Strategies to achieve connectivity and convergence

Singapore. February 26, 2007

# What do users at the BOP want?

## Survey research from 5 Asian countries

Harsha de Silva, Lead Economist LIRNE*asia*

*fieldwork by A C Nielsen; funded by IDRC*

LIRNE*asia*

Learning Initiatives on Reforms for Network Economies

www.lirneasia.net

# Plan of presentation

- Brief methodology
- A look at telecom access and use at the bottom of the pyramid in Developing Asia
- Perceived benefits from direct access
- Where is the next billion and what do they want
- Food for thought

# *Bottom of the Pyramid* defined

- Many definitions of poverty, here SEC D and E; between ages 18-60

| | Pakistan | India | Sri Lanka | Philippines | Thailand |
|---|---|---|---|---|---|
| Population (million) | 165 | 1,095 | 20 | 89 | 64 |
| Target population of study (million) | 77* | 260 | 4** | 41 | 15 |

*excluding FANA/FATA – Tribal Areas; **excluding N&E Provinces

# Methodology

Quantitative

Random sample 8,660 F-to-F interviews; in 5 countries (India 4,000) 50% diary

Qualitative

6 Focus Group Discussions per country (30)

Final output

# Quantitative sampling logic

- Multi-staged stratified sampling by probability proportionate to size
  - Stratification of cities within state, province etc
  - Geographical ordering of cities, villages
  - PPS selection of cities, villages
- Within PSU
  - Random starting points
  - 10 HH per starting point
  - KISH grid to select respondent in HH

# 5-country sample

| | South Asia | | | Southeast Asia | | Total |
|---|---|---|---|---|---|---|
| | Pakistan | India | Sri Lanka | Philippines | Thailand | |
| Top and Mid SEC A, B & C | 685 | 800 | 250 | 120 | 200 | 2,055 |
| BOP SEC D & E | 1,125 | 3,200 | 800 | 980 | 500 | 6,605 |
| Total | 1,810 | 4,000 | 1,050 | 1,100 | 700 | 8,660 |
| Error margin at 95% CI | 3.0% | 1.5% | 3.0% | 3.0% | 7.0% | |

# Innovation: diary

- Inaccuracy of recall data
- Dairies
  - Much better than recall for frequently used items
  - Tend to underestimate
- Diaries for 50% of sample for two-week period
  - Placed with > 50% to ensure 50% completion
  - Placed with owners & non-owners
- Calling data captured successfully; expenditure & SMS data not so successful

# The diary

| Day | Sunday 1 | Monday 2 | Tuesday 3 | Wednesday 4 | Thursday 5 | Friday 6 | Saturday 7 | Respondent No -------- | For call. F |
|---|---|---|---|---|---|---|---|---|---|

| | | Call no. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| In / Out | 1 | Incoming | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | Outgoing | | | | | | | | | | | | | | | | | | | | | | | | | |
| Time | 1 | a.m. | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | p.m. | | | | | | | | | | | | | | | | | | | | | | | | | |
| Phone type used (SA) | 1 | My own mobile | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | Household fixed phone | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3 | Public Pay Phone booth | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4 | Telecommunication Centre | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 5 | Nena Sela | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 6 | Government Post Office | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 7 | Agency/Private Post office | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 8 | My relatives Friends phone | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 9 | Neighbor's phone | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 10 | My work place /office phone | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 11 | A mobile of another household member | | | | | | | | | | | | | | | | | | | | | | | | | |
| Duration of call | 1 | 1 minute or less | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | 2 to 3 minutes | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3 | About 5 minutes | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4 | About 10 minutes | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 5 | 15 min. or more | | | | | | | | | | | | | | | | | | | | | | | | | |
| Main reason for call (SA) | 1 | Business | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | Keep in touch - family/ friends | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3 | To check something / Deliver a message | | | | | | | | | | | | | | | | | | | | | | | | | |
| Other reasons for call (MA) | 1 | Business | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | Keep in touch - family/friends | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3 | To check something / Deliver message | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 4 | None | | | | | | | | | | | | | | | | | | | | | | | | | |
| Type of call | 1 | Local | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | Long distance | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3 | Foreign | | | | | | | | | | | | | | | | | | | | | | | | | |
| Call Cost (if paid for call immediately afterwards) | | | | | | | | | | | | | | | | | | | | | | | | | | | |

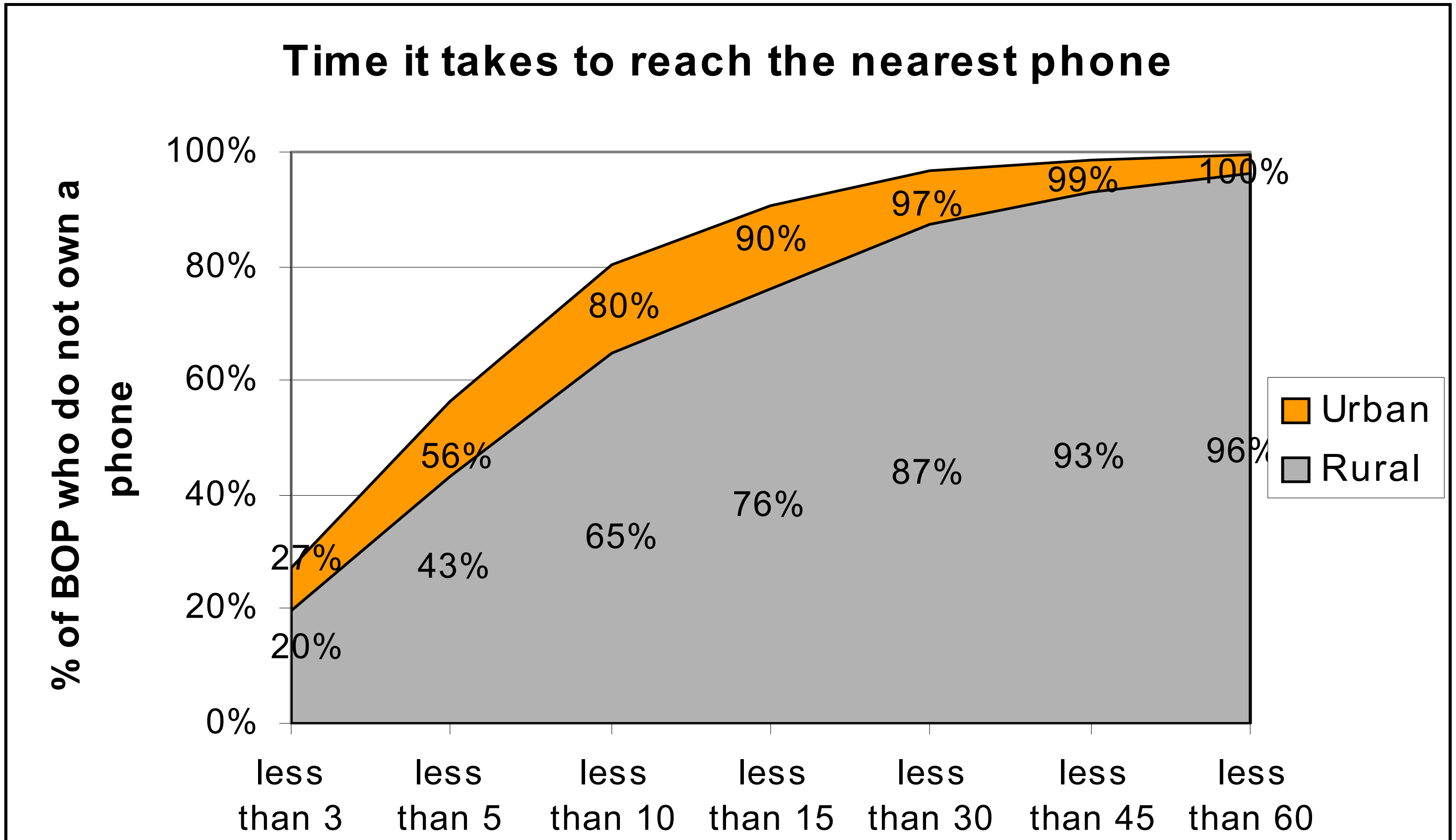
Bottom of the Pyramid
everyone has access, but not ownership

# Overall access is very high

- Used phone in the last 3 months

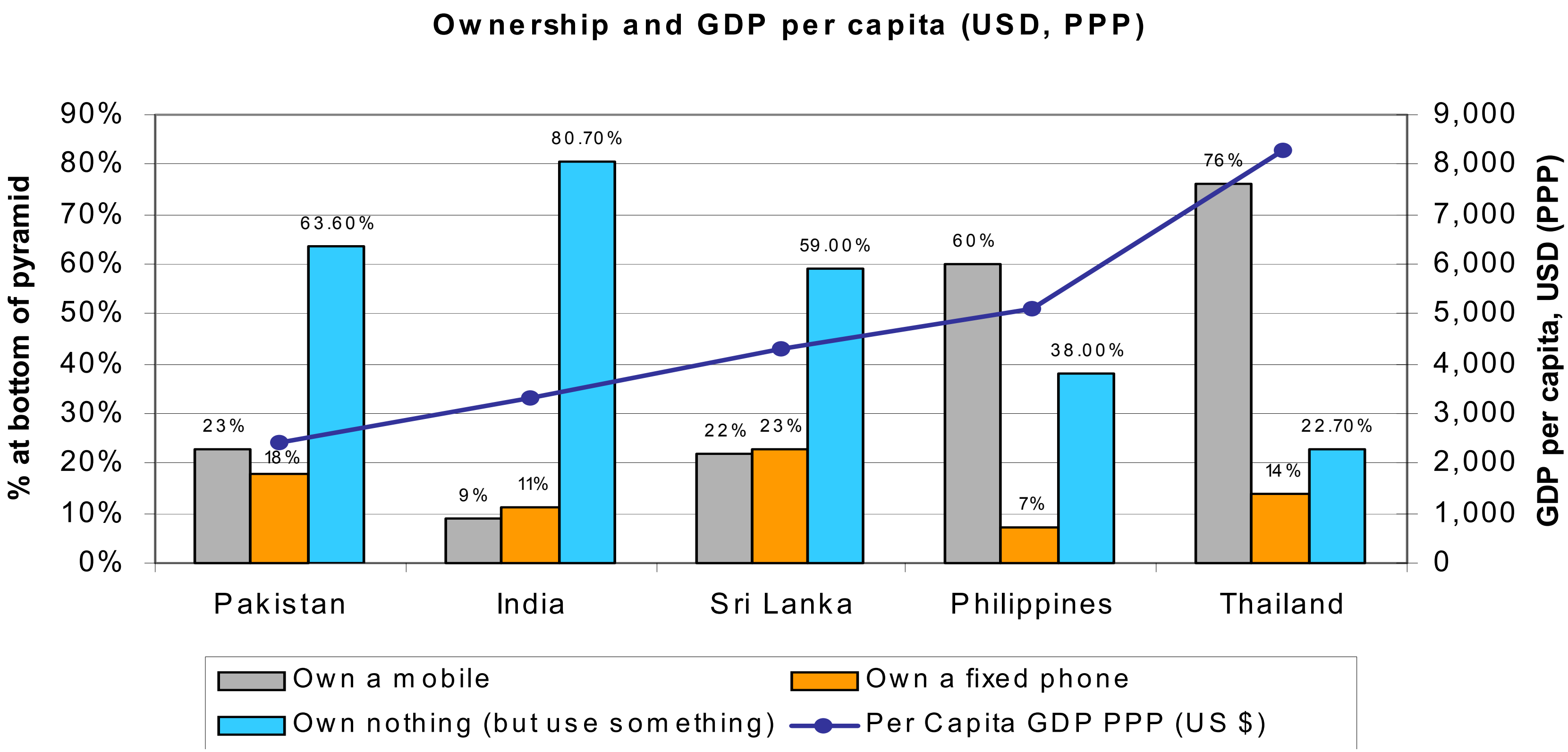
| | South Asia | | | South East Asia | |
|---|---|---|---|---|---|
| | Pakistan | India | Sri Lanka | Phils. | Thailand |
| Used phone in last 3 months | 98% | 94% | 92% | 93% | 95% |

