

MOBILE OPPORTUNITIES:

# POVERTY AND MOBILE TELEPHONY IN LATIN AMERICA AND THE CARIBBEAN



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POVERTY AND ACCESS TO TELEPHONY  
IN LATIN AMERICA AND THE CARIBBEAN  
*Trinidad and Tobago Executive Summary*

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## ABOUT DIRSI

The Regional Dialogue on the Information Society (known by its Spanish acronym, DIRSI – Diálogo Regional sobre Sociedad de la Información), funded by the International Development Research Centre (IDRC), is a research network that works in support of public policy processes to promote participation of poor and marginalized communities in the Information Society. Network members represent a variety of countries in Latin America and the Caribbean, the region of the network's geographic focus.

DIRSI researchers have experience as in-country team leaders and work with research teams that have well-established relationships with ICT organizations and service providers as well as public and private institutions. DIRSI researchers have extensive experience with primary and secondary data collection and analysis on the many dimensions of ICTs for development.

The network has produced a number of investigative reports including the 2007 book *Digital Poverty: Latin American and Caribbean Perspectives*.<sup>1</sup> During 2007, DIRSI produced a series of papers on the theme of 'Mobile Opportunities: Poverty and Telephony Access in Latin America and the Caribbean'. These provided background research for the subsequent national surveys, which assessed the mobile opportunities among disadvantaged communities in seven Latin American and Caribbean countries.

DIRSI is managed by the Instituto de Estudios Peruanos (IEP) in Lima, Peru and has a well-established organizational framework under which its administrative, research and outreach tasks are managed and coordinated.

For further information on DIRSI, you can visit the website: <<http://www.dirsi.net>> or email [info@dirsi.net](mailto:info@dirsi.net).

<sup>1</sup>Galperin, H. and Mariscal, J. (eds.) (2007). *Digital Poverty: Latin American and Caribbean Perspectives*. Ottawa, Canada: International Development Research Centre (IDRC).

## INTRODUCTION

Access to communication services in general, and telephony in particular, has long been recognized as an important input to social as well as economic development.

The poor, who for various reasons have traditionally had limited access to fixed services, currently access telephony predominantly through mobile services. Yet, there are few empirical studies aimed at understanding the patterns of mobile phone use by the poor.

In 2007, DIRSI undertook a *Mobile Opportunities* project to understand the strategies employed by the poor in Latin America and the Caribbean to access and use mobile telephony services. The project also sought to investigate the major market and regulatory barriers to increased penetration and usage and to contemplate business opportunities to serve underprivileged users.

A *Mobile Opportunities* survey was conducted through more than seven thousand interviews with individuals residing in low-income households in major metropolitan areas in Argentina, Brazil, Colombia, Mexico and Peru and in both urban and rural areas in Jamaica and Trinidad and Tobago.

In the study, one member of each household between the ages of 13 and 75 was randomly selected to respond to a questionnaire on whether they have a fixed line phone in their home and whether or not they are users of mobile telephony; as well as to gather information on their mobile

spending patterns, fixed telephony usage patterns and other means of telecommunications use. Mobile telephony users were defined as those who had used a mobile phone to make or receive a call within the last three months, whether or not they were the owners of the phone. Fieldwork was conducted between April and June 2007.

Findings from the *Mobile Opportunities* survey reveal a growing need to develop new business models and to break down both market and regulatory barriers in order to extend the market frontier for mobile telephony. The study results also suggest the need to rethink public policies.

In the following pages we present the executive summary for the Trinidad and Tobago *Mobile Opportunities* survey report. The full report as well as the other national reports and the regional report from the DIRSI *Mobile Opportunities* project are available on the DIRSI website, <http://dirsi.net/>.

DIRSI seeks to continue the discourse on how access to mobile telephony may contribute to improving the livelihoods of the poor. To this end, the network seeks to engage stakeholders in discussions surrounding recommendations, drawn from the *Mobile Opportunities* reports, for policy, regulatory and other interventions; as well as on best-practice solutions to delivering mobile services.

*Over 7,000 interviews were conducted with individuals residing in low-income households.*

# TRINIDAD AND TOBAGO

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The *Mobile Opportunities* survey research was motivated by the interest in identifying ways of empowering the poor via access to telecommunications. The country reports, such as this one for Trinidad and Tobago, analyze access and barriers to communications services among the poor as well as their use and perceptions of such services. Although the study examines patterns of use for fixed lines, mobile and the Internet, it focuses primarily on mobile as this technology reportedly has high levels of penetration among the poor in developing countries and has considerable potential as a vehicle for inclusion.

