Asia at the leading edge of communication and new media developments?

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Agenda

- Asia's challenges (and opportunities)
- Access at the bottom of the pyramid (BOP) in selected countries of emerging Asia
  - Internet?
  - An alternative path to the information society
- Innovations needed for the alternative path

Which Asia?

- Taiwan ROC, Republic of Korea, Singapore . . .

OR

- Burma (Myanmar); DPR Korea; Nepal . . .

- The Asia that manufactures most of the world's laptops, semi-conductor chips . . .

OR

- The Asia that is barely a blip in the information society map . . .

- The Asia that is developed . .

OR

- The Asia that still contains the world's largest concentration of poor people . .

Workhorse of the information economy ➔ driver's seat . . .

- Solve the hardest problem: getting the poorest millions connected to the Information Society
  - Convert Asia's biggest weakness to an advantage
  - This will potentially unlock many markets and drive the entire Asian economy to a new level
- Innovation at multiple levels needed
  - Business models to connect large numbers of poor people to electronic networks; extend from mobile to broadband
  - Technical solutions to make it possible for them to do more-than-voice once connected
  - More-than-telecom solutions to problem of putting money in people's pockets through telecom, rather than taking money out

Connecting the millions at the bottom of the pyramid. .

WSIS definition of Information Society

- "a people centered, inclusive, and development-oriented information society **where everyone can create, access, utilize and share information and knowledge** enabling individuals and communities to achieve their full potential in promoting their sustainable development and improving their quality of life."

In other words . . .

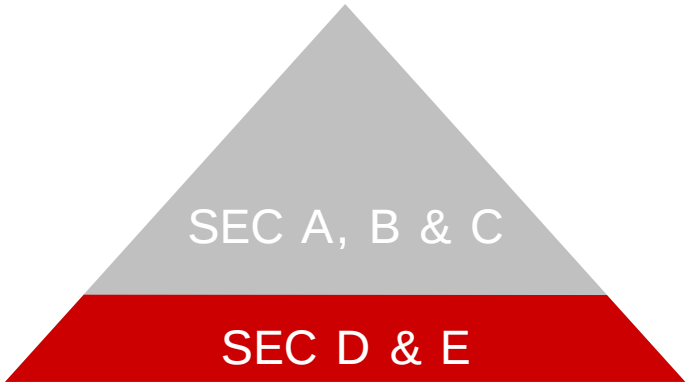
- Everyone should be able to do what we do routinely using the hybrid medium known as the Internet
  - Communicate in multiple forms
    - synchronous/asynchronous
    - One-to-one/one-to-many/many-to-many
    - Push/pull . . .
  - Retrieve information from multitude of sources
  - Publish
  - Transact
  - Remotely compute . . .

Answers from LIRNEasia's Teleuse @ Bottom of the Pyramid (T@BOP) research (2006)

- Five countries
  - Pakistan
  - India
  - Sri Lanka
  - Philippines
  - Thailand
- 9,000 sample
- Design and analysis by LIRNE*asia*; fieldwork by AC Nielsen

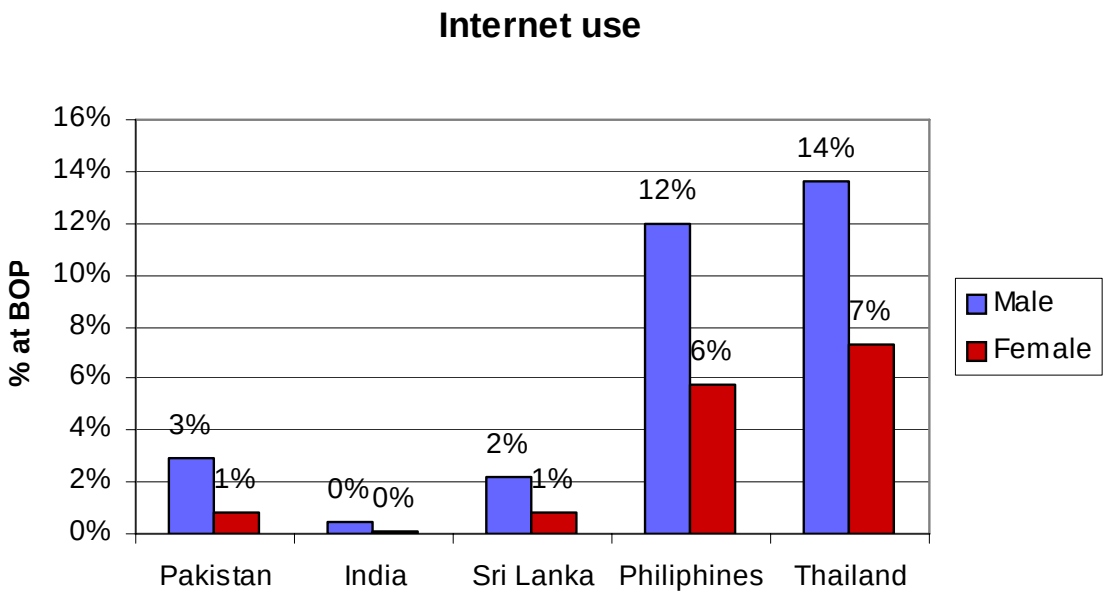
Bottom of the Pyramid (BOP) = SEC D & E

- BOP defined as SEC D and E; between ages 18-60
  - SEC determined by education and occupation of CWE; closely related to income levels
- BOP sample is representative of the BOP population
  - Diary respondents also representative of BOP
- Small (non-representative) sample taken of SEC groups A, B & C, 'middle and top' of pyramid



