Call for Expressions of Interest (EOI)

to conduct a multi-country study on

Teleuse at the Bottom of the Pyramid 3 (Teleuse@BOP3)

21 April 2008

LIRNE*asia* is a regional, non-profit Information and Communication Technology (ICT) policy and regulation capacity building organization. Its mission is *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.* LIRNE*asia*'s research is funded by the International Development Research Centre (IDRC) of Canada (www.idrc.ca).

One of LIRNE*asia*'s key research interests is demand-side ICT research, specifically telecom services at the 'bottom of the pyramid' or BOP (http://www.lirneasia.net/projects/completed-projects/bop-teleuse/). The objective of this research area is to provide insight into the 'teleuse' experience among the lower socio-economic strata in emerging Asia. Two studies in this area have been conducted by LIRNE*asia* previously (2005 and 2006) and the third, Teleuse@BOP3 will be conducted in mid-2008.

Teleuse@BOP3 will have a special focus on the emerging 'more-than-voice' (Mobile 2.0) applications, such as mobile payments, SMS remittances, SMS voting, etc. at the BOP; the study will also capture the teleuse experience of migrant workers in the countries where the study is conducted.

LIRNE*asia* invites Expressions of Interest (EOI) from eligible market research agencies to conduct a multi-country quantitative study on the use of telecom services at the BOP in emerging Asia. The study will consist of a household survey amongst such BOP telephone users (including those that own phones and those that don't), with the placement of diaries to record usage patterns accurately. Furthermore the study will capture the teleuse experience of migrant workers in the countries that the study is conducted, in a manner recommended by the Research Agency.

This study seeks to provide understanding of how the poor (vis-à-vis non-poor) use ICTs; what benefits they derive from them; what constraints they face in using them to the desired extent; and how they are likely to use them in the future. Cross country comparisons as well as trend analysis[1] will be conducted. It intends to explore usage patterns of users at the Bottom of the Pyramid (defined as socioeconomic classification groups D and E), on a representative level. A comparison will also be made with a small group of users at higher-income levels (specifically users belonging to SEC A, B & C groups); the Research Agency will be expected to recommend a cost-efficient but statistically sound method for this.

Specifically, the study will seek to explore:

- How the BOP access telecom services
- Potential growth in new telecom connections at the BOP
- The use of more-than-voice services at the BOP, potential for use, and barriers to same, with a particular focus on migrant workers
- What benefits they derive from their use, direct (in terms of consumer surplus) as well as indirect

[1] It is expected that some, but not all parts of the Teleuse@BOP2 questionnaire will be repeated.

- Affordability and willingness to pay (including elasticity of demand)
- What strategies they use to maximize the access to and minimise costs incurred in using the different services
- What gender differences, if any, exists in the use of telecom services

The study will be conducted in the following five countries:

1. India
2. Pakistan
3. Philippines
4. Sri Lanka
5. Thailand

Depending on the costs involved, the following countries will be added (in order of preference):

6. Bangladesh
7. Indonesia
8. Vietnam
9. China

The essential components of the study are the design of the study along with country samples, improving the questionnaire from Teleuse@BOP2 administering the questionnaire and collecting data, cleaning and entering the data and performing an initial data analysis (only) to be presented to LIRNE*asia* at a workshop on 14-16 November 2008. The finalized dataset will be handed over to LIRNE*asia* for subsequent analysis thereafter.

The specific role of the Research Agency will be clearly indicated in the Request for Proposal (RFP) for the assignment, which will be sent to short-listed candidates during the week of 12 May 2008. Thereafter candidates will have three weeks to prepare a full project proposal according to guidelines set out in the RFP.

Interested parties should submit an EOI of **less than 10 pages** to LIRNE*asia*, giving details of relevant previous experience of the company, relevant experience of the key persons who will work on the project, a brief overview of how the Research Agency intends to conduct the study, an indicative timeline, a rough cost estimation (per country). How the Research Agency intends to capture the teleuse experience of migrant worker should specifically be addressed in the description of how the study will be conducted, as well as how valid comparisons between the lower (representative) and higher socio-economic group samples can be made in a cost-efficient manner.