A quantitative survey of low-income communities in Trinidad and Tobago, was used as the basis for this country study. The sample of 537 respondents out of a total country population of 1,262,366, was selected using information from local studies which estimate that 17% of the population is poor.<sup>2</sup>

Supporting documents to the current study

*The survey results show that, in general, communications services are physically accessible to the poor in Trinidad and Tobago.*

include a background paper on mobile technologies and services<sup>3</sup> and a literature review of poverty in Trinidad and Tobago.<sup>4</sup>

## **Communications access among the Trinidad and Tobago poor**

The survey results show that, in general, communications services are physically accessible to the poor in Trinidad and Tobago. The majority of respondents have either fixed line or mobile service, a similar proportion of mobile users and non-users having fixed phone lines. Those with neither service live on average less than 15 minutes away from a pay phone.

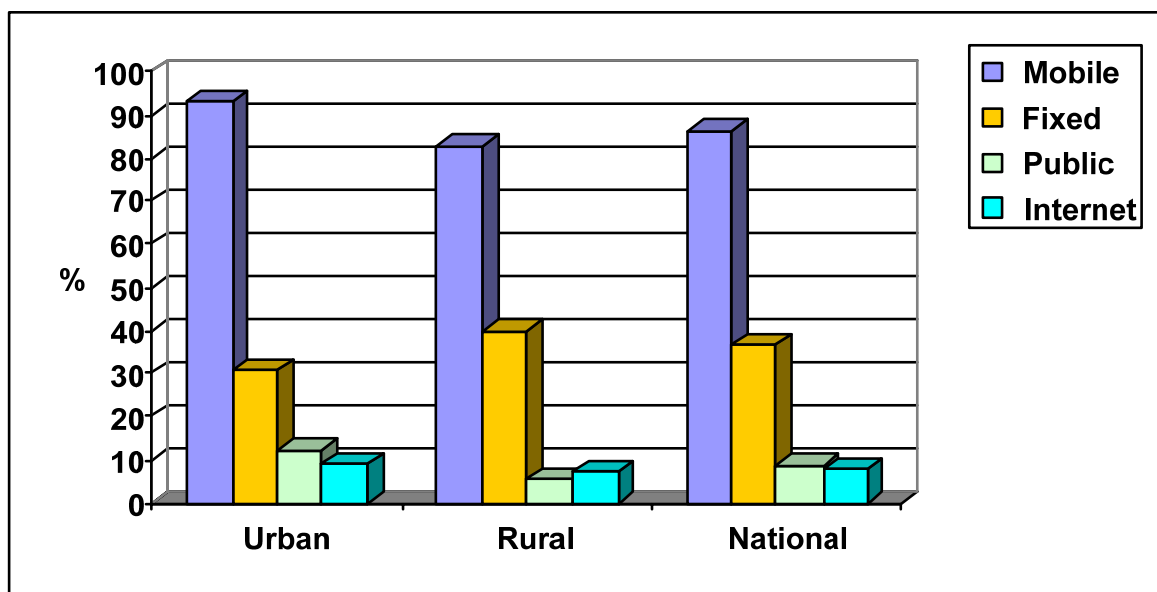
The survey revealed that the general perception of telecoms services among the poor is favourable, with mobile signal levels and fixed line service quality generally ranking higher than public phone service. Almost all respondents have mobile coverage in the vicinity of their homes.

<sup>2</sup>Kairi Consultants. (2007). Analysis of the 2005 Survey of Living Conditions in Trinidad and Tobago. Report prepared for the Ministry of Social Development, Government of Trinidad and Tobago. Trinidad and Tobago: Kairi Consultants Ltd.

<sup>3</sup>Mallalieu, K. (2006). Pro Poor Mobile Capabilities: Service Offering in Latin America and the Caribbean. A Background Paper. <<http://www.dirsi.net/files/finals/070216--mallalieu.pdf>>

<sup>4</sup>Cambridge, I, Foster, J. and Mallalieu K. (2007). Poverty in Trinidad and Tobago: A review of the literature (unpublished).

Figure 1 – Low-Income Telecommunications Usage (Urban, Rural, National)



### Communications use among the Trinidad and Tobago poor

The survey showed that mobile is currently the main form of telecommunications used by the low-income population as shown in Figure 1 for urban communities, rural areas and nationally.

