

Telecom use at the bottom of the pyramid in emerging Asia

M is for Mobile: Exploring mobiles technology for social development

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BOP a large, valuable, under-tapped market

- Lowest socio-economic groups
 - Roughly living on USD2 per day
 - SEC D + E (LIRNEasia)
- Many consumers consuming little amounts
 - Estimated 3 billion, globally
- Many opportunities for companies (as well as consumers)

Understanding of emerging Asian BOP's use of ICTs (mostly phones) via **Teleuse@BOP** studies

- BOP defined as SEC groups D + E*
- What this means in *emerging* Asia... **579 million****
 - Bangladesh
 - Pakistan
 - India
 - Sri Lanka
 - Philippines
 - Thailand
- 10,000+ individuals surveyed; 200+ studied in depth via FGDs, mini-ethnographies and home visits

9,940 BOP teleusers surveyed

| | Bangladesh | Pakistan ^[1] | India | Sri Lanka ^[2] | Philippines ^[3] | Thailand ^[4] | Total |
|------------------------------|------------|-------------------------|-------|--------------------------|----------------------------|-------------------------|-------|
| BOP teleusers | 2,050 | 1,814 | 3,152 | 924 | 800 | 800 | 9,540 |
| Margin of error @ 95% CL (%) | ± 3% | ± 2% | ± 2% | ± 3% | ± 4% | ± 4% | |

- Additional 200 (approx.) studied in depth via FGDs, mini-ethnographies and home visits

[1] Pakistan: Excludes tribal regions

[2] Sri Lanka: Excludes North and East

[3] Philippines: Survey was undertaken only among SEC E

[4] Thailand: Excludes Bangkok as the SEC DE population in Bangkok is very small

Lower two socio-economic categories (D & E)

| | Bangladesh | Pakistan | India | Sri Lanka | Philippines | Thailand |
|---------------------------------|------------|----------|-------|-----------|-------------|----------|
| Mean household income (USD/day) | 117 | 126 | 99 | 151 | 127 | 171 |
| Mean personal income (USD/day) | 36 | 37 | 38 | 54 | 45 | 79 |

- Earning ~USD1-2 per day
- Primary-secondary education

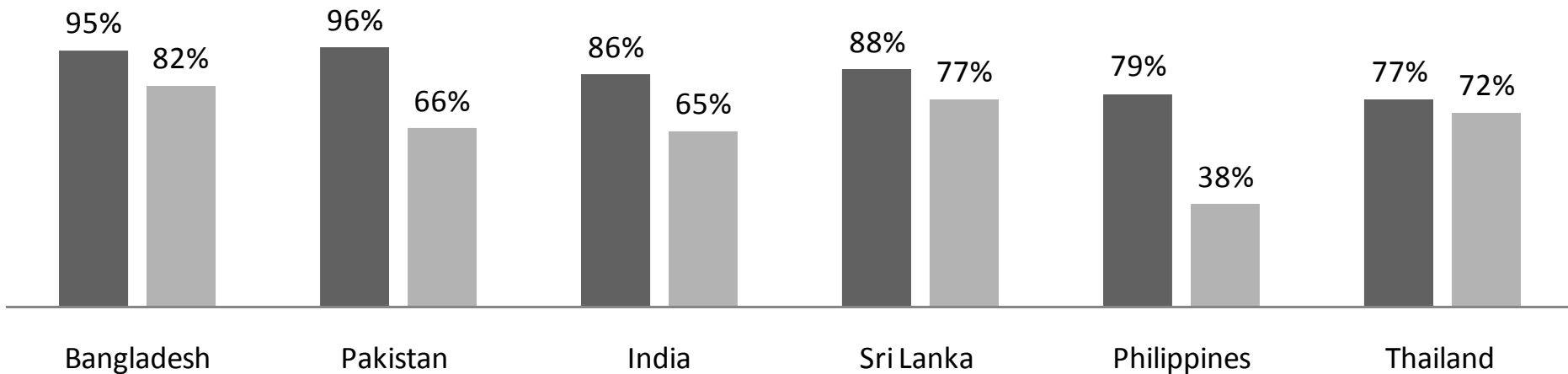
Teleuse@BOP

HIGH ACCESS, MOSTLY MOBILE

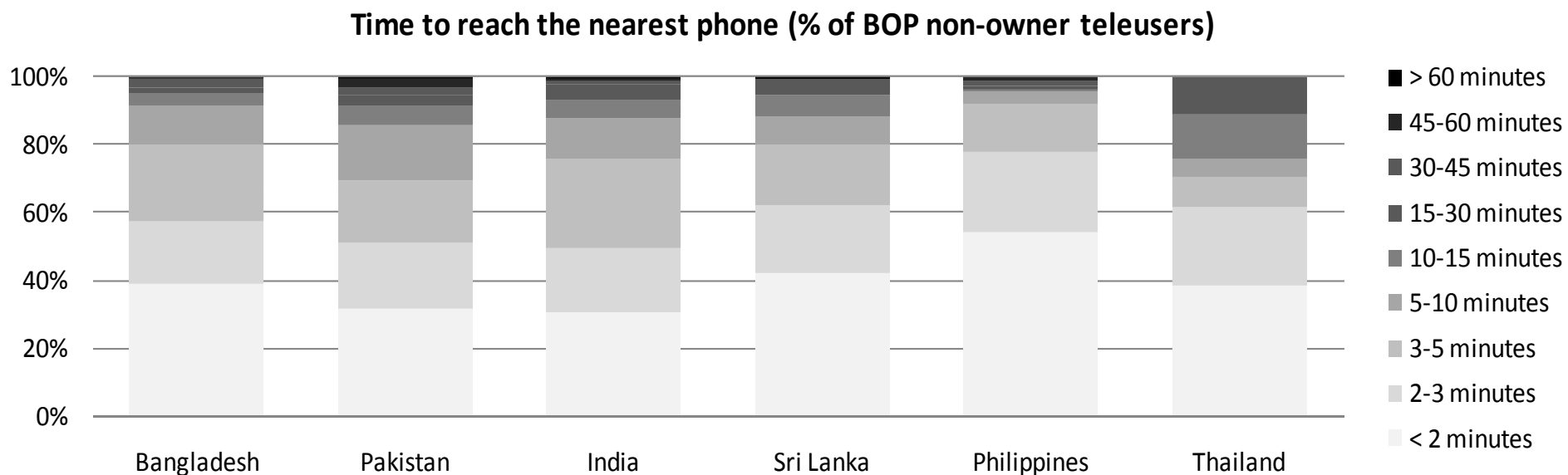
Most have *used* a phone in the last 3 months

