

Picking the topics, doing the
research and getting it out at the
right time

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Research in an academic setting

- Free to pick any topic
- Criteria = uniqueness
- Incentive = to be cited/quoted by you name as much as possible, peer reviewed
- Small advances to existing body of knowledge
- Perfection is a goal (multiple cycles, revisions, peer reviews etc)
- Long cycle from Research Initiation → Publication
- Pick a topic that's already hot, or a topic that was hot and formalize/put into frameworks etc

Research for policy making

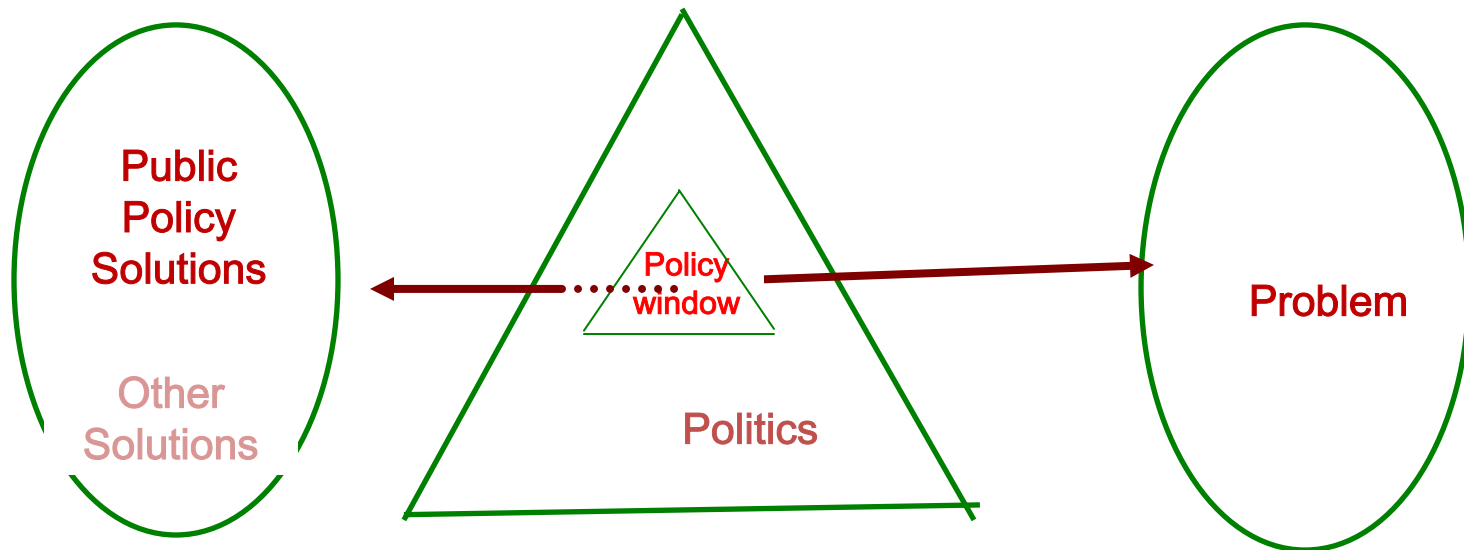
- Must be “policy relevant” – solutions to problems that are going to occur, already occurring
 - Must answer the “so what” question
- More important to get ideas out, quickly; May not have to be perfect
- Give up “ownership” of the idea: more important to get the idea out than to make sure your name is associated with it
- Proprietary doesn’t work
- Communicated differently

You don't always know the right topic to pick...

- Key: Do research for issues that are going to be hot when you FINISH the research
- Not easy.
- Alternative? GBC model
 - Keep doing research and put in the Garbage Can
 - Pull out when the opportunity (“policy window”) comes out

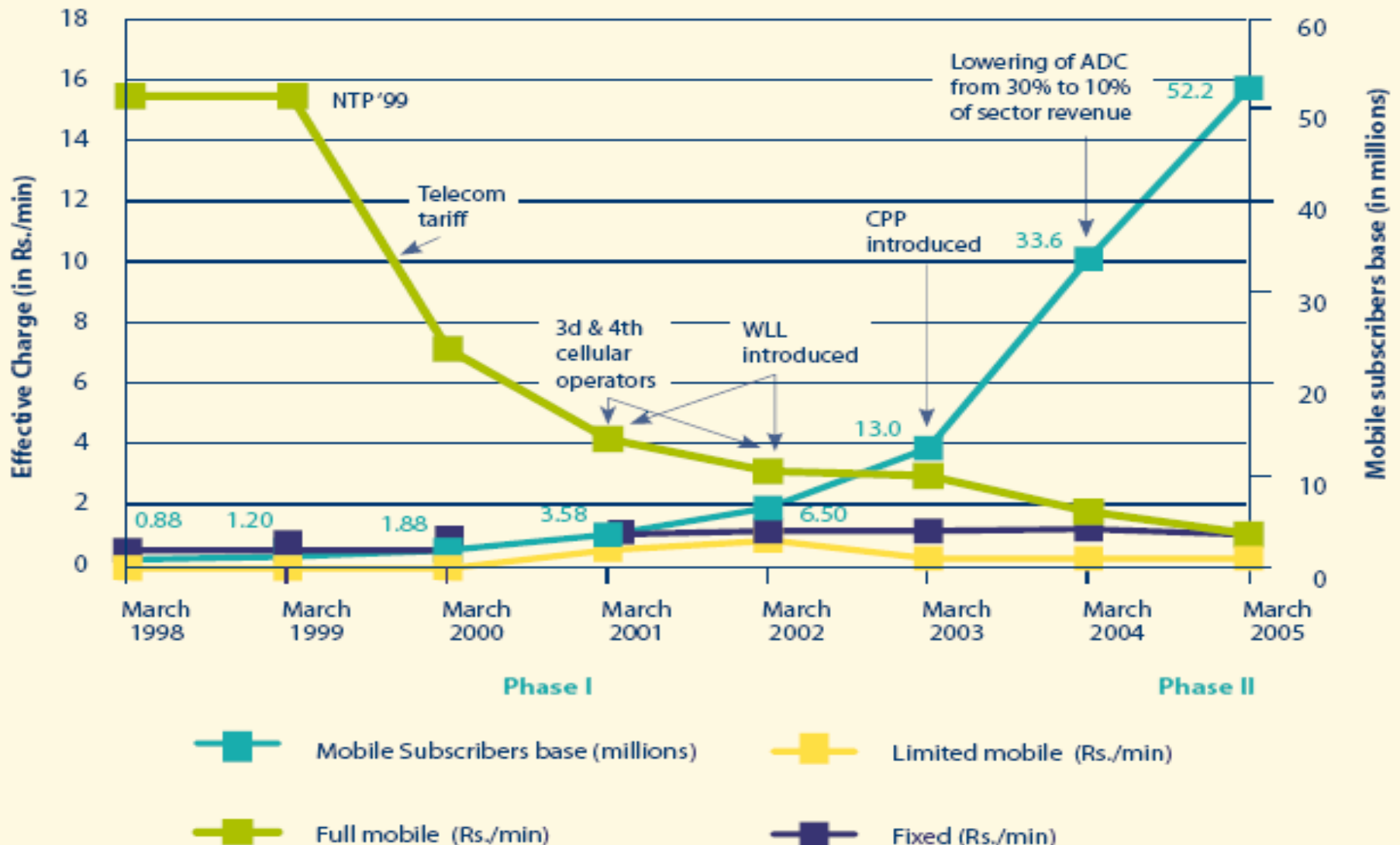
Look out for the Policy Window

- Policy window allows policy solutions (from your research) to fit problems and allows problems to fit policy solutions



