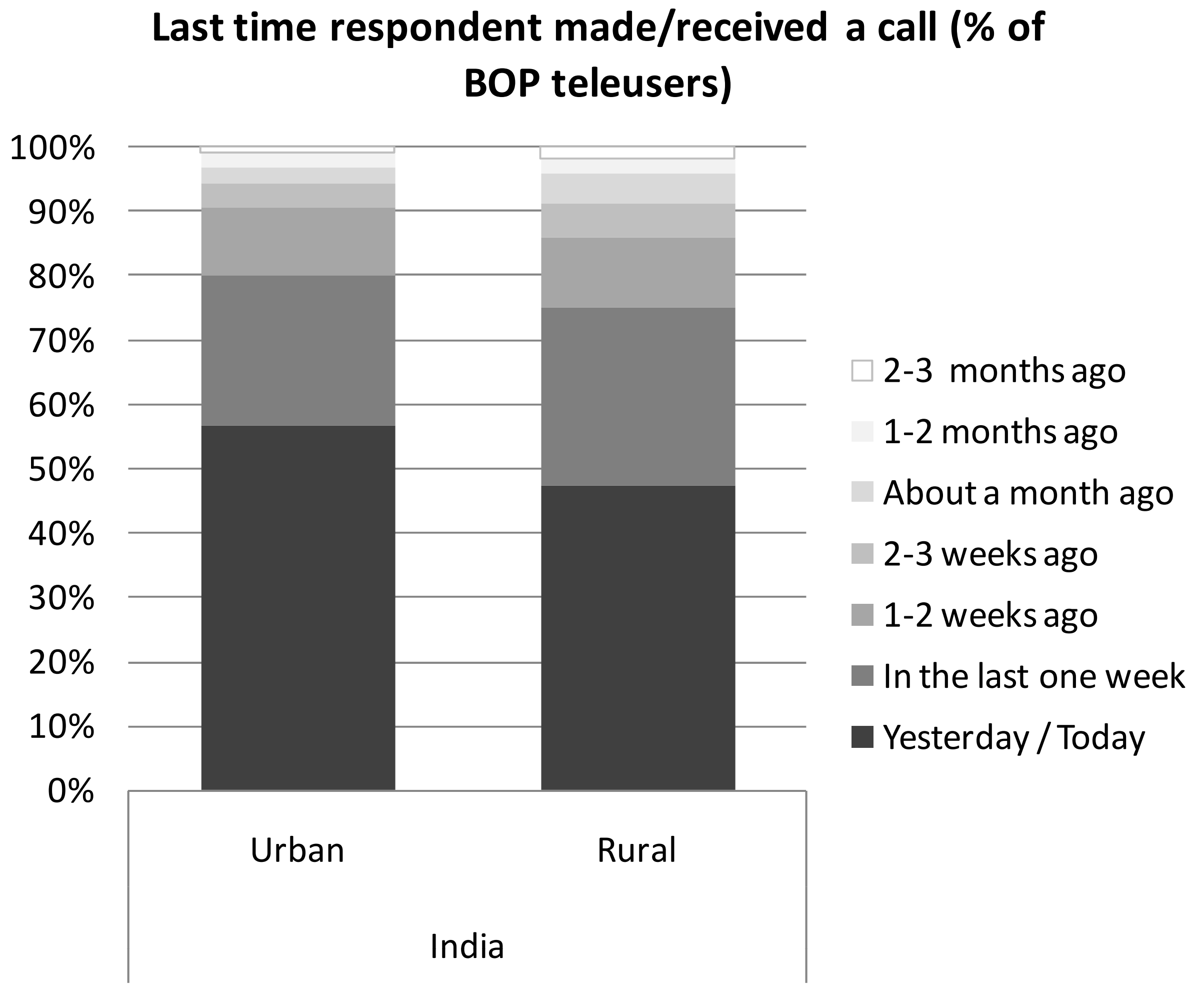
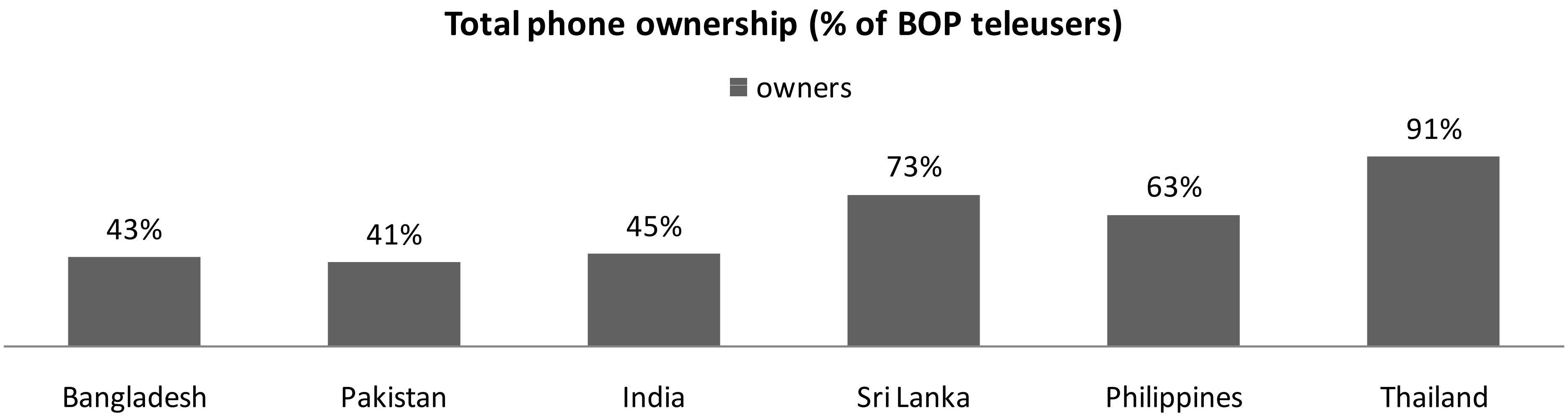
Even to the BOP Rural Areas in India