Use of the phone (% of BOP [outer sample])

■ Have used phone in last three months ■ Have used a phone in last week



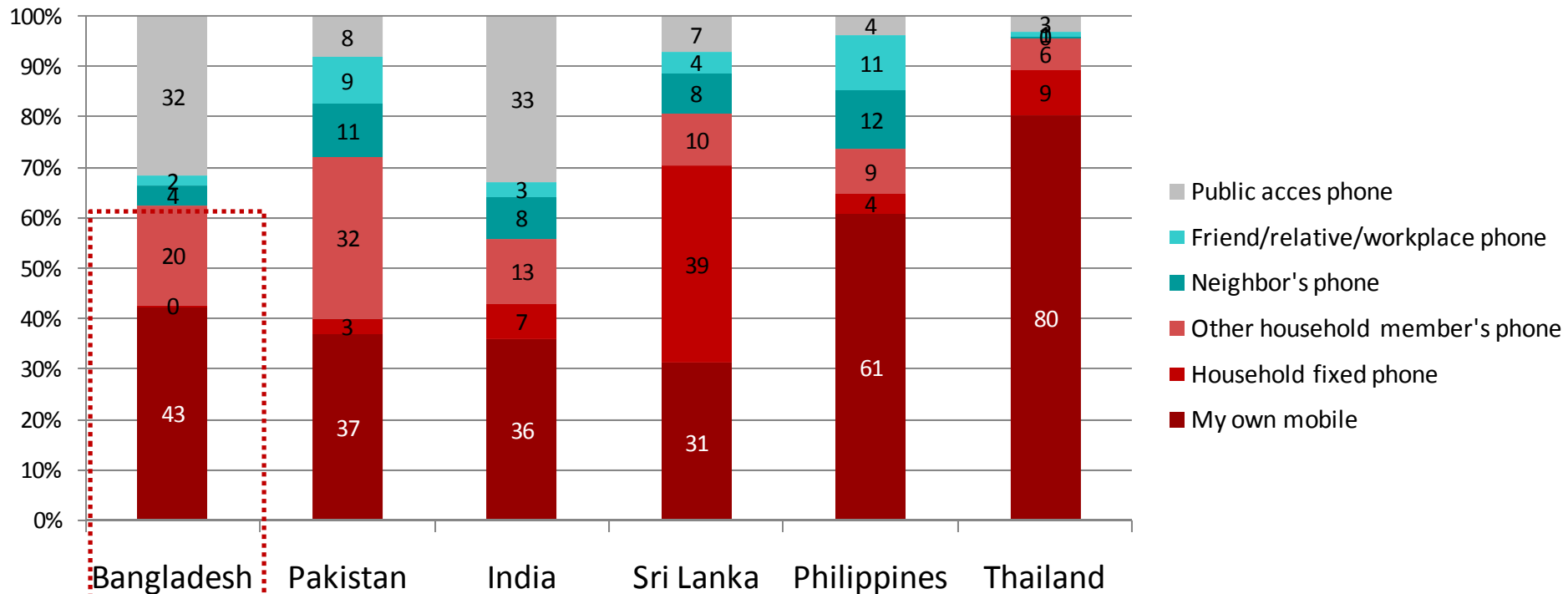
Non-owners can get to a phone in ~5 minutes (walking)



- Over half have access within house

Many non-owners, still have mobile access within the household

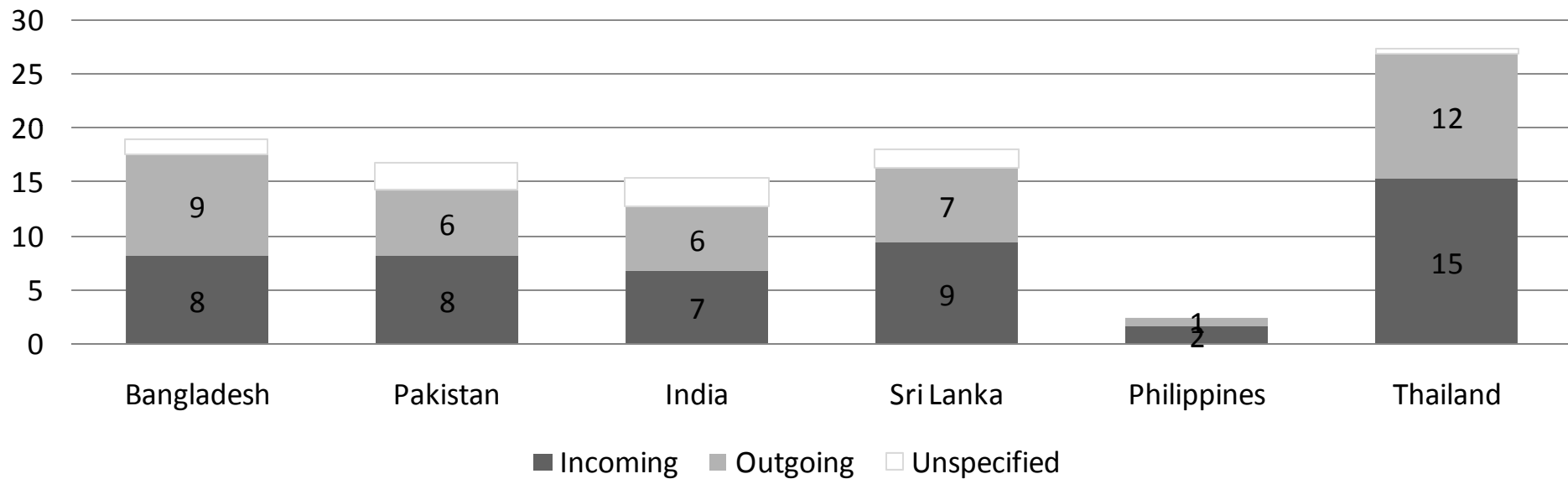
Most frequently used phone (% of BOP teleusers)