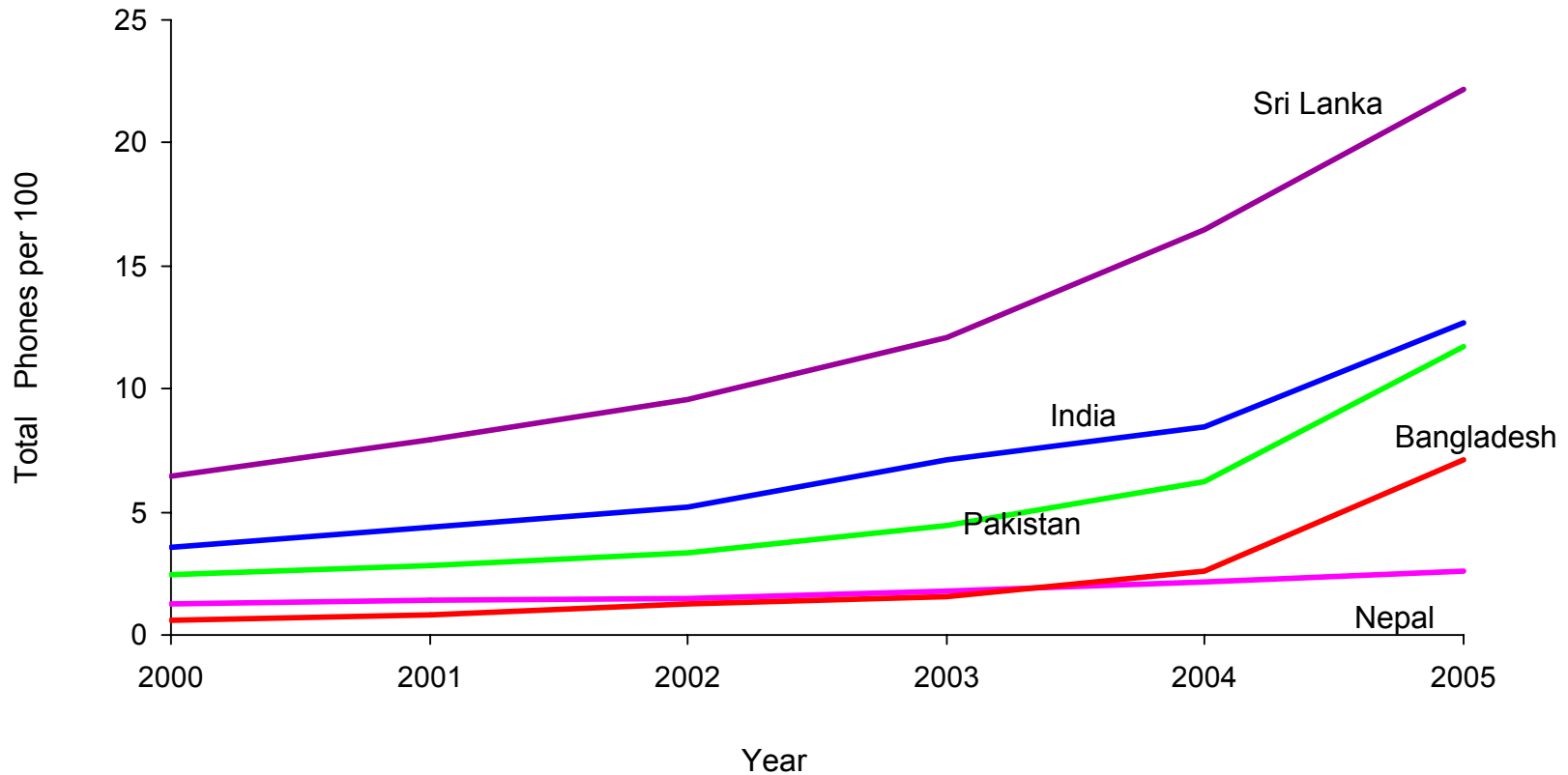
The right data when presented well can give you lots of mileage

Steps taken for increasing growth



But you can think you are doing well, until compared to a peer

Total Telephones per 100 inhabitants



Benchmarking : an effective tool in policy research

- Comparison of A against B
- Process Benchmarking
 - *How* things are done in organization X vs. Y
 - Really big in manufacturing sector
 - Awards, TQM/ISO X/ CMM and so on
- Product or output benchmarking
 - Comparing product service X vs. Y
 - Customer satisfaction etc.

- Objective measures
 - Testing of CPU speeds.
 - Number of telecom subscribers over time/growth
- Subjective measures
 - Customer satisfaction
 - LIRNEasia's TRE survey