# Overall access is very high*




Most at BOP can get to a phone in less than 1 hour

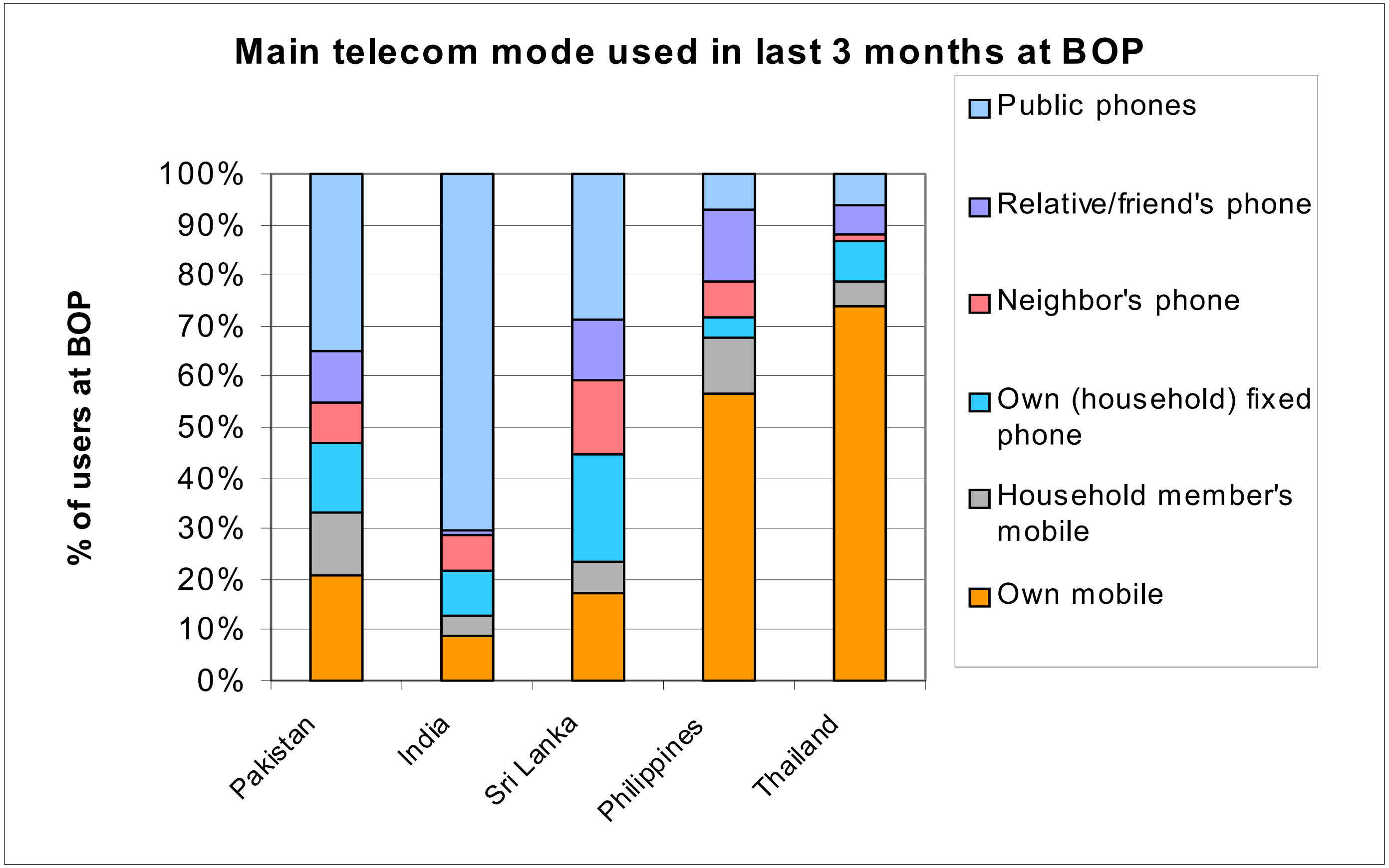
# But ownership is low




| | Pakistan | India | Sri Lanka | Philippines | Thailand |
|---|---|---|---|---|---|
| Total number of phones per 100 population | 29.38 | 13.96 | 29.10 | 45.30* | 57.80** |

*Source: National regulatory agencies (mid 2006); * 2005, **2004 [F 4.6 M 8.2; U 32 R 2]*

# So, mainly use public phones*




In India at BOP over 70% use public phones

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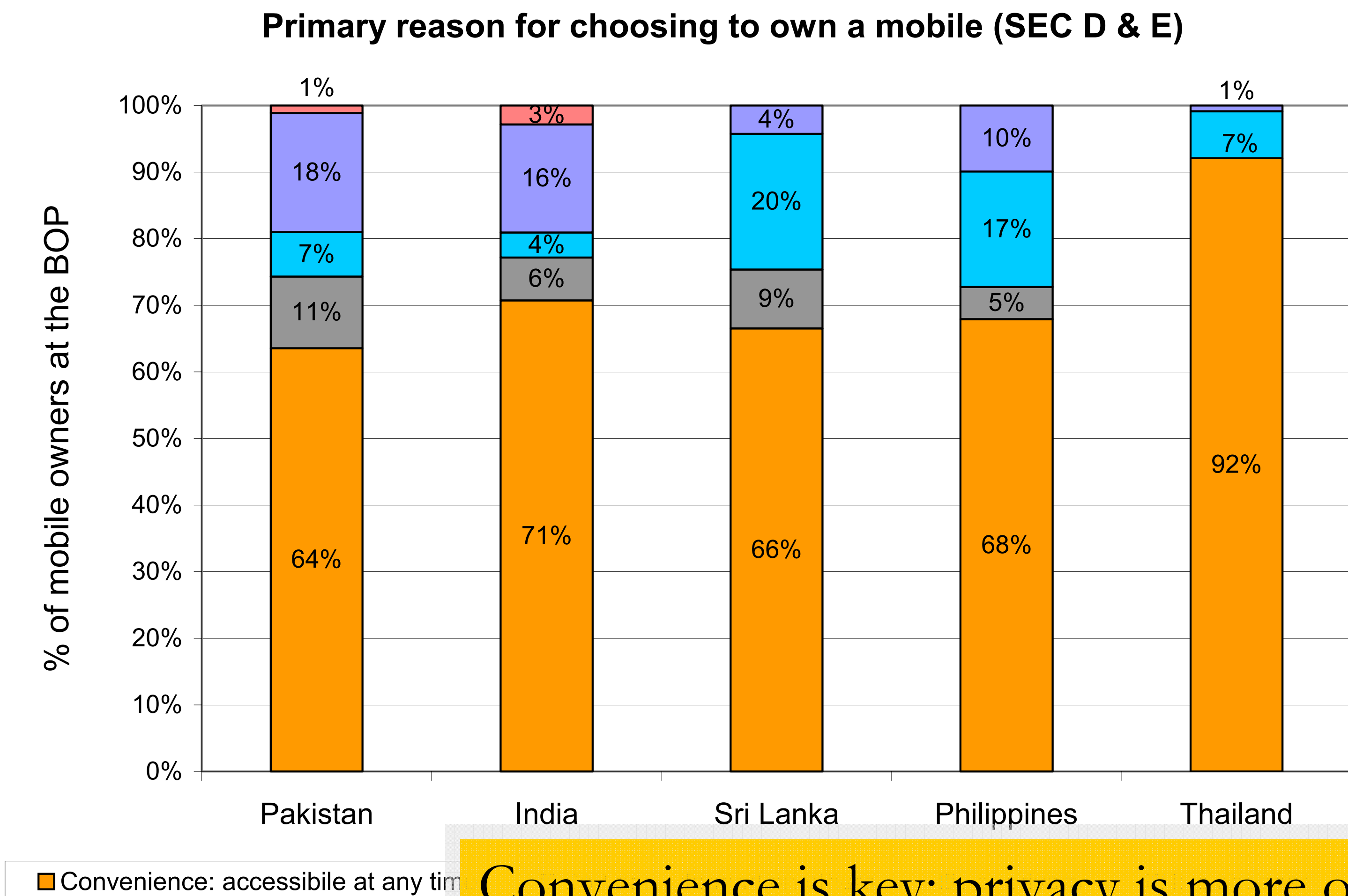
# Bottom of the Pyramid