Access within the household

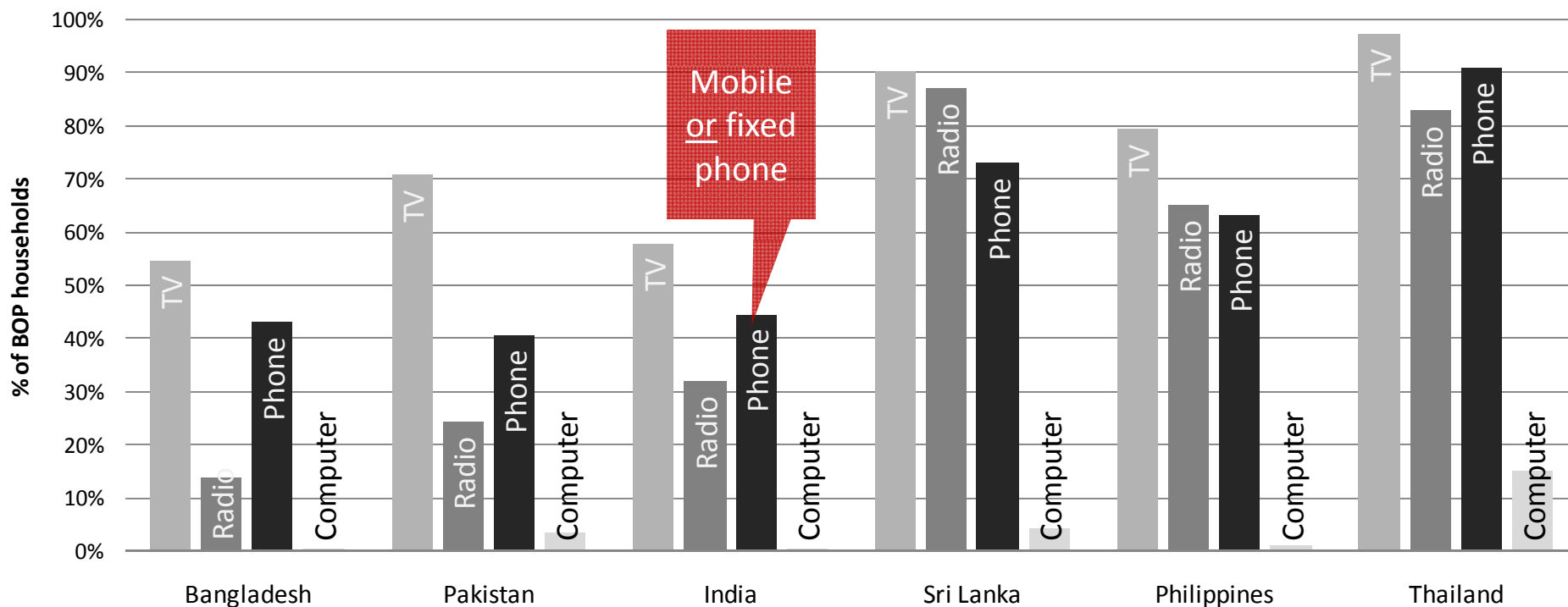
~1 call per day (outgoing)

Average number of calls per week



Phones overtaken radio in South Asia

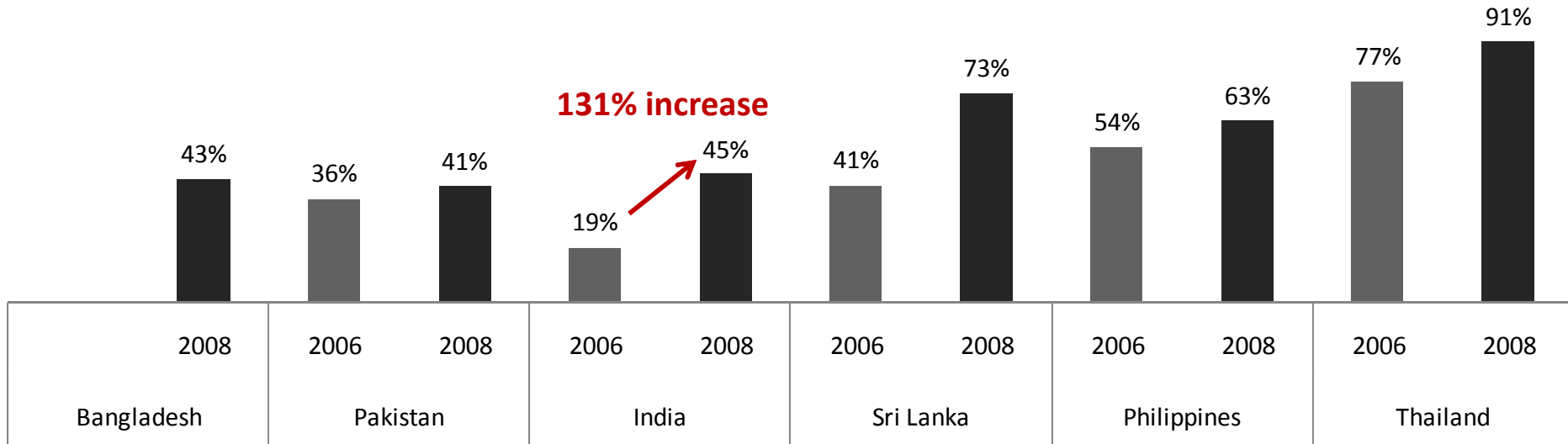
Access to communication technologies within the household (% of BOP teleusers)



- In addition, many have access to other householders' mobiles (esp in South Asia)