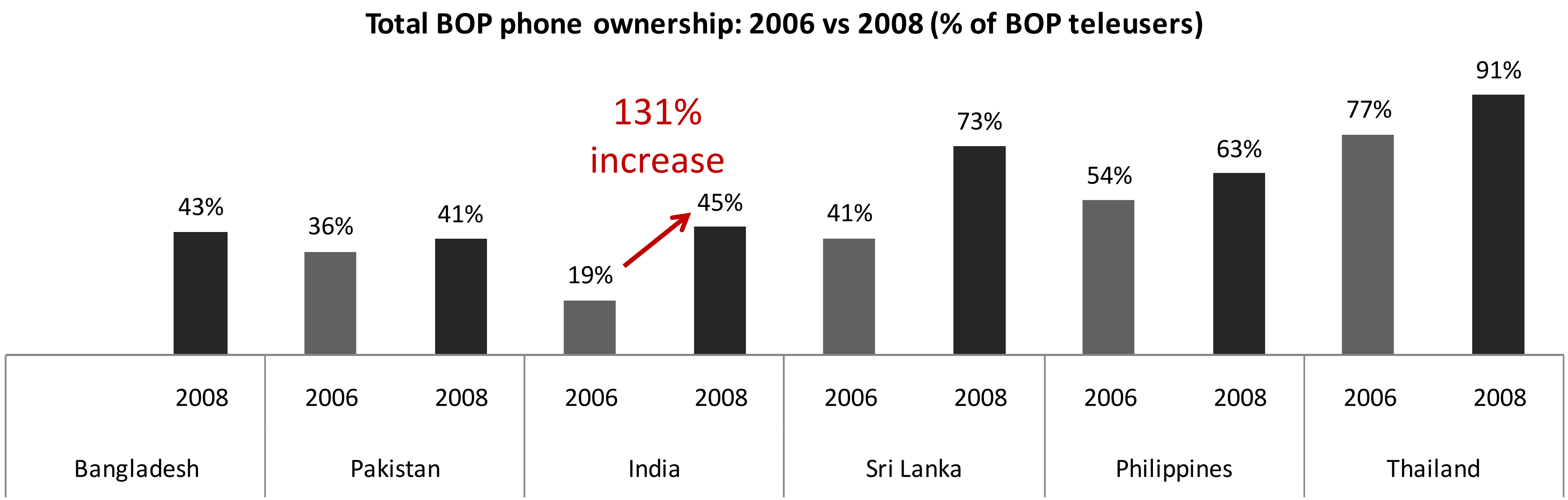


Ownership is less impressive, but high…

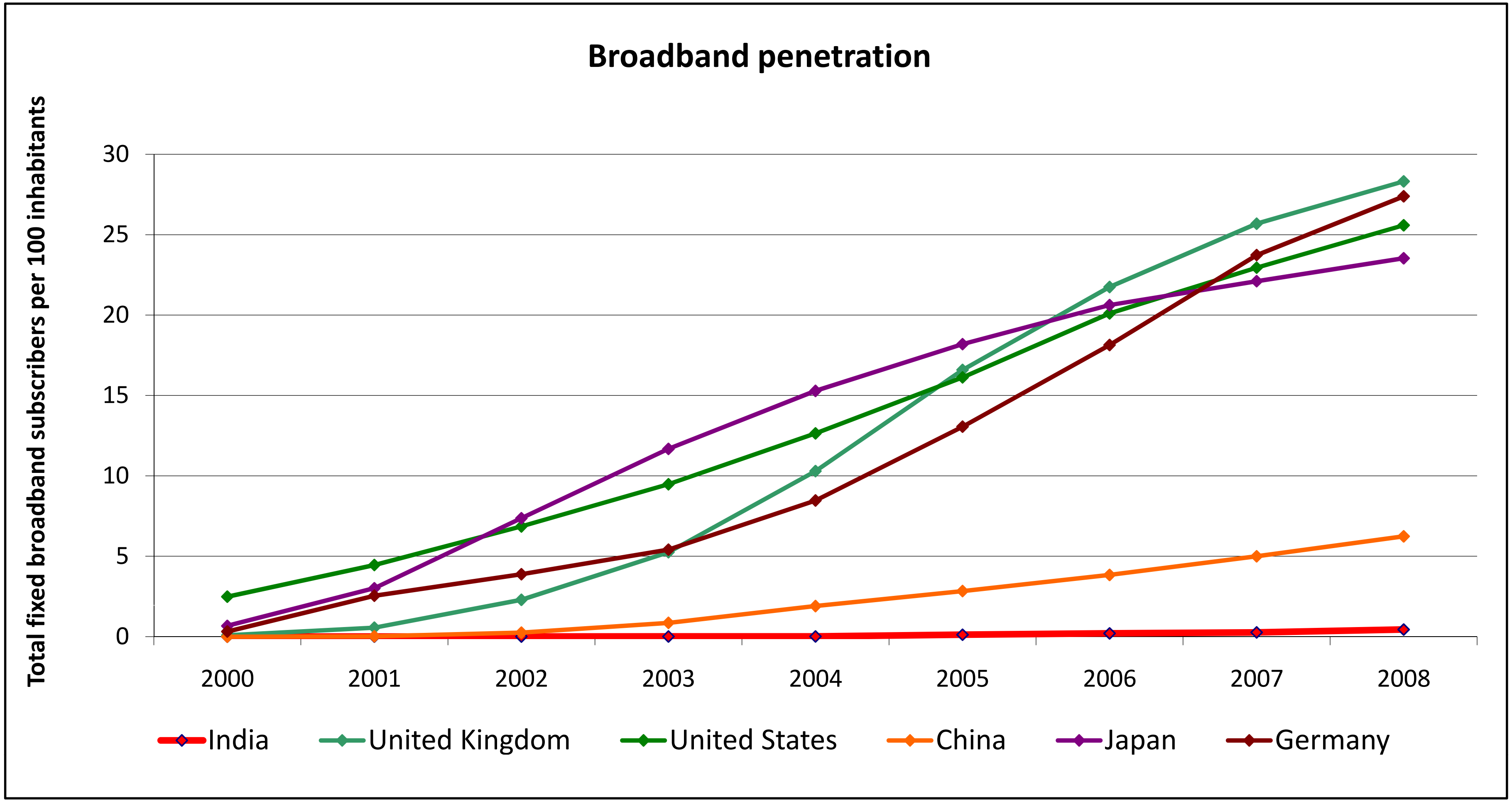


- Most choose to own a phone (rather than use others' phones) for convenience; cost is secondary

