

2009

a year in review

2010



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Our mission

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

Contents

CEO's message	03
LIRNEasia and networks	11
About LIRNEasia	23
Review of activities	43
Research	45
Capacity-building	56
Advocacy and dissemination	57
Financial statements	77



We should be happy and content. We are happy but not content.

Happiness

We just finished the 2008-10 research cycle where we had set ourselves a rather daunting task, that of developing an alternative to the dominant narrative of ICT futures centered on a “fat pipe” (coaxial cable, fiber or even wireless) coming into each household carrying entertainment and data (including Voice over IP). This vision of a convergence of previously distinct analog or digital information streams over a single bit-stream conduit with different terminal equipment (home theaters for entertainment, different devices for data and voice) did not seem to make much sense for those at the bottom of the pyramid (BOP) in Asia, our people. As Figure 1 shows, the majority of our people in South Asia had barely heard of the Internet and their first and only contact with two-way electronic communication was through the mobile, and, even that, recently.

And we did. We developed a coherent, alternative narrative, drawing from our demand-side, supply-side and case studies that deployed multiple methods and approaches. We identified the actions that had to be taken by policymakers and regulators, by operators, by applications providers and by manufacturers to make the narrative real. The evidence (Figure 2) showed that the narrative is emergent at the BOP, and that not too many people are actually using more-than-voice services over wireless platforms. It also showed that the younger cohort was more comfortable with going beyond voice.

So our narrative was not just about describing the world; it was also about addressing what the world could

be. Not a simple conclusion, but still an achievement. This is cause for happiness.

It is not just a story we tell ourselves. We have taken it out to all sorts of audiences, some friendly and others not so friendly. When putting new ideas into circulation, it is only rarely that clear causal connections can be established. In any case, large shifts in discourse such as the displacement of wired desktop computers by terminal devices that

are, for the most part, mobile, are caused by multiple actors. No single actor can take full credit. But reading, for example, the recent *World Telecommunication/ ICT Development Report 2010* of the International Telecommunication Union, we cannot but take satisfaction.

“Affordable, high-speed Internet access is central to the development of an information and knowledge-based

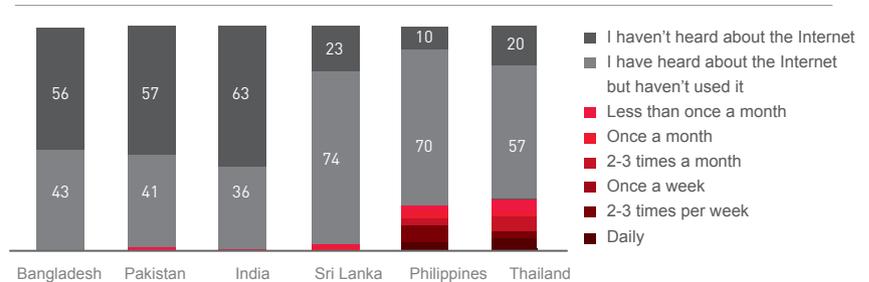


Figure 1: Internet awareness and use among teleusers at the bottom of the pyramid (% of BOP teleusers) (SEC groups D and E) in selected Asian countries (2008) | Source: LIRNEasia Teleuse@BOP3 survey

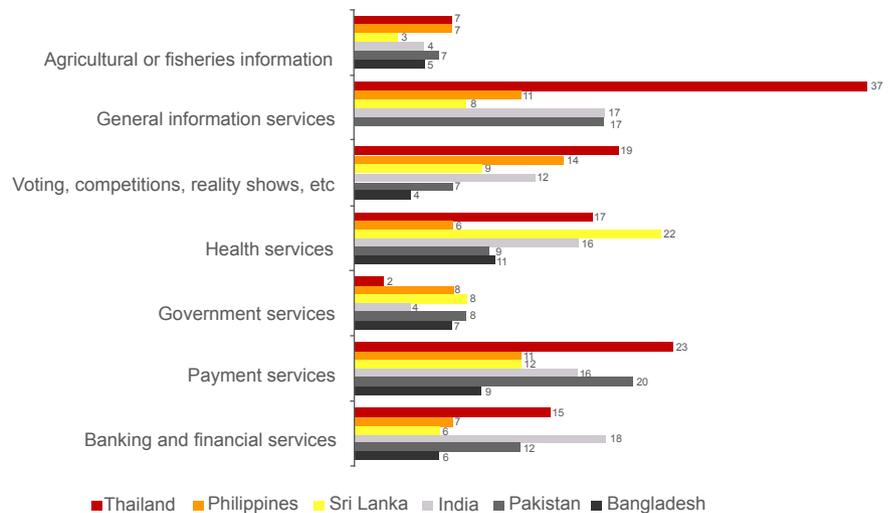


Figure 2: Use (regular and non-regular) of more-than-voice services among teleusers at the bottom of the pyramid (% of BOP teleusers) (SEC groups D and E) who are aware of such services in selected Asian countries (2008) | Source: LIRNEasia Teleuse@BOP3 survey

society...Internet, especially broadband Internet, is increasingly accepted as a general-purpose technology that dramatically affects the way people communicate, do business, interact with governments and educate and inform themselves. This requires governments to pursue policies that will have a significant impact on Internet usage including an enhanced effort to deploy (fixed/wired and/or wireless) broadband infrastructure and to include wireless in universal access plans. It might be possible to reach the goal of providing broadband Internet access to at least half the population by 2015 in view of the rapid spread of

wireless broadband.”(p.xxxiv)

“Anecdotal evidence suggests that access to the Internet using mobile phones is a growing trend, including in many developing countries and regions such as Africa. Providing mobile broadband access can be an attractive solution for rural areas since it requires less investment than installing fixed broadband connections. Mobile broadband coverage, or the percentage of the population within reach of a 3G mobile cellular signal, will therefore be an important indicator to measure.” (p. 23-24)

We are a project-based organization. But we do not behave as one, thanks to the understanding and flexibility shown by our principal funder. We build upon and consolidate research lines. We seize opportunities to influence policy and strategy even if the relevant research is not from the current research cycle. We keep our focus on the key audiences of senior policymakers, regulators, senior managers of operating companies and opinion leaders capable of influencing them. We strive to shape their symbolic environments by obtaining extensive coverage in the media, as shown in Figure 3 below and in more detail in Section 4 of this Report.