Most of the mobile users surveyed acquired their mobile phones between 2005 and 2007, peaking in April 2006. This period straddles the liberalization of the local telecoms market and the official launch of the new entrant in March 2006. Reduced costs, catalyzed by impending, as well as actual, competition, facilitated greater access to mobile telephony services over this period.

The survey found that a number of mobile users are below the national poverty line, and many live in

*...almost all mobile users in Trinidad and Tobago were found to own their own phones.*

*There are 2.3 more mobile users than fixed line users and there are, on average, 1.4 more mobile calls than fixed line calls made per day among the poor surveyed.*

homes that do not have piped water. One third of those surveyed had no high school education and three quarters had not worked the week prior to the interview. Yet almost all mobile users in Trinidad and Tobago were found to own their own phones.

The low-income mobile penetration rates per household were found to be one-third that of national levels and the personal mobile penetration rates half that of national levels. Yet the ratio of mobile to fixed penetration in the low-income community sampled was more than a third greater than the national average, as shown in Table 1.

There are 2.3 more mobile users than fixed line users and there are, on average, 1.4 more mobile calls than fixed line calls made per day among the poor surveyed. The mobile phone is used primarily for

**Table 1 – Comparison of Telecommunications Data: National and Surveyed Low-Income Users**

	Fixed Line Subscribers / 100 Households	Fixed Line Subscribers / 100 Inhabitants	Mobile Subscribers / 100 Households	Mobile Subscribers / 100 Inhabitants	Mobile/ Fixed Subscribers	Mobile Prepaid/ Postpaid
<b>National</b>	94.00	24.90	477.00	126.00	5.00	9.3
<b>Low income</b>	34.40	8.90	156.00	62.00	6.90	26.0
<b>Low income / National</b>	0.37	0.36	0.33	0.49	1.38	2.8

voice among the Trinidad and Tobago poor surveyed. Whereas on average respondents reported making in excess of three mobile voice calls per day, on average they reported sending fewer than two text messages per day. Though SMS service is physically accessible to mobile users, more than half do not make use of it.

Overall, respondents from Tobago placed a value on mobile telephony that was about equal to that of their counterparts in Trinidad. However, they ranked specific areas of improvement (business, emergencies, friends, family, health, etc.) with more reserve than did the Trinidadian respondents. The notable exception relates to safety in daily life which Tobagonians ranked higher than Trinidadians. No major differences in call patterns were found between mobile users in the two islands.

A higher percentage of urban low-income respondents were found to use cell phones than rural low-income respondents. Cell usage was found to range from 100% in predominantly urban Port of Spain to 65%

in predominantly rural Caroni. The survey did not record race demographics, but it is perhaps noteworthy that of the country's two main racial groups, there is a greater percentage of inhabitants of African descent in Port of Spain and a greater percentage of inhabitants of East Indian descent in Caroni.

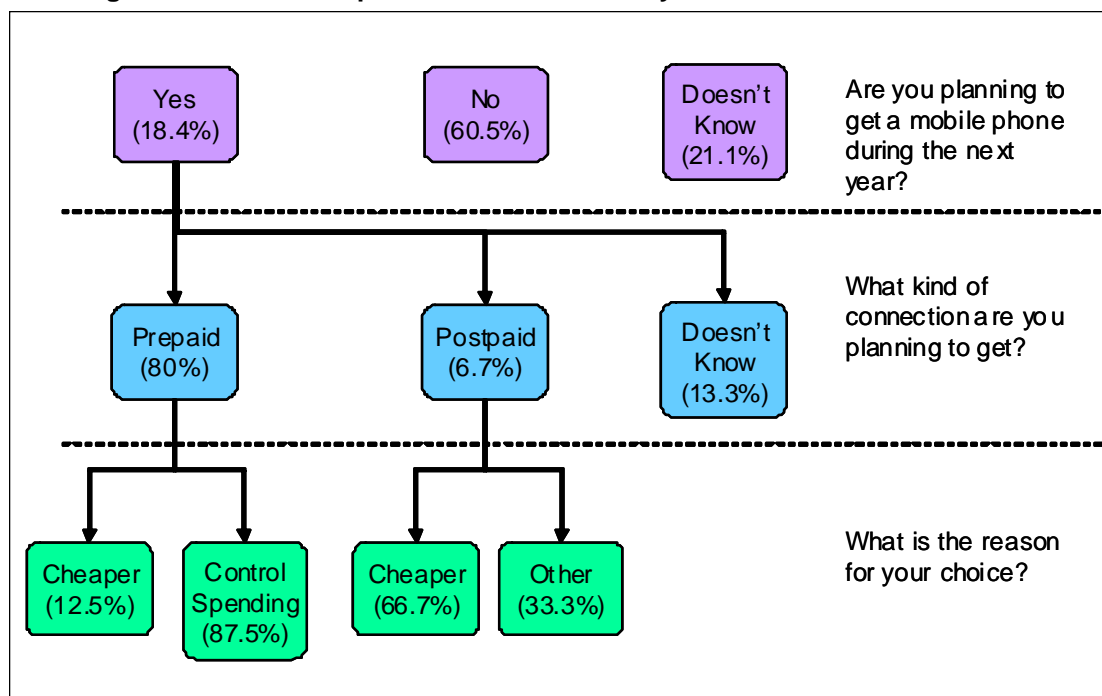
Twice as many males as females were found to be mobile users from among surveyed respondents, with both genders ranking various forms of social interaction as the