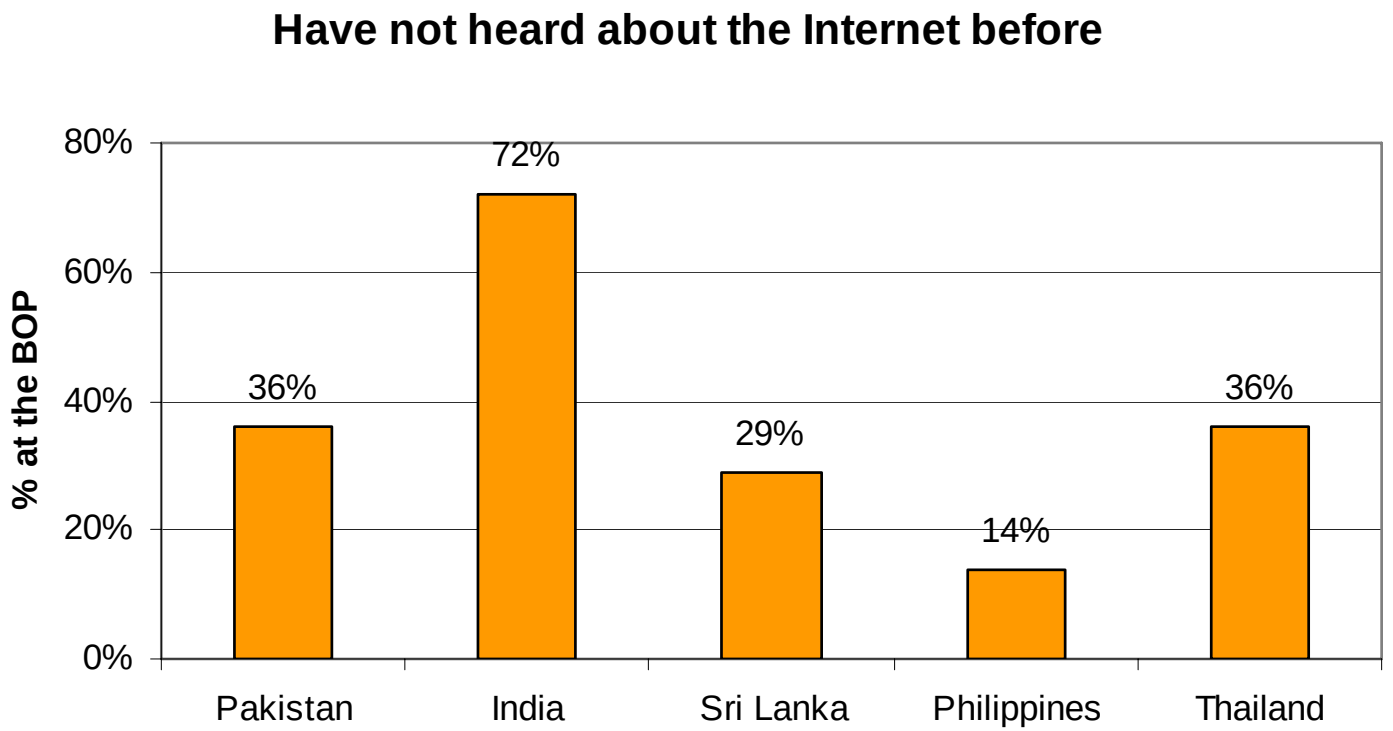
Internet at the BOP...

	Pakistan	India	Sri Lanka	Philippines	Thailand
Use the Internet	1.9%	0.3%	1.5%	8.8%	10.4%



Large gender divide, *even in South East Asia*

...what Internet??



Will we ever get there? . . .

- But there is an alternative path . . .

Access = mobile?

Access through the phone is surprisingly high . . .

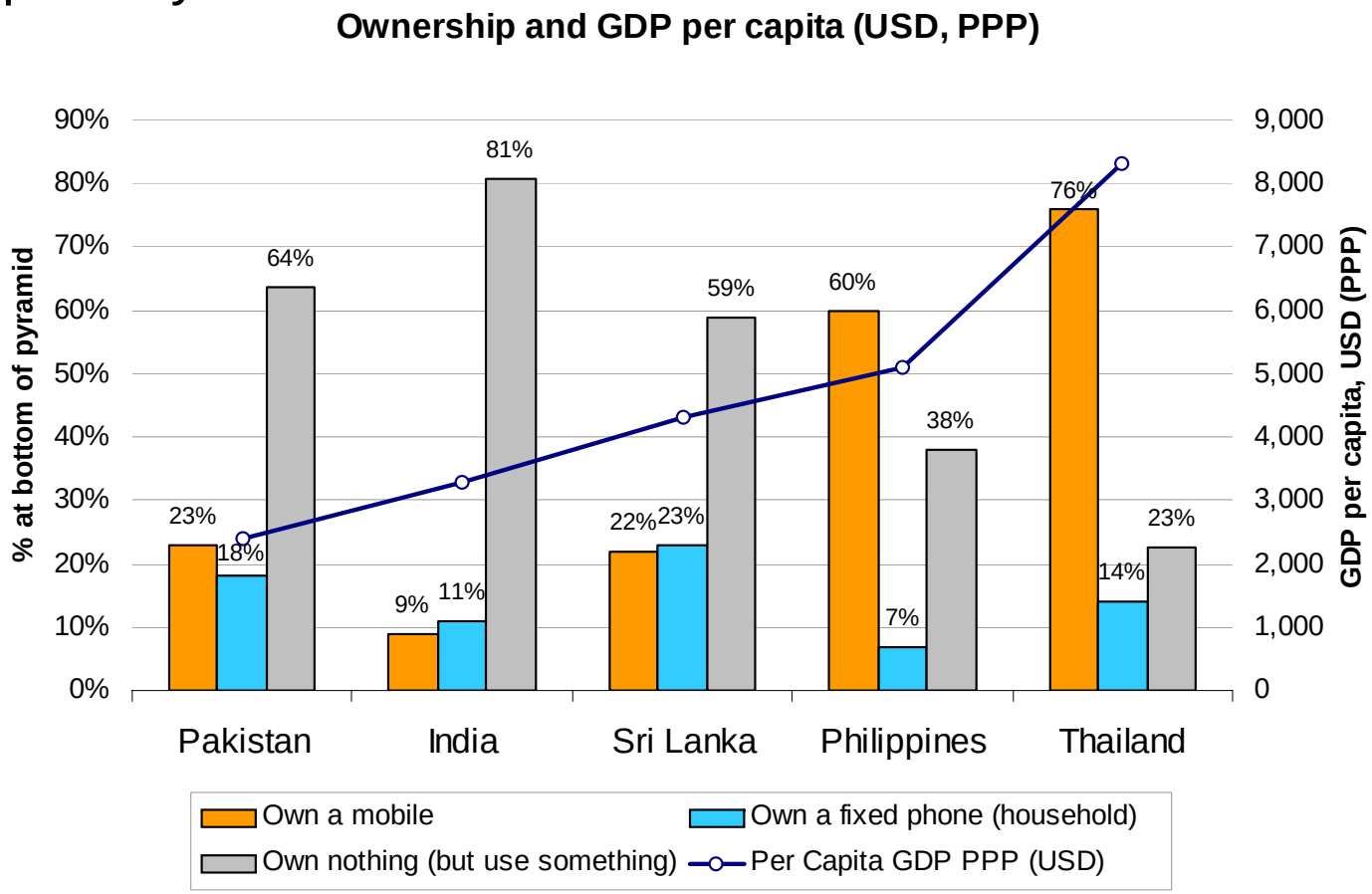
- Most people approached for survey (BOP and other) had used a phone in the last 3 months

	South Asia			South East Asia	
	Pakistan	India	Sri Lanka	Philippines	Thailand
Used phone in last 3 months	98%	94%	92%	93%	95%

"Half the world's population has not made a phone call" was wrong when Kofi Annan said it in 1999; absolutely wrong now

Ownership is not as high . . .

- Especially in South Asia...