some do own phones

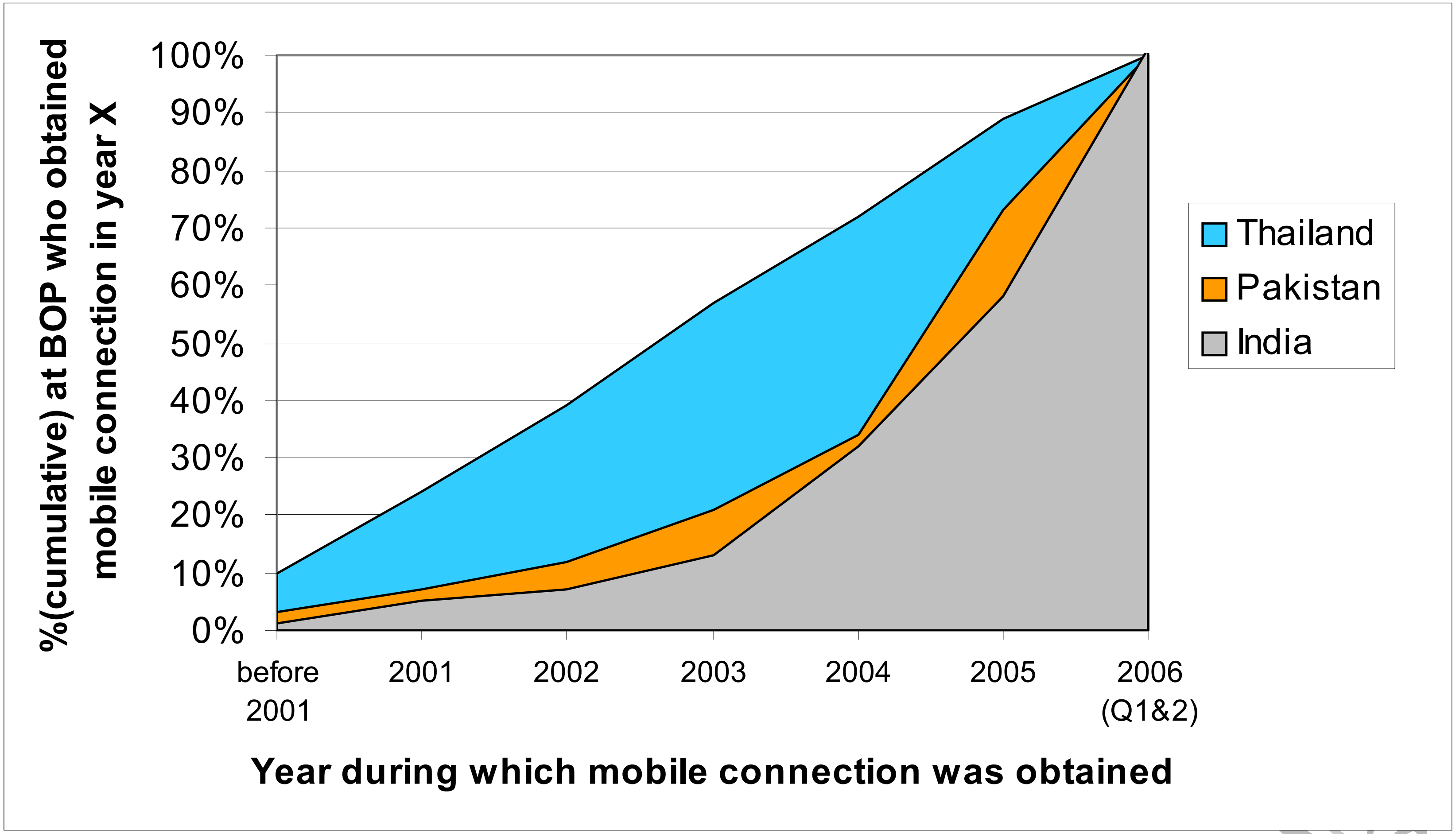
20%

# Why own a (mobile) phone?*

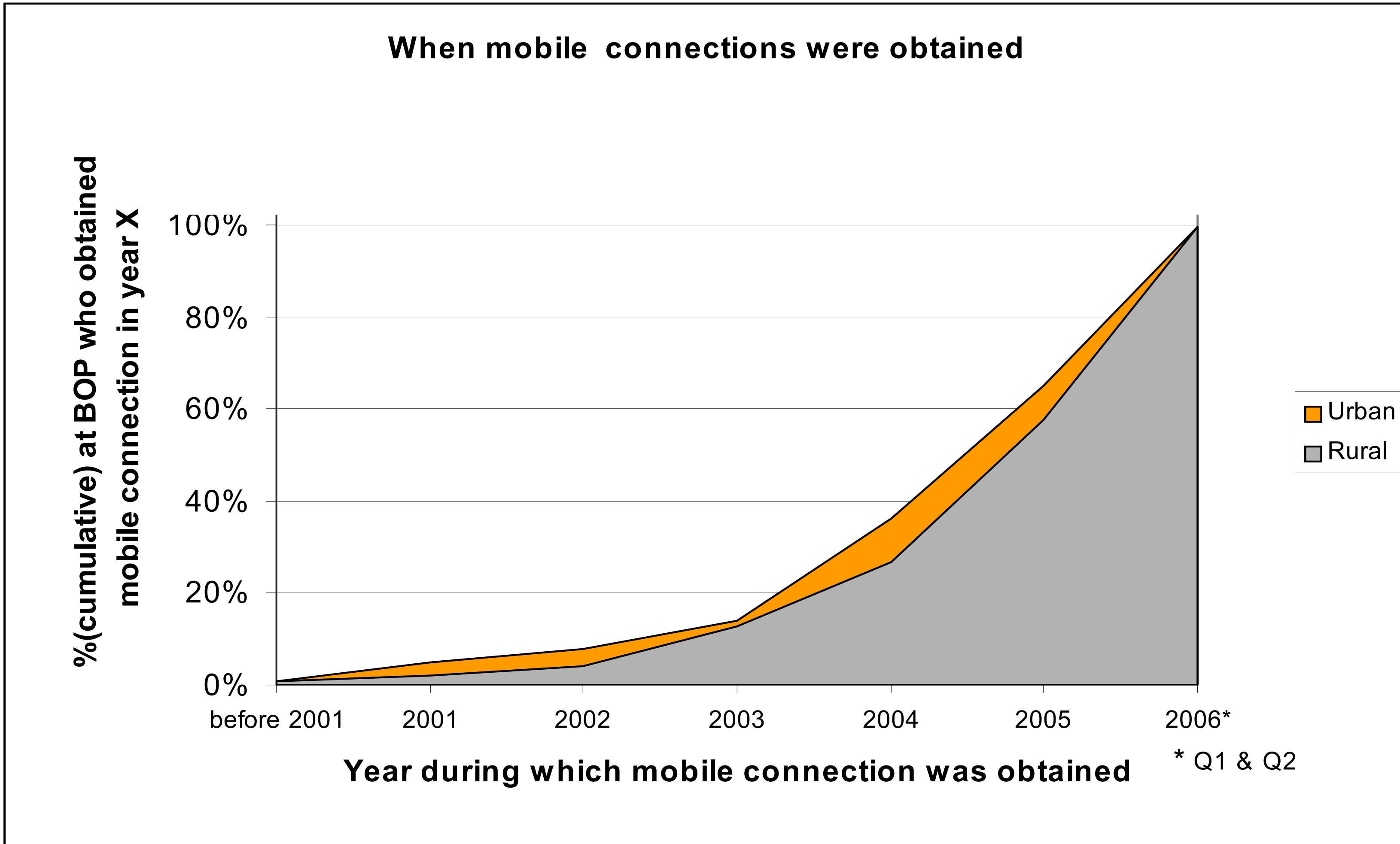



Convenience is key; privacy is more of a concern for higher income countries

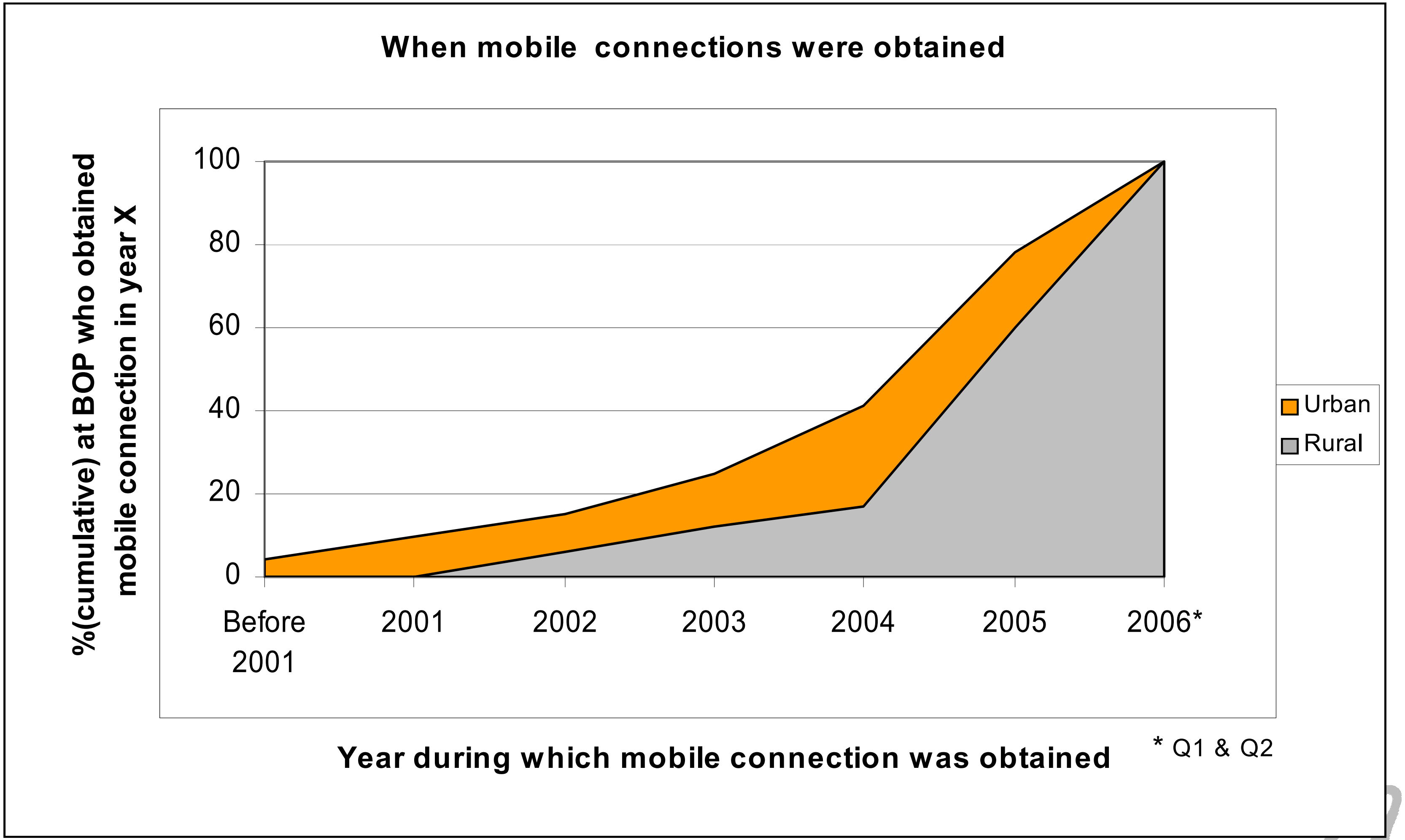
# Most are recent owners



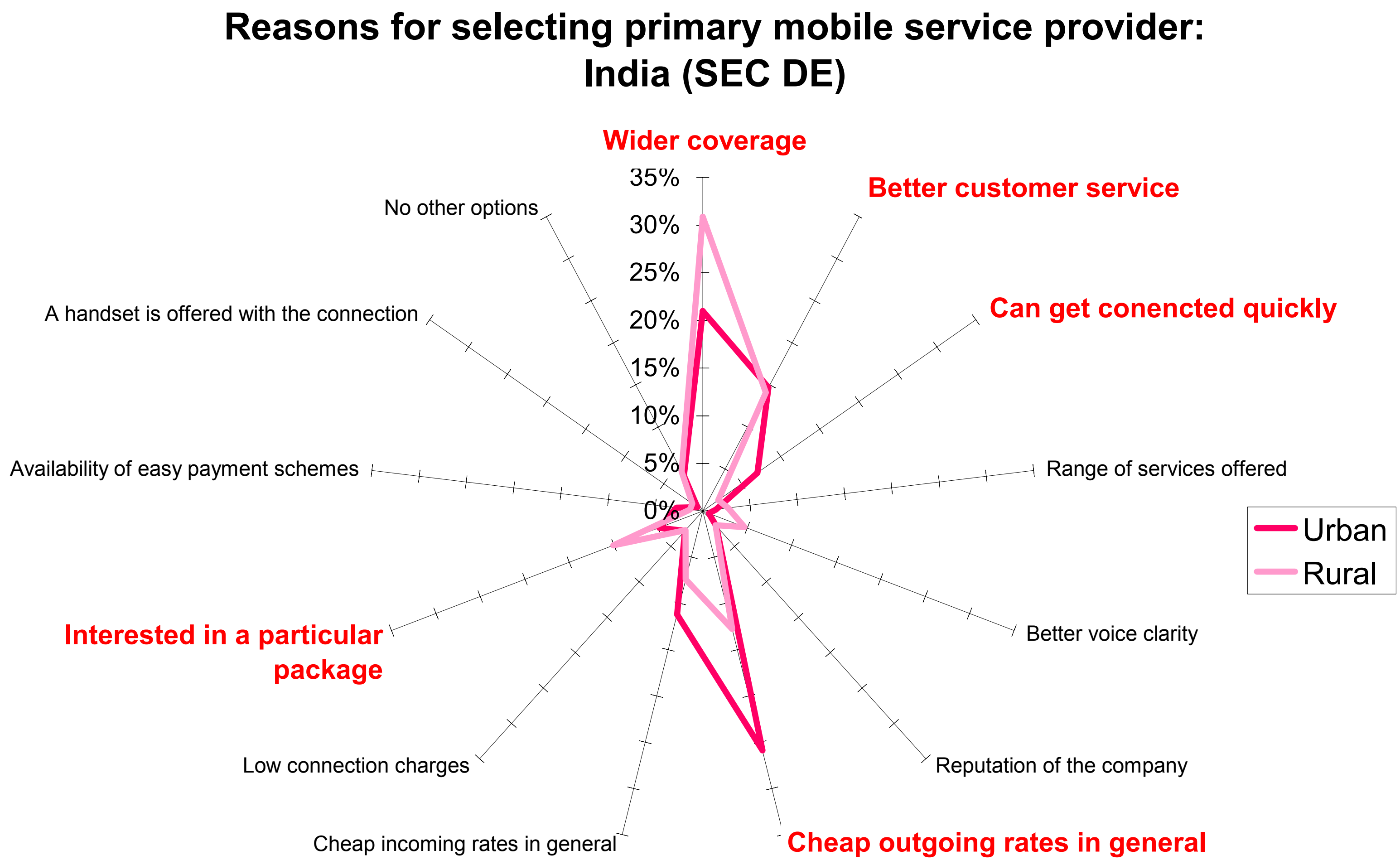
# India example, rural vs. urban



# Pakistan example



# Coverage more important in rural; tariff in urban (India example)



# Bottom of Pyramid

value-conscious. strategic.

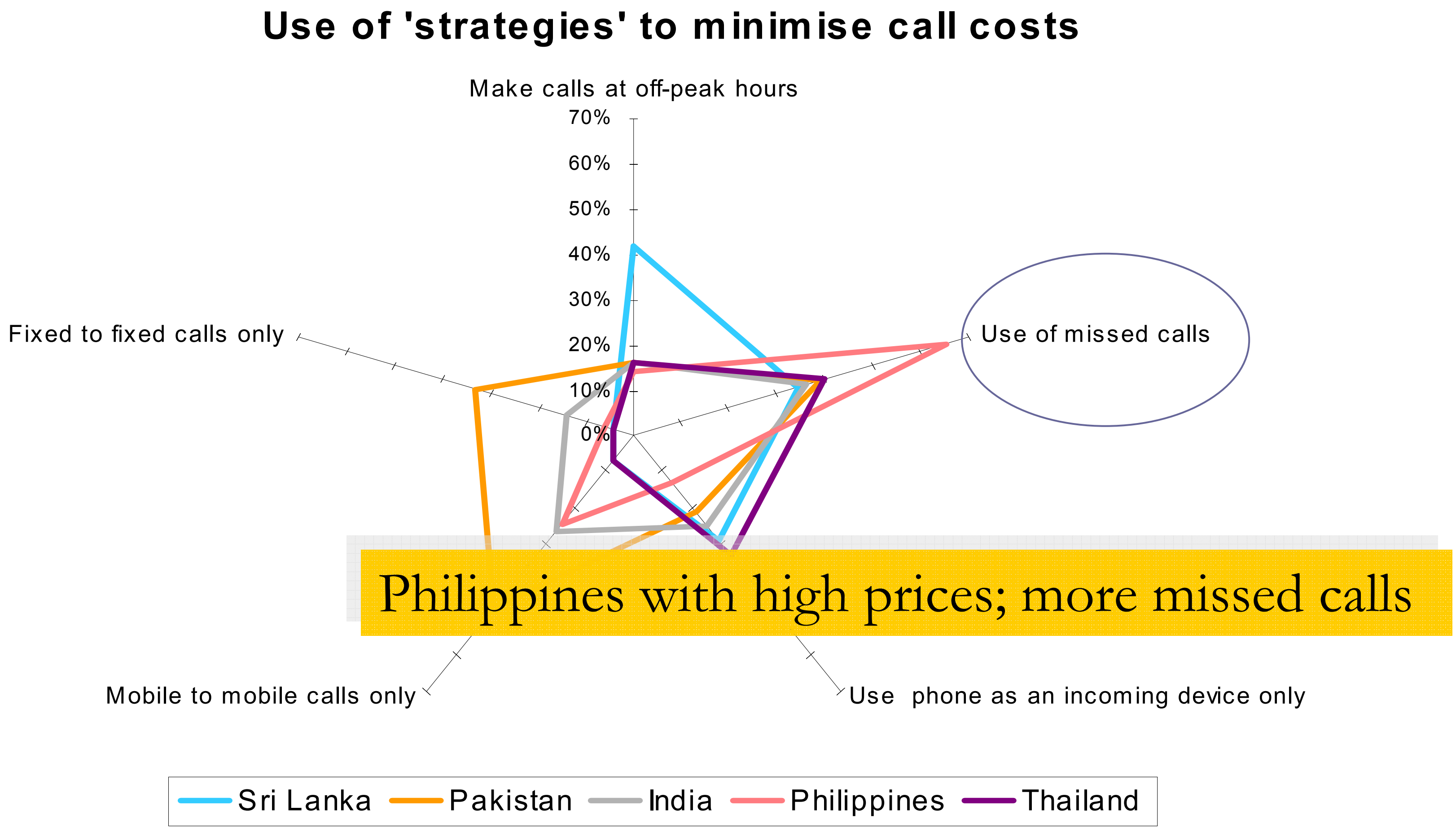
# BOP is prepaid, *mobile**

| | Pakistan | India | Sri Lanka | Philippines | Thailand |
|---|---|---|---|---|---|
| Pre Paid | 99% | 95% | 92% | 99% | 96% |