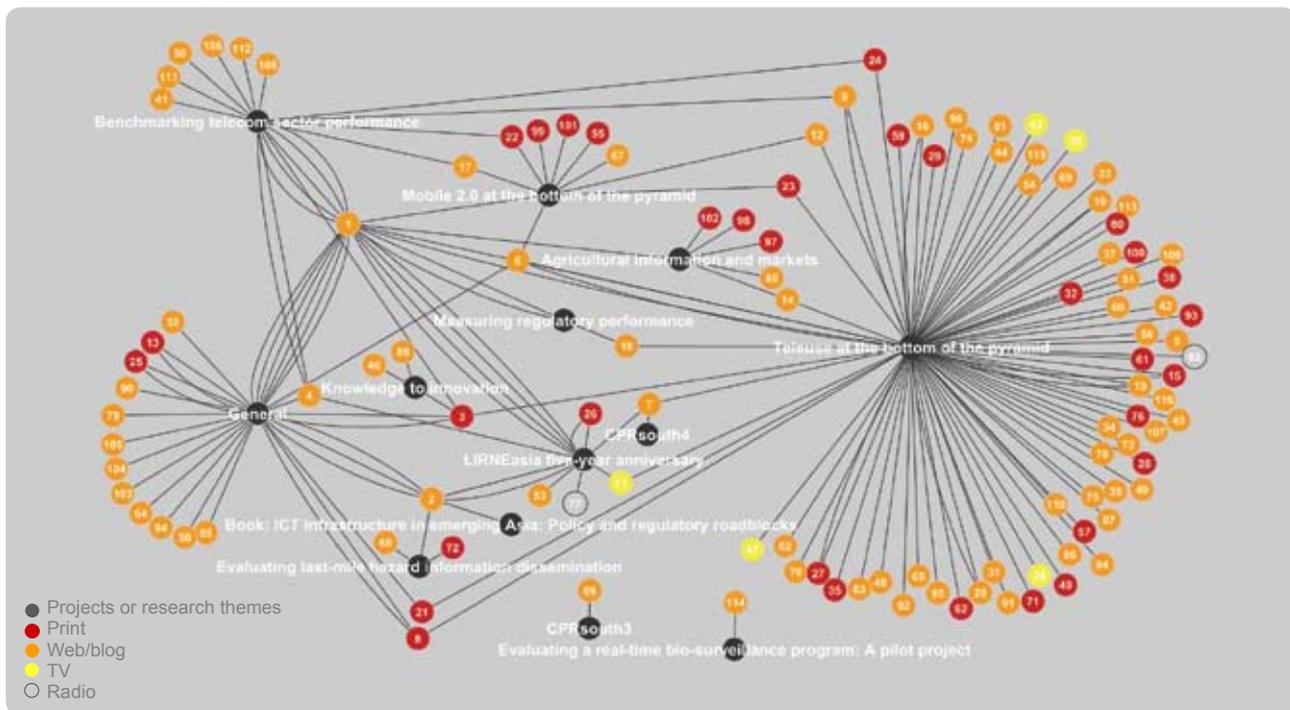


Figure 3: Frequency of media coverage by research project and related themes, 2009-10. The dark grey subject nodes indicate projects or themes. Each line extending from a subject node to a numbered node indicates coverage (print, web/blog, TV or radio). Each number represents a different publication (see Table 7 for a numbered list of publishers). For a complete list of publications, see Section 4’s subsection on media coverage. For a complete list of coverage from 2004 to date, including web links where applicable, visit <http://lirneasia.net/about/media-coverage/>.

Figure 3 privileges frequency of coverage. But obviously, that is not all that matters. It is not the most important aspect either. Coverage in a major Indian, Pakistani or Bangladeshi newspaper that is read by our audiences is obviously more valuable for our purposes than mention in a radio broadcast in the evening. In *LIRNEasia's 2004-09: Five years in review*, we made our first attempt to address the quality of publication, going beyond the simple frequency count. We are not yet fully satisfied, but the results of the method applied to 2009-10 show we

are improving the quality of print coverage (where we spend most time and money), whilst web and blog coverage appears to have kept to the former pattern (Figure 4).

We celebrated our first five years in the company of friends, colleagues and present and future partners from 25 countries. This too was a cause for happiness.

I never thought about the importance of surviving for five years, but when the day came and I thought about it, it was a

good feeling. This was odd because I did celebrate when the Public Interest Program Unit at the Ministry for Economic Reforms survived 548 days, recalling the Soviet revolutionaries celebrating their survival for 72 days, the duration of the Paris Commune. The benchmark was the duration of my first round of duty in government in 1998-99. But *LIRNEasia* was unique; what was the milestone? Five was just an arbitrary number, plucked out of the air.

LIRNEasia was almost an impossible dream. No endowment, no core funding, location in a war-torn, small and peripheral country that was increasingly disaffected with Western conceptions of good governance — not the best ingredients for a regional think-tank that sought to reform laws, policies and regulation, the building blocks of good governance. Yet we succeeded, as evidenced by policies, practices, frames and mindsets changed (documented in *LIRNEasia's 2004-09: Five years in review* publication issued for the fifth anniversary celebration) and confirmed by an external evaluation report conducted as part of IDRC's evaluation of the Pan Asia Networking Program.

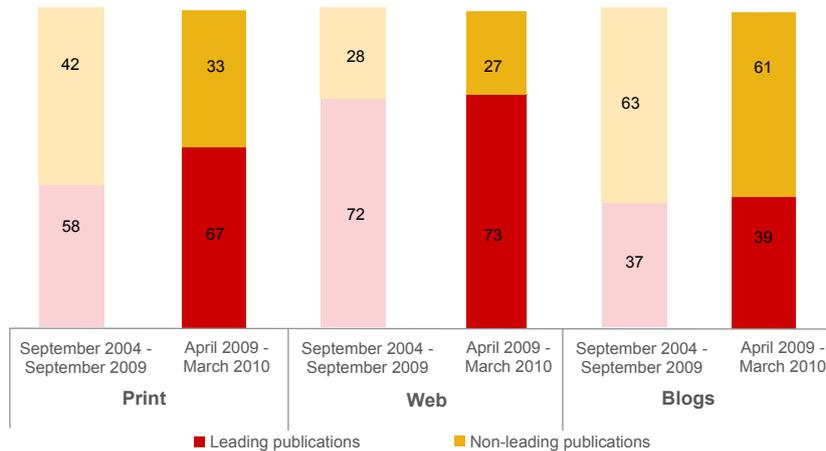


Figure 4: Media coverage by leading vs. non-leading publications (% of all media items)
 Print media were differentiated as leading and not, based on informed opinions of researchers from the countries we work in. Web and blog media were classified based on three-month Alexa (<http://www.alexa.com/>) rankings: ranks from 1 to 200,000 were considered as leading

Taken one day at a time, it was a great ride and a lot of fun too.