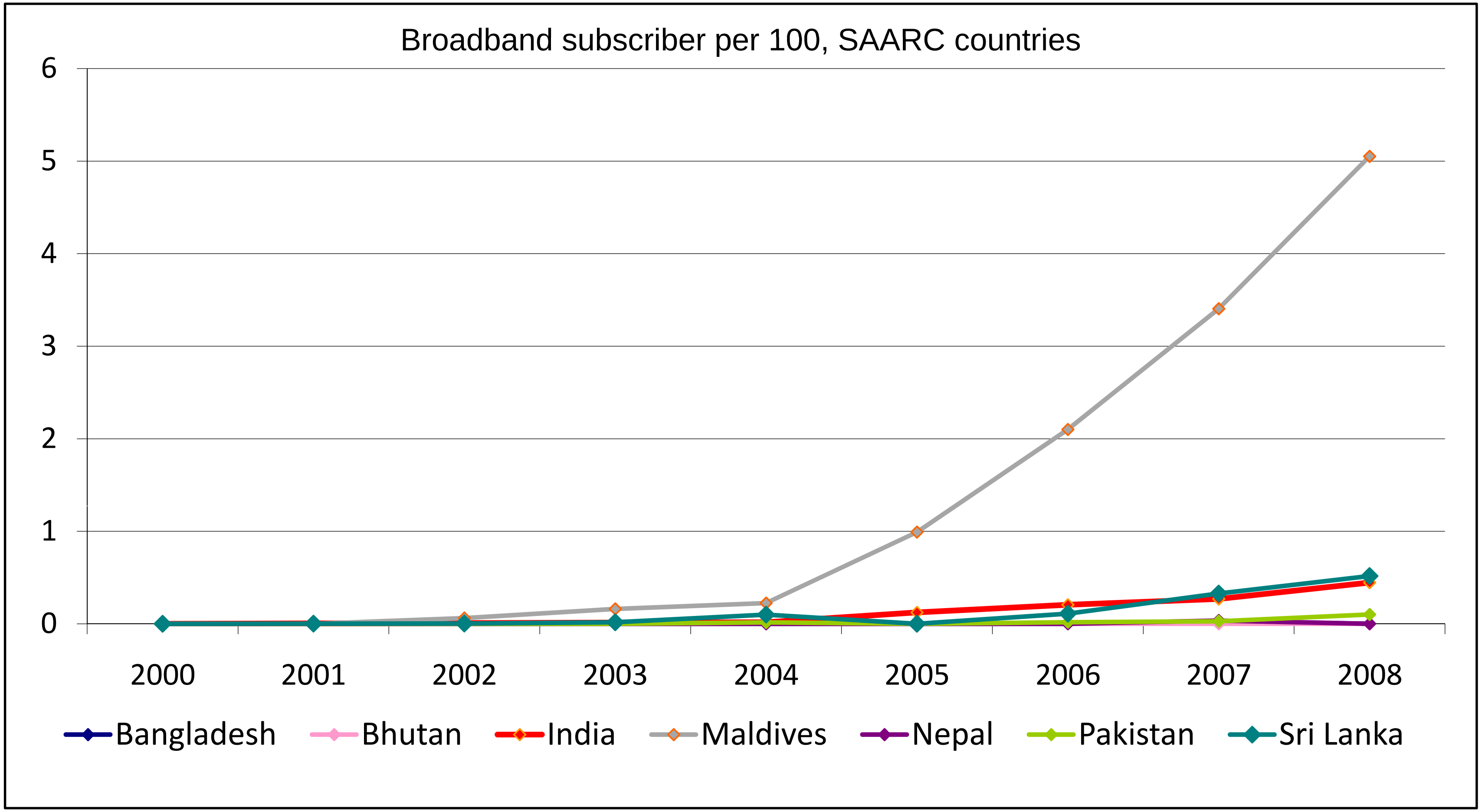
…and growing. Highest growth in India



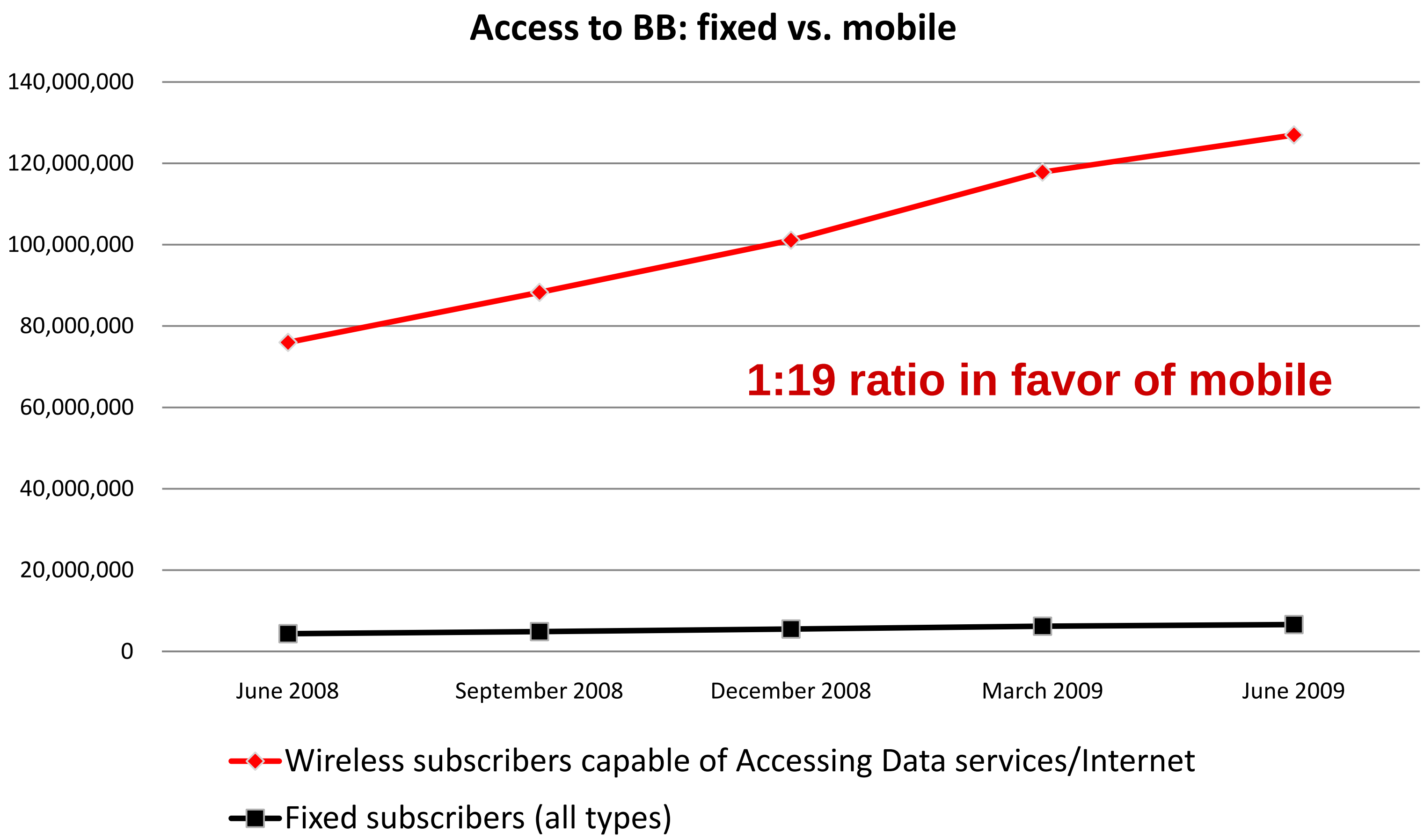
But in Broadband, India falling far behind OECD countries



And compares only moderately against South Asian peers



But <u>even</u> in the absence of 3G/“real-mobile BB” speeds, appetite for Mobile BB is high, and growing