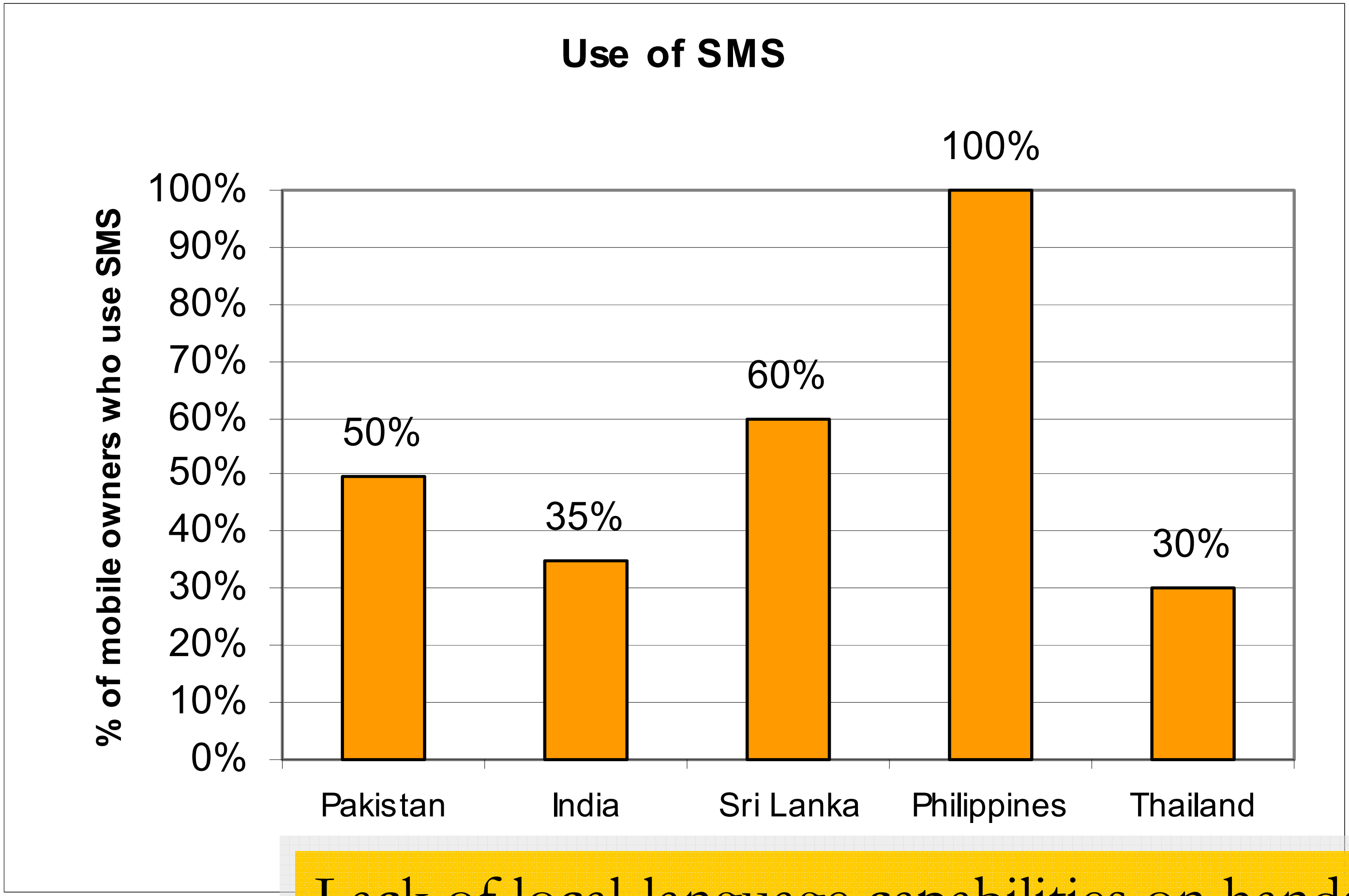
To control expenditure; no monthly rental charge

# Missed call alert: a universal strategy

(by owners)



# Philippines: SMS capital of the world*




Lack of local-language capabilities on handsets?
Meaningful information?

# Bottom of Pyramid
telephone brings benefits

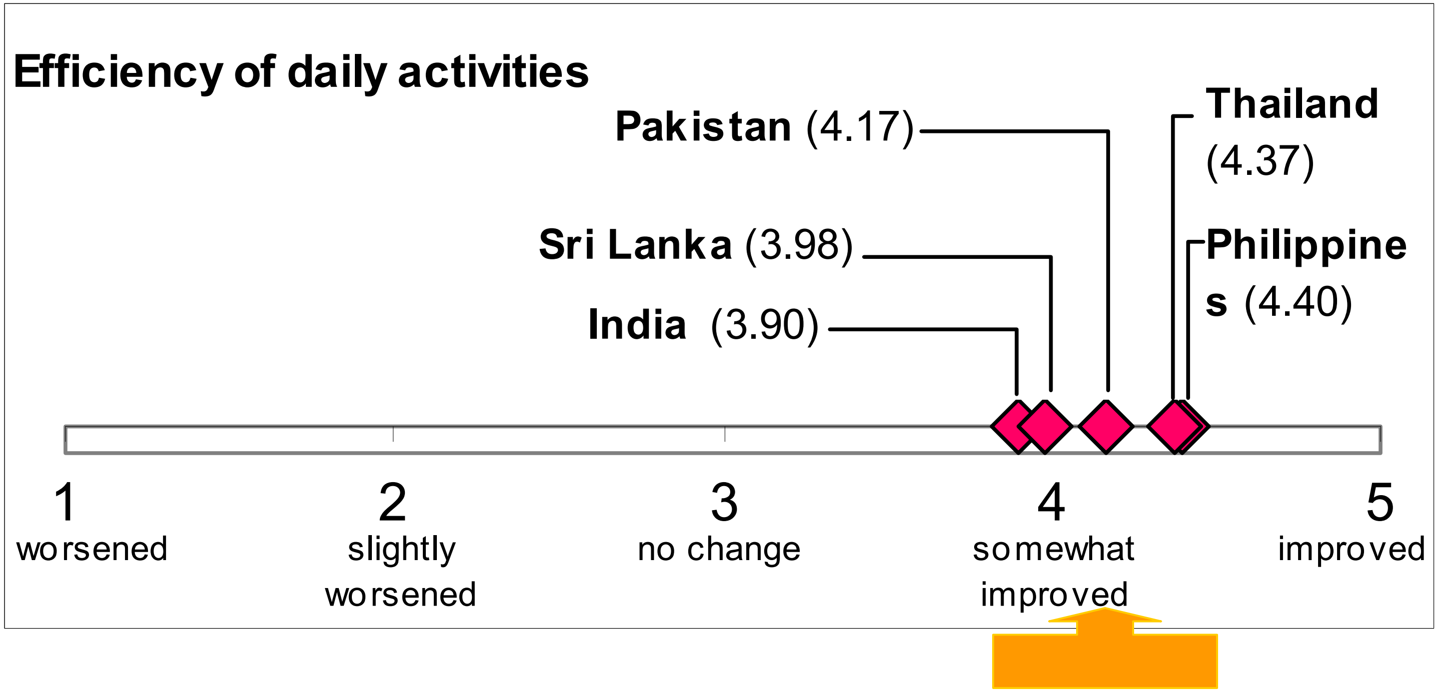
# Economic benefits from direct and indirect access*

- Income generation through the sale of telecom services; *Grameen model…*
- Indirect
  - Use of a phone by an auto-rickshaw driver
  - Obtaining agricultural price info by farmer
  - Cost savings made by making a call as opposed to taking a bus ride into town

Dr Hans Wijesuriya's speech last night: The impact of direct and indirect access on the economy is tremendous.