There were many other causes for happiness, but these should suffice for now.

Discontent

Looking back over the past five years, we can see the flaws. The management team was too overworked to systematically and consistently engage in fundraising and diversify revenues. It is not that we did not try. But the results, except for the USD 75,000 contribution made by Telenor



LEFT: Steven McGurk, Robin Mansell, and Randy Spence at *LIRNEasia@5* celebrations at the Galle Face Hotel, Colombo, December 2009 | **RIGHT:** Ashok Jhunjunwala speaking at *LIRNEasia@5* celebrations at the Galle Face Hotel, Colombo, December 2009

Research and Innovation Asia Pacific to Teleuse@BOP3, were not adequate. We are, perhaps, even more fragile in financial terms than we were at the end of Year One. LIRNEasia judges itself by results, not by effort. By results, we have failed on the sustainability front. We have to refocus and get results.

As the organization grew, monthly expenses increased, despite various organizational innovations that kept it lean. As the staff and expenses grew, it was necessary to grow the budget; but as the work and budget expanded, coordination costs increased, making the earlier strategy of financing the CEO from projects unviable. Luckily, the funding of multiple projects, including the anchor project, from the same source, allowed us to keep the management structure compact and transaction costs manageable. There is no doubt that IDRC's simple and flexible procedures have greatly contributed in this regard. Yet, excessive reliance on a single source of funding has its own problems.

IDRC has been the dominant donor by far. We will have been funded by IDRC for seven years at the end of the next cycle in 2012. And it is not unreasonable to ask of plans for life after; it would be irresponsible not to make and execute them. Plans can be made, but are not that easy to implement. The conditions that prevented us from fundraising effectively in the past five years have not changed, but raise funds we must. Or gracefully exit.

When one is faced with a challenge of this scale, it is good to have external affirmation. There has been a lot to keep us going. The citation of the Communication Research as an Agent of Change award given by the International Communication



LIRNEasia being welcomed at the Deshodaya village in Menderigama, Sri Lanka, December 2009

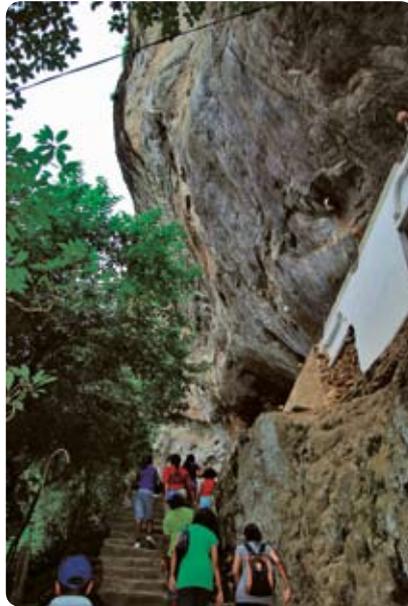
Association clearly showed that it was recognition of LIRNEasia's entire body of work, even if the award was given to a single person. Our work on agricultural markets being included in the Minister's report on official development aid to the Canadian Parliament (see p. 69) indicated that the people who were paying the bills also seemed to think we were doing well. For a former Canadian taxpayer, who takes seriously the responsibility of spending Canadian (and British) taxpayer money frugally and effectively, this was especially significant. Our methods are being replicated in other regions. The thinking behind the design of CPR_{south}, described in more detail in Section 4, is being incorporated into the design of capacity-building initiatives in Africa and Latin America. LIRNEasia is being consistently invited to UN System ICT indicators events in recognition of the work we have done in advancing knowledge in that area.

Thus fortified, we have now set out to climb the next mountain. We have a proven

product; not plans and promises. We have commonsense backing our cause. Our work is benefiting millions of people in an awakening region, more than hundreds of pilot projects combined. We believe that the stakeholders from the region who benefit from our work will acknowledge the value of our work in a tangible way, with financial support for a think-tank that serves the region.

Corporate social responsibility

Financial fragility has never stood in the way of fulfilling our obligations. Given our expertise and interest in disaster risk reduction and the unfortunate prevalence of disasters in our region, we have generally tended to focus our CSR and individual philanthropic efforts in this sphere. However, we ventured into a new area in 2009, leveraging the presence of members of our International Advisory Board in Colombo for LIRNEasia@5. We offered to provide two speakers for a session on ICT entrepreneurship to SLASSCOM, the Sri Lankan IT industry body. They organized the



LEFT: The second floor of LIRNEasia's office after renovation | RIGHT: Climbing Pahiyangala, July 2009

event with support from Dialog Broadband. I served as moderator and our two speakers, Professor Ashok Jhunjhunwala of IIT Madras and Dr. K.F. Lai of BuzzCity, were very well received. The event led to the formation of an innovation and entrepreneurship forum within SLASSCOM and the designing of entrepreneurship training in collaboration with the British Council.

People and place

Sandya Salgado, CEO of Ogilvy Action, a Sri Lankan firm specializing in rural markets joined the Board in 2009 replacing Sithie Tiruchelvam who stepped down after years of valuable service. We deeply thank Sithie for helping us get on our feet. The Board held a significant strategy meeting together with the International

Advisory Board in Kandy immediately after LIRNEasia@5 in December 2009. A visit to an organizationally-advanced Deshodaya village, organized by our partner Sarvodaya, was a high point. This was connected to a proposal we had written to develop a novel think-tank approach whereby LIRNEasia would train and equip with evidence village leaders of the Deshodaya Program, instead of engaging the government of Sri Lanka in proven, ineffective ways. Unfortunately, the funders chose to go with the conventional.