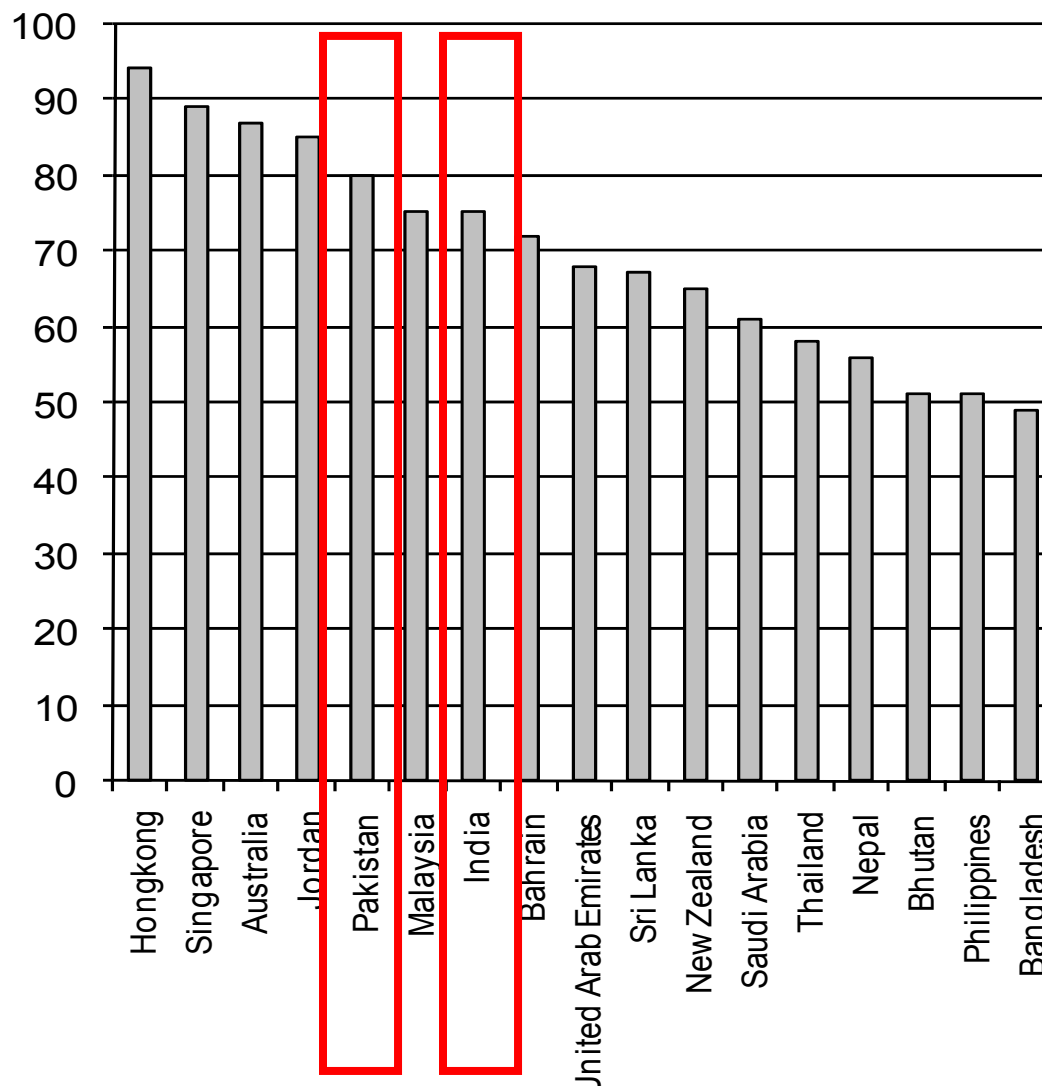
More formally, it's done over time, to measure progress towards a goal

- One definition:
 - “Benchmarks are a set of indicators which represent an agreed upon *minimum acceptable standard* for what's being measured” [Robyn Harris, *Benchmarking: Theory & Practice*, 2001]
 - But can also target “ideal standard”/“best in class standard” and so on
- Base of theoretical research: Industrial research, organizational theory behavior
- Most literature sector specific
 - E.g. Education sector benchmarking
 - Significant literature on manufacturing process BM
- Broader literature (BM as a general technique) limited
 - Yasin, M: *The Theory & Practice of Benchmarking*
 - Jagadeesh & Dattakumar: *A review of literature of benchmarking*

Why benchmark?

- Gets the attention of regulators, governments and operators
 - People have egos. Specially govt. officials
- If they doing well, publicity (for you and them)
 - LIRNEasia's TRE in Pakistan: 27 newspapers
- If the are doing poorly
 - Violent denial? Ignore? Corrective action?
 - India

NRA website results: PK vs India reactions 2005 and 2008



eSSENCE
WATCHDOG DYNAMICS

In a survey of telecom regulators' websites in 31 Asia Pacific countries, LimeAsia ranks Indian regulator Trai on 7th position

Score (%)

Hong Kong	94
Singapore	89
Australia	87
Jordan	85
Pakistan	80
Malaysia	75
India	75
Bahrain	72
UAE	68
Sri Lanka	67

Best in various categories

Factual information and news

- ▶ Office of the Telecommunication Authority (OFTA), Hong Kong
- ▶ South Asia's best
- ▶ Telecom Regulatory Authority of India (Trai) and Pakistan Telecommunication Authority (PTA)

Business information

- ▶ Telecom Regulatory Authority of India
- ▶ Office of the Telecommunication Authority (OFTA), Hong Kong
- ▶ Infocomm Development Authority (IDA), Singapore
- ▶ Telecommunications Regulatory Commission (TRC) Jordan
- ▶ Communications and Information Technology Commission (CICT), Saudi Arabia

General information

- ▶ Commerce Commission of New Zealand
- ▶ South Asia's best
- ▶ Pakistan Telecommunication Authority

Consumer information

- ▶ Infocomm Development Authority (IDA), Singapore
- ▶ Australian Communication and Media Authority (ACMA)
- ▶ South Asia's best
- ▶ Pakistan Telecommunication Authority (PTA)
- ▶ Telecom Regulatory Authority of India (TRAI)

But also because it gives real insight

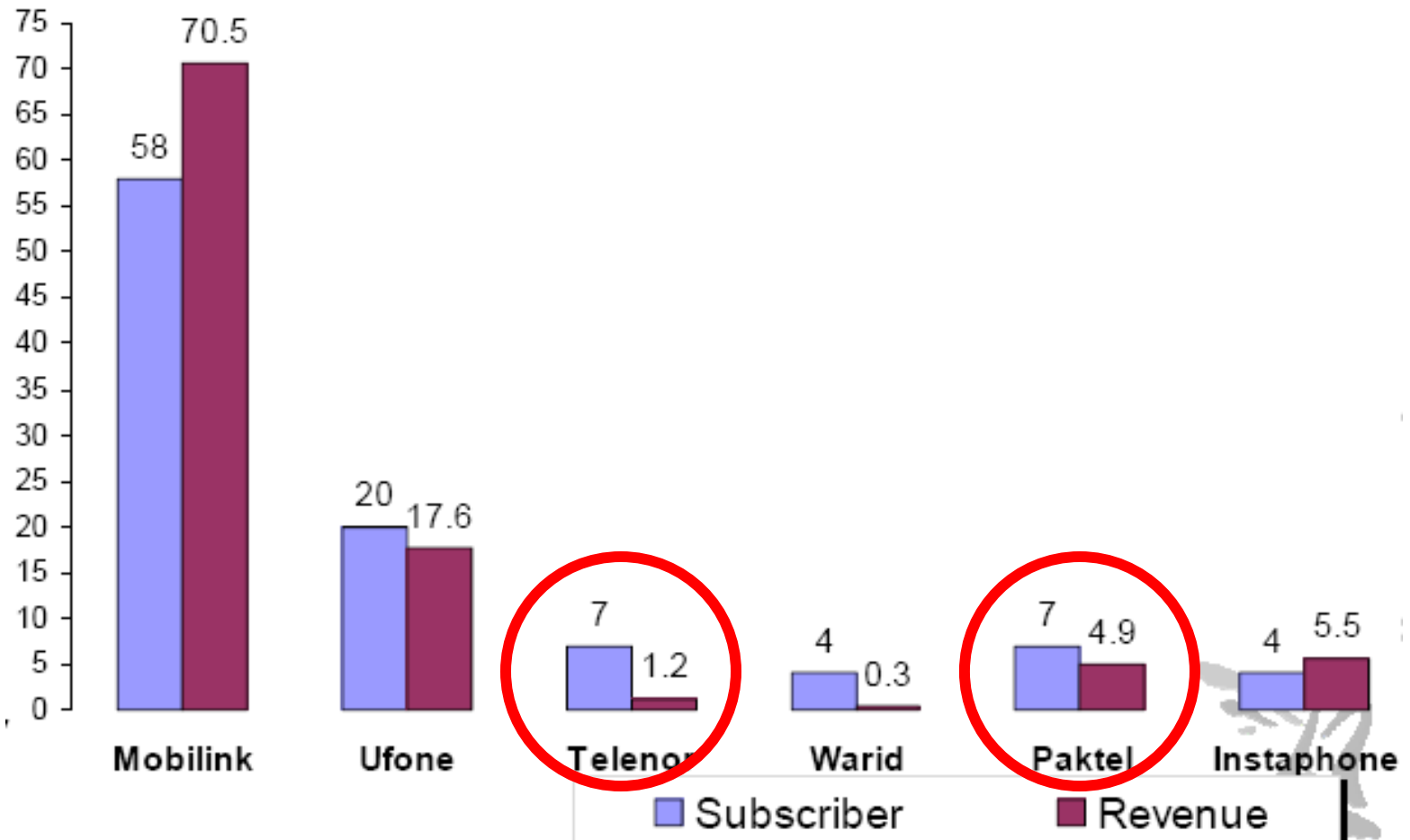
- Not just in diagnosis, but also in finding solutions
- Case studies: in depth analysis of a particular country/organization vs. another comparable country/org
 - Marc L's paper yesterday: China Telco vs. Electricity. Institutional differences
- Using objective data