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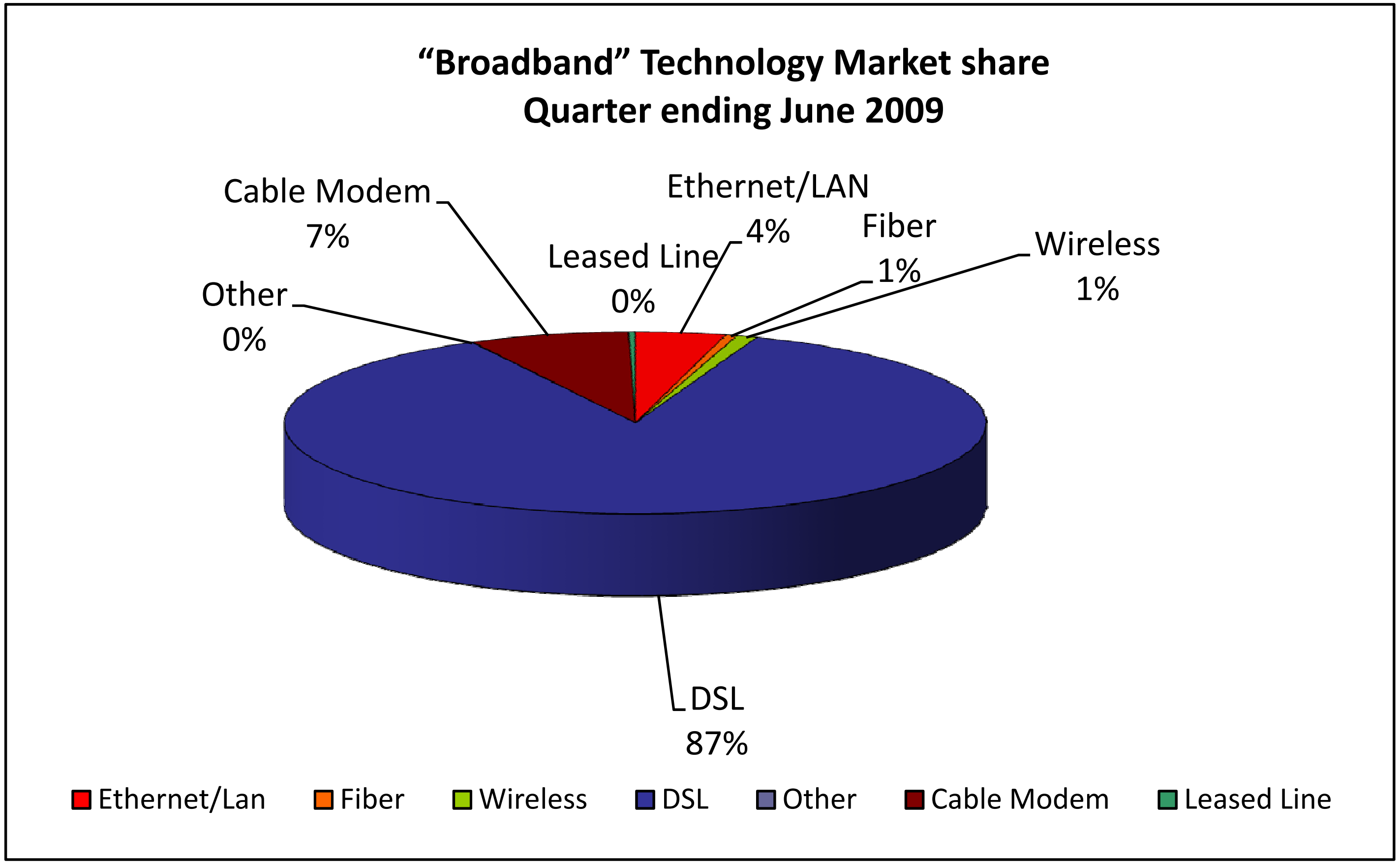