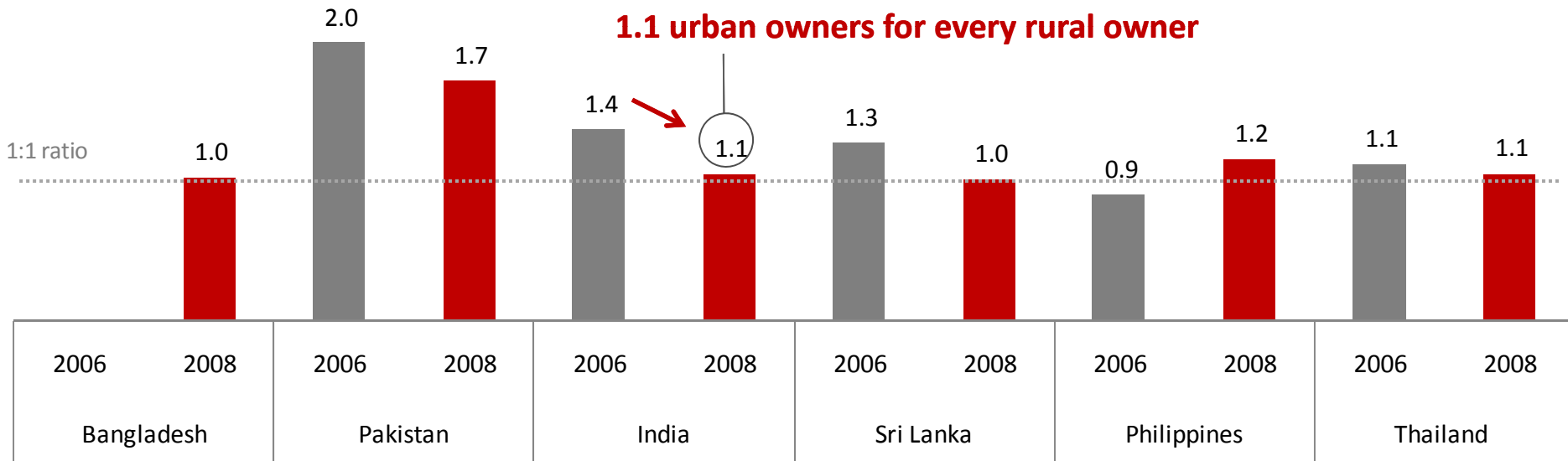
Largest % growth in Indian total BOP phone ownership

Total BOP phone ownership: 2006 vs 2008 (% of BOP teleusers)



Urban-rural divide in total BOP phone ownership **declining**

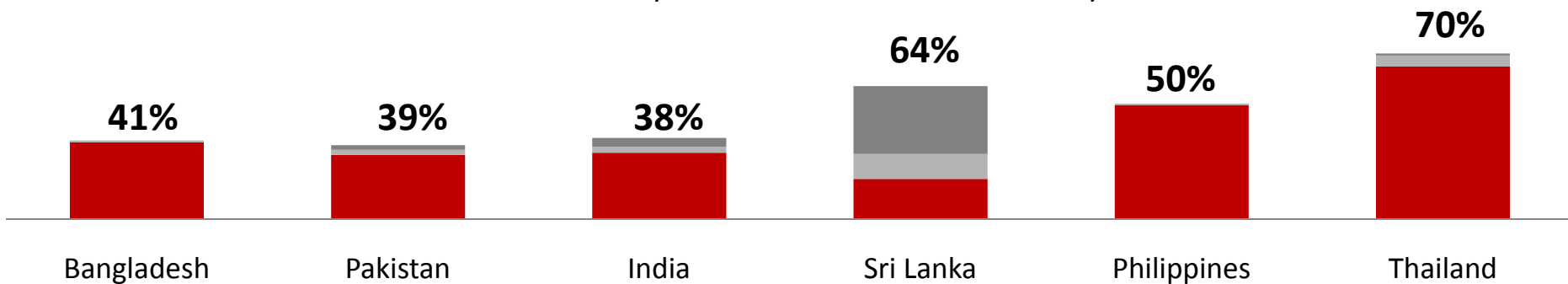
Urban-rural divide in phone ownership (urban:rural)



Most own a mobile

Phone ownership (% of BOP)

■ Mobile only ■ Mobile + fixed ■ Fixed only

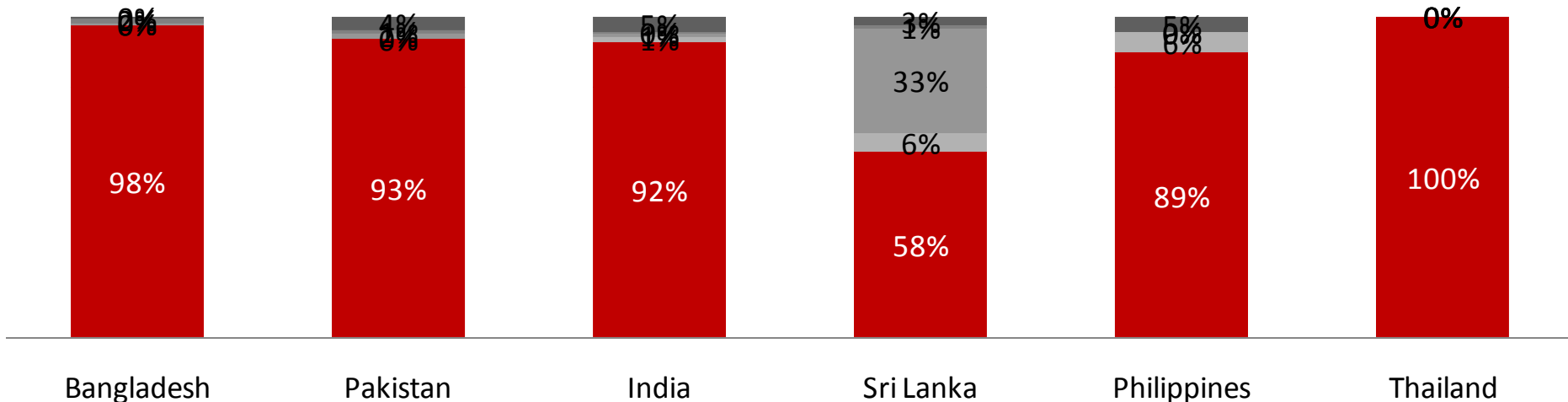


- LK “fixed” = mostly CDMA

Many non-owners planned to get connected within 1 year from survey; mostly to mobile