The definition of the data/indicator is important

- What is a mobile user?
- How many mobile users are in <your country>?
 - Does the ITU/your regulator/your company know this?
- Subscribers – more chances of getting better numbers (if company's systems are good)
- SIM cards: what's really counted
 - But Active/Inactive? What's the cut-off time?
- Are CDMA phones included under "mobile"?

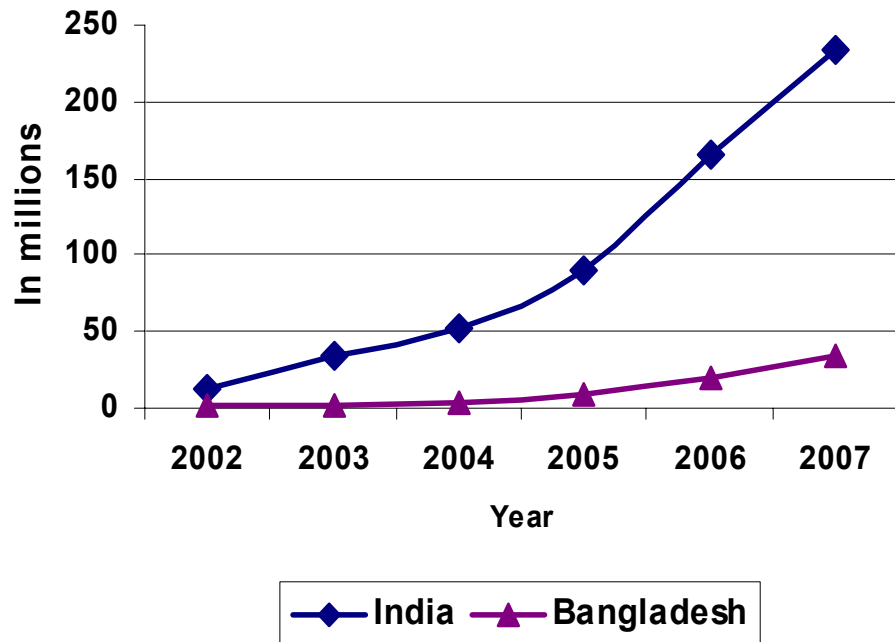
e.g. Which operator has the smallest market share?

Market Share (2004-05)

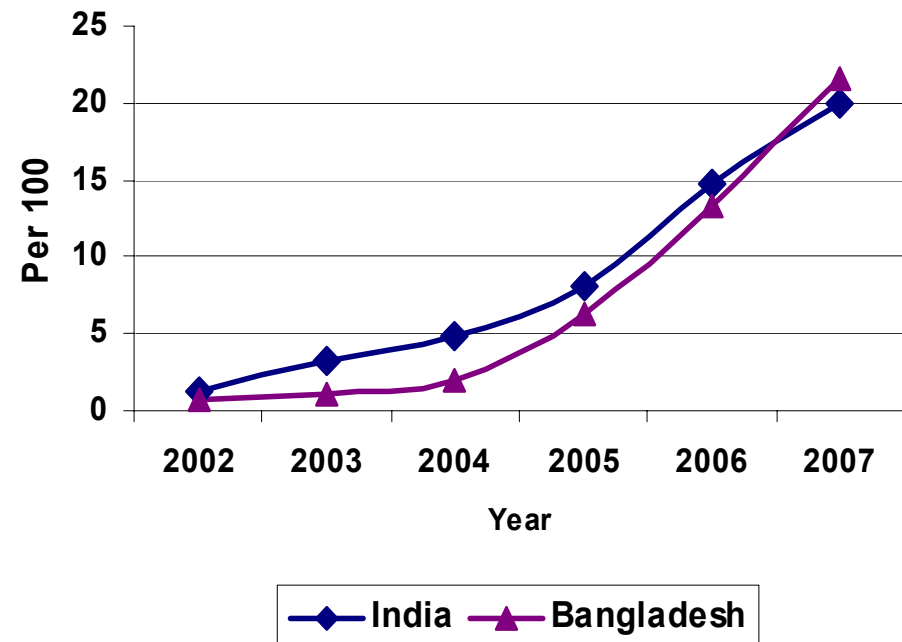


Picking the right indicator to compare is key: they can tell very different stories