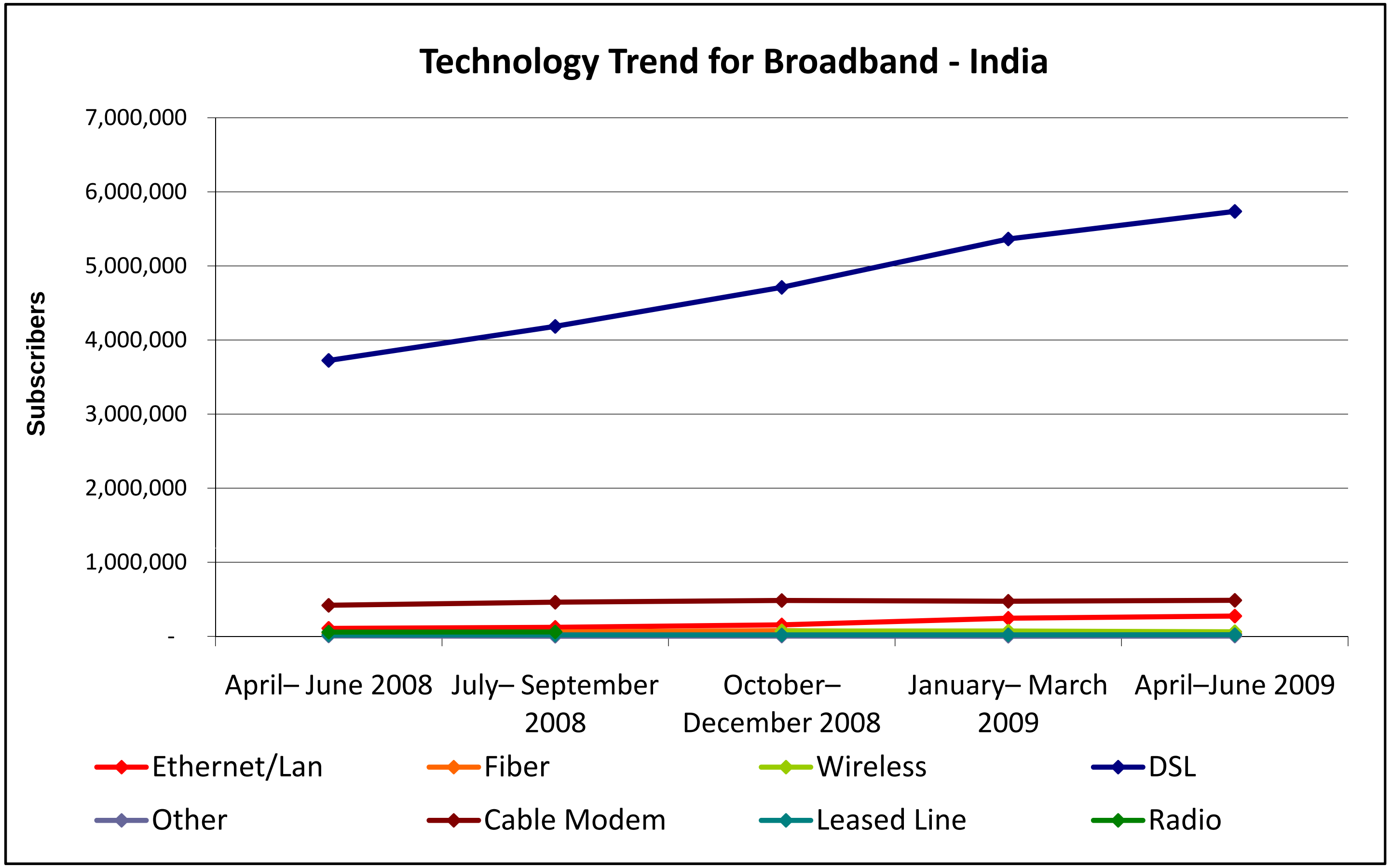
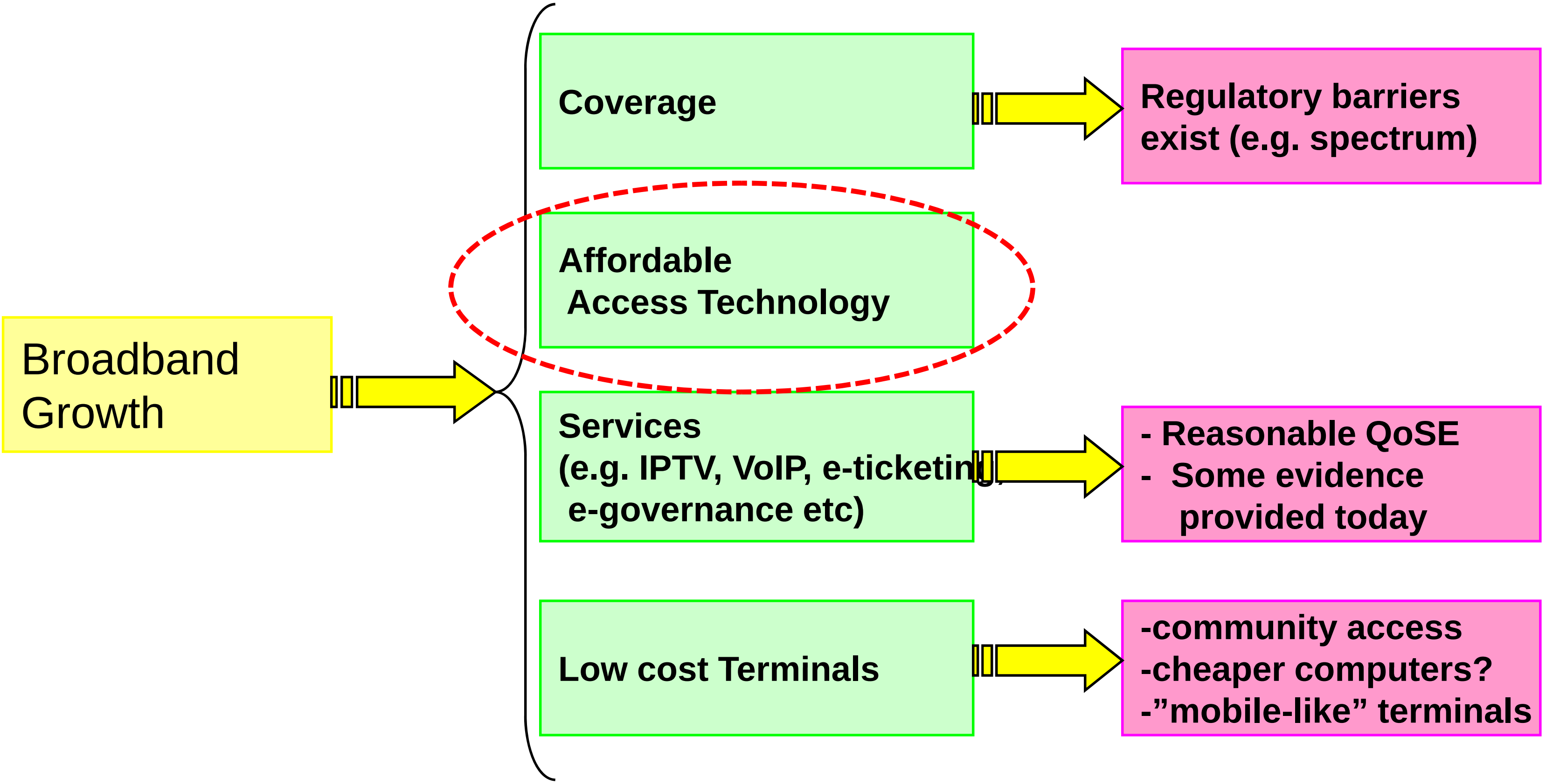
In the fixed BB world, DSL is dominates