Interested applicants are requested to submit their EOIs on or **before 1700hrs (Sri Lankan time) on 5 May 2008**. EOIs should be submitted electronically to zainudeen@lirne.net. Requests for clarifications of specific items of the EOI and/or RFP should also be directed by e-mail to zainudeen@lirne.net. LIRNE*asia* will respond to all such requests by e-mail.

Attachment 1: Background document: Teleuse @ Bottom of the pyramid: A multi-country study

Annex 1:

Teleuse @ Bottom of the pyramid: A multi-country study

The next billion and *the bottom of the pyramid*[2] are increasingly common terms in the telecom industry. It is widely accepted that the next billions of teleusers will come from emerging markets, particularly India, China and other Asian countries. As the number of mobile owner-users worldwide surpassed the 2 billion mark in 2005, the GSM Association was among the first to assert that the "next billion" would come from such markets. Gartner estimates that "emerging markets today account for more than half of the world's total telecom connections…this will grow to 69 percent by 2010."[3] Given that Asia contains the largest number of poor people, it therefore follows that many of these new owner-users will come from the bottom of the pyramid, or the BOP in Asia.

LIRNE*asia* conducted two consecutive demand-side surveys on telecom use at the BOP in 2005 and 2006. The first, serving essentially as a pilot, surveyed 3,200 respondents among teleusers at the BOP in 7 districts in India and 4 in Sri Lanka, using a structured questionnaire, with the fieldwork being conducted by the market-research firm TNS in multiple languages. A meta-analysis of Bangladesh was also conducted. The 2005 study revealed an unexpectedly high reliance on shared phones (both public and private) in the former two countries; the Bangladesh study highlighted the high degree of phone sharing in the context of the Grameen "Village Phone" program. This underlined the potential for innovative forms of shared access. The Bangladesh study also highlighted the importance of the telephone in securing remittances from family members working in the city or abroad. The results of T@BOP1 (also known as Teleuse on a shoestring) were published as the first section of the IDRC co-published 2008 book, *ICT infrastructure in emerging Asia: Policy and regulatory roadblocks*, among others.

Market researchers divide the working-age population into five groups or socio-economic classifications (SEC), based on the principal wage earner's education and occupation.[4] Given difficulties experienced in ascertaining accurate income information in the 2005 study, it was decided that the use of SECs, which are strongly correlated with income, was the best way of identifying the BOP. The "lowest income" earners of the five groups are SECs D and E. LIRNE*asia*'s survey of the demand for, and use of, ICTs by people in SEC D and E, Teleuse@BOP2, has generated a great deal of enthusiasm, as evidenced by the considerable media coverage and indeed the development of new products.[5] It has been used effectively in advocacy, in conjunction with other data generated from other projects that LIRNEasia is involved in.[6]

Teleuse@BOP2 was based on a 6,269 representative-sample survey, representative of teleusers at the BOP[7] in Pakistan, India, Sri Lanka, the Philippines and Thailand. A smaller, non-representative sample of the "middle and top" of the pyramid was also studied in each country. The 2006 study included an innovative diary methodology to record use patterns. The survey was conducted by A.C. Nielsen, a global market research organization, through its country offices using common methodology. The key findings uncovered a phone-owning potential for 115 million current non-owner users at the BOP between mid-2006 and mid-2008 in the five countries studied alone (Figure 1) (vertical growth); when additional

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[2] Prahalad, C.K. (2004). The fortune at the bottom of the pyramid: Eradicating poverty through profit. Upper Saddle River, New Jersey: Wharton School Publishing.