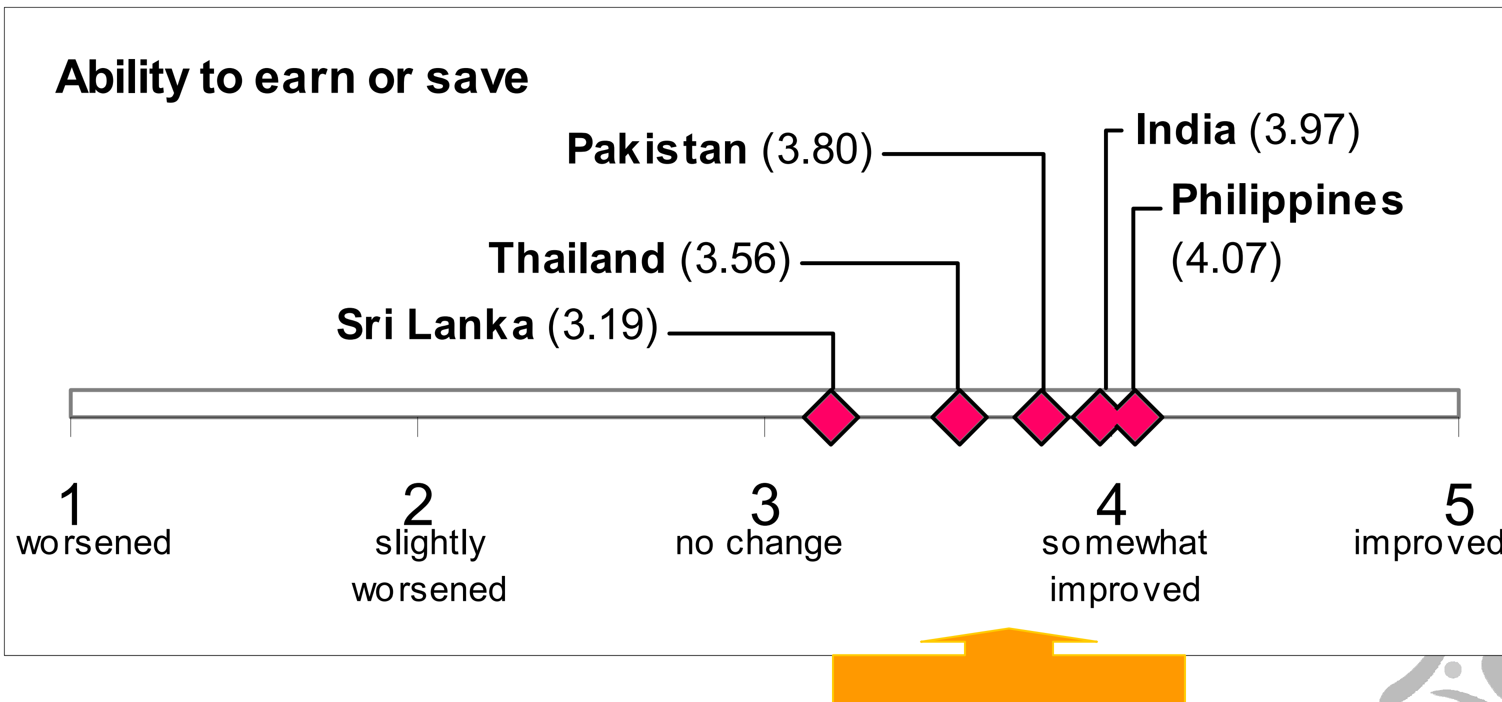
# Efficiency of daily activities

- BOP sees the benefit

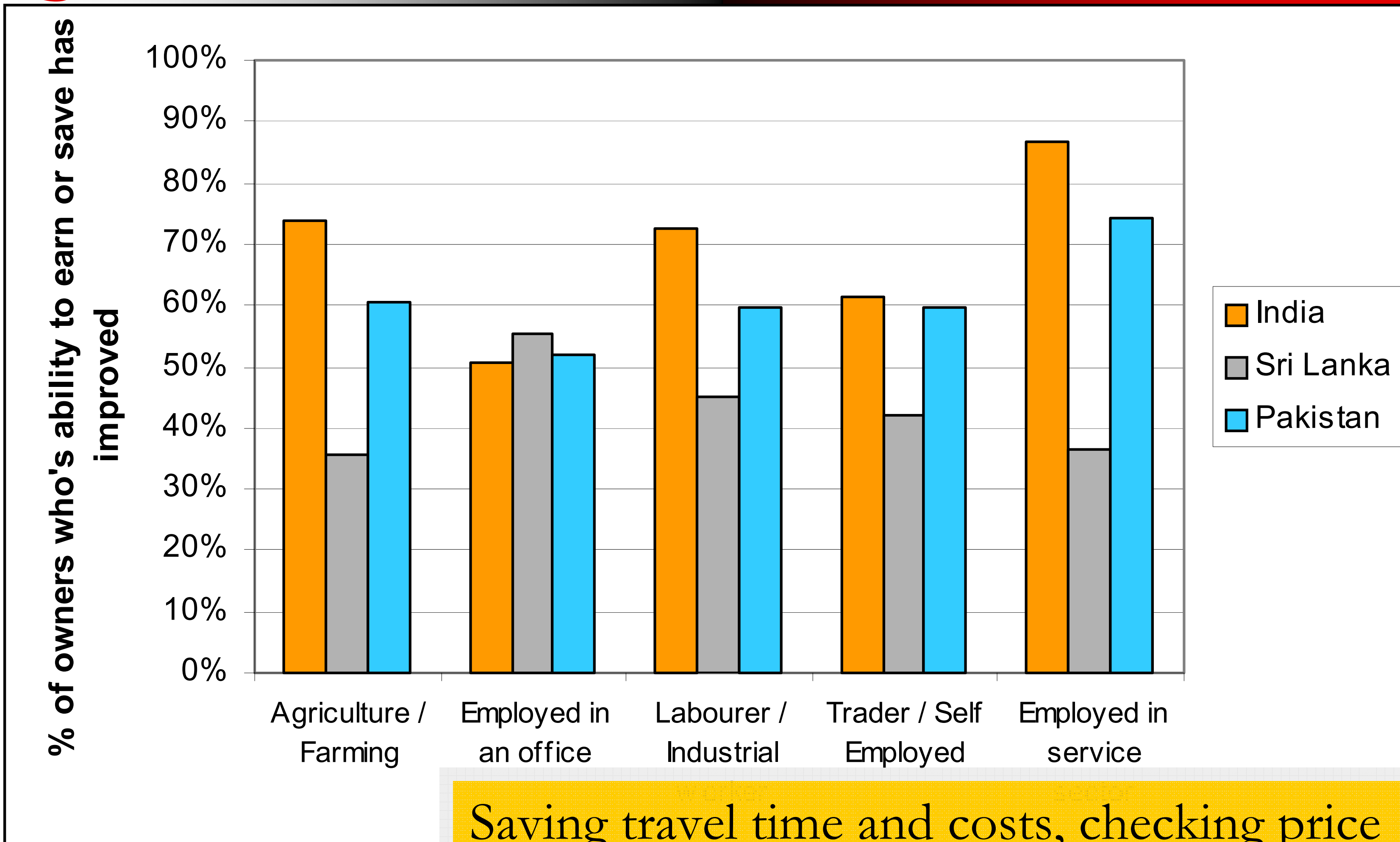


# Efficiency → income benefit?

- But, only in India BOP perceives economic benefit
  - Large transactions costs avoided?



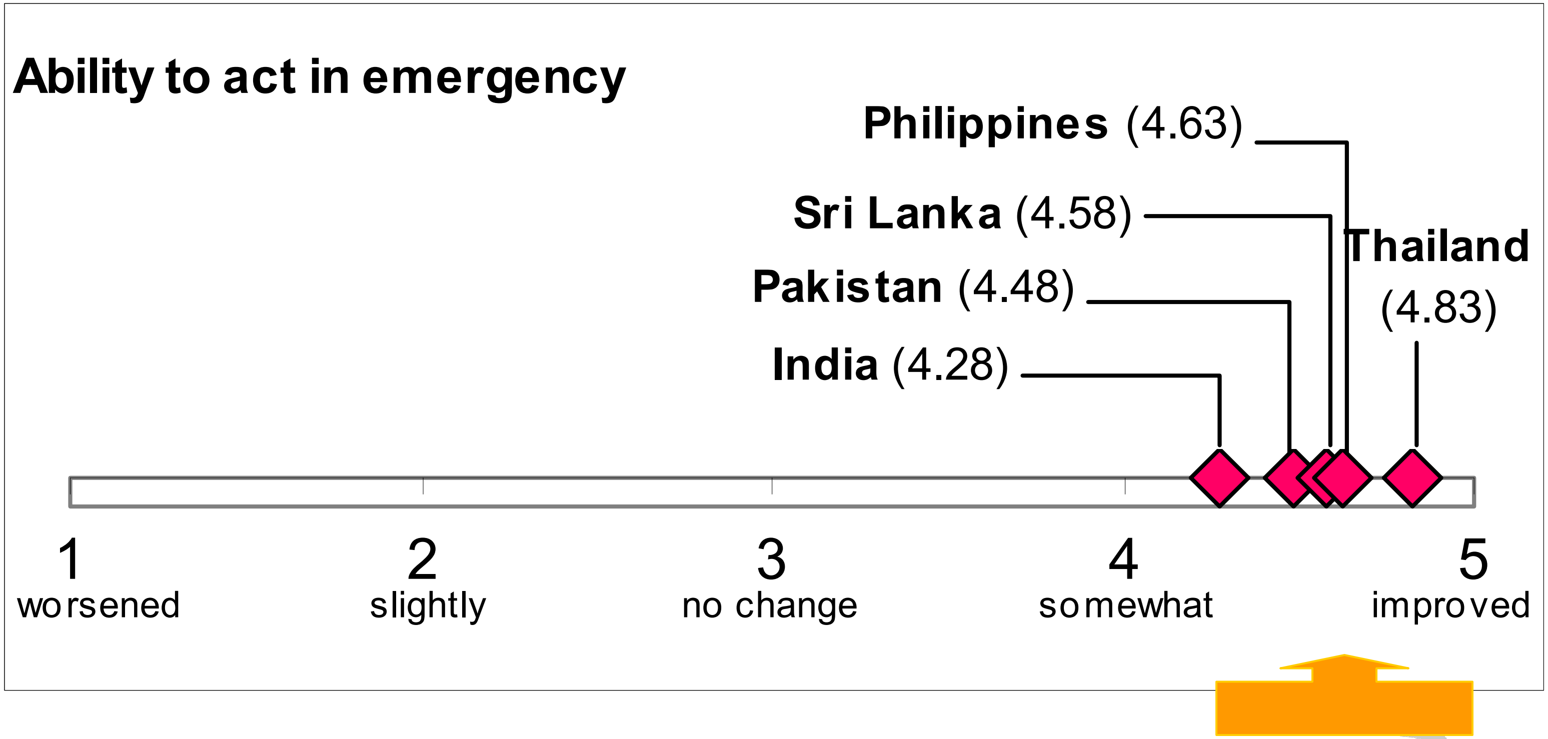
# Seen both in services and agriculture




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

# But, sense of security is main benefit

- Ability to act in an emergency is key

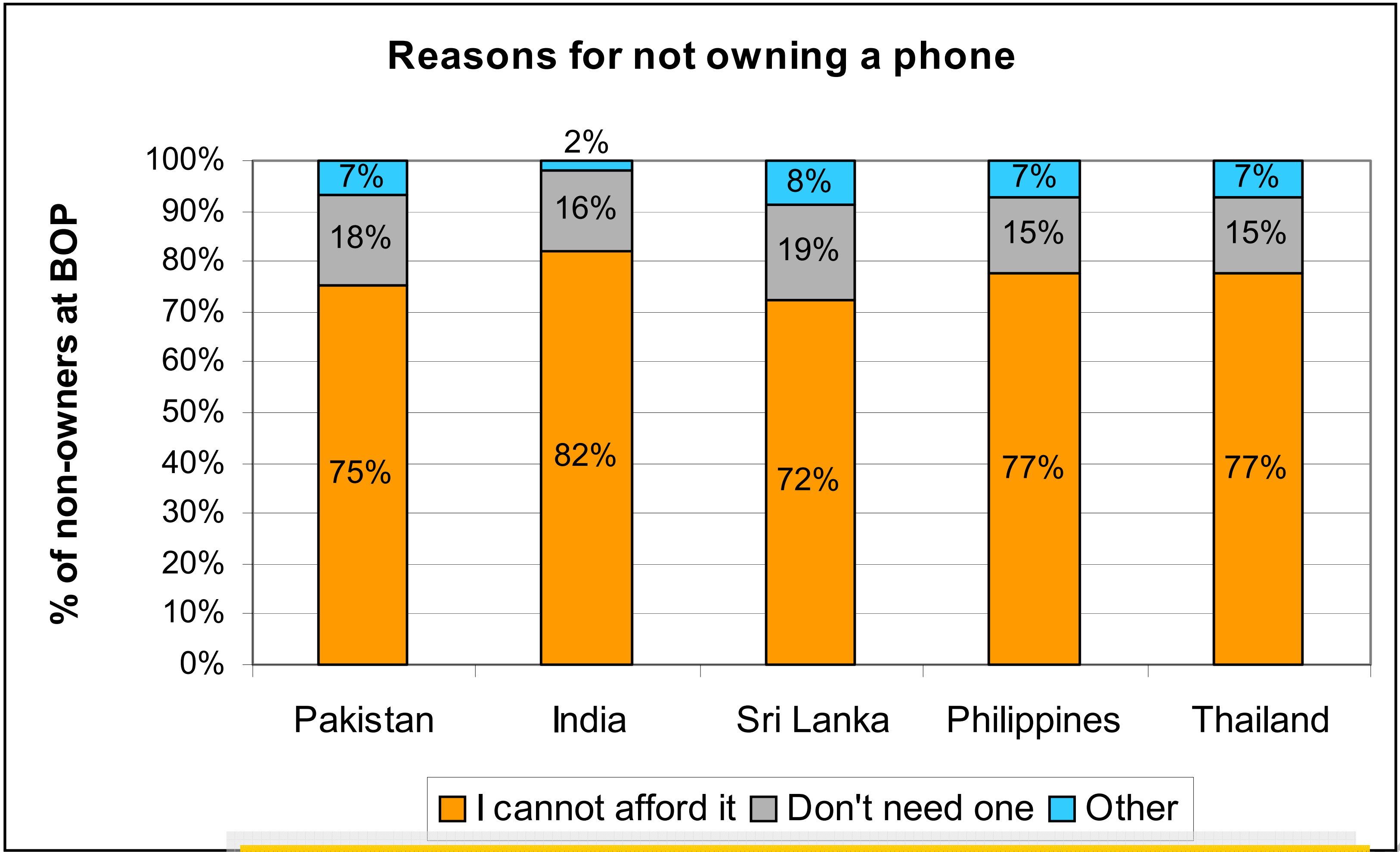


# Bottom of the Pyramid

most don’t own phones…

80%

# Why not own a phone?*




Affordability is the key barrier to phone ownership

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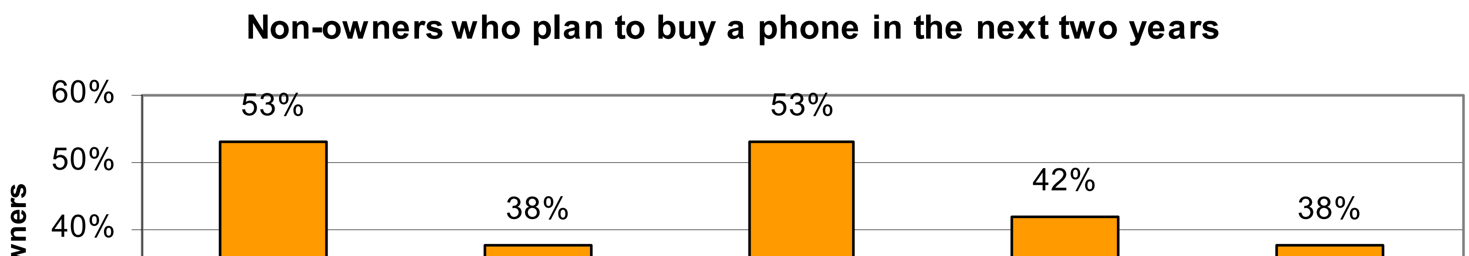
## Next Billion