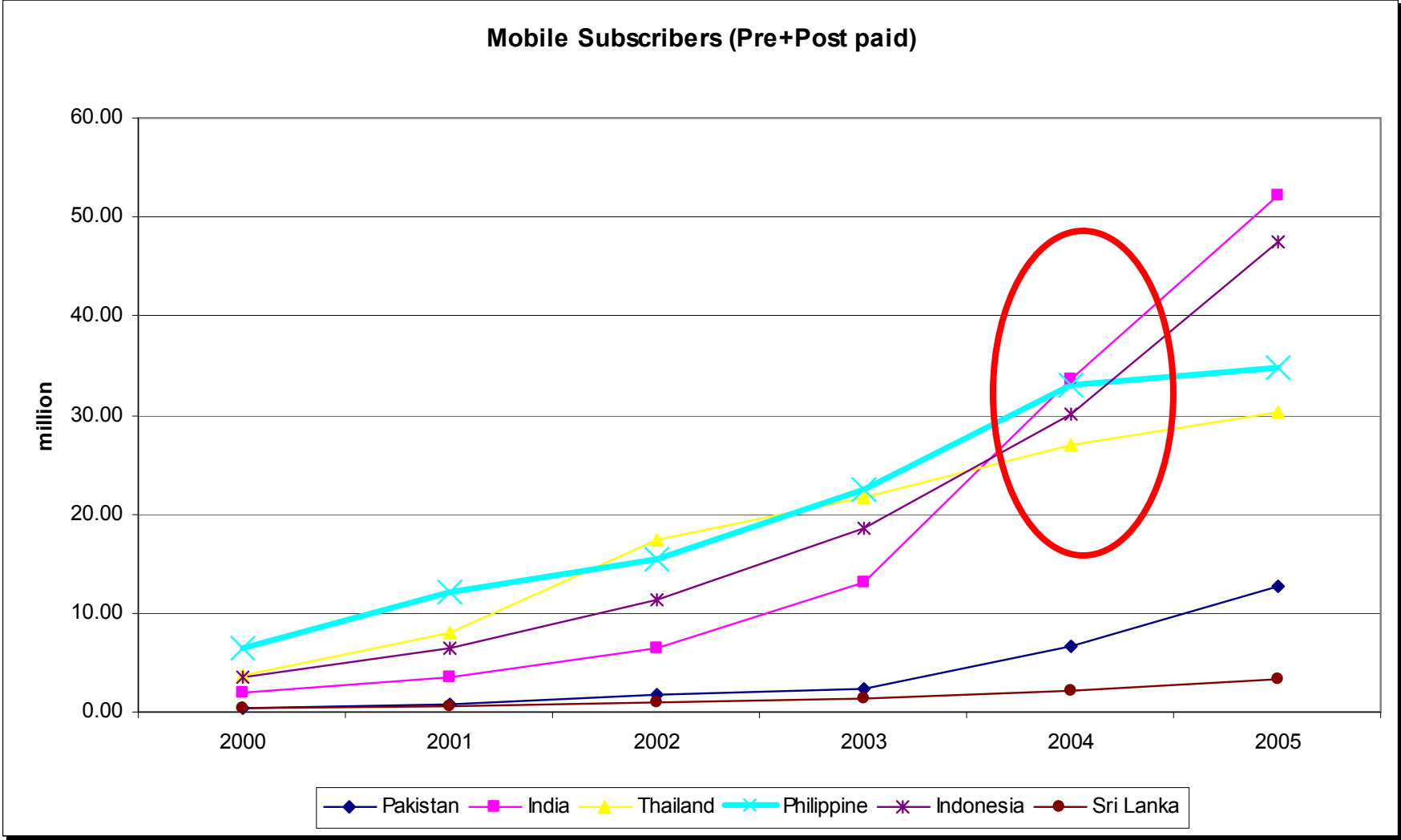
Total number of mobile subscribers in India and Bangladesh



Mobile subscribers per 100 in India and Bangladesh



Do not assume definitions are standardized or static across countries/operators

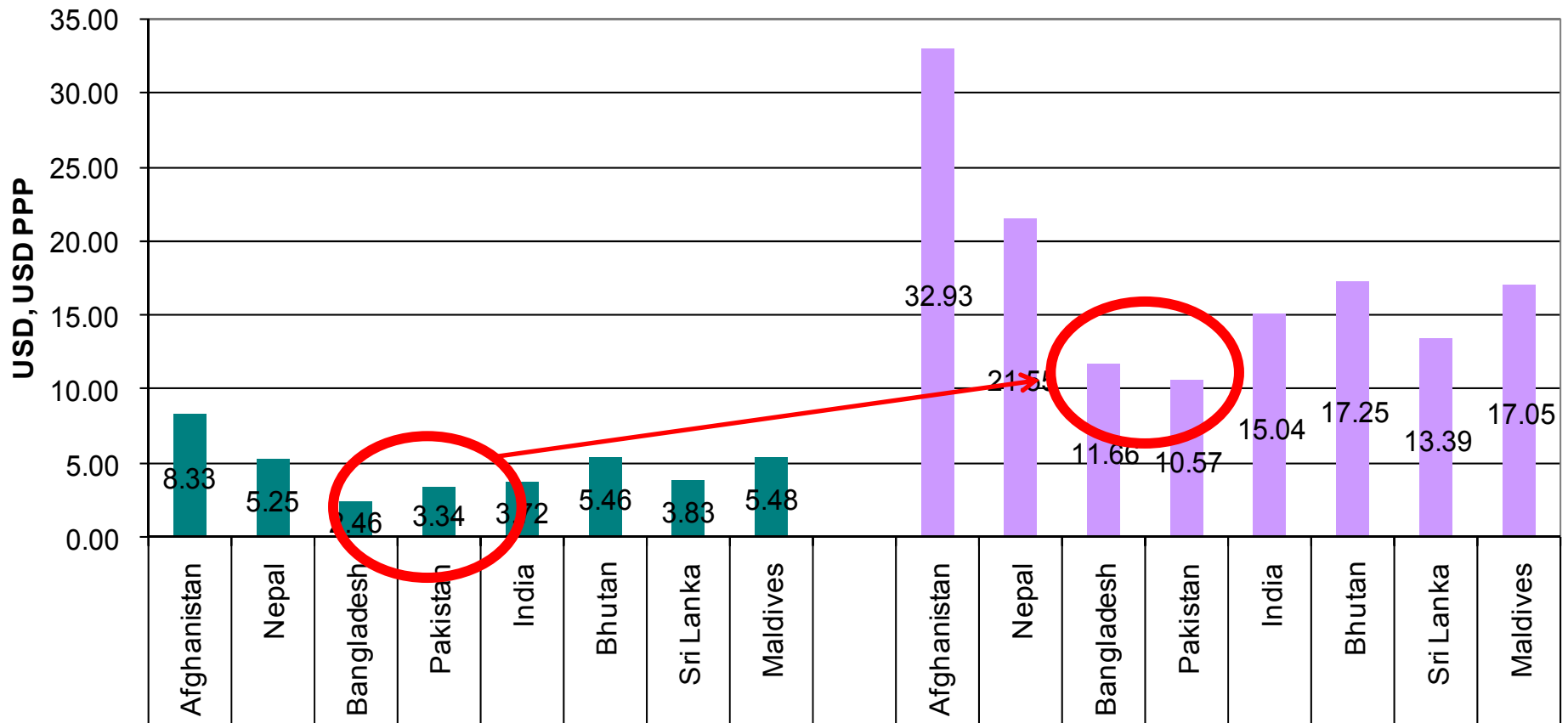


Picking the “right” source for your data

Year	# of internet subscribers (millions), India			Difference between...	
	NASSCOM data	TRAI Data	Ministry of Statistics & PI	NASSCOM & TRAI numbers	TRAI & Ministry numbers
1999	0.35		0.23	-	-
2000	0.65	0.95	0.943	-46%	1%
2001	1.13	3.04	2.909	-169%	4%
2002	1.763	3.42	3.239	-94%	5%
2003	3.661	3.64	3.5	1%	4%
2004	4.403	4.55	4.05	-3%	11%
2005	6.674	5.55	5.3	17%	5%
2006		6.94	5.556	-	20%

In price benchmarks, what currency? Real or PPP adjusted?