[3] http://www.gartner.com/it/page.jsp?id=499110. See also for instance http://pdf.wri.org/n4b_chapter3.pdf, http://www.lirneasia.net/2007/02/the-next-billion-is-from-asia-and-africa/, http://www.digitimes.com/telecom/a20061017PR202.html, , http://www.tectonic.co.za/view.php?id=1295

[4] Bijapurkar, R. (2007). We are like that only: Understanding the logic of consumer India. New Delhi: Penguin Books

[5] Direct quotation from Group CEO of Dialog Telekom, Dr Hans Wijayasuriya, in video "Teleuse at BOP." http://www.idrc.ca/en/ev-118658-201-1-DO_TOPIC.html and http://www.idrc.ca/en/ev-118659-201-1-DO_TOPIC.html

[6] http://lirne.net/?s=Lanka+mobile+tax

[7] Additionally, a 2,420 sample of the 'middle and top' of the pyramid (that is, belonging to SEC groups A, B and C) was also taken for valid comparison.

(second) connections by current owners are considered (horizontal growth), this number was estimated to be as high as 140 million. As Figure 1 illustrates, this could bring the phone penetration at the BOP up to as high as 70 per cent in countries like Sri Lanka and Pakistan, 50 per cent in India and much higher in Thailand and the Philippines.

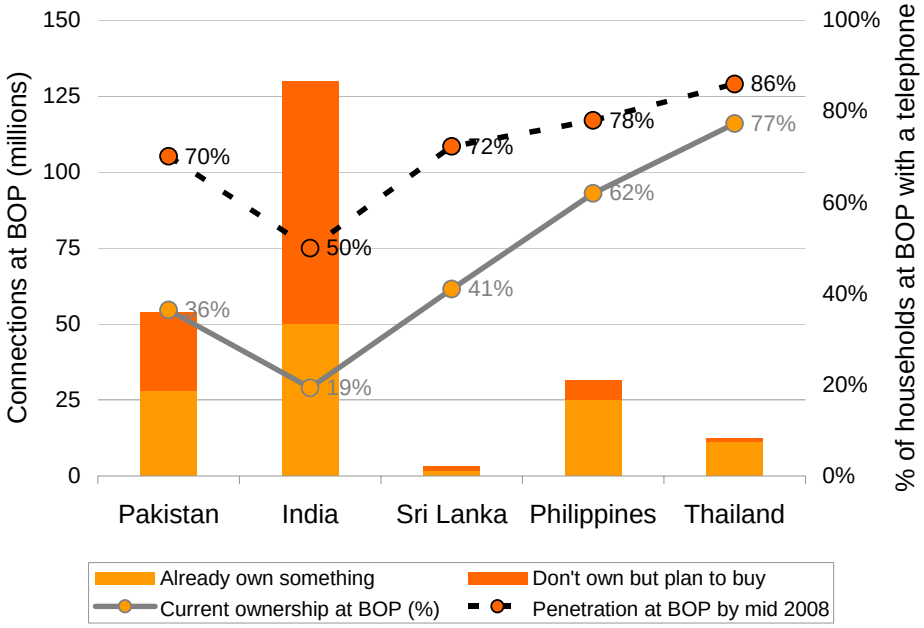

Figure 3: Growth potential at the bottom of the pyramid in Pakistan (26 million), India (80 million), Sri Lanka (1 million), the Philippines (7 million) and Thailand (1 million) between mid-2006 and mid-2008. *Source: Teleuse@BOP2, LIRNEasia (2006)*

The findings of LIRNE*asia*'s Teleuse@BOP2 study have been disseminated widely to regional operators as well as operators in Sri Lanka, India and Pakistan as well as senior policy makers, regulators and media in both India and Pakistan. The wide media attention that the findings have received in multiple countries in multiple languages is evidence of the relevance and need for such research in the industry. New products in the telecom industry have also been developed based on research of this kind.[8] The studies have helped LIRNE*asia* to establish demand-side research as one of its areas of specialization.

The 2006 study was one of the first studies to compare telecom use at the BOP across five emerging economies. The study was ahead of the curve; terms such as "bottom of the pyramid" and "next billion" were not commonplace in the telecom industry when these studies were conceived in late 2004. However, now industry is taking initiative to see how they can serve the "poor" and turn a profit by providing them with services that they require. The growth in mobile connections even at the BOP is substantial. The next Teleuse@BOP study will similarly aim to explore issues on the rise, and provide insight into these areas of interest to better equip policy-makers to develop appropriate policies, for industry to craft appropriate products and services and for more people at the BOP to join the information society.