addressable market goes below USD100 a month income

# Current

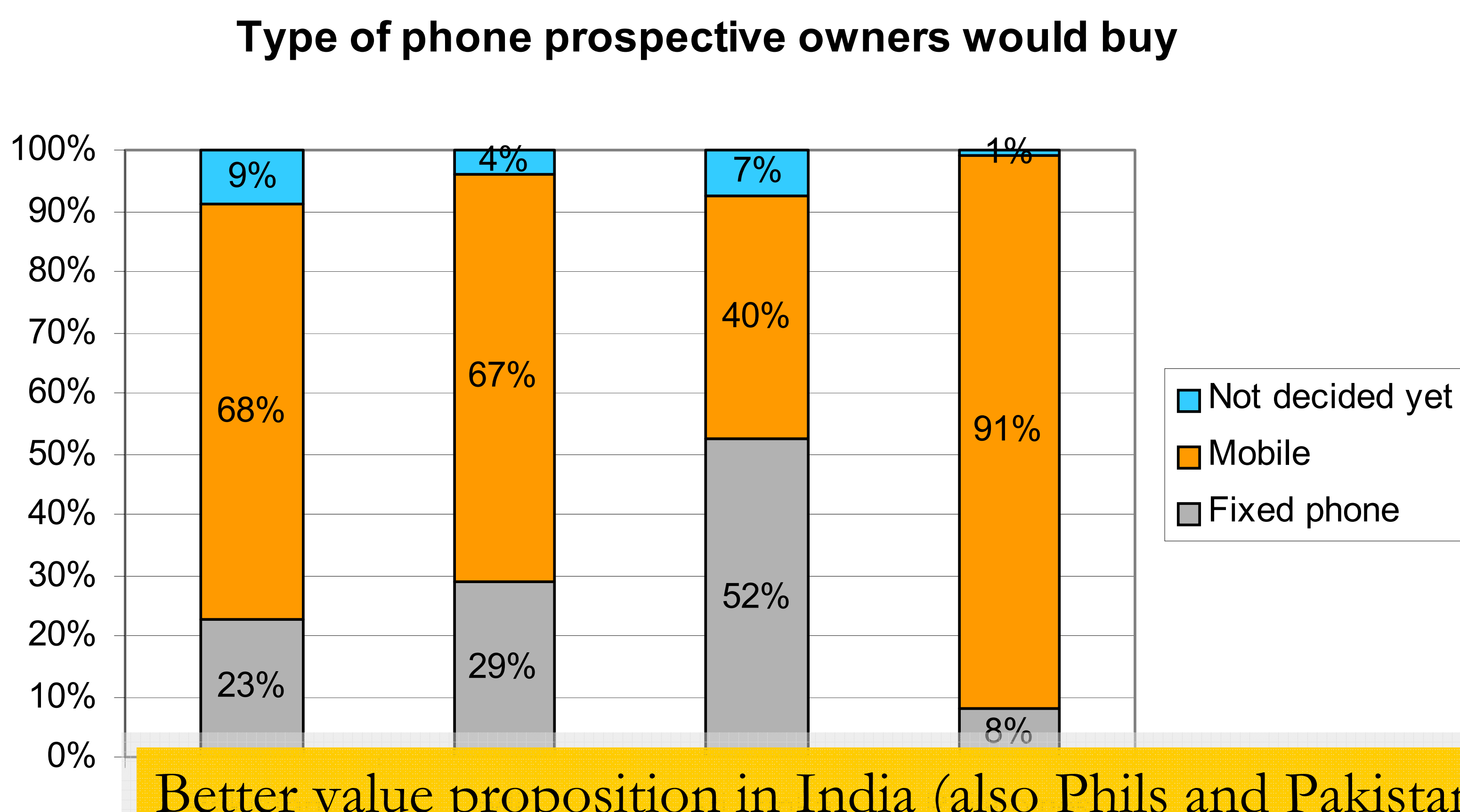
- 2.5 billion phones?
  - 500 million in last 12 months
- General expectation
  - 3 billion by 2008
  - 50% Asia Pacific (including China)

# The next billion?*



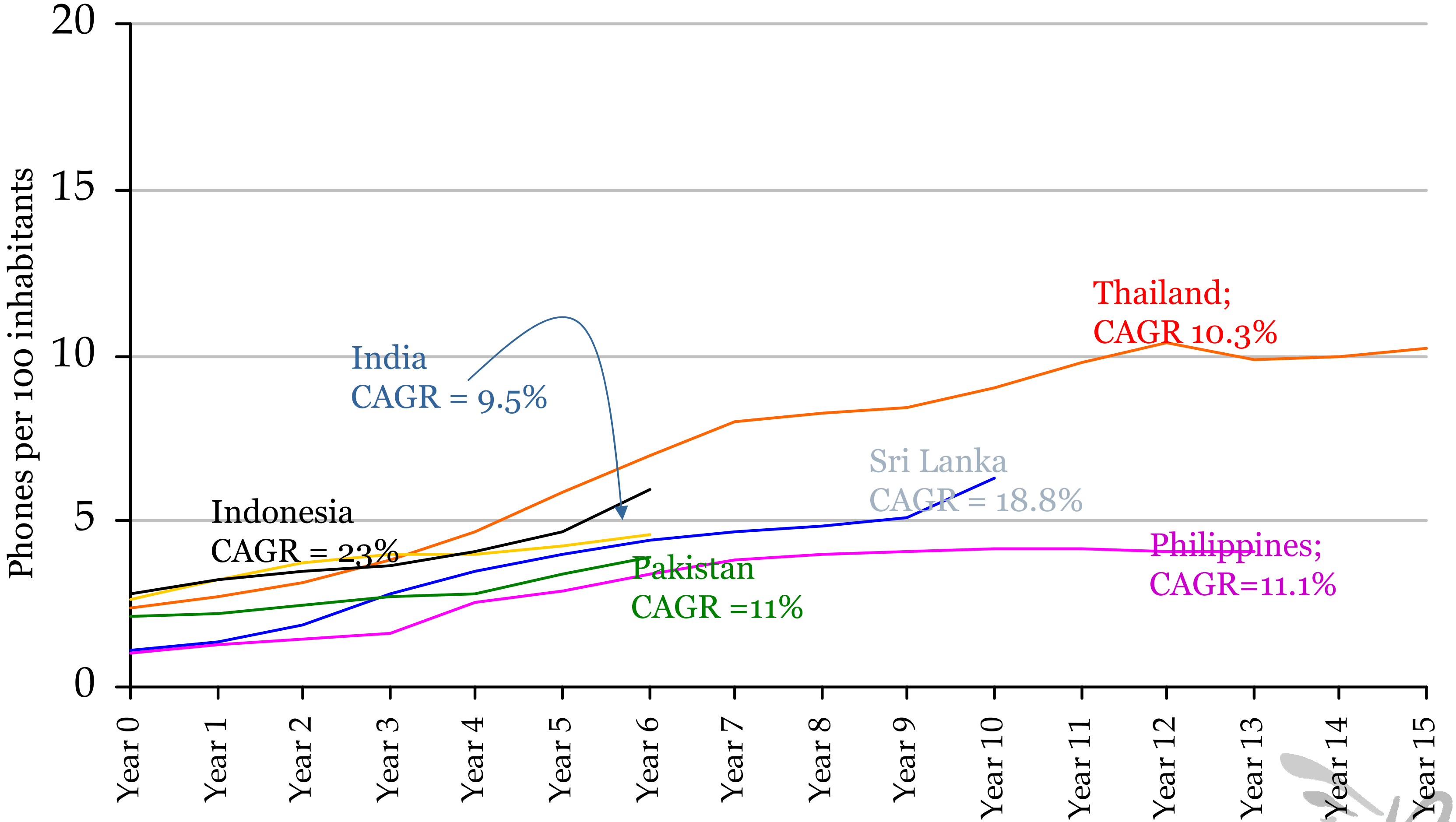

| | South Asia | | | South-east Asia | |
|---|---|---|---|---|---|
| | Pakistan | India | Sri Lanka | Philippines | Thailand |
| Vertical growth, millions (HH obtaining additional connections) | 4 | 21 | 0.3 | 3 | 0.1 |
| Horizontal growth, millions (non-owners joining market) | 26 | 80 | 1 | 7 | 1 |
| Possible new connections at BOP, millions, next 2 years | 30 | 101 | 1 | 10 | 1 |

# Growth mainly mobile*

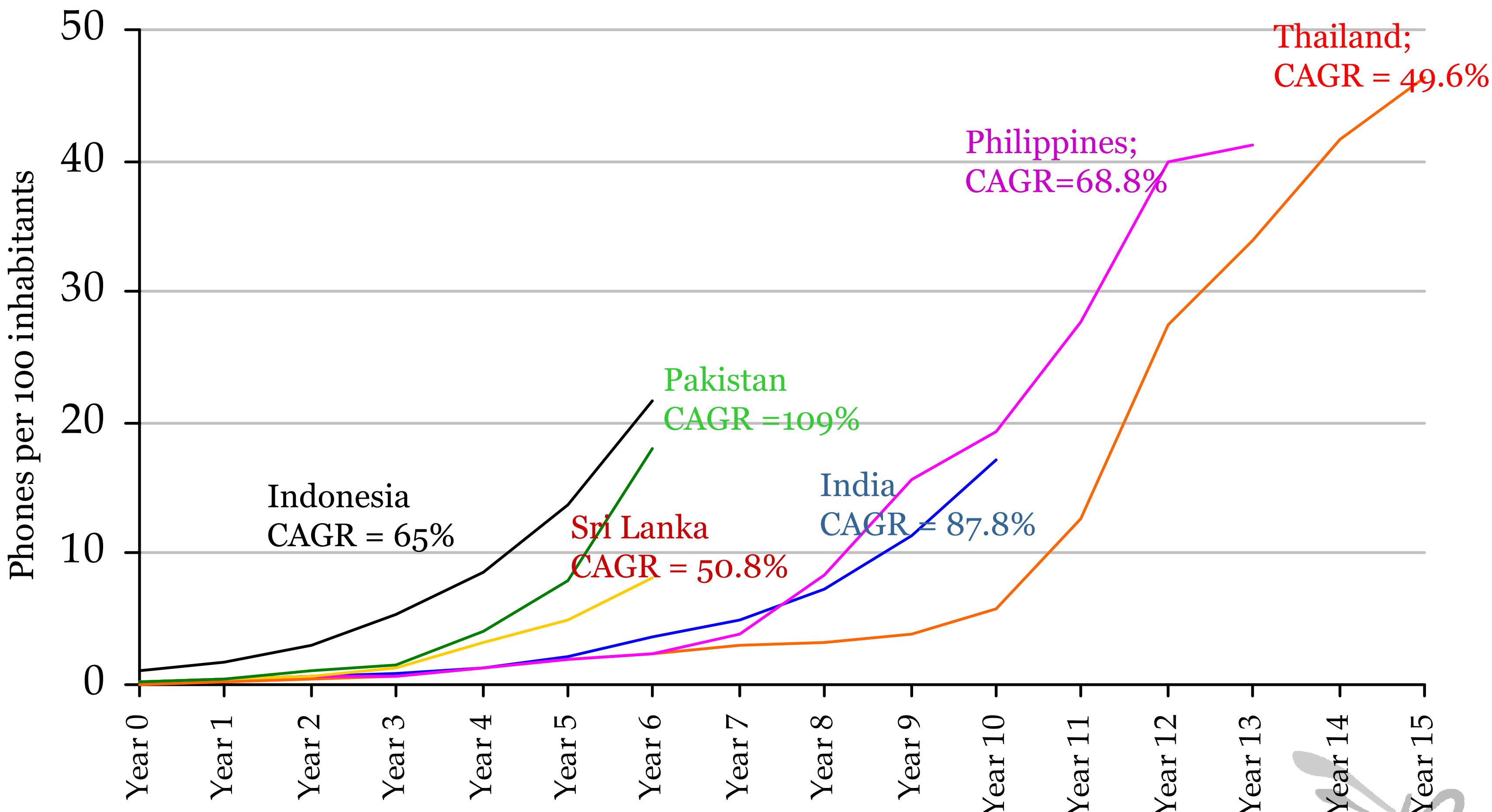



Better value proposition in India (also Phils and Pakistan)?