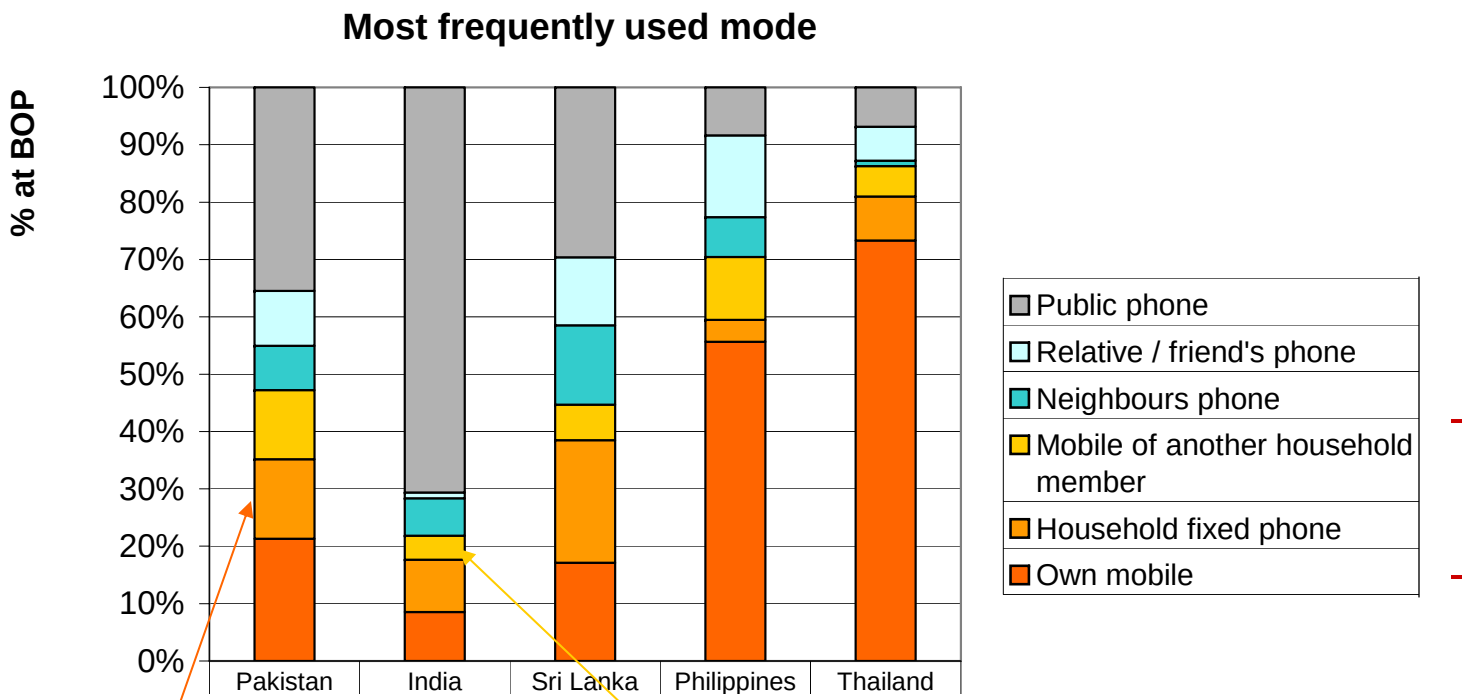


What are the prerequisites for ‘more-than-voice’ mobile?

- Familiarity with the technology
  - Access and use
    - Easy access via mobiles or CDMA ‘fixed’ phones is most appropriate
    - Sophisticated handsets can aid uptake
- Ownership
  - Current
    - Only 30% own a phone
    - Majority prepaid
    - Mobile users using SMS
  - Future?
    - Majority of new connections will be mobile
    - Affordability is a barrier among the un-connected
- Payment systems in place

Easy access needed for more-than-voice with mobile…

- Easy access provided by ownership is important
  - Unlikely that public/shared phones will be used for anything other than basic voice
- Access for more-than-voice, in order of importance
  - **Own mobile**
  - **Other household member's mobile**
  - **CDMA 'fixed' phone**

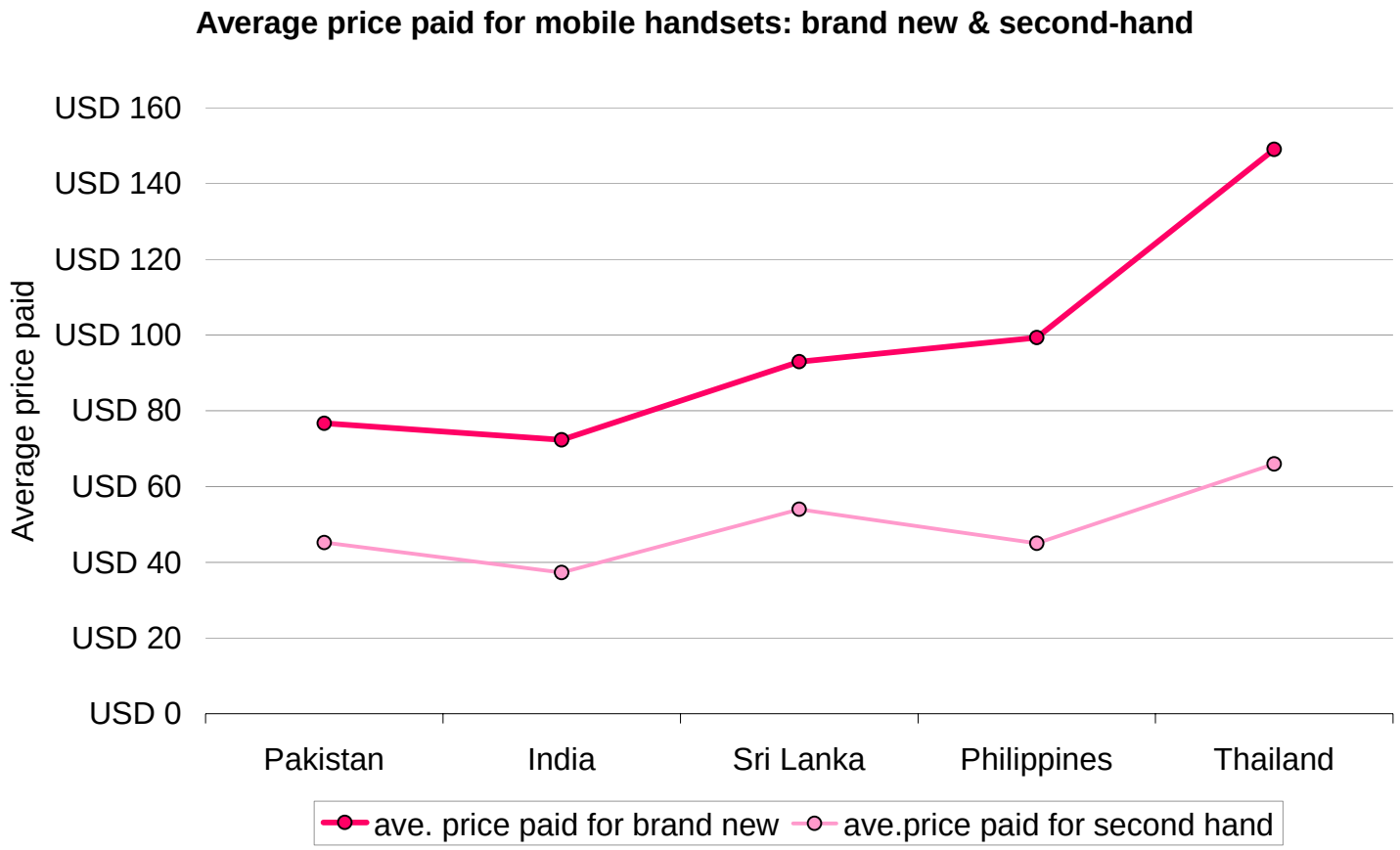


"Fixed" phones at S Asia BOP are mostly CDMA; Mimic GSM features.