Sriganesh Lokanathan returned to LIRNEasia. He left us to fulfill some obligations in the US; came halfway to Singapore to start his MPA at the Lee Kuan Yew School of Public Policy; and fully returned after graduation to help manage the complex agricultural projects that were underway. We assist and encourage

our young researchers to enter graduate school, but we do not formally require them to return. Thus their return is a cause of additional happiness and affirmation.

Ranjula Senaratna Perera and Shazna Zuhlye joined the research team. A junior researcher, Ranjula brings skills in economic analysis. With experience at one of Sri Lanka's leading software firms and a graduate degree from University College London, Shazna is a welcome addition to the management team. Ayesha Zainudeen, employee No. 1, took maternity leave but has come back to work part-time, utilizing the flexible work modes we offer at LIRNEasia. She moves up to Senior Research Manager.

Sumudu Pagoda came from Red Cross to take over as Operations Manager from Sanchala Arangalage, who rejoined the Public Utilities Commission of Sri Lanka after being admitted to the Bar. Kasun Suranga joined us as he awaited the results of the university admission exam (which he passed very well). Sajeevani de Silva left the Knowledge to Innovation project to teach.

Harsha de Silva, Consultant Lead Economist, was appointed a national-list Member of Parliament in 2010 by the Leader of Opposition. He has made a significant contribution to raising the level of debate in Parliament, bringing evidence to bear on debates on macroeconomic management, as has been his wont since he began to engage in public debate five-six years back. Below is an excerpt from our message that wished him well as he moved to the next level as a public intellectual:

He had the greatest impact in contributing to the shifting of the frame for discussing inflation in Sri Lanka

from the misguided focus on imported inflation to one that correctly places the actions of the Central Bank and the now commonly understood term, money printing, at the center. His persistence paid off; his words made it into the discussions of the Monetary Board. He was called names, but the Central Bank corrected itself.

Dr de Silva's interventions, along with those of Fuss Budget's Thrift Column in LBO, served the country well. In particular, business and the asset-poor benefited. While LIRNEasia would like to take credit for this stunning achievement, it cannot. Dr de Silva was our Lead Economist, only part of the time. He did all his macroeconomic work in the rest of his time. That subject falls outside the remit of LIRNEasia, however broadly defined.

The responsibilities of a national-list MP in Sri Lanka do not include constituency service and do not preclude professional activities. Harsha is thus able to continue his work with LIRNEasia, though scheduling meetings with him is a little harder now and he sometimes brings his security detail to the office! We and Harsha venture into uncharted waters hoping that clear communication and principled action will help us avoid the shoals.

Sanchala started, and Sumudu finished, the first refurbishment of the LIRNEasia office.

Dilini Wijeweera, a multi-talented architect, who had been assisting with conceptual work in the Knowledge to Innovation project,

helped with the interior redesign. The bright orange that was the most controversial element of the redecoration was later found to be the most conducive for creativity, a trait we definitely wish to encourage. A few judicious structural alterations created more space and light and reduced heat. The new furniture allows for easy reconfiguration. It was a significant investment, but one that we hope will help us get the work done, better, faster.

Every July LIRNEasia goes on a trip. There is always a participant from beyond the shores to remind us we are a regional organization that happens to have an office in Sri Lanka.

Always, families are invited. Sometimes we combine work with pleasure, like in Kukule Ganga in 2009 when we spent a day brainstorming the next proposal. And almost always, we climb some rock, of which there seem to be an endless supply in Sri Lanka! In this instance, it was Pahiyangala, the location of Sri Lanka's largest cave, where the Chinese scholar monk, Faxian (Fa Hien) is said to have spent some time after visiting the Abhayagiri University in Anuradhapura to collect scriptures in around 410-11 CE.

Every January we have a party. Some years, we invite parents. Others, we invite partners. Always, we invite families. For the first time, we held this event outside Colombo, where a walking tour by an architect followed by a wonderful meal in the salubrious surroundings that served as the laboratory for Sri Lanka's greatest modern architect, Geoffrey Bawa.

2009-10 saw the birth of Ayesha Zainudeen's and Zafir Hashim's baby Yameena. Lorraine Salazar and Francis Hutchinson welcomed Carlos into their family. They joined Kinuli Qui Xi, the firstborn of Nuwan Waidyantha and Li Xiu Fang, who arrived in 2008. Divakar Goswami, a key contributor to the establishment of LIRNEasia, who now works at Deloitte in Hyderabad, married Aarti Vir in late 2009. LIRNEasia's family continues to grow.



Rohan Samarajiva
Chief Executive Officer



Knowledge creation, dissemination and application necessarily involve a range of organizations, associations and interest groups networked through a range of knowledge-intensive interactions, orchestrated or otherwise. LIRNEasia's effort to create an Asian knowledge space that supports evidence-based interventions for policy and regulatory reforms in ICT infrastructures in the region itself is a study in such knowledge networks. This chapter is a reflection of the evolution of LIRNEasia as an organization, its place in scholarly networks, its role as facilitator of CPRsouth, a communication policy research platform for the South, and its ongoing work in facilitating and tracking practitioner networks.

LIRNEasia: Not a network

From the beginning, we were interested in being networked, but not in being a network. Not a network, at least in the form of a collection of organizationally-independent entities that collaborated on research. We saw ourselves as an organization that had strict entry and exit conditions and whose members shared common values.

We defined ourselves against the “body shops” that clutter the consultancy space and the networks of research organizations that wax and wane in the funded public-research space. The former are organizations that write proposals and manage consultants who are recruited for specific assignments. The multi-country research networks are a response to the desire for multi-country, comparative research that broadens the footprint of research funds. In our judgment, both forms were not capable of consistently yielding high-quality research. In both cases, the organizational forms allow a small managerial core to draw on a broad range of expertise on an

LIRNEasia@5: Research → Policy → Knowledge-based economies

Held in Colombo, Sri Lanka, in December 2009, LIRNEasia's fifth anniversary conference, LIRNEasia@5, brought together more than 180 participants from 25 countries, the majority from overseas. Participants included young and senior scholars, researchers, university professors, representatives of regulatory agencies, private telecom operators, donor agencies and media. The conference stressed the importance of evidence in policymaking and articulated the positive role the private sector could play in providing some of the ICTs to improve the livelihoods of the poor. This was reinforced by the key lessons learnt in the application of ICTs in areas ranging from agriculture (the largest sector by employment in most Asian countries) to early warning for disasters. The ICT access gap in the region has mostly been solved for voice, but more remains to be done. The conference sought to shed light on the next steps needed to improve livelihoods of the poor through increased participation in knowledge-based activities facilitated by ICTs.