# Fixed phones growth since liberalization

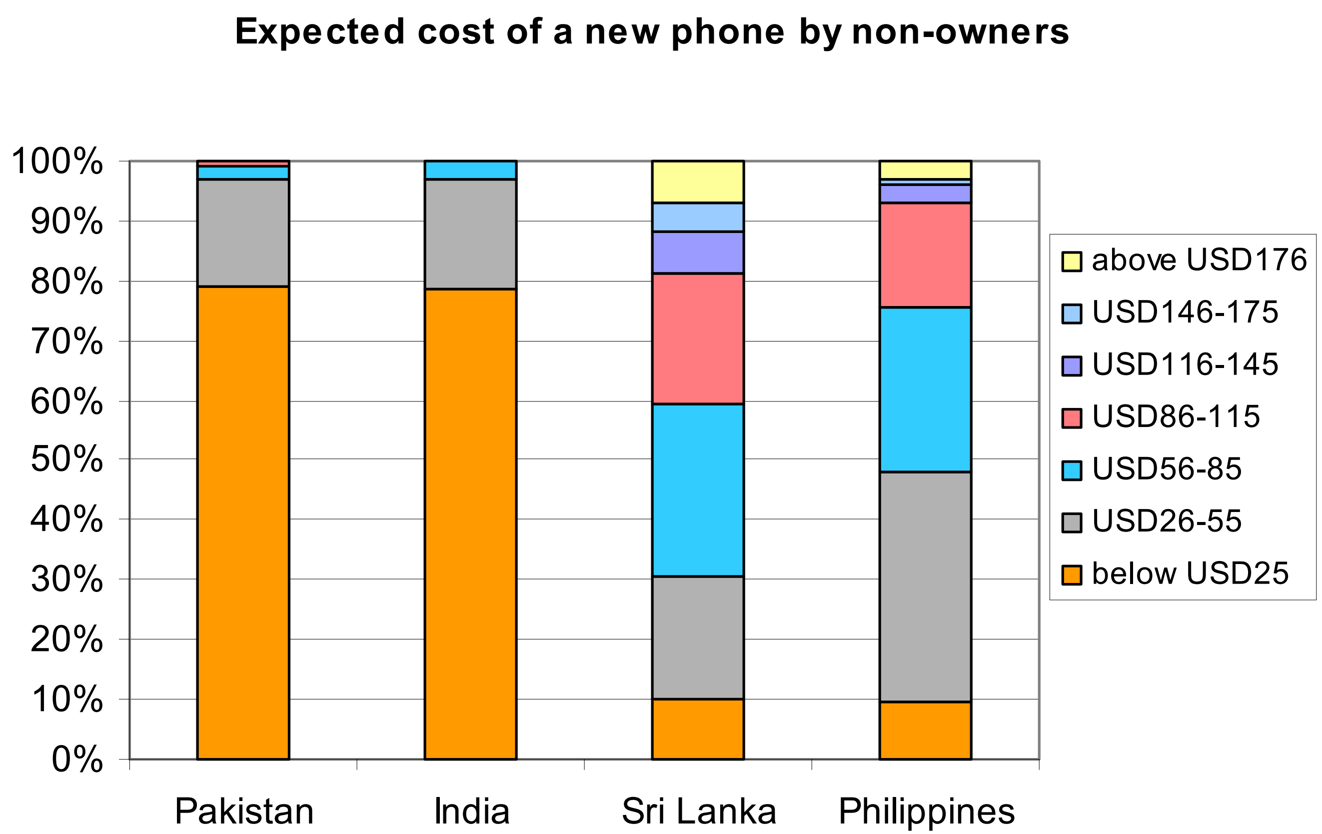


# Mobile phone growth since liberalization

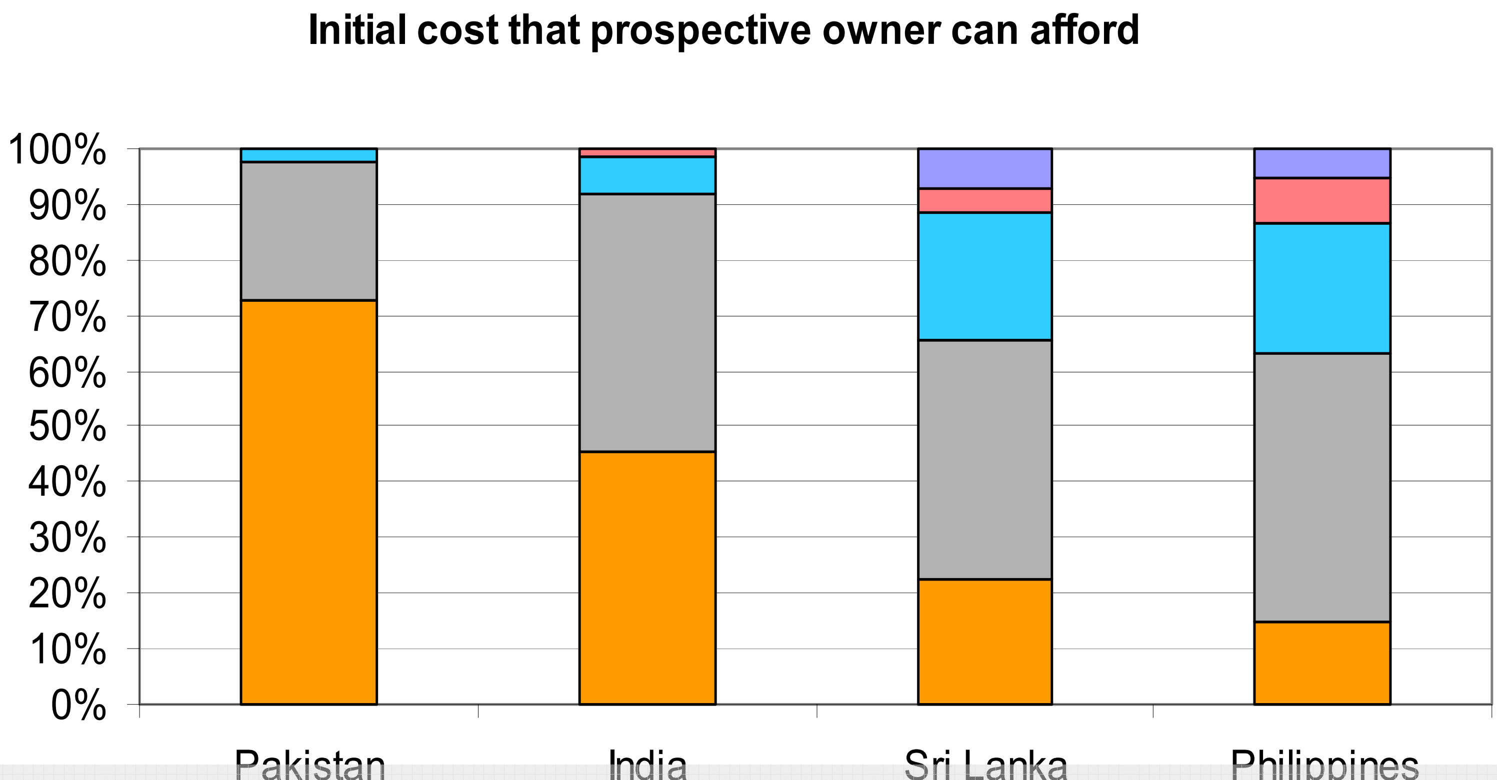


# Initial cost of getting a phone

- 80% expect to pay USD 25 for handset

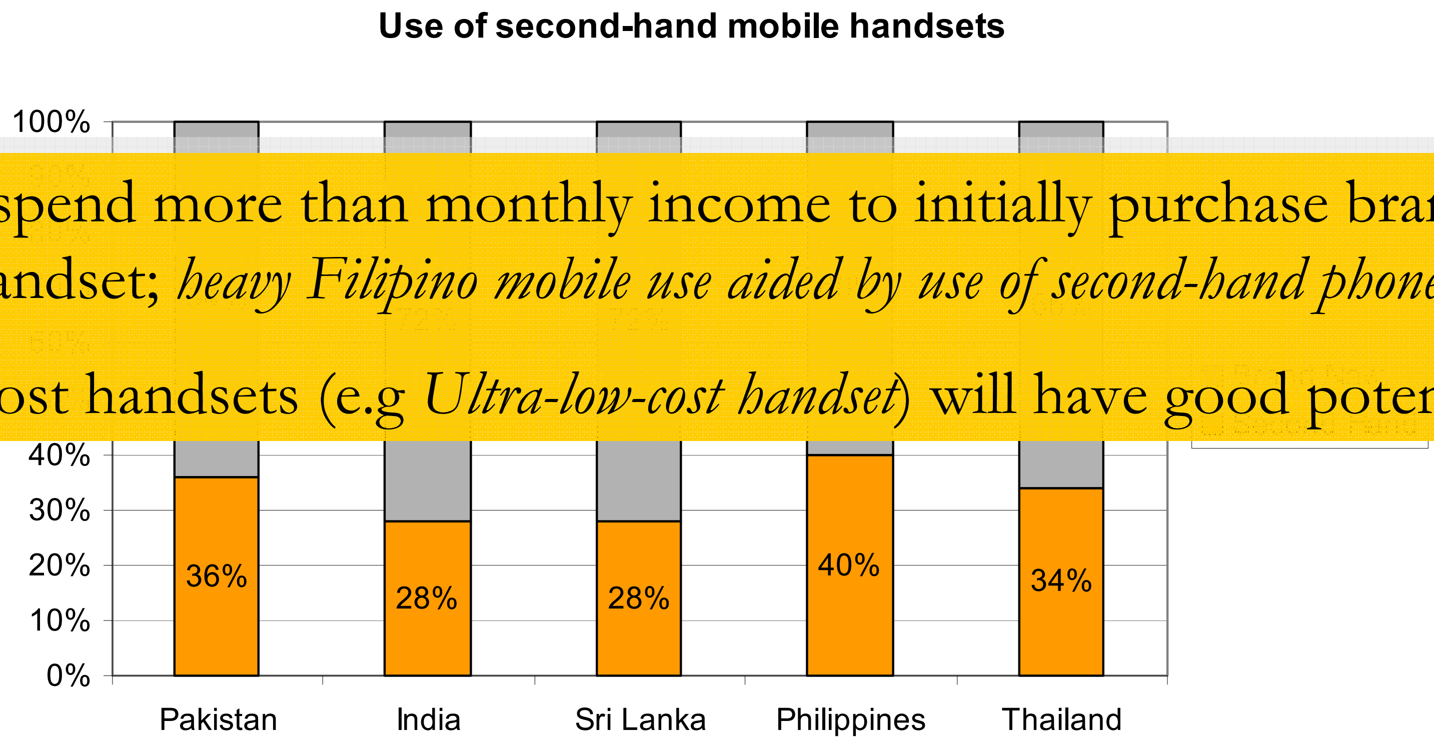


# Need + affordability → Demand*




Almost 45% willing to put down USD 10. Initial cost do not match affordability; the mismatch between need and affordability has to be addressed.

# Second-hand phones?*



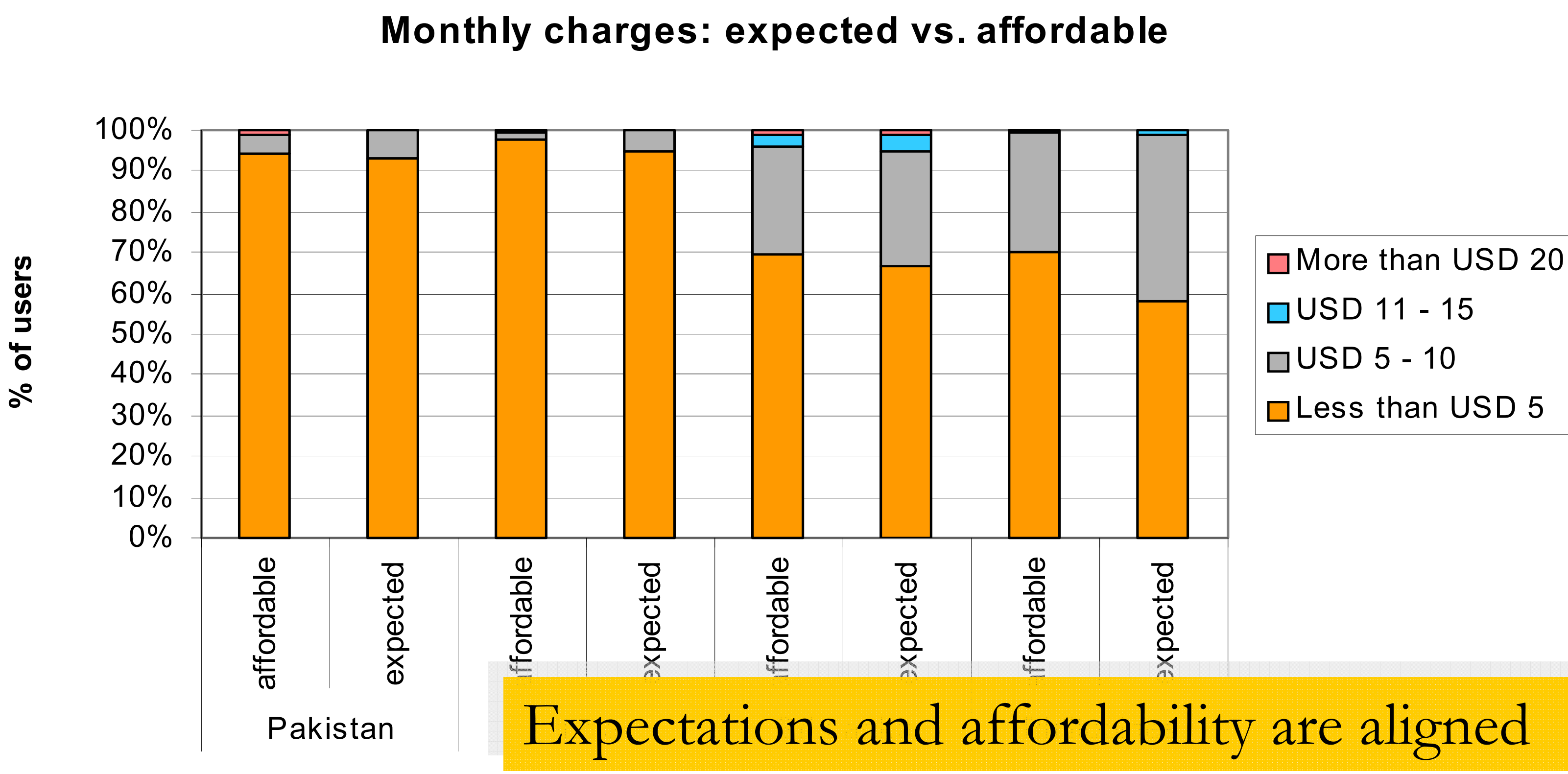

Many spend more than monthly income to initially purchase brand-new handset; *heavy Filipino mobile use aided by use of second-hand phones?*

Low-cost handsets (e.g *Ultra-low-cost handset*) will have good potential

| | Pakistan | India | Sri Lanka | Philippines | Thailand |
|---|---|---|---|---|---|
| Second-hand | 45 | 37 | 54 | 45 | 66 |