Also note that 12% in PK, 4% in IN & 6% in LK use the mobile of another household member

back

Average price paid for handset > USD70: Sophisticated handsets?



- 60-70% of mobile owners at BOP use brand-new handsets

Payment systems in place for more-than-voice applications

	Pakistan	India	Sri Lanka	Philippines	Thailand
Pre Paid	99%	95%	92%	99%	96%
Post Paid	1%	4%	8%	1%	4%

For example, Sri Lanka's largest GSM operator (~ 3.6 million subscribers, 2007):

- 86% prepaid subscribers, overall
- Approx. 50% of prepaid top-ups are via electronic reload (50% via card system)
- 12,000+ electronic reload outlets
- Mobile payment system launched in S Asia in 2007
  - Philippines is the world leader

Evidence of other applications

‘A key advantage of a phone, as seen by participants, is its ability to promote democratic participation. The example presented was a reality TV show . . . to select a ‘Super Star’ . . . based on the SMS/phone voting by the public. . . . Study participants viewed this as a case of telecom enabling the ‘unheard’ to voice their opinion. . . . They felt that their voice was heard; that they have been elevated from the level of mere observers to that of active participants in democratic processes. . . . None of them complained of having to pay five times the regular cost of an SMS to place their votes.’

Focus group on phone use in Sri Lanka, reference to an American Idol type show

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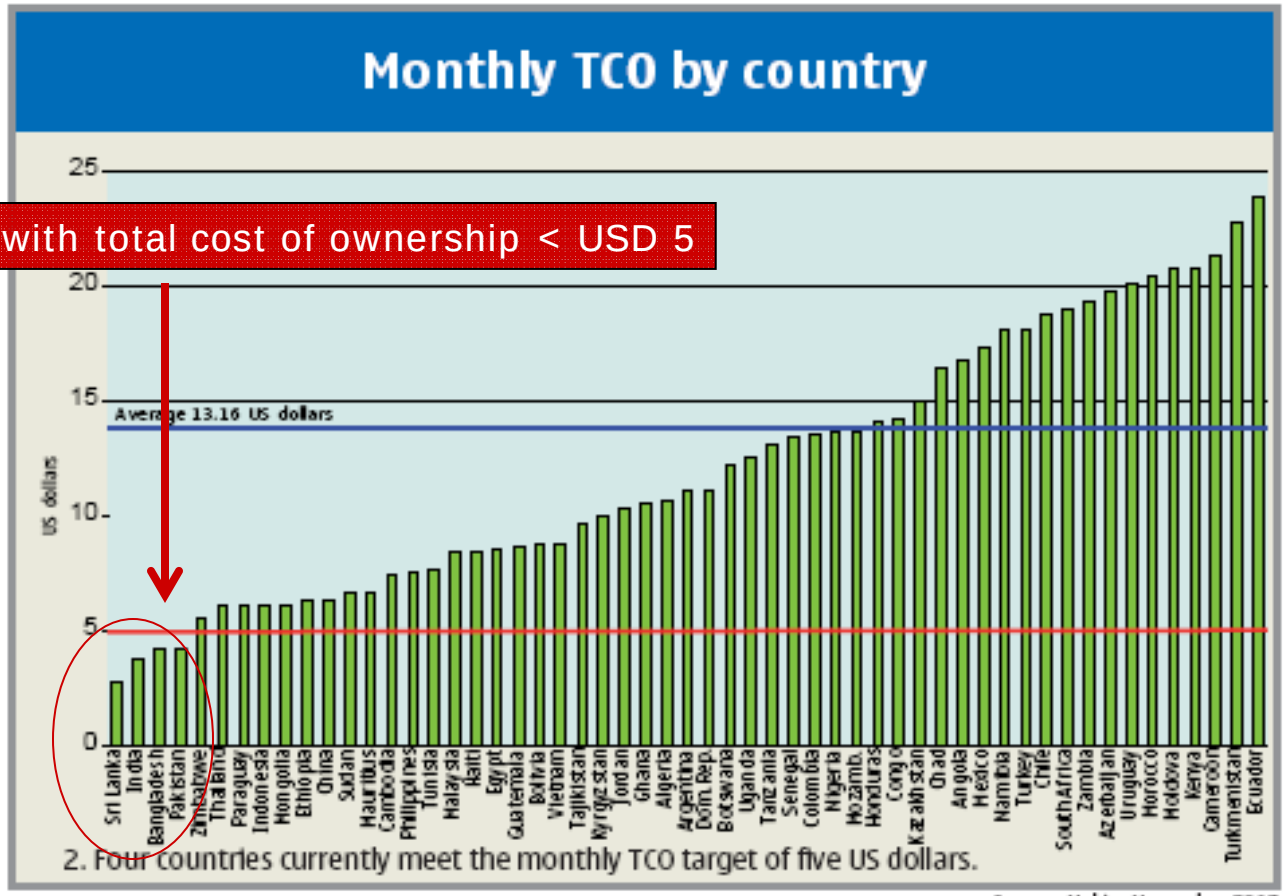
An incredible innovation that has already been made

- Despite poor governance and regulation, despite low purchasing power, 4 South Asian countries are the best in price