One particular issue that will be explored is the rise of "Mobile2.0" applications at the BOP, the underlying theme of LIRNE*asia*'s 2008-2010 research program. Teleuse@BOP3 will also pick up on the learnings of

[8] See http://www.lbo.lk/fullstory.php?newsID=1181452815&no_view=1&SEARCH_TERM=5

its predecessors, and proceed into more advanced analyses and projections. It will include a multi-media component.

Issue on the horizon: Mobile 2.0

Unlike in more developed economies, where industry is said to be heading for a "quadruple-play" based on a "fat pipe" coming into the house, a different path is being followed in less developed economies, where everyone may not necessarily own a phone but many have not even heard of the Internet. Here, almost everyone has at least used a phone before and thus has familiarity with the technology. The BOP is rapidly moving from being non-owner users of ICTs to owner-users. By 2010, more than 50 per cent of the BOP in India, Pakistan, the Philippines, Thailand and Sri Lanka will own mobiles. These mobiles are now (or will increasingly become) payment devices that can also send/process/receive voice, text, images; in the next few years they will also be capable of information-retrieval and publishing functions normally associated with the Internet. Even among the remaining BOP population, many will be using CDMA phones that for the most part mimic the capabilities of the GSM mobiles.

People at the BOP, especially in countries that are exhibiting rapid economic growth (like India) are coming out of poverty. As their economic constraints lessen, it is likely that they will gradually increase their communication-related spending, absolutely and as a proportion of their income. Will this go to paying for fat pipes to connect their homes to a host of entertainment and data services (quadruple play) or for incrementally increasing the amounts paid for the communication services they currently consume or for investing in new terminal devices that would improve their communicative interactions (Mobile 2.0)?

The BOP (and therefore, the majority of people in the developing world) are likely to enter the world of knowledge and convenience promised by the Internet through the path opened by the rapid evolution of the mobile, rather than an evolutionary path centered on a fat pipe connecting houses.

One of LIRNE*asia*'s main research themes for 2008-2010 will interrogate this premise, exploring in-depth micro-payments and remittances, agriculture applications, voting applications, e-government services etc., in addition to the fundamental policy and regulatory issues affect the evolution of mobile technology along this path.

Learnings from Teleuse@BOP2

One of the key learnings from the project was the less-than-ideal timing of the qualitative studies. This component was conducted at the same time as the quantitative component, therefore the "why" questions which arose during quantitative analysis could not be answered, especially with respect to women's use of the telephone. The quantitative and qualitative components of T@BOP3 will therefore be lagged, to allow for improved interpretation of the quantitative findings.

Overall, the diary component of the study was successful, allowing LIRNE*asia* to collect data on the usage patterns of 50 per cent of the quantitative sample at the point of consumption over a two week period; this was a significant improvement from Teleuse@BOP1, where usage data was collected based on recall of the respondent, a seriously flawed method in retrospect. However, there were some shortcomings, with the diary failing to capture information on SMS usage as well as some expenditure information. LIRNE*asia* will continue working on these areas with different methods in T@BOP3.

A key objective of the Teleuse@BOP study was to calculate the price and income elasticities of demand of phone usage at the BOP, using data on expenditure and usage collected from the diaries completed by fifty percent of the quantitative study. This objective could not be met, due to a lack of expenditure data,

and inflexibility of the existing data. This is also an area that LIRNE*asia* will try to improve, based on the previous learnings, perhaps using more general techniques to look at demand sensitivity.