Monthly prepaid mobile cost for a low user (USD and USD PPP)



BB Quality of Service (QoS): case study for group discussion

Broadband is growing. Quality is important. But many users complaining

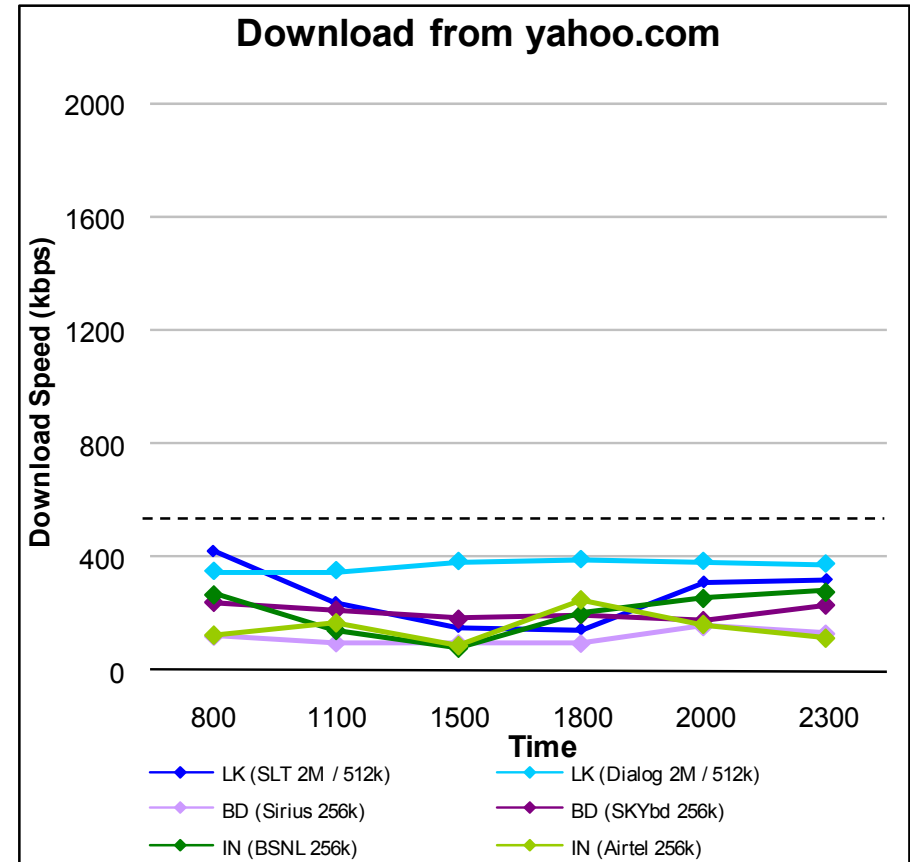
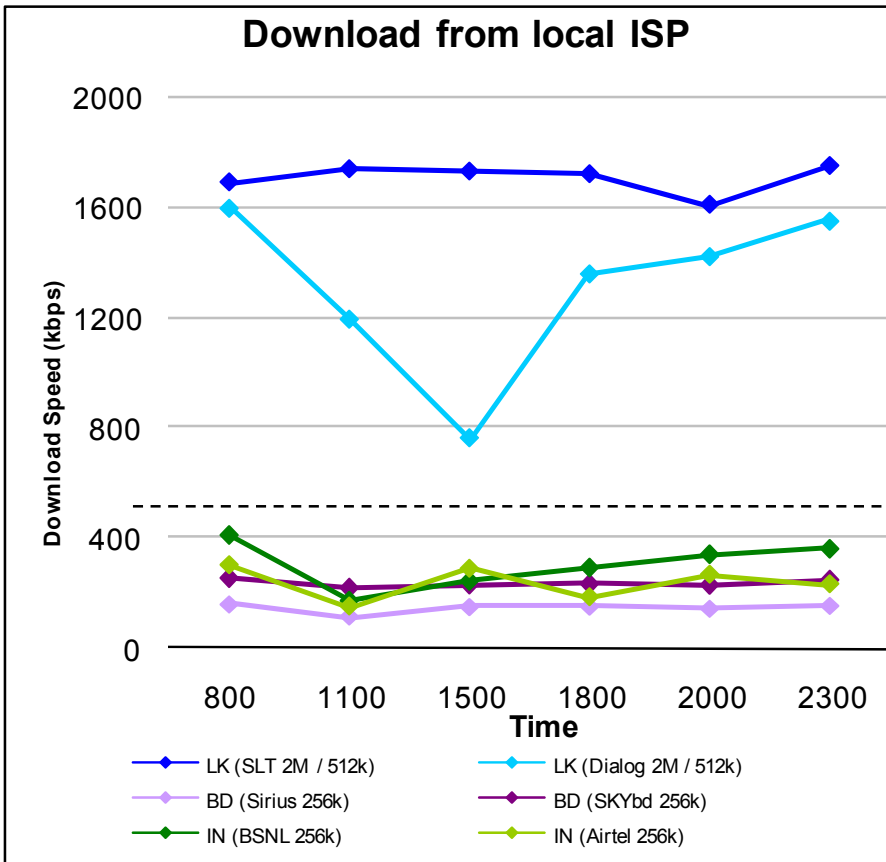
- Discussion on LIRNEasia blog
- Is there a method to measure?
 - Proprietary method rejected
 - Expert partner (IIT-Madras)
 - Method: hybrid of existing + new
 - Develop software
- Test
 - Multiple packages, multiple countries, multiple locations, multiple times of the day

Which indicators of BB QoS? Depends on purpose...

Service	Throughput		Delay		Loss
	Down	Up	RTT	Jitter	
Browse (text)	++	-	++	-	-
Browse (media)	+++	-	+	+	+
Download file	+++	-	-	-	-
Transactions	-	-	++	+	-
Streaming media	+	-	+	++	++
VOIP	+	+	+++	+++	+++
Games	+	+	+++	++	++