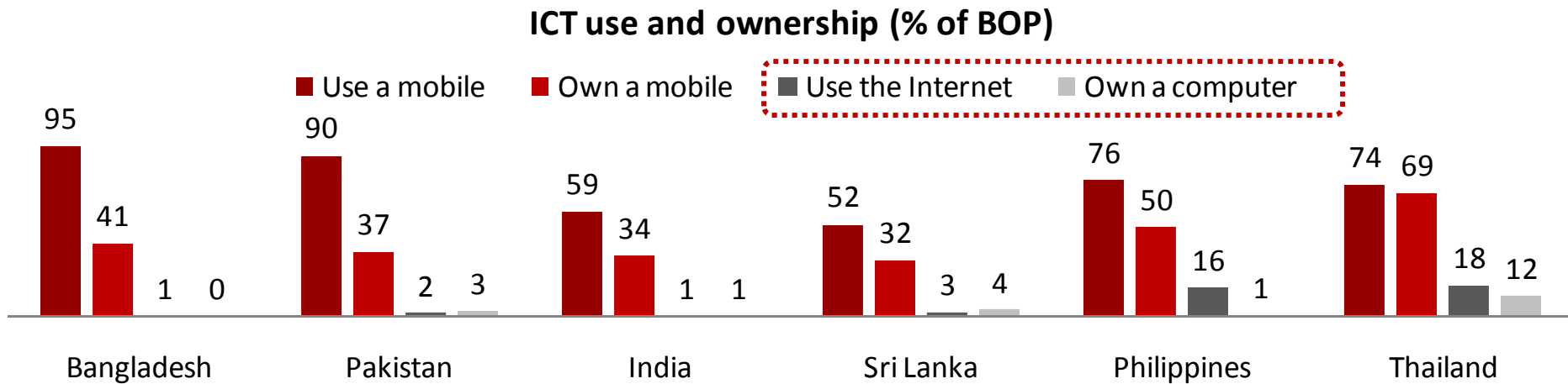
Type of phone planning to buy (% of potential BOP owners)

■ Mobile ■ Fixed (wireline) ■ Fixed (wireless) ■ Fixed (undecided) ■ Not decided



- Many would like to get mobiles with coloured screens, cameras, radios and torches
 - Some demand for SMS and MMS capabilities, Internet and Bluetooth in PH and TH

BOP most likely to join the information economy via mobile phones

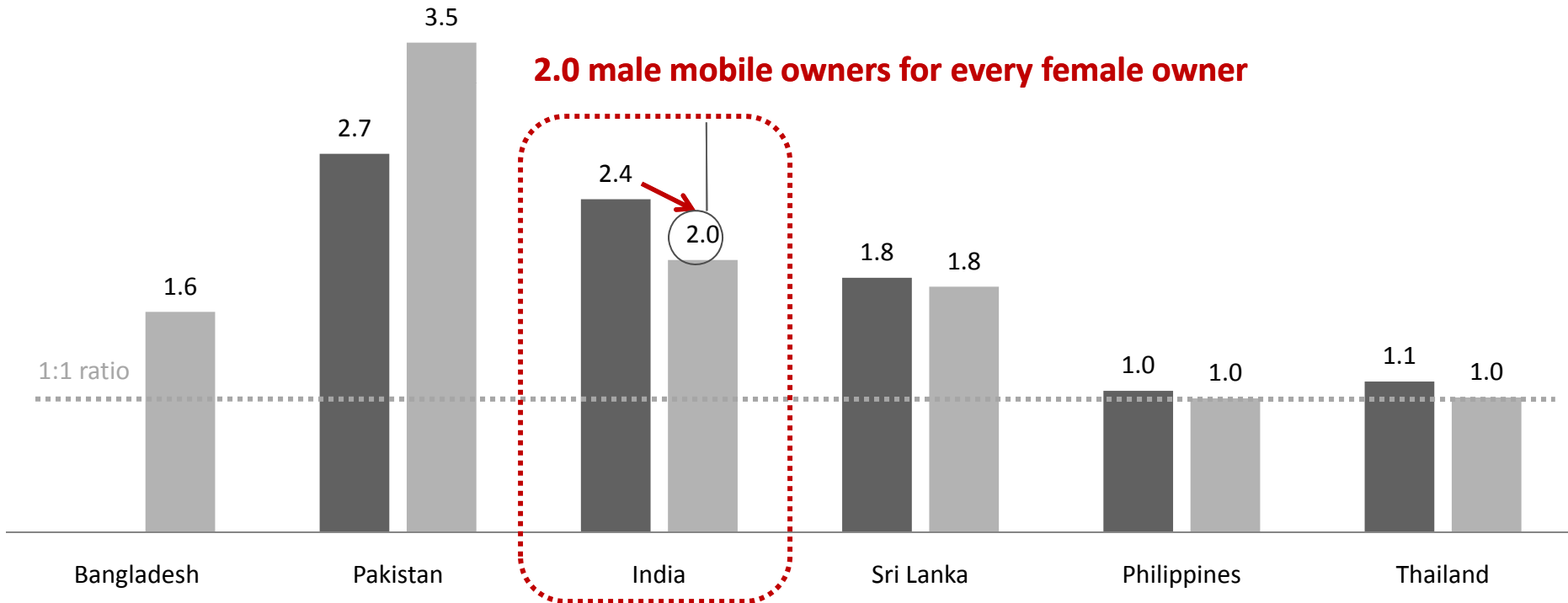


- Many not even heard of the Internet!

Gender divide improving in India

Ratio of male/female use: Mobile as the most frequently used phone

■ 2006 ■ 2008



Teleuse@BOP

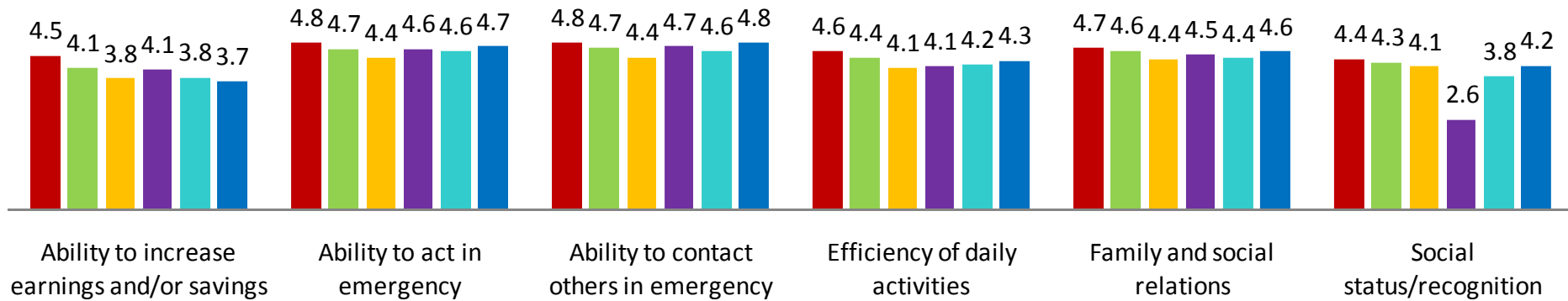
PERCIEVED BENEFITS

Largest benefits perceived in emergency communication and relationship maintenance

