

*Teleuse@BOP3 findings in brief*

### **Mobiles and transportation at the bottom of the pyramid**

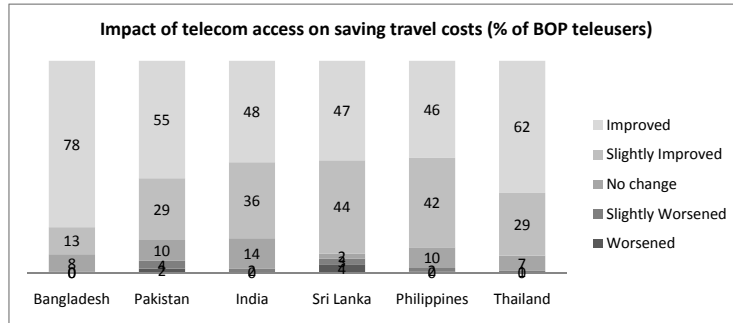
Access to telecom services no doubt has an impact on travel time and costs. The ability of the teleuser to substitute travel with phone calls or SMSs in order to obtain or convey information, make arrangements, etc., allows him/her to save on both time (which could be spent engaged in other valuable activities) as well as money. Recent research by LIRNEasia, a regional think tank has shown the importance of the relationship between mobiles and transportation at the “bottom of the pyramid” (BOP).

Devraj, a small agri business owner from rural Paithan in Maharashtra, is able to save around INR400 (USD8) in his monthly operating costs after obtaining a mobile phone. Devraj is one of the two hundred plus teleusers at the BOP across six countries that were interviewed in-depth for LIRNEasia’s study on Teleuse at the Bottom of the Pyramid. Earlier, he would have to travel to Paithan town to source fodder for his cattle and find new contacts for his milk business. After buying a mobile phone, he takes milk orders from local businesses, as well as pre-order his fodder supply on the phone. He is now able to coordinate his travel more efficiently, travelling only when needed, combining multiple purposes into fewer trips. As a result, he has a net saving of INR400 (USD8) plus hours of his time saved.

Travel coordination through the phone was seen to be also popular at the BOP. Most of the BOP respondents interviewed in depth like Devraj across six countries, both in urban and rural areas, said that they keep the phone numbers of trishaws and bus drivers handy, with whom they can call to prearrange their transportation if they have a significant travel to make like going to sell all their crops, or even visiting relatives outside of their town area. Many also use their mobiles to call friends and family to ask for directions before they set out on travel.

LIRNEasia also conducted a 3,000+ sample survey among teleusers like Devraj in India (as well as five other Asian countries) on various issues relating to telecom and ICT use in 2008.

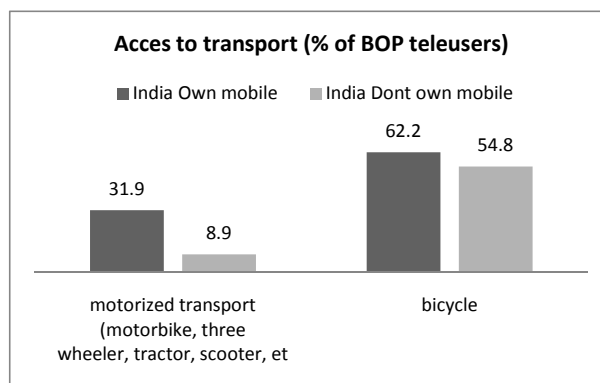
The sample survey findings from India confirmed such instances of substitution of travel with telecommunication like Devraj. Almost 85 percent of the 3,000+ Indian teleusers belonging to the BOP (socioeconomic groups D and E in urban India, and R3 and R4 in rural India) that were surveyed stated that having access to a telephone has improved their ability to make savings on travel costs (Figure 1).



**Figure 1: Impact of telecom access on the respondent's ability to save money on travel costs**  
 Source: Teleuse@BOP3 survey, LIRNEasia, 2008

Another important relationship between mobiles, or broadly speaking telecom and transportation is complementary in nature. A rural milk delivery business owner like Devraj also depends on access to good transportation as well as transportation infrastructure to get his milk to his customers. Initially, he used to make his deliveries by bicycle; but the roads were of poor quality, leading to frequent punctures in his tyres, thus making it difficult for him to make his deliveries. This highlights an important point; what good is market information if you cannot get your produce to the market before it goes bad? Considering such issues, Devraj thus decided to invest in a sturdier mode of transportation, a motorbike.

The sample survey findings also indicated that overall that BOP teleusers who were more "connected" in terms of mobile phone ownership, were also more "connected" in terms of access to transport infrastructure and facilities too. Among those teleusers who actually owned their own mobile, a larger percentage had access to some kind of transport in their household (bicycle, motorbike, three-wheeler, tractor, etc.) than those who didn't own their own mobile. Sixty-two percent of mobile owners had access to a bicycle compared to fifty-five percent of non-owners; similarly, thirty-two percent of mobile owners had access to motorized transport, compared to just nine percent of non-owners (Figure 2).



**Figure 2: Access to some form of transportation within the respondent's household (bicycle, motorbike, three-wheeler, tractor, etc)**  
 Source: Teleuse@BOP3 survey, LIRNEasia, 2008

Of course, income plays a role in determining both access to transport facilities within the household and mobile ownership, and as Devraj's story illustrates, mobile ownership can nevertheless enhance income through travel expense savings, and also improved business opportunities; this can have knock-on effects on improvements in transport access within the household.

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LIRNE*Asia* is a regional information and communication technology (ICT) policy and regulation think tank based in Colombo and active across the Asia Pacific.

"Teleuse at the bottom of the pyramid" (Teleuse@BOP) is a series of multi-country studies of how the lowest socioeconomic groups, or bottom of the pyramid (BOP) make use of telecom and other ICTs in their lives. Teleuse@BOP3, the third of these studies was conducted between 2008 and 2009. The quantitative phase involved 11,000 sample surveys of the BOP in six countries (India, Pakistan, Bangladesh, the Philippines, Thailand and Sri Lanka) in late 2008. The qualitative phase involved focused group discussions, in depth interviews and mini ethnographies conducted in the same countries in early 2009. "Teleusers" are defined as those who have used a phone (their own or someone else's) to make or receive a call in the last three months. More information at [www.lirneasia.net](http://www.lirneasia.net)