Only ones with total cost of ownership < USD 5



Source: Nokia, November 2007

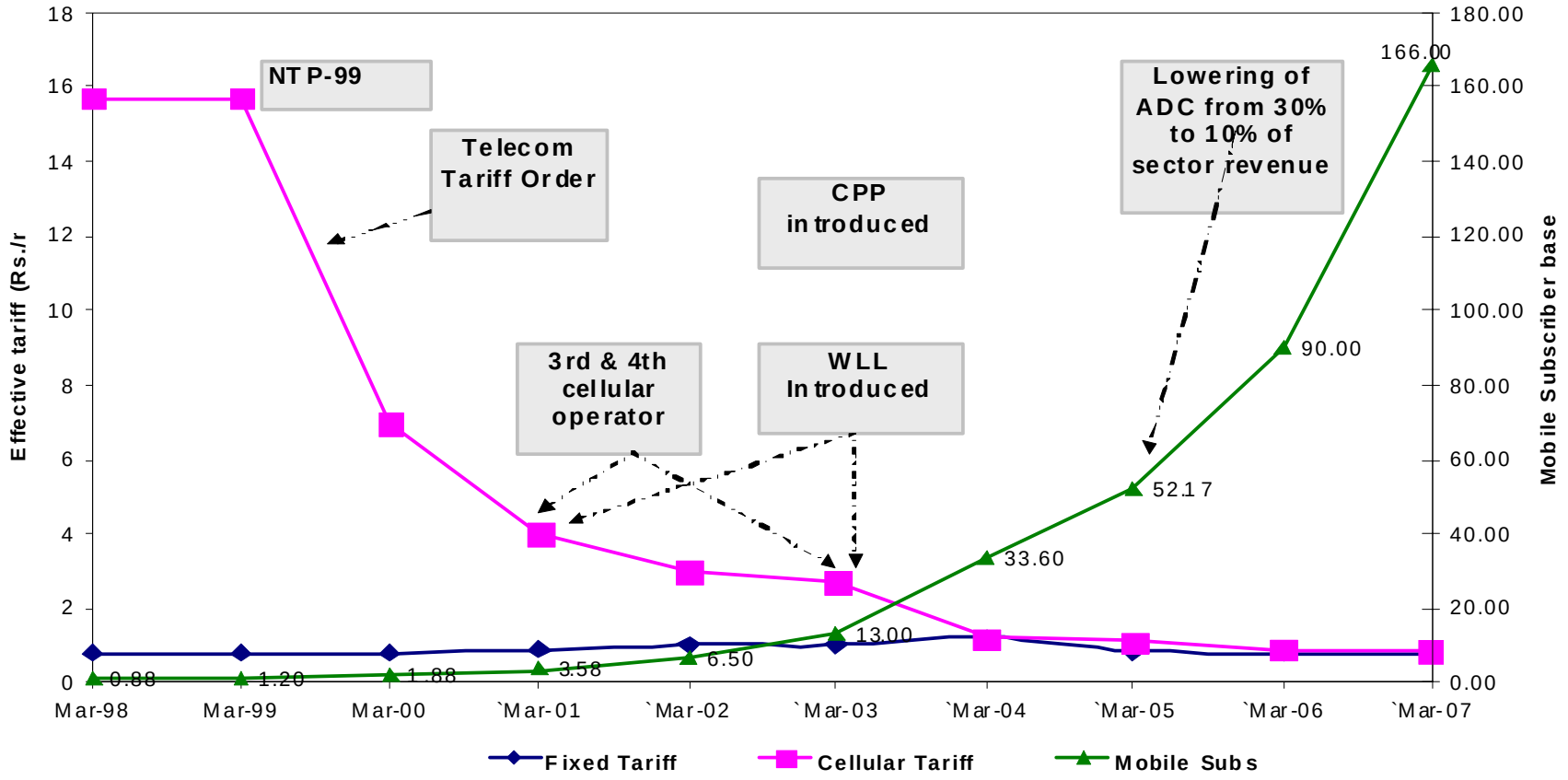
Optimizing revenues from subscribers ➔ optimizing revenues from minutes

- Analogy: airline business models
  - Model A: conservative, based on 55% fill factor, which will cover both fixed and variable costs (capex and opex)
  - Model B: more risky, where at 65% variable costs would be covered, at 75% fixed costs would also be covered and everything above that is pure profit
- Model B: Budget airlines

Budget telecom networks

- By dramatically dropping prices (and total cost of ownership), budget telcos have
  - Added minutes (and usage) from the top of pyramid
  - Added large numbers of low-volume users from the BOP (exploiting the long-tail)
  - Thereby increasing fill factors on their networks, where costs are, for the most part, static with added minutes
  - Resulting in
    - Low prices
    - High profits
    - Patchy quality of service

Declining tariffs, increasing connections and enabling actions in India, 1998-2007



Source: Payal Malik

Revenues and profitability of budget telcos in S Asia

	Revenues (USD)	EBITDA (USD)	EBITDA margin (%)
Bangladesh	655,900,000	344,500,000	53
Sri Lanka	259,041,928	124,833,464	48
India	26,723,674,194	9,938,340,523	37

Technical solutions that need to be made for mobile more-than-voice . . .

Handsets

- Lower costs
- Higher functionalities
- Voice interfaces
- Trust-building features