….and has been growing, leaving other fixed technologies behind



Pre-conditions for high access and usage of BB



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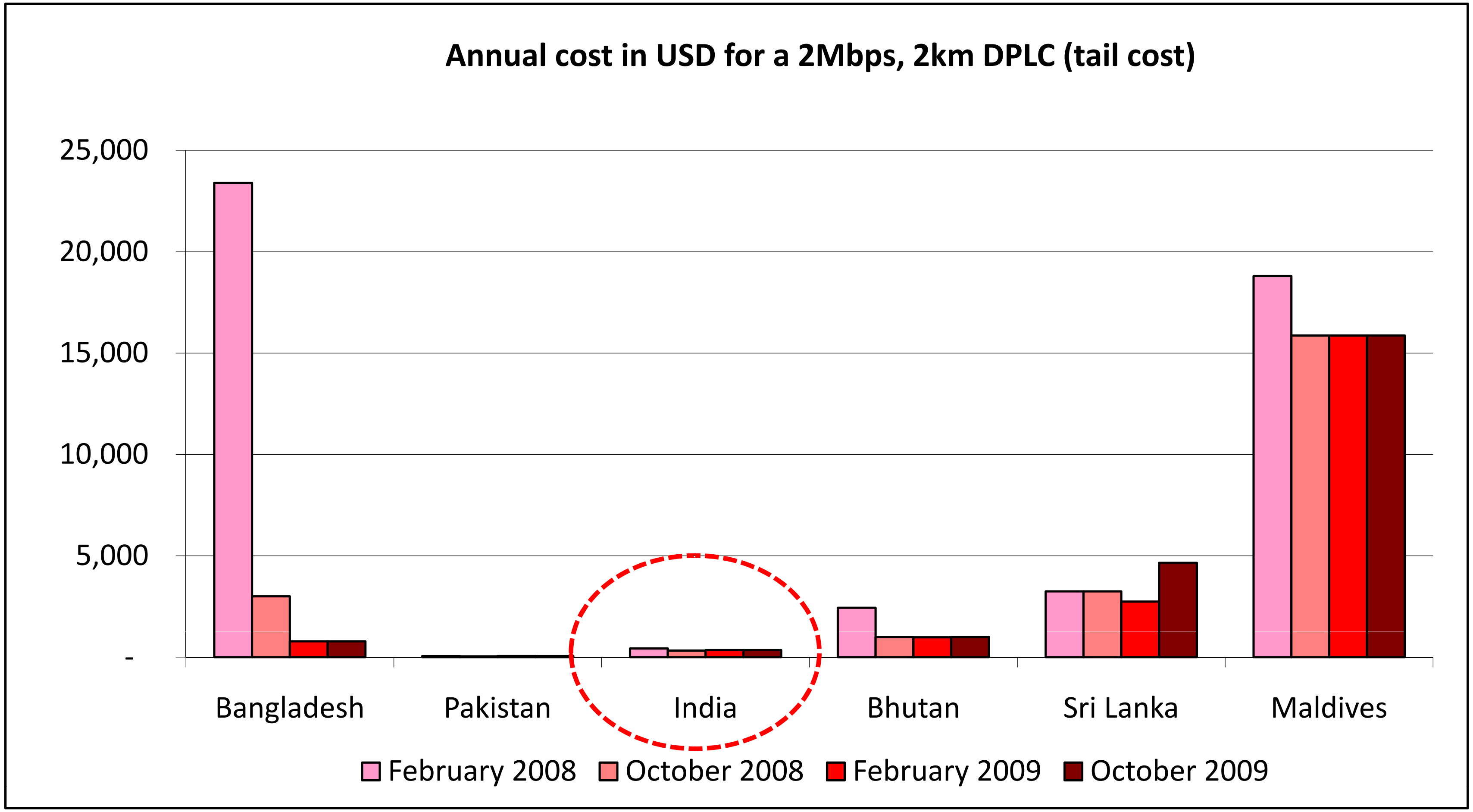
Prices are generally headed in the right direction: down. India has very competitive wholesale pricing