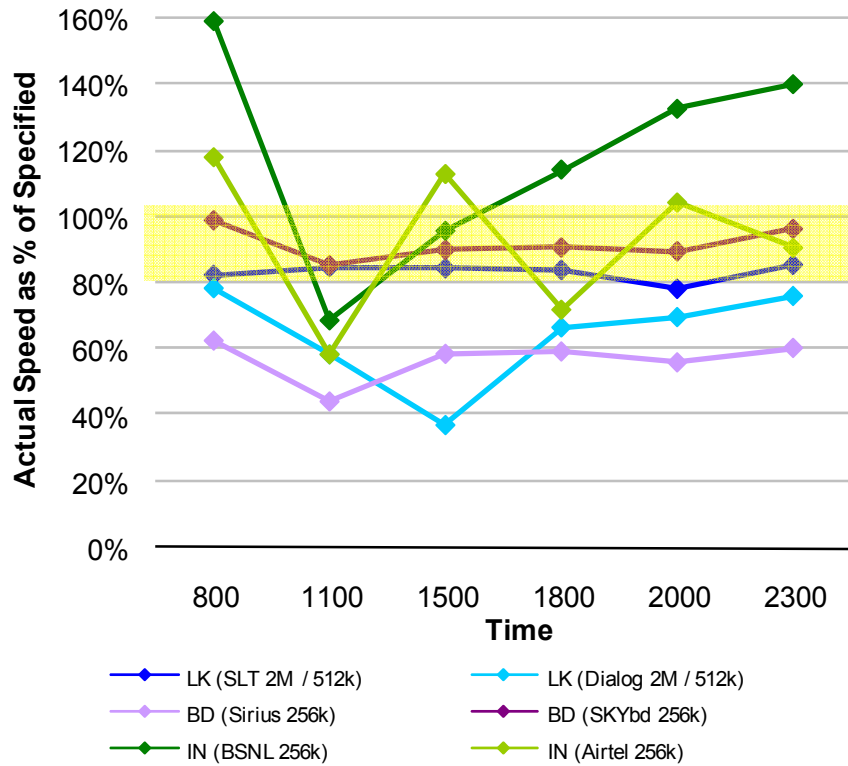
+++ highly relevant, ++ very relevant, + relevant, - not relevant

Where is content hosted? It matters

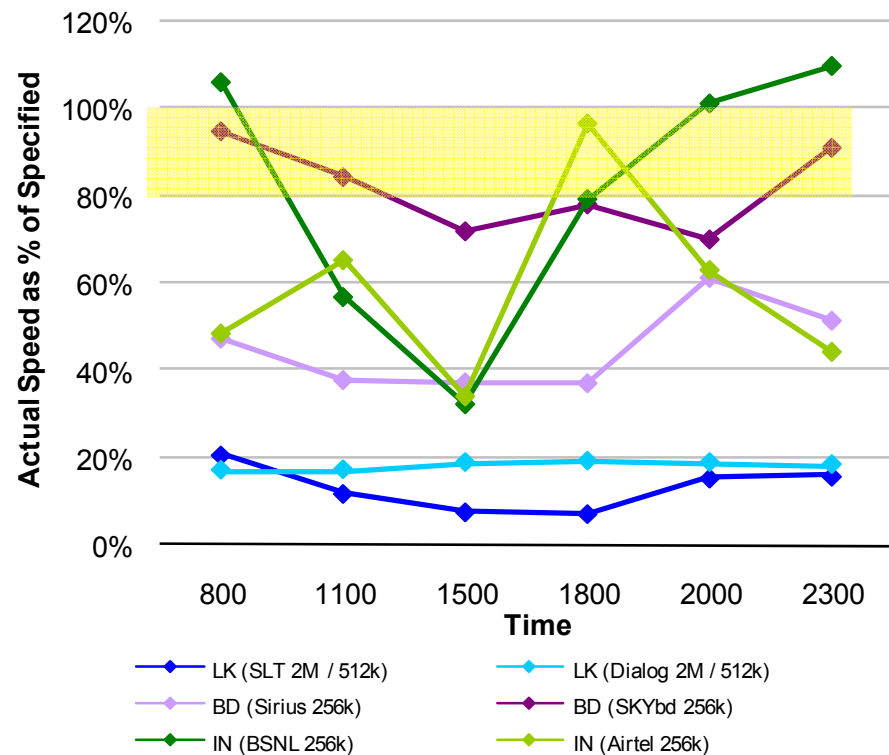


Users not getting what's promised/ advertised (what they pay for)

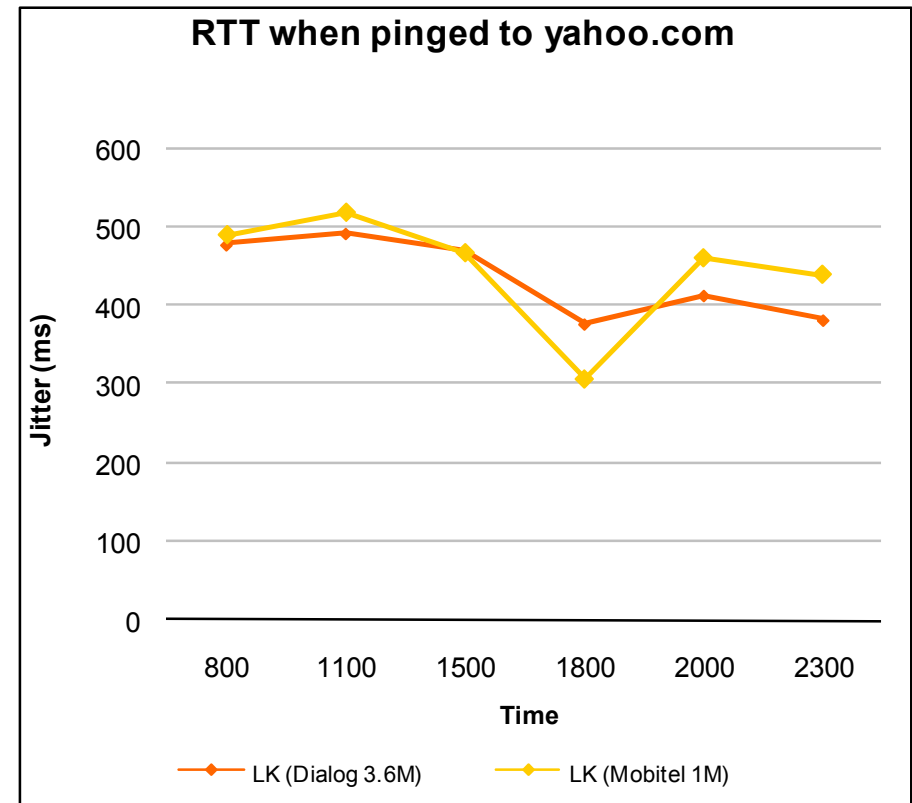
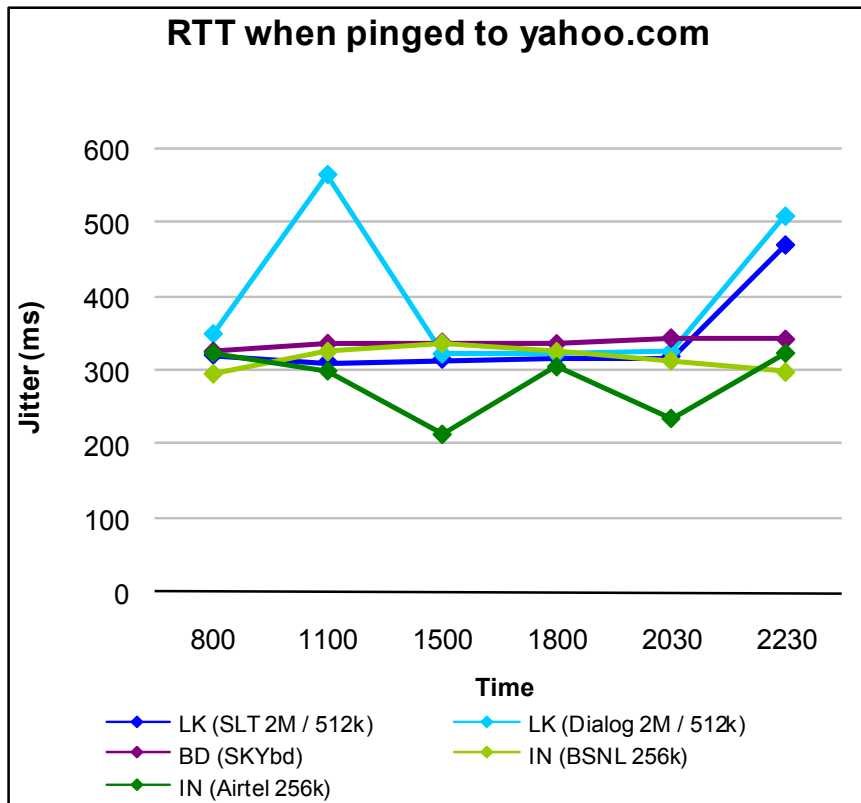
Download from own ISP Domain Delivery VS. Stated