main benefit of the mobile phone.

Mobile usage among the poor was found to be rather inelastic. It was reported that 44% of users would maintain their current levels of usage if the monthly cost of their service was cut in half and 66% of respondents said that they would not change their usage if their income doubled. 36% of respondents would maintain their current usage even if the monthly cost of using the phone doubled and 40% said they would not change their usage if their income was halved.

*44% of users would maintain their current levels of usage if the monthly cost of their service was cut in half and 66% of respondents said that they would not change their usage if their income doubled.*

Figure 2 – Future Adoption of Mobile in Surveyed Low-Income Communities



### Affordability barriers to telecommunications

Affordability was the main barrier to the use of mobile phones among the poor surveyed. This barrier accounted for 39% of mobile non-users' failure to have access to telephone service. Many respondents among the mobile non-users surveyed simply did not think a mobile phone was necessary while the other non-users of mobile had no use for a mobile because they already had a land line which adequately substituted for their purposes.

Half of fixed line non-users also reported affordability to be the key barrier for access. The main barrier to the use of SMS was found to be a lack of understanding its use.

*Affordability was the main barrier to the use of mobile phones among the poor surveyed.*

### General findings

The *Mobile Opportunities* study reinforces previous findings on poor communities in developing countries, which indicate that the impact of telecommunications is primarily non-economic, for example through the facilitation of emergency communications and maintaining relationships.<sup>5</sup> For Trinidad and Tobago, the highest rated use for all telecom access paths surveyed was communications with friends and family. Fixed line users, like mobile users, reported that they used their phones mainly for social networking.

There is opportunity for mobile market growth in Trinidad and Tobago, with 18% of the non-users surveyed indicating that they planned to get a mobile phone some-

<sup>5</sup>Moonesinghe, A., de Silva, H., Silva N., and Abeysuriya, A. (2007). Telecommunications use on a Shoestring: Expenditure and perceptions of costs amongst the financially constrained. In Mahan, A.K. and Melody, W.H., *Diversifying Participation in Network Development*. World Dialogue on Regulation. <<http://www.regulateonline.org/content/view/full/1044/63/1/1/>>

time within the following year. Prepaid was found to strongly dominate as the payment method of choice among the non-user poor (Figure 2), as it was among current users (Table 1).

Survey findings and service pricing at the time the survey was conducted suggest that, depending on usage, some prepaid users are paying more for voice calls than they would with post-paid plans.

Survey results indicated that mobile telephones have become a cultural norm within Trinidad and Tobago society, including within lower income groups. Telephony access facilitates social inclusion for many who would otherwise be dependent on public pay phones and the fixed

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lines of neighbours and friends.

For the population sector surveyed, mobile phone use has boomed in recent years, a fact that has coincided with the decrease in poverty to 17% for the first time in 20 years. It is

yet unclear as to whether these two facts are linked but it is clear that the deep penetration level of mobile in poor communities of Trinidad and Tobago offers an opportunity for pro-poor interventions. For such interventions to yield real and positive impacts, a variety of strategies are required. These include further empirical as well as analytical research, innovative culturally relevant technological developments, a variety of social assistance programmes as well as policy, and perhaps regulatory, interventions.