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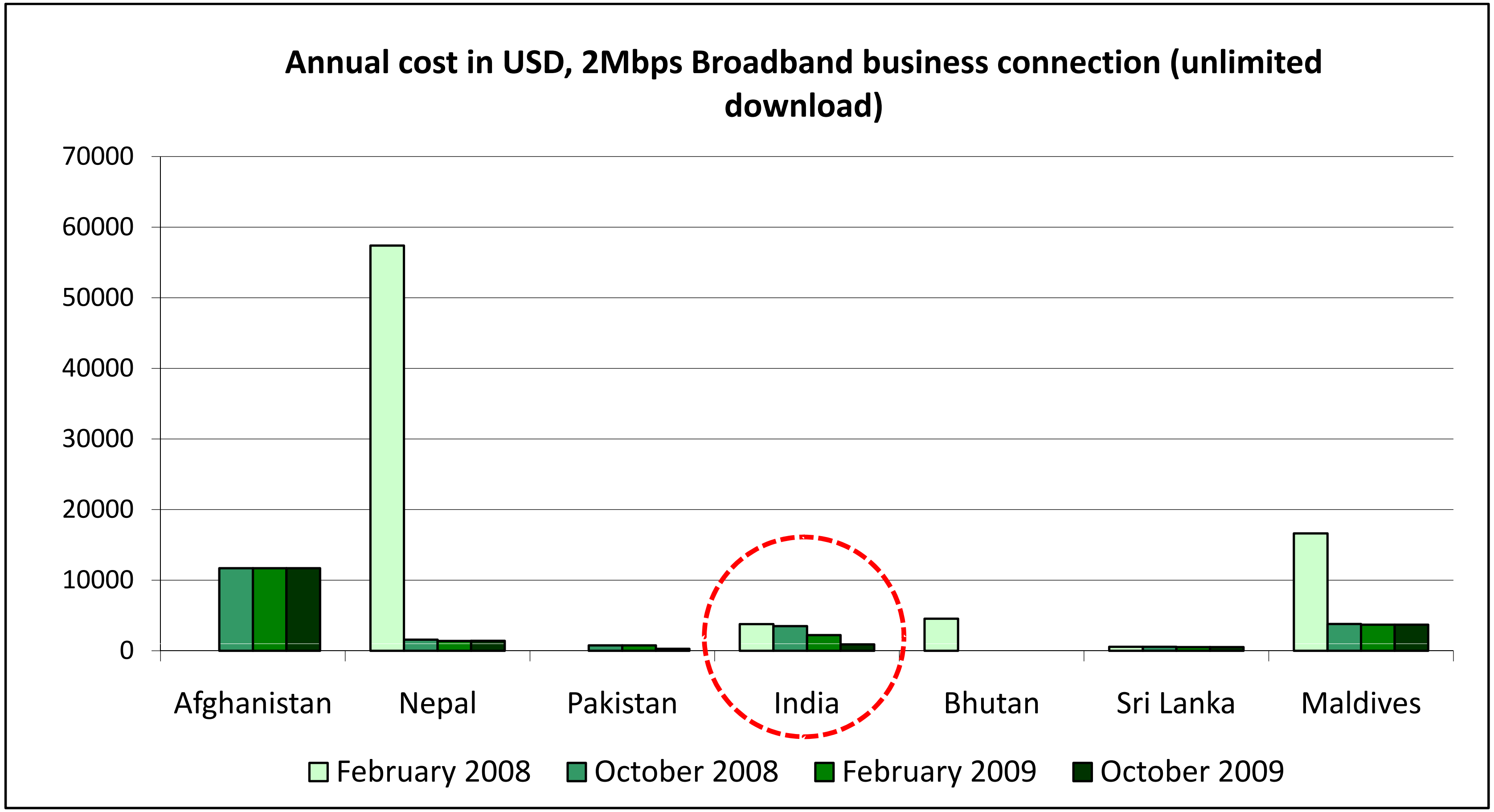
Retail prices also coming down: e.g. 2MBps Business connection prices in India dropping