More than 2,000 surveys were conducted among SEC A, B and C groups, or the "top and middle" of the pyramid to allow for valid conclusions to be drawn about the BOP's attributes and behavior. LIRNE*asia* plans to repeat this component in Teleuse@BOP3, but in a less costly manner, possibly reducing the "top and middle" of the pyramid samples, but maintaining the credibility of the comparisons. In addition, we will disaggregate SEC E and SEC D in the analysis to get a better understanding of effects of income (and educational status and occupational level). Suggestions have been made that we look at all SEC groups. This cannot be done because the costs will be extraordinary; we do, however, plan to explore more cost-efficient method of looking at the SEC A, B and C groups, and will be open to suggestion.

The findings of the study were widely disseminated in 2006-08 to a variety of audiences, including industry (global and regional), policy makers, civil society and media. The importance of different forms of presentation have become clear in presenting the research to different kinds of audiences, for example image-based forms (photographs, video clips etc.) seemed to be more effective for civil society and media. LIRNE*asia* therefore hopes to include a multimedia component in the project, capturing video footage at different points during the field work, bringing the BOP teleuser to the presentation screen and making it easier to explain how the data was collected.

Teleuse@BOP3

While anchored in the larger research program, the study will repeat a subset of the important questions from the previous versions of the study to allow for trend analysis in repeat countries. In addition to the household survey, the diary-based study and the focus groups (now lagged) will be conducted as with Teleuse@BOP2.

It is proposed that the study will be repeated in the five countries covered in T@BOP2 (India, Pakistan, Philippines, Thailand and Sri Lanka). Depending on availability of funding from industry, the survey will be expanded to the BOP of up to nine countries (Bangladesh, Indonesia, Vietnam and China, in ranked order). These countries have been selected because of the rapid telecom growth, large BOP populations and relevance to Mobile 2.0@BOP research.

Teleuse@BOP3 will explore Mobile 2.0 and its potential at the bottom of the pyramid, most specifically relating to mobile payments, especially remittances by expatriate workers. It is widely recognized that remittances by expatriate workers are a source of funds for developing countries and BOP populations, dwarfing official development assistance. A key new feature of the study is that aspects of the expatriate-worker teleuse experience will be studied in the countries with significant expatriate-worker populations; this will constitute a special component of the standard household survey, but returning/departing workers will be studied also. This will provide much insight into the use of and potential for mobile-based remittance services.

The fieldwork will be outsourced through a competitive bidding process, to a reputed research organization with regional capabilities to implement fieldwork in the countries being surveyed. The bids will be evaluated both on technical and financial criteria. The bulk of the research tools will be designed by LIRNE*asia*, based on its expertise and experience. The analysis will be conducted by LIRNE*asia* also.

In light of the fact that youths are a heavily mobile-dependent group, and therefore, more likely to be users of new services, Teleuse@BOP3 will include more youths in the samples than in previous versions of the study where the lower cut-off was 18 years.

Research questions

Access and uptake

- What will be the growth in new connections (mobile and fixed) at the BOP over the following 2 years?
- What factors affect usage levels?
- Is mobile use at BOP growing faster than internet use and awareness?
- How big is the network effect at the BOP?

Affordability, willingness to pay

- What is the level of affordability in terms of connection and use?
- What factors affect affordability levels?

More than voice

- What is the current usage and potential for more-than-voice services at the BOP? (including remittances, agriculture information, e government applications, etc)
- What might be the barriers (language, trust, etc.) to the uptake of such services at the BOP?
- What role does local language play in the BOP's ability to consume information (including e-government) through the mobile or through internet?
- What is the willingness to pay for more than voice services?
- How important are ICTs to migrant workers and his/her family?
- What factors determine the use of SMS and missed calls (alternatives to voice)?
- What are the handset capabilities of current mobile users?

Gender

- Does the gender divide widen or narrow with increases in penetration at the BOP?
- As penetration increases, is there a divergence in men's vs. women's use of the phone?
- What are the factors that affect gender differences?

Benefits of access

- What is the value of a mobile phone to the BOP user (especially in terms of economic value)?
- Is a call a call? A minute a minute? How can we capture the benefits of high-value communications?
- What are the complements that help people benefit from mobiles (for. e.g., easy road access; education; proximity to large towns; proximity of banks, etc)?