1=worsened 2 = slightly worsened 3=no change 4=slightly improved 5=improved

Perceived benefits of telecom access: General

■ Bangladesh ■ Pakistan ■ India ■ Sri Lanka ■ Philippines ■ Thailand

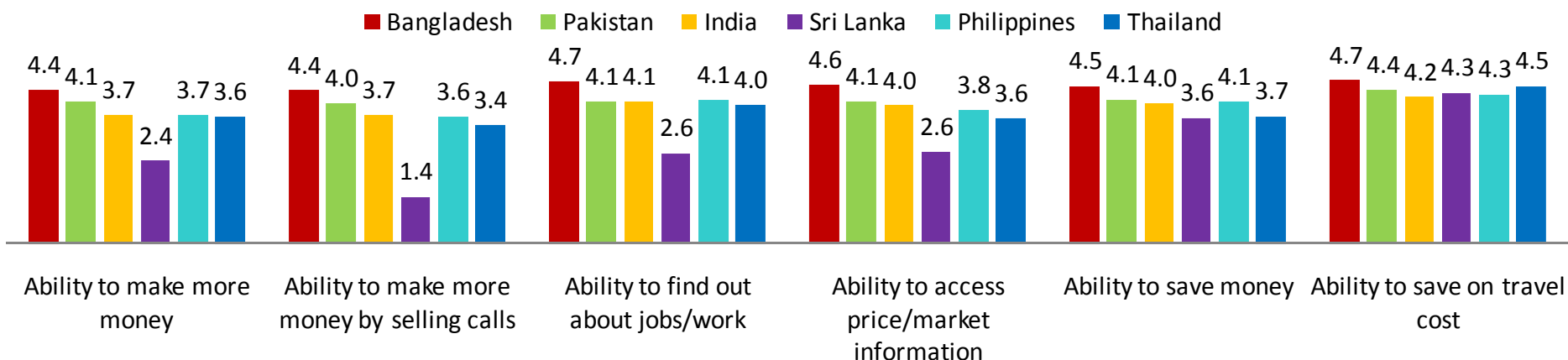


- Emergency communication and maintaining family and social relations most important

Lower perceived benefit on economic factors (though still positive)

1=worsened 2 = slightly worsened 3=no change 4=slightly improved 5=improved

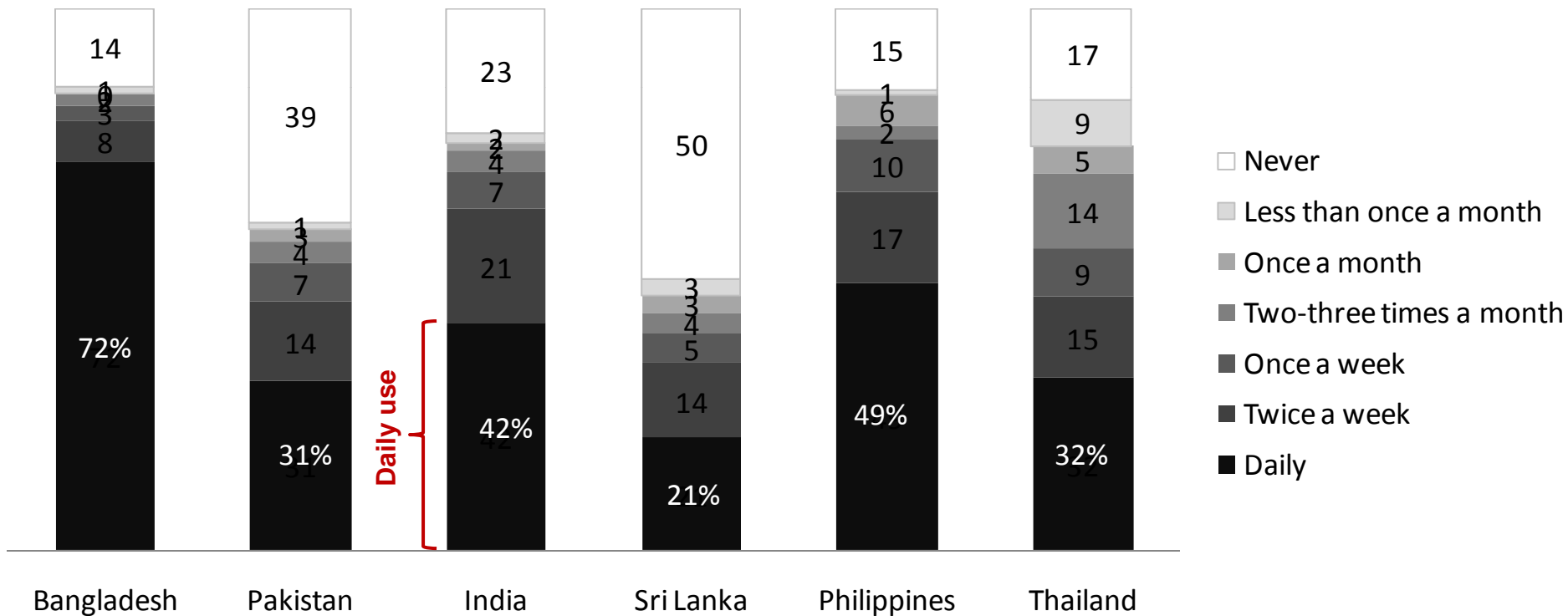
Perceived benefits of telecom access: Livelihood-related



Indians who use the phone for business activities see more benefits in terms of: making more money (also via sale of calls), ability to find out about employment, save money, improve efficiency of daily work

High use of mobiles for productive purposes (77%)

Use of the phone for financial, business or work-related purposes (% of BOP mobile owners)



Zayed | Shopkeeper

21 years | Sonargaon, Bangladesh

- Obtained mobile to expand business.
- Mobile has helped him reduce travel time and cost, remotely coordinate matters at the shop, increase business and expand business network.
- His accumulated monetary and time savings allowed him to start a poultry business; buying live chickens and selling them from his shop.
- More vendors contact him when new products are available now, allowing him to expand his line of products with little effort.
- Reduced dependence on an auto rickshaw driver for travel for stocks; in turn the latter's dependence on Zayed for information has increased
- Can earn revenue by facilitating remittances via mobile phone



Teleuse@BOP

SOCIOECONOMIC DEVELOPMENT VIA MORE-THAN-VOICE SERVICES?