Proof of the pudding 1: Regulators and policymakers' panel at LIRNEasia@5, 9-11 December 2009, Colombo. **Seated left to right:** Pirongrong Ramasoota Rananand, Chulalongkorn University, Thailand; Ananda Raj Khanal, Nepal Telecommunication Authority; Ilyas Ahmed, Communication Authority of the Maldives; Joseph Wilson, Competition Commission of Pakistan; R.K. Arnold, Telecom Regulatory Authority of India; Sudharma Yoonaidharma, National Telecommunications Commission, Thailand; Koesmarihati Sugondo, Directorate General of Post and Telecommunication, Indonesia; Muhammed Yaseen, Pakistan Telecommunication Authority; Wangay Dorji, Bhutan Infocomm and Media Authority

as-needed basis to produce multi-country research. But the lack of strict entry and exit conditions and common values tend to yield research of variable quality.

Yet, except for a brief moment in the early stages of conceptualizing LIRNEasia, we knew we could not, as an organization totally dependent on project funding at low overhead rates (13 percent maximum),

afford to have branch offices and full-time staff. We assembled a core team of researcher-managers in the little office under the great Mara tree and recruited researchers who worked for us as consultants, but satisfied our requirements of common values and satisfaction of entry conditions. We could not, under the laws of the land, continue a consultant model for all staff, for too long. We became a more conventional

organization, except for a few senior researchers who continued to work part-time out of choice.

As an organization dedicated to policy-relevant research on ICT and related infrastructures, LIRNEasia occupies an intermediate space that connects research to practice. Therefore, being a part of relevant research/scholarly networks and being connected to the practitioner world are both necessary for LIRNEasia's success.

Scholarly networks

Having been in operation for five years plus, now is a good time for LIRNEasia to assess how its research is situated in the larger world. This Annual Report focuses on networks and relationships for that reason.

The world of research is characterized by networks that arise from the practice of citing prior work. Citation analysis has long been used for studying these research networks. The basic premise of citation analysis is that the practice of citing or

referring to prior, relevant work, yields additional, useful information about how ideas are communicated and new knowledge is generated. The very fact of mentioning the work of another scholar in one's work brings one into a form of virtual network. It is virtual because it is not necessarily true that the citing and cited authors know each other or that the relationship is two-way. However, citation networks are a necessary condition for the existence of actual scholarly networks.

It was, for many years, customary to rely on citation data as reported by the Institute of Scientific Information (now Web of Knowledge by Thomson Reuters) through products such as the Social Science Citation Index (SSCI). However, the limits of citation analysis for documenting the efficacy of policy-oriented organizations must be noted.

The culture of the policy world is diametrically opposed to the academic culture that acknowledges prior work by others. Novelty is highly valued in academic culture. It

quires reference to prior work and the need to distinguish prior work from the present. Novelty has little value in the policy world; in many cases, it is necessary to downplay novelty in order to get a proposal implemented. Policy documents, except for judicial decisions, rarely come with footnotes. Even with judicial opinion, the footnoting is intended to establish continuity with precedent, not novelty. In addition, there is no prohibition against unattributed borrowing of ideas and even language among the inhabitants of the policy world. Plagiarism is a cardinal sin in the academic world. Avoidance of this sin requires academics to cite, sometimes excessively. In contrast, the persuasiveness of policy documents is reduced by citing in many cases. Opponents of a proposal are likely to attack the source if the source is acknowledged.

In light of these cultural differences, LIRNEasia does not expect explicit attribution by its primary audiences. Thus, citations are a weak measure of the efficacy of LIRNEasia's dissemination efforts among its primary audiences. They are, however, good meas-

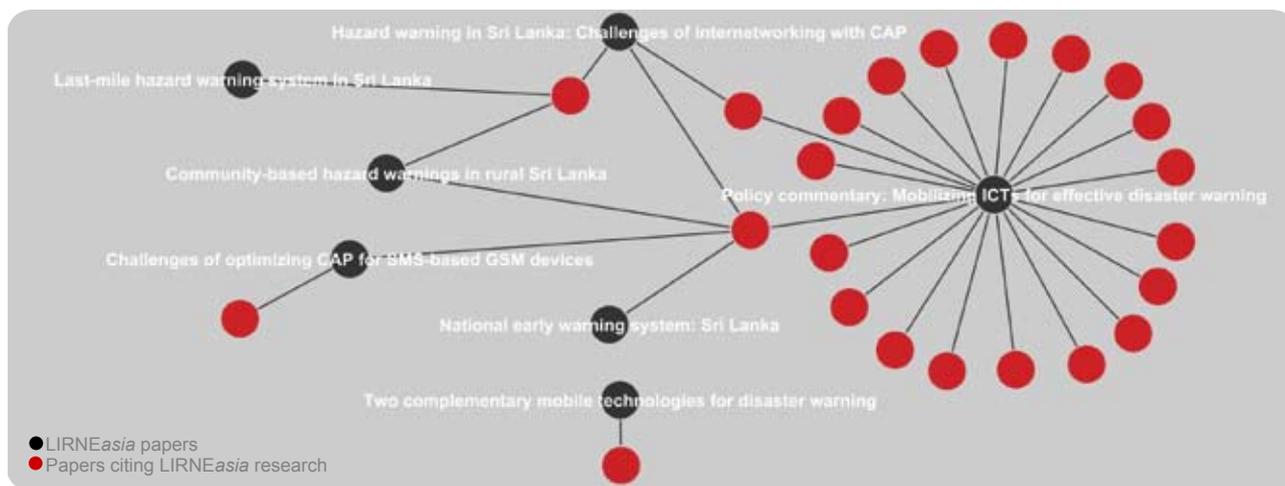


Figure 5: Citation patterns of disaster-risk reduction publications as at 30 June 2010; citation patterns based on data gathered by Google Scholar