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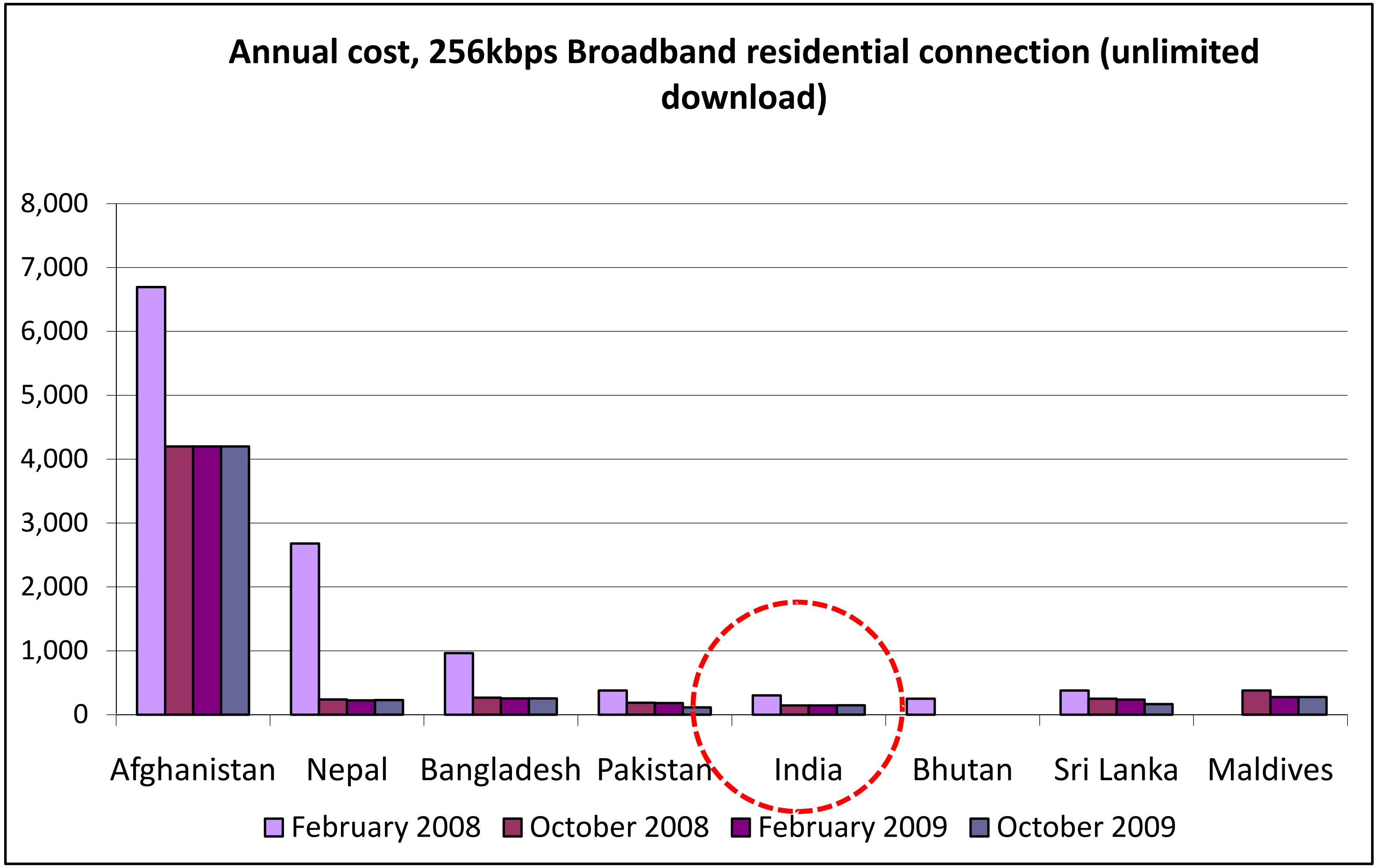
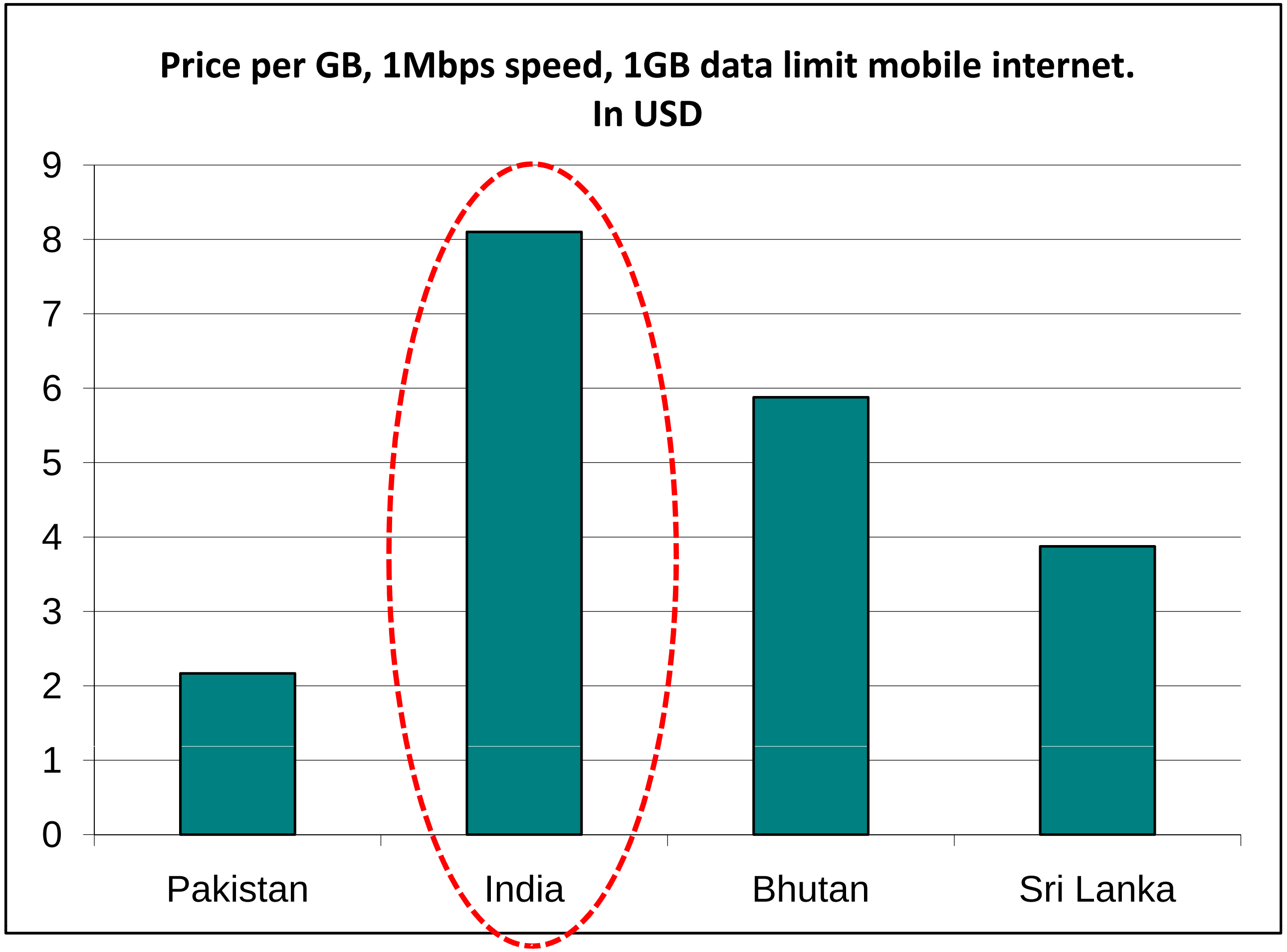
Prices are low/reducing on basic residential packages also. India on par with regional peers



Mobile BB: India is not competitive, for obvious reasons



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Sources: India, http://www.bsnl.in/service/3G/3G_files/3g.htm / INR 399 for Day/anytime 1GB of usage. Pakistan (http://www.mobilinkinfinity.com/tariff/ Mobilink Infinity 5GB limit at 1MBps speed. Bhutan http://www.druknet.bt/btelecom/GPRSEDGE3G.html . Pakistan http://www.mobitel.lk/broadband/postpaid_internet.html

But price comparisons need to be done in relation to what the consumer gets – i.e. actual experienced speed per USD or Rupee paid