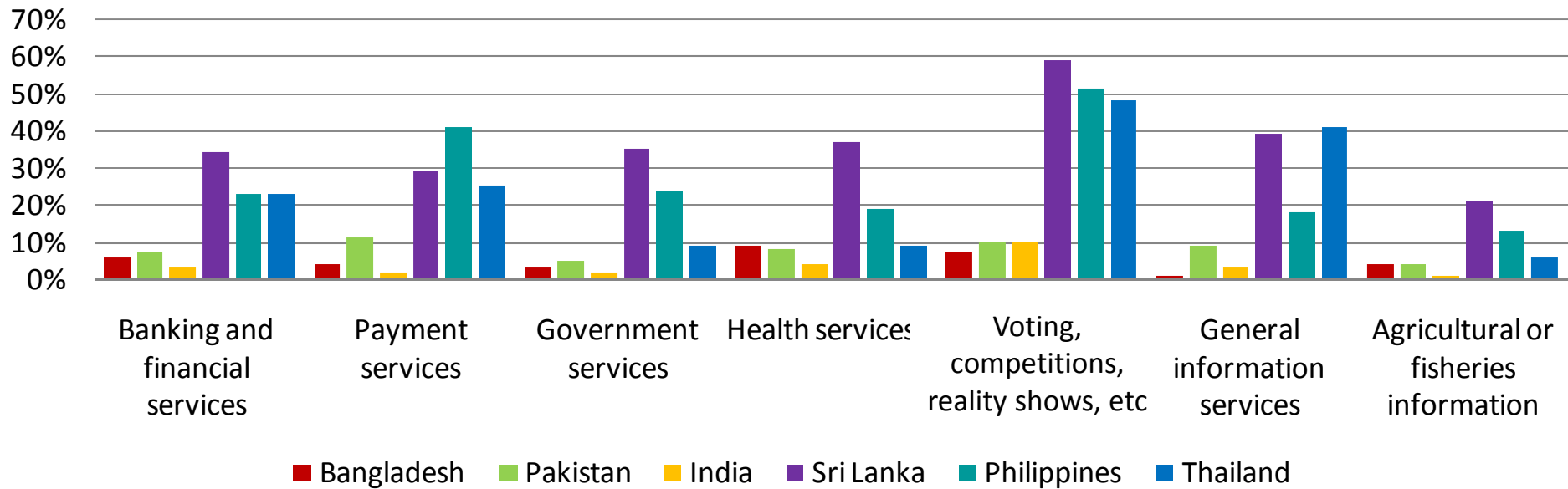
What the BOP does with mobile phones: Currently not much beyond voice and text

Among BOP mobile owners

| | B'desh | Pakistan | India | S' Lanka | Ph'pines | T'land |
|---|------------------------|----------|-------|----------|----------|--------|
| | % of BOP mobile owners | | | | | |
| Taking phone calls | 100% | 100% | 99% | 100% | 89% | 100% |
| Receiving phone calls | 100% | 100% | 98% | 100% | 99% | 100% |
| Sending/receiving 'missed calls' | 94% | 84% | 84% | 73% | 86% | 39% |
| Sending/receiving SMS (text messages) | 32% | 47% | 33% | 52% | 100% | 53% |
| Sending/receiving MMS (picture messages) | 1% | 4% | 4% | 6% | 13% | 4% |
| Sending/receiving emails | 0% | 0% | 1% | 0% | 0% | 1% |
| Browsing the Internet | 0% | 1% | 1% | 2% | 0% | 2% |
| Taking photos /video clips | 4% | 2% | 1% | 8% | 4% | 18% |
| To play games (individual) | 13% | 18% | 7% | 21% | 14% | 17% |
| To play games (interactive) | 1% | 1% | 1% | 1% | 3% | 1% |
| To listen to the radio | 0% | 7% | 3% | 12% | 5% | 22% |
| To listen to music (files which you have downloaded or been sent by others, not radio) | 4% | 5% | 3% | 7% | 3% | 22% |
| To share content that you have created (E.g. ringtones, wallpapers, pictures, games and video clips) | 1% | 2% | 2% | 6% | 5% | 3% |
| To send or receive or download or upload other content (E.g., ringtones, wallpapers, pictures, games and video clips) | 0% | 2% | 3% | 8% | 10% | 9% |
| As an organizer (keep appointments, reminders, alarm and clock) | 1% | 7% | 8% | 4% | 9% | 14% |
| To check my bill / credit balance | 11% | 40% | 25% | 50% | 3% | 39% |

Mobile2.0 services: Awareness among BOP is poor in BD, PK and IN

Awareness of services available on phones and computers (% of BOP teleusers)



Mobile2.0 services: Small amount of usage in higher penetration countries

- Awareness among BOP is poor in BD, PK and IN
- Those who use services, use in small amounts.....

| | BD | | PK | | IN | | LK | | PH | | TH | |
|--|-----------|---------------|-----------|---------------|-----------|---------------|-----------|---------------|-----------|---------------|-----------|---------------|
| | Regularly | Not regularly | Regularly | Not regularly | Regularly | Not regularly | Regularly | Not regularly | Regularly | Not regularly | Regularly | Not regularly |
| Banking and financial services | | | | | 1% | | 2% | | 1% | | 3% | |
| Payment services | | | | | | | 3% | 2% | 3% | 1% | 4% | |
| Government services | | | | | | | 2% | | 2% | | | |
| Health services | 1% | | | | 1% | | 8% | | 1% | | 2% | |
| Voting, competitions, reality shows, etc | | | | | 1% | 1% | 1% | 5% | 7% | 1% | 8% | |
| General information services | 1% | | 1% | | | | 3% | | 2% | 5% | 11% | |
| Agricultural or fisheries information | | | | | | | 1% | | | | | |

Among BOP teleusers who are aware of services

Why don't they use these services?