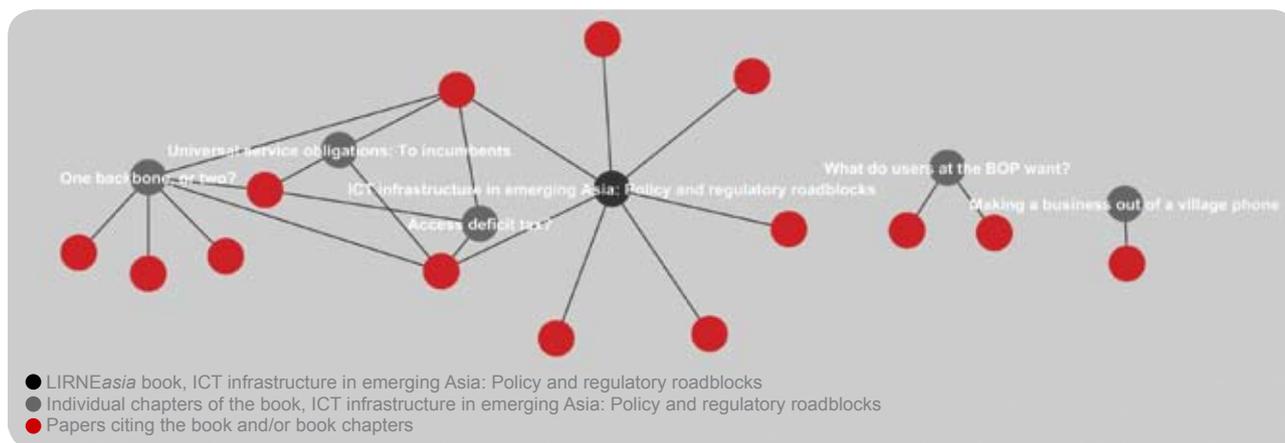


Figure 7: Citations generated by LIRNEasia's book, ICT infrastructure in emerging Asia: Policy and regulatory roadblocks, as at 30 June 2010; citation patterns based on data gathered by Google Scholar

the rather large set of citations generated by our disaster risk-reduction work (Figure 5) suggests that our profile in this space has been larger than would be possible to predict from actual resource allocation. This could also be a result of comparative advantage.

In other areas, such as, for example, the published work on agricultural markets, the citations are few and far between (Figure 6); this suggests we need to do more to engage with researchers in that space. It must also be noted that this work is relatively new; it may be too early for the citations to be made and the writings that include them published.

Additional work is likely to be required to disseminate the research among scholars in the relevant networks, especially because LIRNEasia researchers are not part of them. This is an especially useful lesson as we commence a new round of research on what ICTs can do to improve the efficiency and inclusiveness of agricultural value chains. The well-known fact that journal articles generate more citations than book chapters is further confirmed by the results.

There are also an increasing number of references to LIRNEasia's bottom of the pyramid papers. However, there is almost no interconnectedness between citing papers (i.e. papers tend to cite only one LIRNEasia BOP paper at a time); this may suggest that LIRNEasia has not yet fully reached its full potential as a source of expertise in this field.

The impact of our book, "ICT infrastructure in emerging Asia"², as demonstrated by the citation pattern (Figure 7) is quite interesting. The citations to the book (and a subset of its chapters) show a clustering of readers who focus on the "hard" policy and regulatory issues. The "softer" demand-side analysis chapters are cited by an entirely different set of scholars suggesting that the audience that we actually reached was not one, but perhaps two. It also suggests that the connections we saw among the different strands of research from the 2005-06 research cycle were not necessarily picked up by our readers (see Table 1 for the book's list of contents).

² Samarajiva, R. & Zainudeen, A. (eds.) (2008). ICT infrastructure in emerging Asia: Policy and regulatory roadblocks, New Delhi & Ottawa: Sage & IDRC, http://www.idrc.ca/en/ev-117916-201-1-DO_TOPIC.html.

CPRsouth: A capacity-building platform

As LIRNEasia's profile grew, we began to attract interest from persons wanting to work with us. We could not accommodate these requests without diluting ourselves, but it seemed wasteful not to channel these energies. We converted the problem into a research project.

How could we identify potential high-quality scholars for the ICT policy and regulation space in Asia? How could we create a platform for these persons to develop themselves and bring evidence to bear on the policy processes of their own countries, as in-situ policy intellectuals? A subset of these persons whose skills fit the requirements of ongoing LIRNEasia research could be brought within the organizational ambit, but that was a side benefit. The real win would be if the platform proved to be self-sustaining and produced enough effective policy intellectuals to make LIRNEasia superfluous.

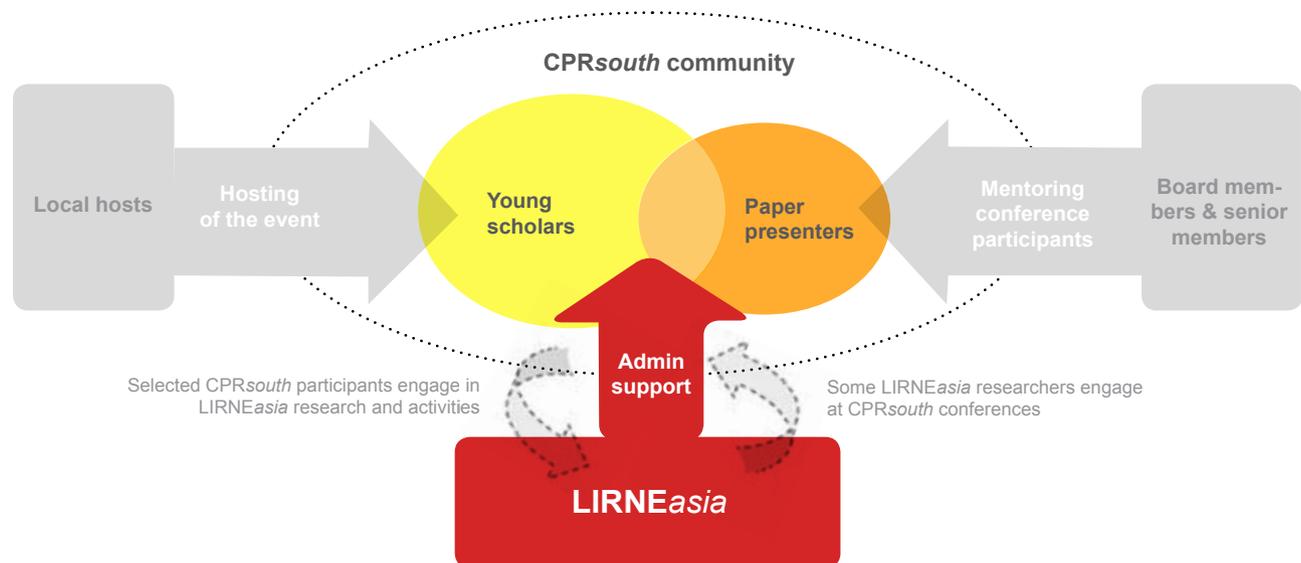


Figure 8: Organizational structure of CPRsouth

Thus was born CPRsouth. Keeping with the principle that organizations should have clear focus, CPRsouth was created as a separate organization with its own Charter and Board of Directors, drawn in the first instance from among leading scholars active in the policy and regulation space in the Asia-Pacific.