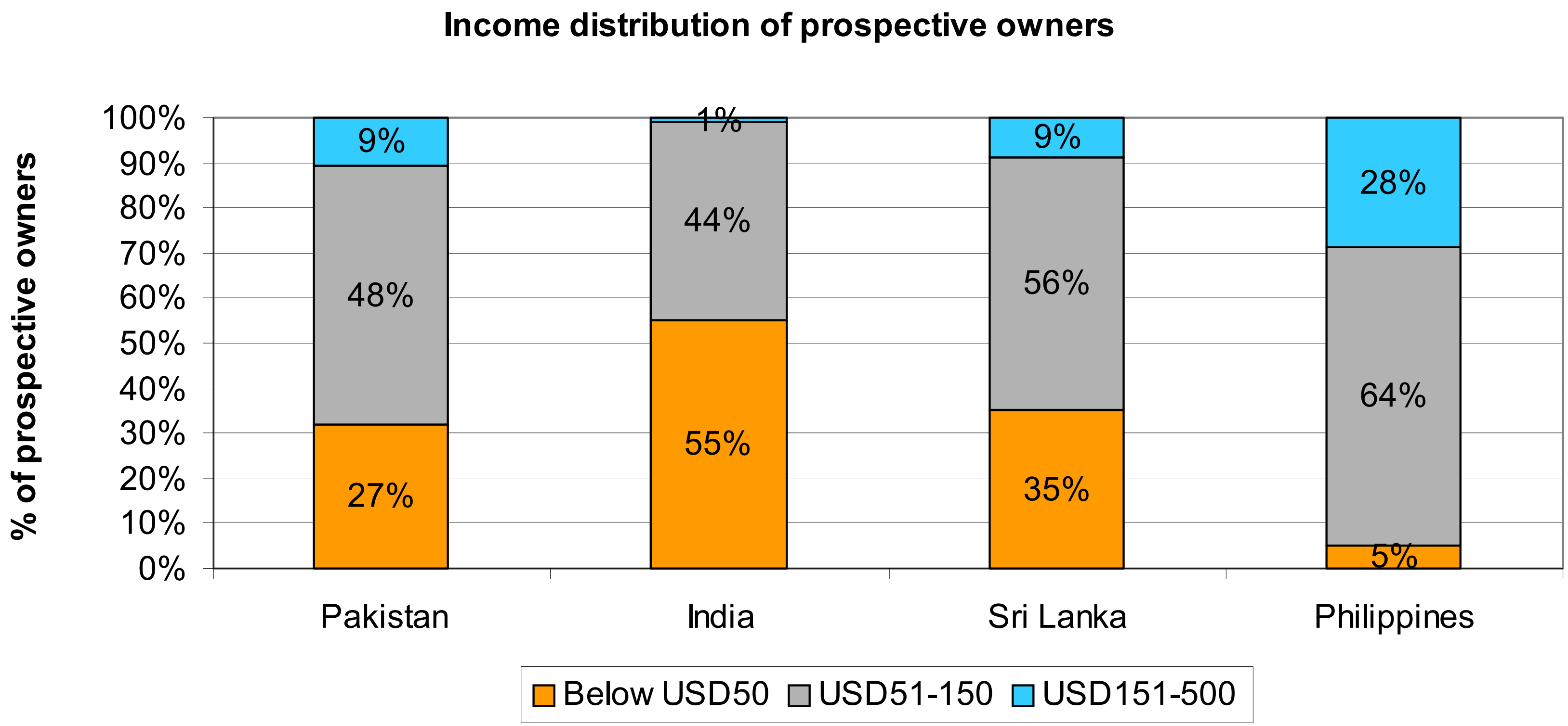
# Usage costs*

- Most expect monthly charges to be below USD5




Expectations and affordability are aligned

# Is a phone possible on USD2 a day?*



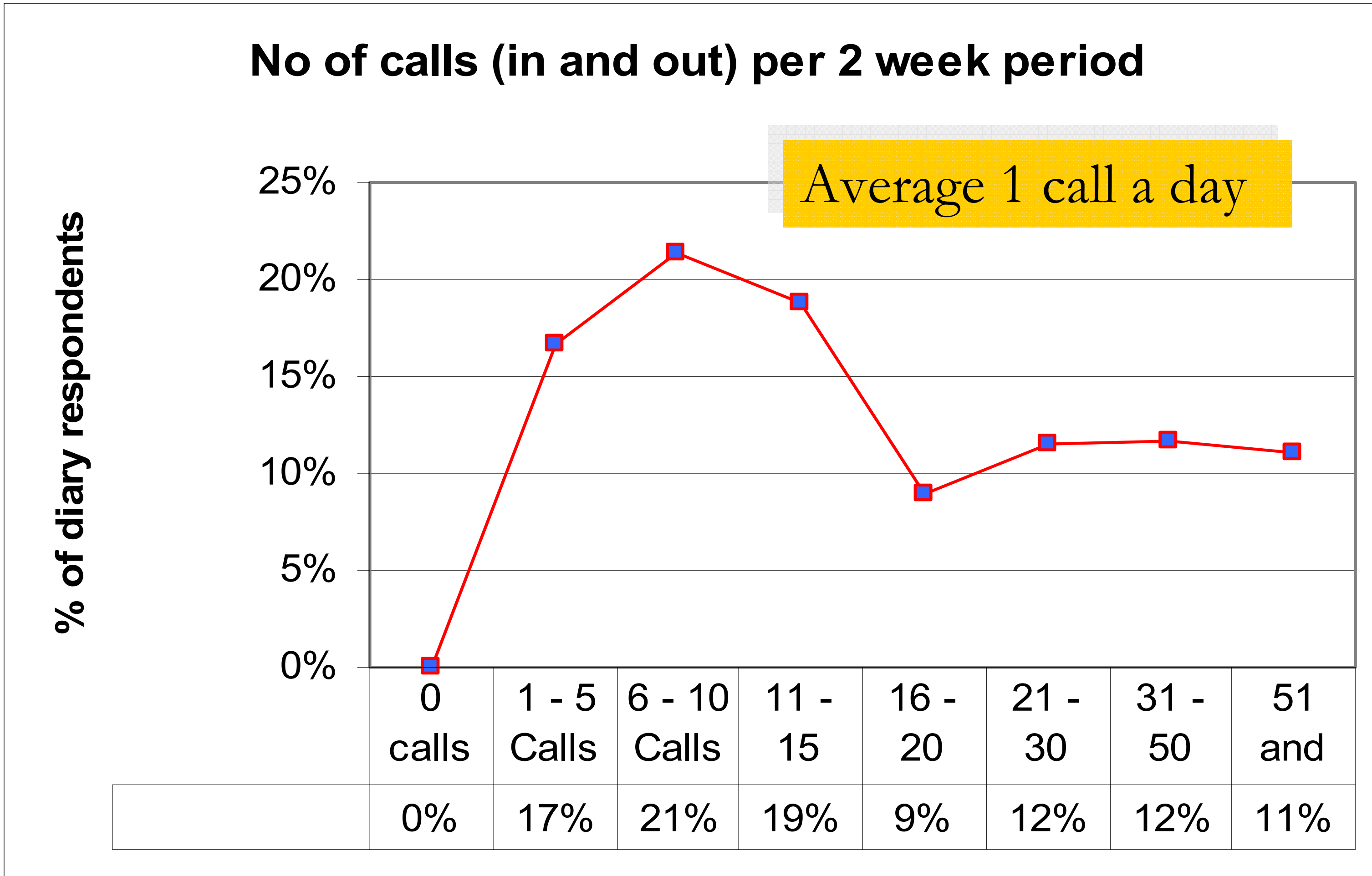

The addressable market goes below USD2 per day…

# Usage patterns

owners + non-owners

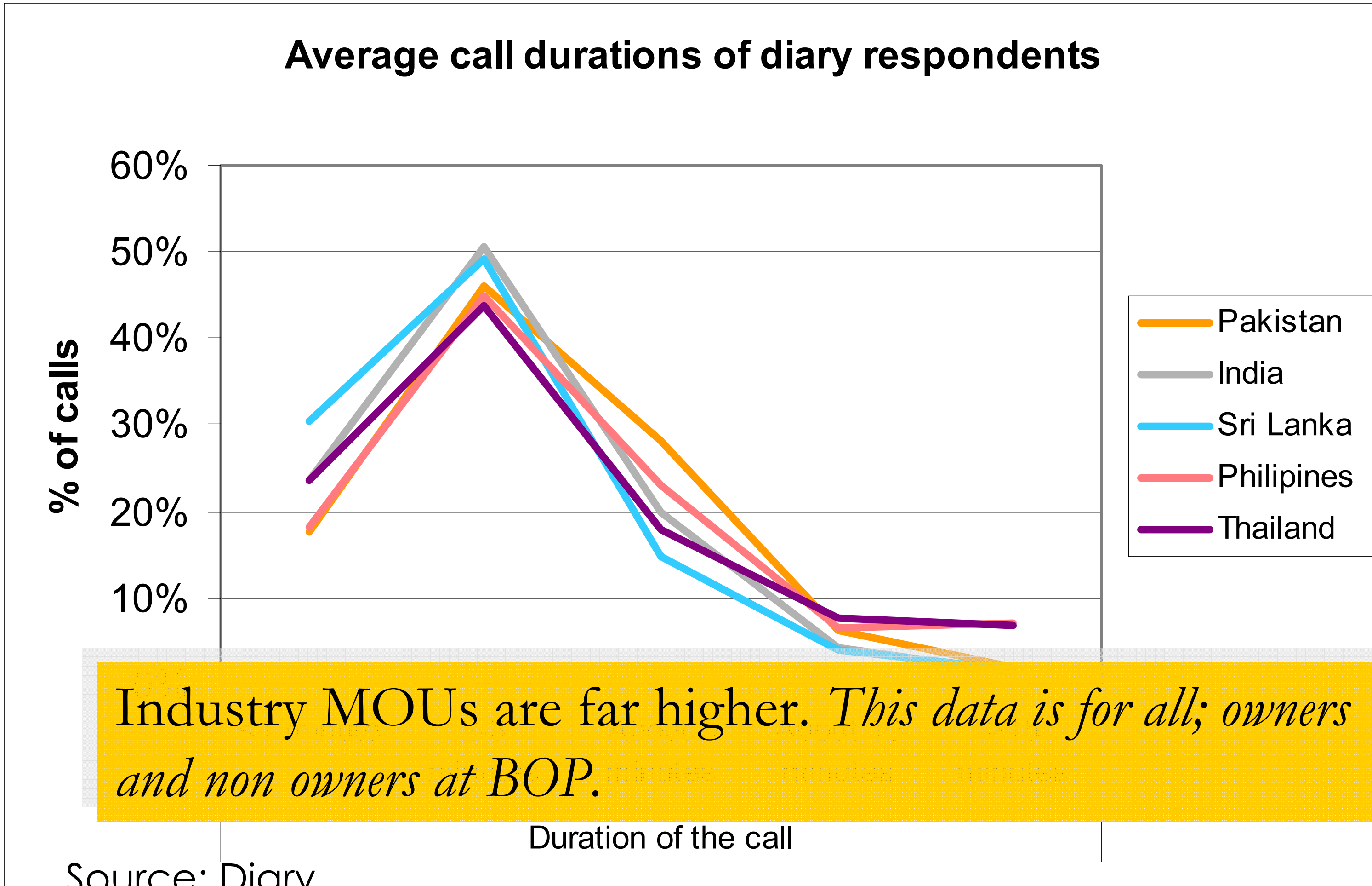
100%

# BOP usage is low; *India example**




Source: Diary

# No hanging on the phone…*




Industry MOUs are far higher. *This data is for all; owners and non owners at BOP.*

# Internet? What Internet?

| | Pakistan | India | Sri Lanka | Philippines | Thailand |
|---|---|---|---|---|---|
| Use the Internet | 0% | 0% | 1% | 9% | 10% |

| | Pakistan | India | Sri Lanka | Philippines | Thailand |
|---|---|---|---|---|---|
| Not heard of Internet | 36% | 72% | 29% | 14% | 36% |

# BOP in summary

- Almost everyone has access to a phone, but very low ownership
- Benefits of ownership (direct access) are known
  - Perceived as improving efficiency *and* income in India
- Next Billion: affordability is a key barrier
  - 150m at the BOP in IN, PK, LK, PH, TH in next 2 years
  - The addressable market goes below USD2/day month
  - Individual use is still very low; Internet far far away

# To think about…

- Telecom operators
  - Leverage benefits of direct access
    - Security, friends & family
  - Increase awareness on efficiency → economic gain
    - Convergence; collaborate on meaningful content
    - SMS based services; as a payment instrument vs. Bollywood movies
  - Innovations to enable cheaper calls
    - e.g. any-amount prepaid balance top-up

# To think about…

- Handset manufacturers
  - Affordable handsets with local language SMS capability
  - Ultra low-cost phones with “warranty”?
  - Installments?

# To think about…

- Regulators
  - Competition
  - Universal service
  - Convergence; applicability

# In sum

- "…if we stop thinking of the poor as a burden and start recognizing them as value conscious consumers, a whole new world of opportunity will open up"
  - C.K. Prahalad. The Fortune at the BOP.
- Number of successful examples...

Thank you.

www.lirneasia.net

Harsha de Silva desilva@lirne.net

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