Network equipment

- Design of 3G networks to give decent QOS with high load factors

Web interfaces

- Optimized for mobile not conventional Internet access

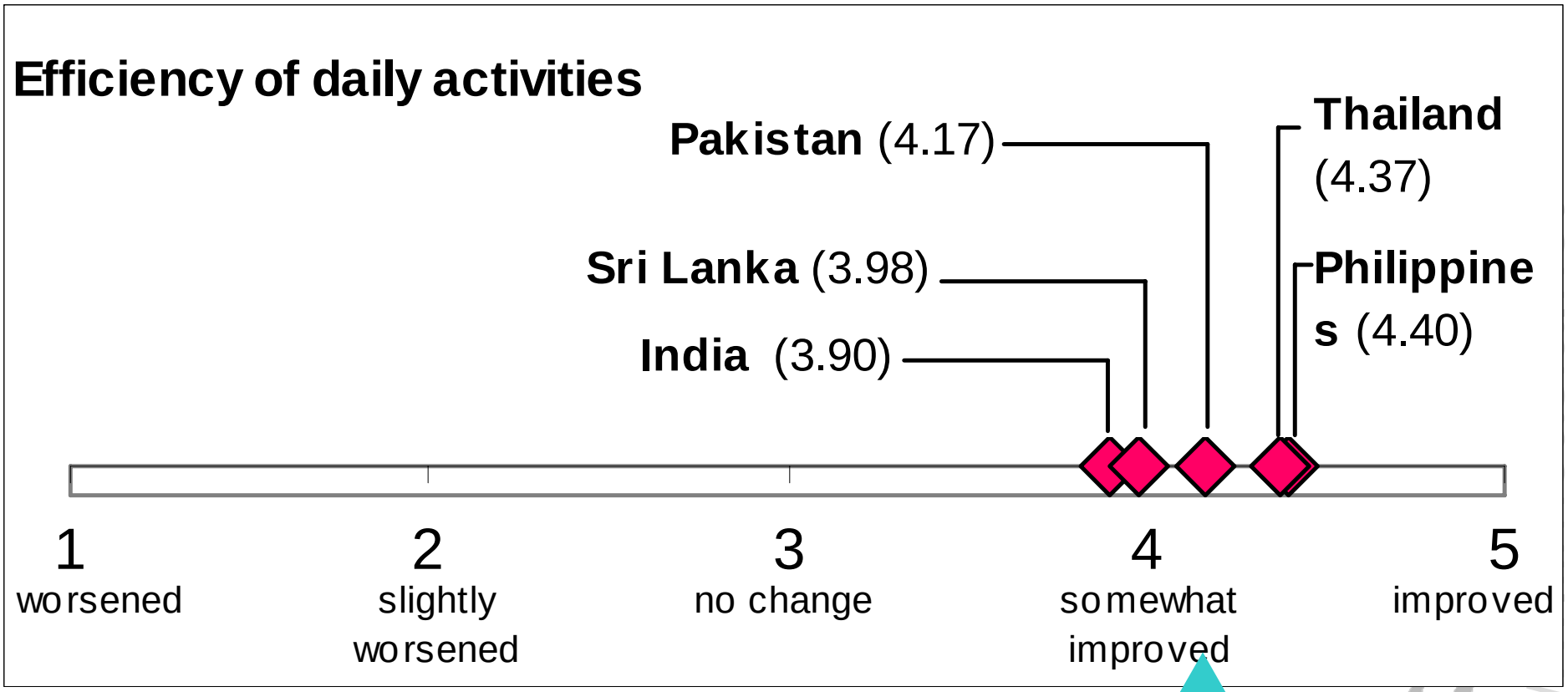
Social science has a major role to play

- Everyone wants to understand the end user
  - Handset designers
  - Network designers
  - Service designers
- Who will tell them?
  - LIRNEasia quantitative research
  - Nokia, Telenor qualitative research
  - Where are the universities
    - U of Salzburg, usability labs
    - ???

Putting money in user's pockets, not taking from . . .

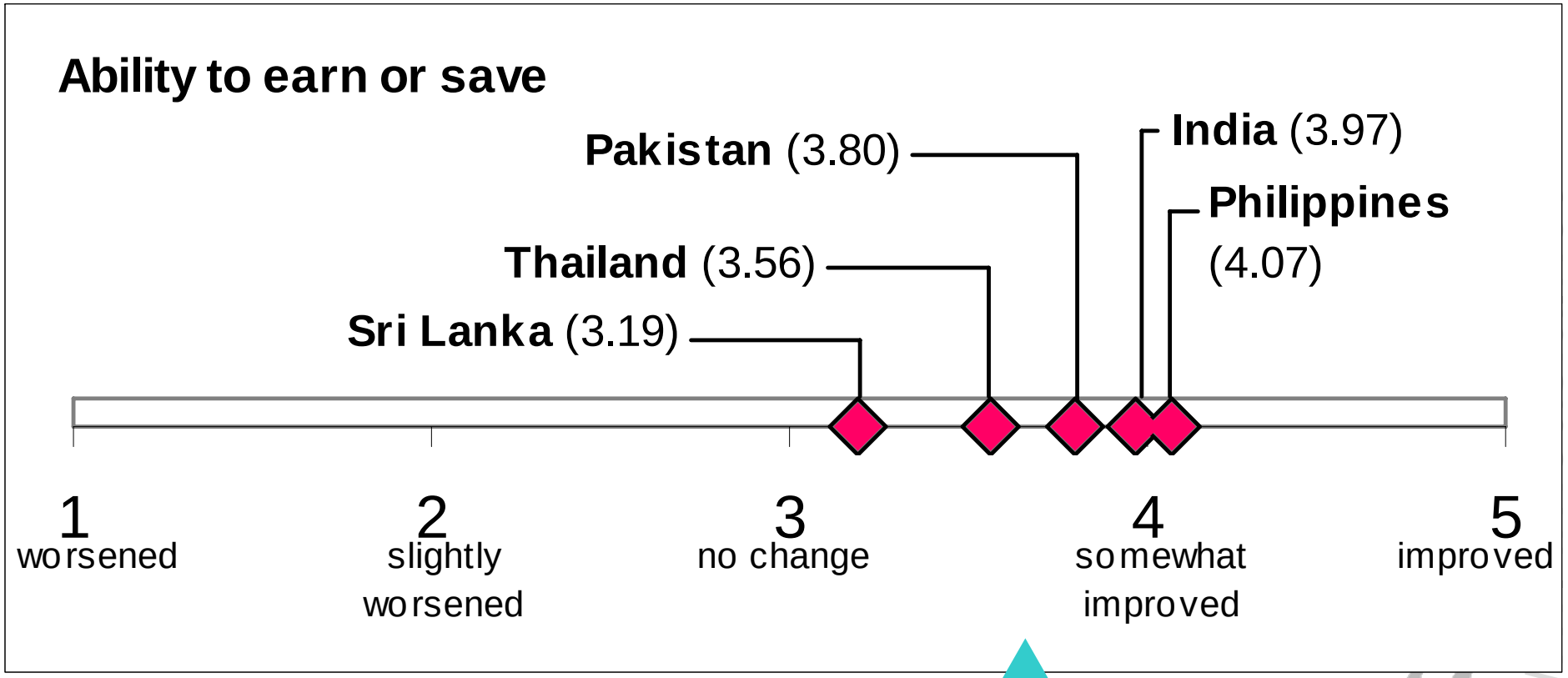
Efficiency of daily activities, as seen at the BOP