CPRsouth seeks to create a self-sustaining platform for policy intellectuals, i.e., intellectuals with the capacity and commitment to engage with the policy world. Conceptualized in 2005, to date, CPRsouth has brought together 122 young scholars and 64 paper presenters from 36 countries through four annual conferences held in Manila, Chennai, Beijing and Negombo, starting in January 2007, and then, annually, every December.

The CPRsouth community so formed can be seen as being made up of two overlapping circles, the left circle occupied by young scholars and the right by paper pre-

senters (Figure 8). The intersection of the two circles represents young scholars who have later become paper-givers at subsequent conferences.

Figure 9 shows that the community is coalescing with young scholars becoming paper-givers and paper-givers returning to the conference. The inner circle shows the paper presenters who attended CPRsouth more than once, while the outer circle shows those participants who have engaged only once. Red signifies young scholars who have graduated to have their papers accepted through the review process. Orange is for those who have engaged more than once. Chunhui Yuan (in yellow) gave a paper at CPRsouth1 and joined the Board as a member in December 2008.

The CPRsouth community is shaping up as a network of researchers, but what is most important is whether CPRsouth members are actually taking evidence to the policy

processes in their countries in various forms. They are.

In addition to directly and independently intervening in policy processes, CPRsouth participants can do so also through LIRNEasia, when invited to participate in assignments.

Policy intellectuals can emerge in one of two ways: intellectuals can become more active in the policy sphere or practitioners of policy can become more reflective. Practitioners are active in creating, sharing and applying knowledge. In fact, survey after survey in the corporate sector show that knowledge needed in production or services is acquired from suppliers, customers and competitors, with formal knowledge institutions such as universities and research institutes and think-tanks playing a marginal role. Such knowledge generated in work settings and transmitted in tacit forms is known as mode-2 knowledge (those whose princi-

Table 1: Table of contents: ICT infrastructure in emerging Asia: Policy and regulatory roadblocks

Introduction: What is... and what could have been.....	19
Section 1: Demand at the bottom of the pyramid	
<i>Introduction</i>	33
Chapter 1: What do users at the bottom of the pyramid want?	
<i>Ayesha Zainudeen</i>	39
Chapter 2: Strategies on a shoestring	
<i>Ayesha Zainudeen and Tahani Iqbal</i>	60
Chapter 3: I just called to say: Teleuse under a ceasefire	
<i>Rohan Samarajiva, Mariam Hameed and Ayesha Zainudeen</i>	73
Section 2: Access, against all odds	
<i>Introduction</i>	99
Chapter 4: Geektivism	
<i>Tahani Iqbal and Onno W. Purbo</i>	103
Chapter 5: Making a business out of a village phone	
<i>Malathy Knight-John</i>	116
Chapter 6: Wi-Fi: The network fix	
<i>Divakar Goswami</i>	131
Section 3: Regulation: To stifle or enable?	
<i>Introduction</i>	159
Chapter 7: One backbone, or two?	
<i>Harsha Vardhana Singh and Rohan Samarajiva</i>	163
Chapter 8: The dumbing-down of smart subsidies	
<i>Harsha de Silva</i>	191
Chapter 9: Universal service obligations: To incumbents	
<i>Payal Malik</i>	216
Chapter 10: Access deficit tax?	
<i>Harsha de Silva</i>	240
Section 4: What could be...	
<i>Introduction</i>	265
Chapter 11: High AMPU from low ARPU	
<i>Mahinda B. Herath</i>	267
Chapter 12: Regulating for the next billion	
<i>Rajendra Singh and Siddhartha Raja</i>	296
Chapter 13: ...Through the markets	
<i>Visoot Phongsathorn</i>	303