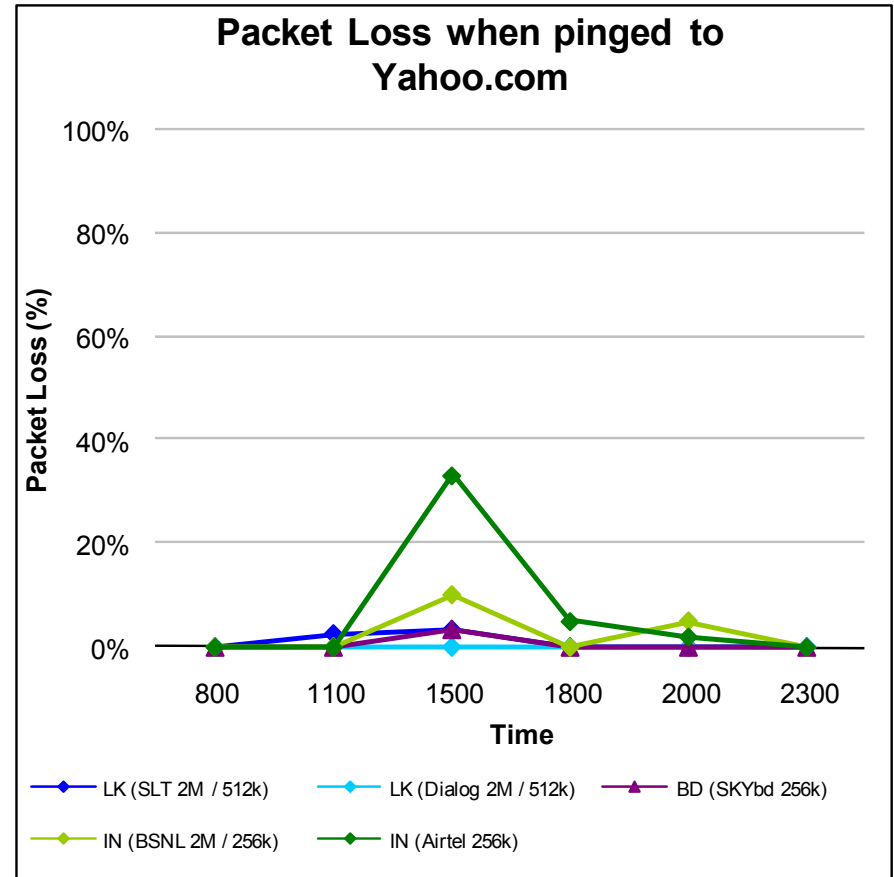
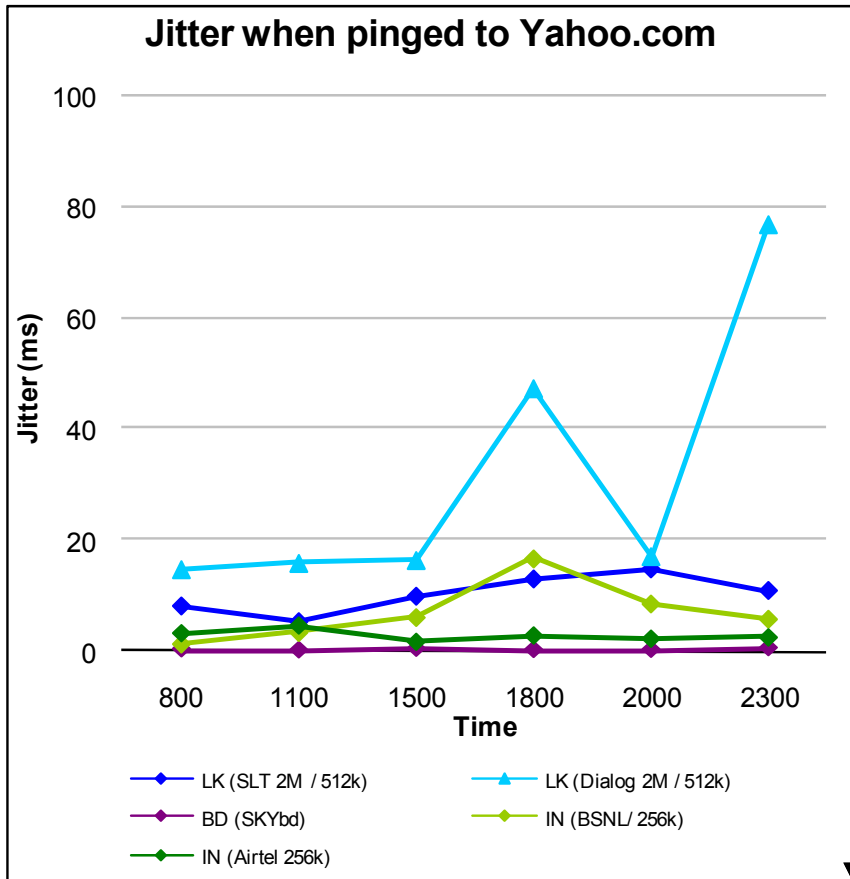


Download from Yahoo.com Delivery VS. Stated



And so on..measures for upload speed, latency, jitter, RTT, etc...





What if...

- This data was available on a website
 - <http://www.broadbandasia.info/> (being constructed right now)
- Large number (thousands) of users in each country installed the software
- User driven product change/regulation?

What can you do in your country?

- Group exercise. 4 groups
 - South Asia
 - South East and Pacific
 - China 1
 - China 2
- How get regulator's attention on BB QoS?
- What steps will you take?

If we have time

- Real life success stories: from LIRNEasia
- How do young researchers get into the policy game?
 - Pick an advisor that is already in the game?
 - Respond to public consultations/attend them
 - A blog?
 - Write an op-ed piece to the newspaper