- BOP in all countries sees efficiency

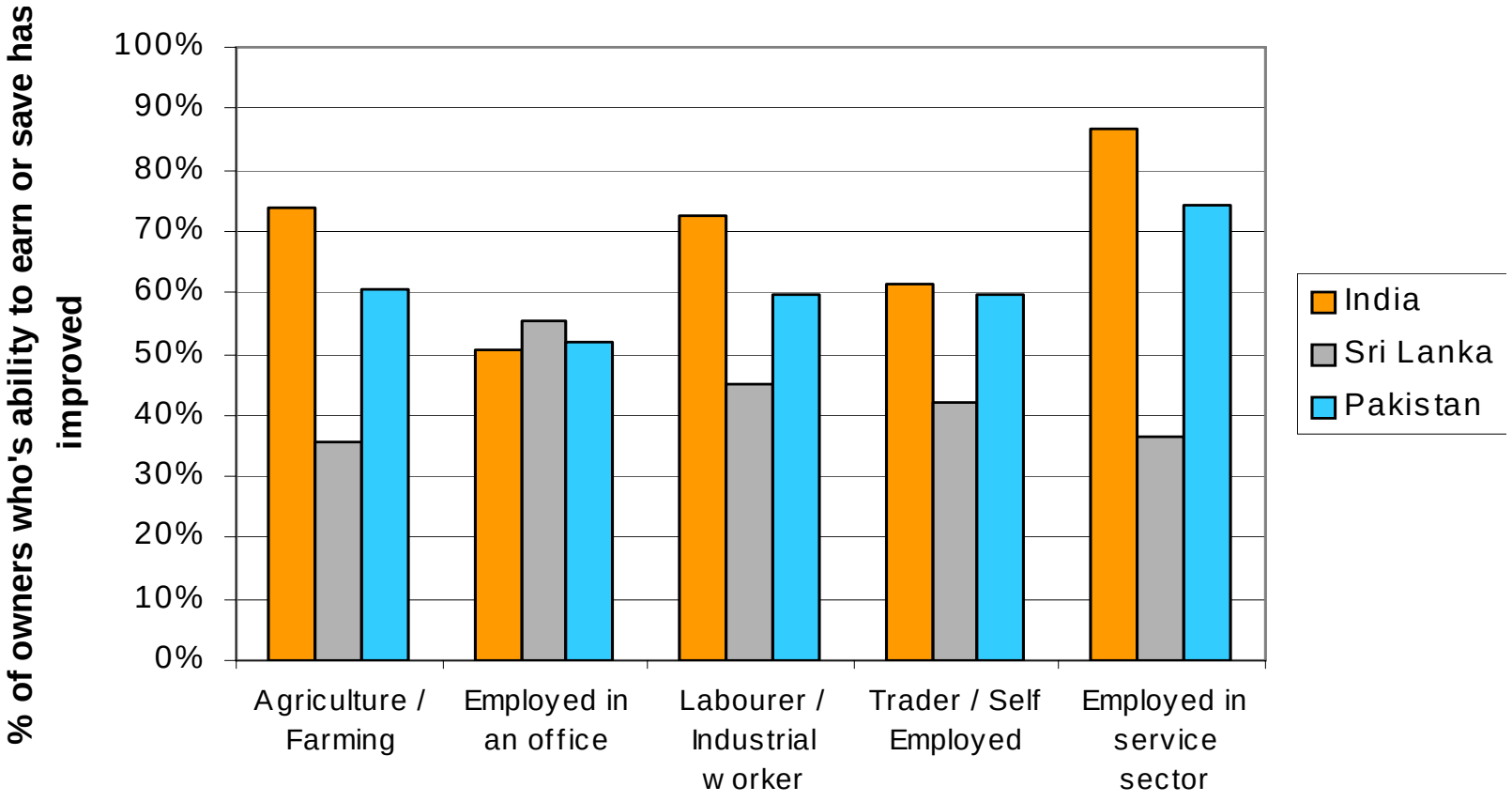


Efficiency → income benefit?