- Don't know how
- Not applicable to me
- Too expensive
 - When they're available free via other modes
 - Insufficient prepaid credit for transactions
- ...though services that the poor can and want to use are emerging; encouragement via app store models needed

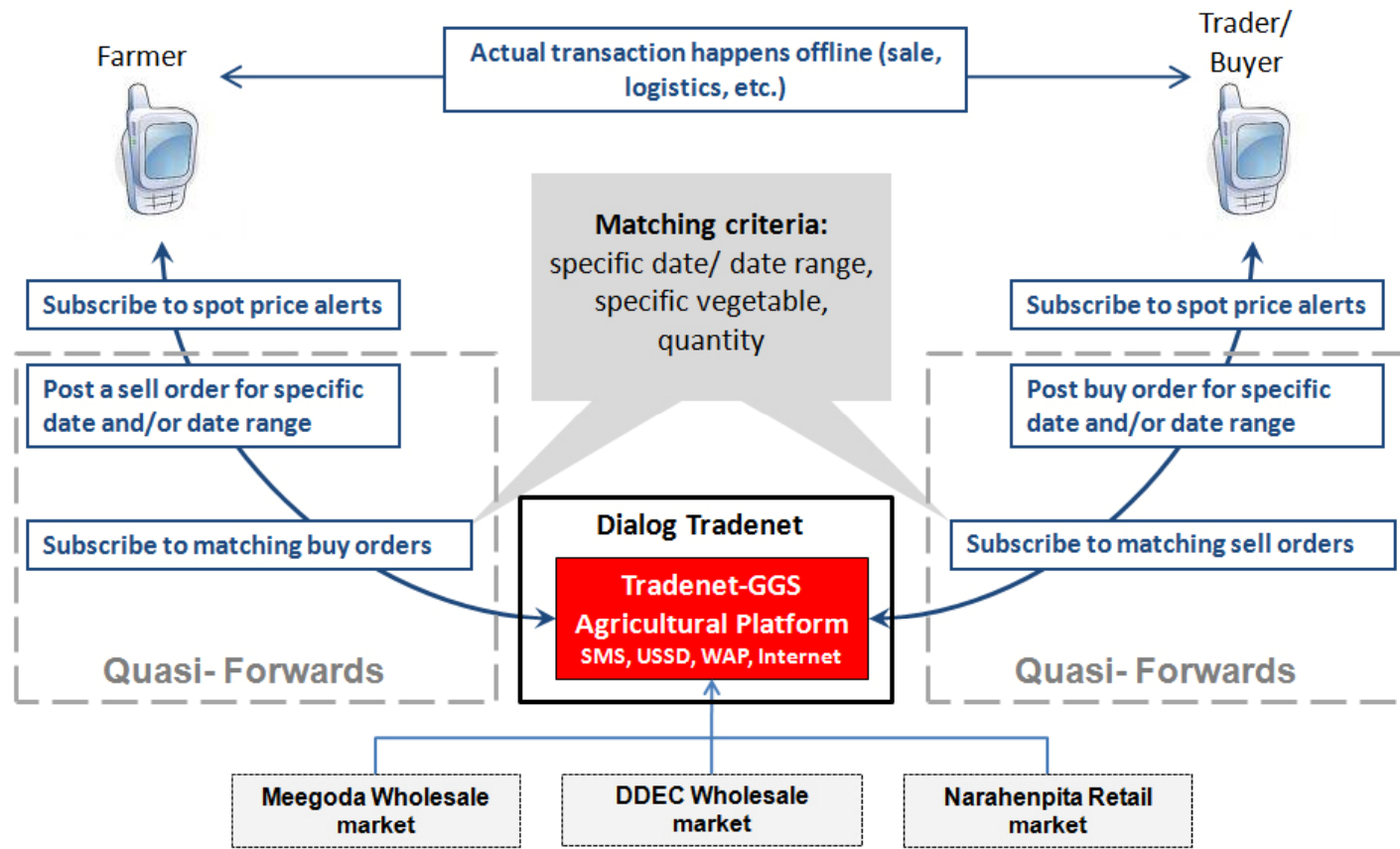
Improving price transparency through Tradenet (tradenet.dialog.lk)

Tradenet:

Partnership between a not-for-profit company called Govi Gnana Seva (GGS) and Sri Lanka's largest mobile operator (Dialog Axiata PLC)

Launched Dec 2009

GGS: main source of wholesale agricultural price information in the country





An SLF assessment of the overall impacts of the service on farmers (over a one year period)

| SL Component | | Intervention Group | Control Group |
|-----------------------|-----------|--|---|
| Livelihood assets | Financial | An average PREMIUM OF 6.4% on average daily market prices | An average LOSS OF 2.3% on average daily market prices |
| | Social | Increase in interactions with traders, other farmer groups, relatives and neighbors; increased trust in market negotiations with traders. | No increase in interactions |
| | Human | Increased knowledge of price trends (their crops + new crops) | No changes noted |
| Vulnerabilities | | Reduced vulnerability to price volatility | Not assessed |
| Livelihood strategies | | <ul style="list-style-type: none"> • Chose harvesting and selling times based on price alerts; • Hoping to leverage their strategic advantage over farmers with lesser price information to grow higher value crops in the short term. | Not assessed |

Prerequisites for "more-than-voice" **mobile** are in place:

- Familiarity with the technology
 - Access and use
 - Easy access via mobiles or CDMA 'fixed' phones is most appropriate
- Ownership
 - Only 40+% in the Indo-Gangetic Plain (world's largest concentration of poor people) own a phone
 - Affordable but sophisticated handsets can aid uptake
- Potential for use of "more-than-voice"
 - SMS is the most popular more-than-voice application
 - Willingness to try new services
 - Payment systems in place: e-reloads as "gateway" to advanced applications

CONCLUSIONS

- Mobiles can contribute to socioeconomic development objectives
 - Access to services (health, govt, information, etc)
 - Livelihood opportunities
- BOP as individuals have low spending power, but, demand for services exists (current and future)
 - Poor Internet access strengthens the mobile proposition
- Services need to be developed to cater to BOP
 - Prerequisites in place
 - Some barriers exist

www.lirneasia.net (search term: BOP)

Full dataset available at <http://lirneasia.net/projects/2008-2010/bop-teleuse-3/>
Photos by CKS Consulting Pvt Ltd