- Indian & Filipino BOP see economic benefit



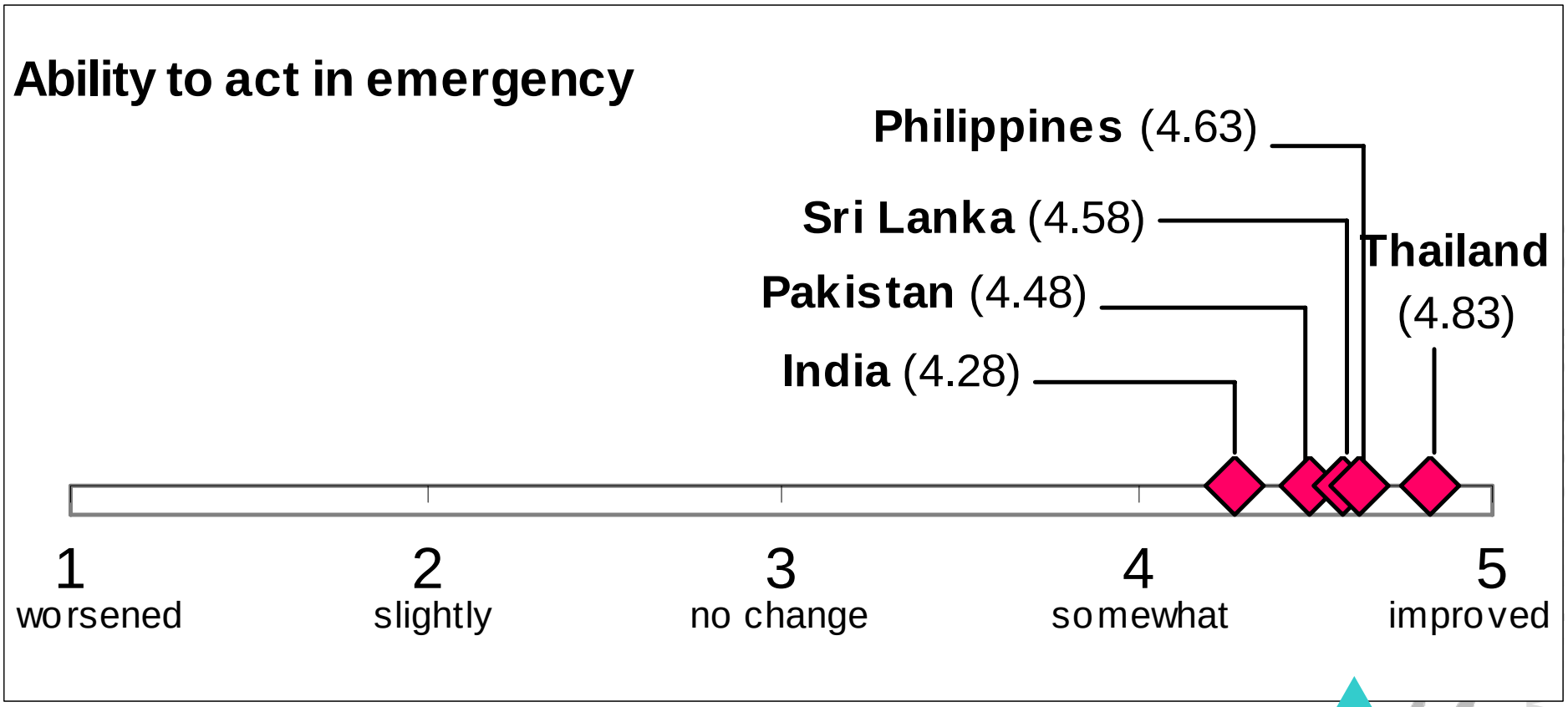
Seen both in services and agriculture



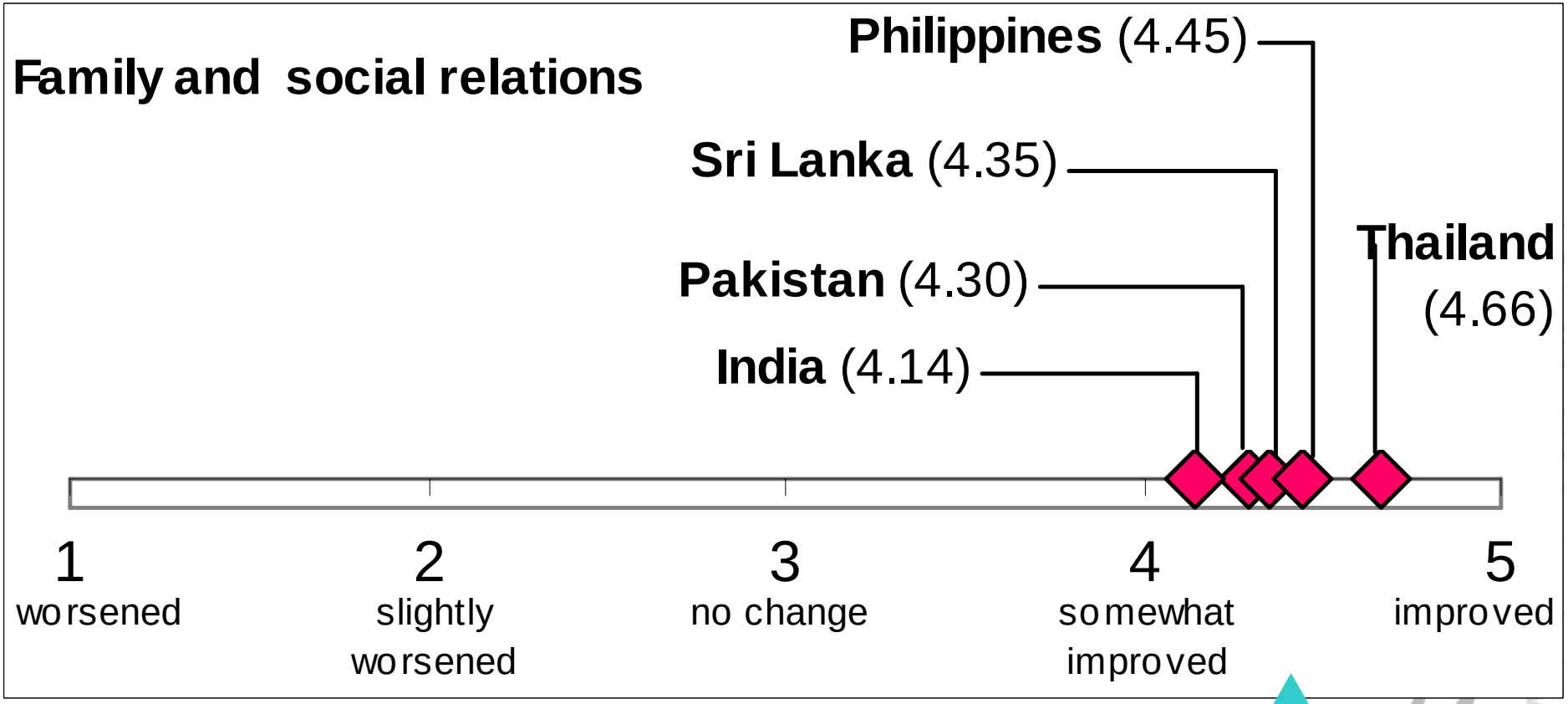
Saving travel time and costs, checking price information, sale of minutes?

But, sense of security is main perceived benefit

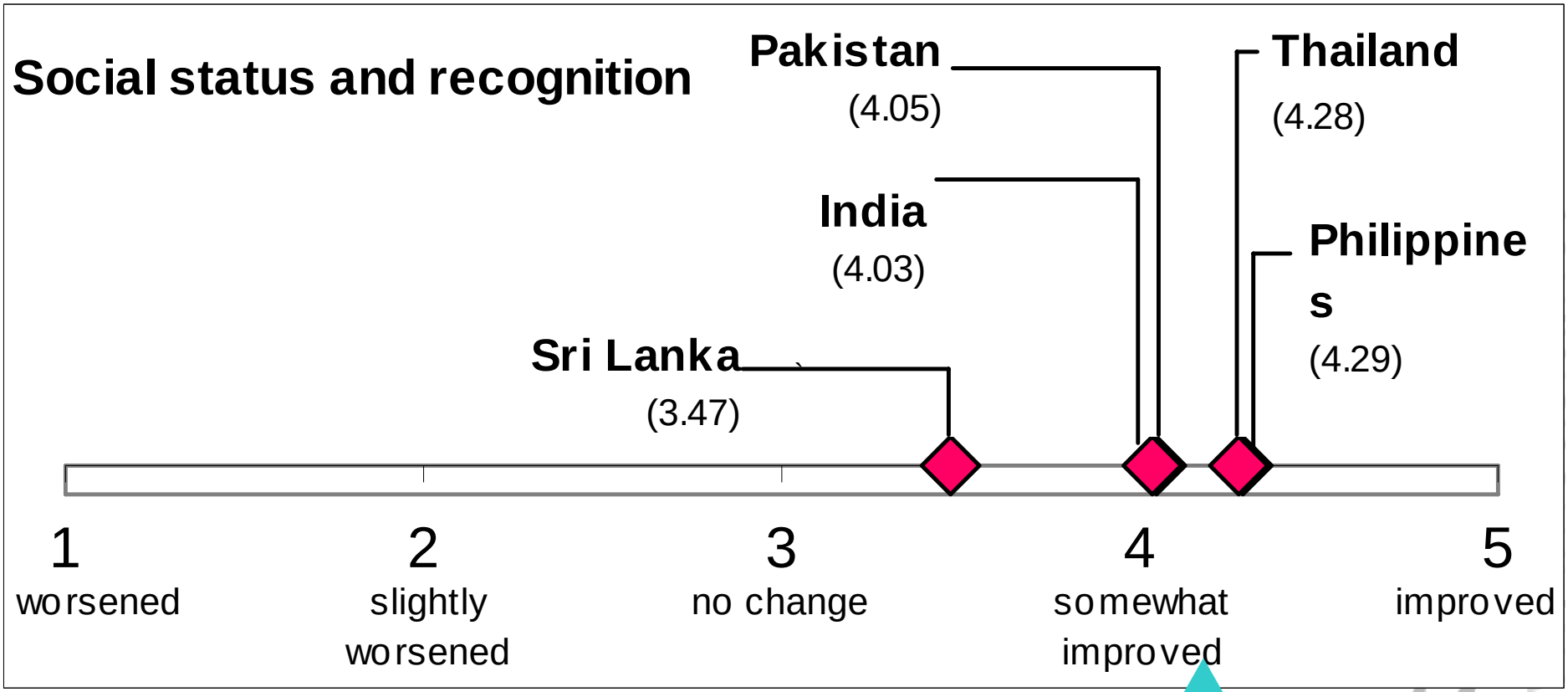
- Ability to act in an emergency is key



Keeping in touch is important



Social status and recognition improves in all countries except LK



Need innovations in making/saving money from ICTs

- Agricultural information
  - Our research shows the key interventions should be at
    - Selling stage (market information in real time)
    - Decision stage (ability to tell what the prices will be at harvest time)
- M-payments
  - Reduce transaction costs for migrant workers
  - Reduce expensive cash use
- Transportation
  - Help in cutting travel time and costs
- More . . . ?

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