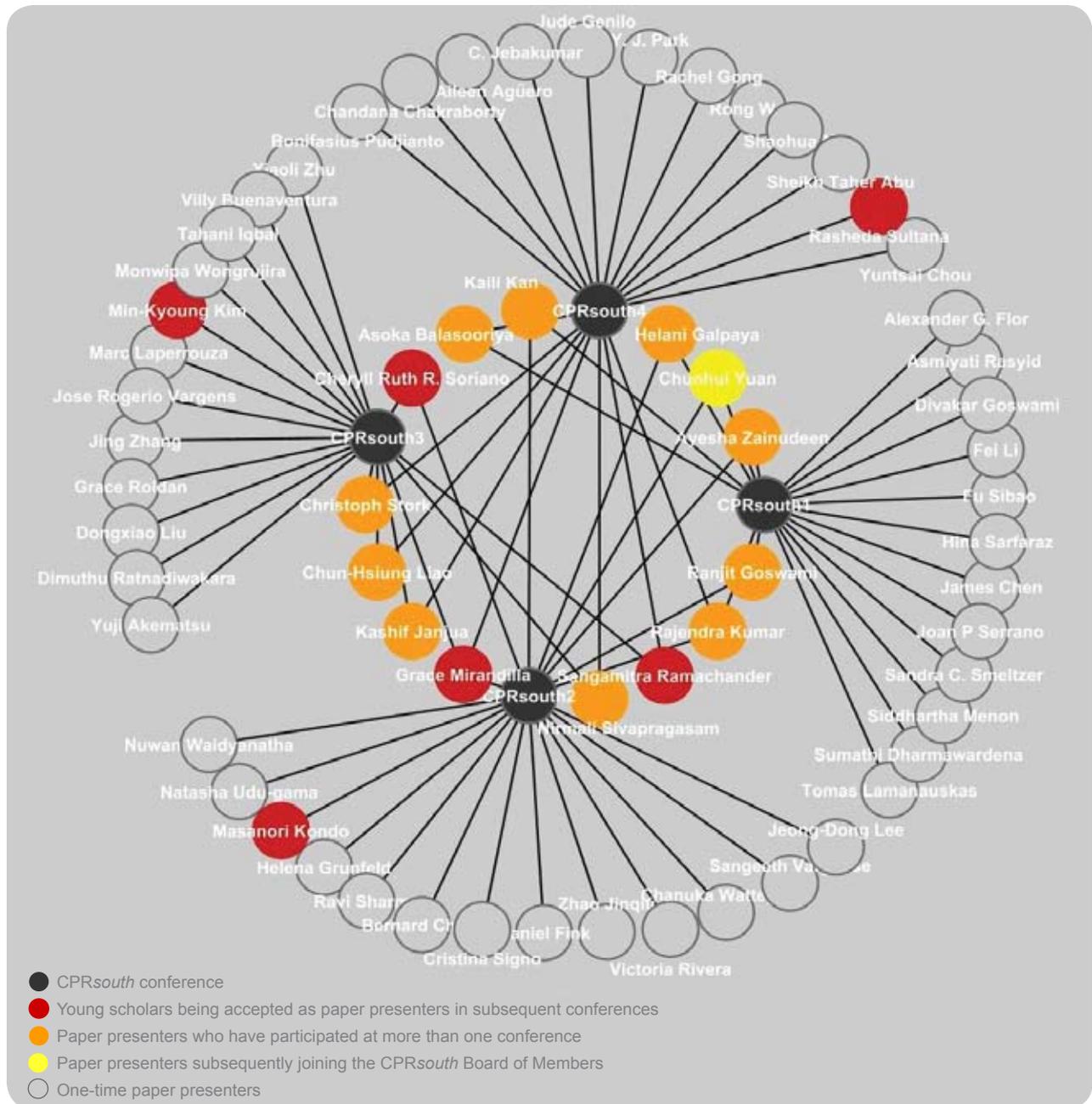


Figure 9: CPRsouth paper presenters, 2007-09

Table 2: Activities of past paper presenters and young scholars³ in the year following the most recent CPR*south* conference (no. of respondents)

	2007 (n=19)		2008 (n=37)		2009 (n=54)	
	Paper presenters	Young scholars	Paper presenters	Young scholars	Paper presenters	Young scholars
Wrote policy papers / briefs	-	-	11	7	11	11
Made policy submissions / presentations	2	1	12	5	9	10
Wrote op-ed pieces in the media	1	-	2	1	4	1
Gave media interviews	1	-	4	2	1	1
Wrote in blogs	-	-	6	5	6	3
Had journal publications accepted	4	-	9	5	7	6
Presented conference papers	5	4	13	7	13	8
Submitted thesis proposals	-	1	3	6	3	4
Submitted theses	2	-	2	2	3	3
Submitted grant proposals	-	1	7	4	7	5
Received grants	1	-	5	4	4	6

Table 3: Researchers who have joined in LIRNEasia projects through CPR*south*

Name	CPR <i>south</i> conference	LIRNEasia project
Sangamitra Ramachander	CPR <i>south</i> 1, CPR <i>south</i> 3, CPR <i>south</i> 4	Teleuse@BOP
Puree Sirasontorn	CPR <i>south</i> 1	Mobile2.0@BOP
Hina Sarfaraz	CPR <i>south</i> 1	Mobile2.0@BOP
Miraj Khaled	CPR <i>south</i> 2	Measuring ICT sector and regulatory performance

pal activity is not knowledge production).

The early recruitment process that gave prominence to academic institutions led to a preponderance of submissions and acceptances being from universities and research organizations, described as mode-1 researchers. After the recruitment was broadened, the submissions from mode-2 knowledge producers increased to 19 percent. More interestingly, an even higher percentage (24 percent) made it in to the pro-

gram by CPR*south*4 as shown by Figure 10.

In the policy world, outputs take the form of policy decisions and programs to implement them. A policy intellectual wishing to influence policy processes must understand the web of interactions in the practitioner world as well.

Mapping practitioner networks

Sujata Gamage's recent work in the knowl-

edge to innovation project on modes of knowledge-sharing among solid-waste managers in local government in Sri Lanka underscores the importance of practitioner networks in the overall knowledge space. The impetus for her work was the need to go beyond connectivity through ICTs to actual connectedness. In the past few decades, developing countries have made large gains in ICT infrastructure, mobile telephony in particular. Are these gains reflected in connectedness that leads to better

³ Based on annual survey responses of (all) past CPR*south* participants (paper presenters, young scholars, faculty and board members). Participants are cumulatively surveyed 10 months after the annual conference on their activities since the conference. Response rates for the respective surveys were as follows: 2007: 49%; 2008: 41%; 2009: 38%

performance? Poor governance is a major impediment to growth and poverty alleviation in the developing world. Can networks of practitioners, scholars or intermediaries be mobilized to improve governance?

Results from a census of 217 local government authorities (LGAs) in six out of the nine provinces of Sri Lanka conducted in December 2009 show a vibrant network with apparent self-organizing properties. The responses from solid-waste managers to the question “who did you contact in the last two years for knowledge about solid-waste management?” showed a distribution of behaviors characteristic of self-organizing systems: a few nodes received the majority of requests while most nodes received few or none. Figure 11 shows knowledge-seeking interactions among 11 local authorities where the solid-waste manager received three or more knowledge requests from a peer, represented by red nodes. All other local authorities are grouped by province as knowledge-seekers and are represented by black nodes. Each line represents a knowledge request from one LGA to another.

This type of simple knowledge-mapping exercise is very useful in managing knowledge within a sector. The map of practitioner networks in solid-waste management in Sri Lanka (Figure 11) clearly identifies two national knowledge centers, Balangoda and Weligama, which receive requests from peers in multiple provinces. Four other knowledge centers (Galle, Hambantota, Negombo and Nuwara-Eliya) are regional in nature, receiving requests only from proximate peers. Five others (Bandaragama, Bandarawela, Horana, Kaduwela and Kelaniya) are emergent regional centers.

Future work

LIRNEasia's research on networks has been embedded in action research of various kinds including the shaping of capac-

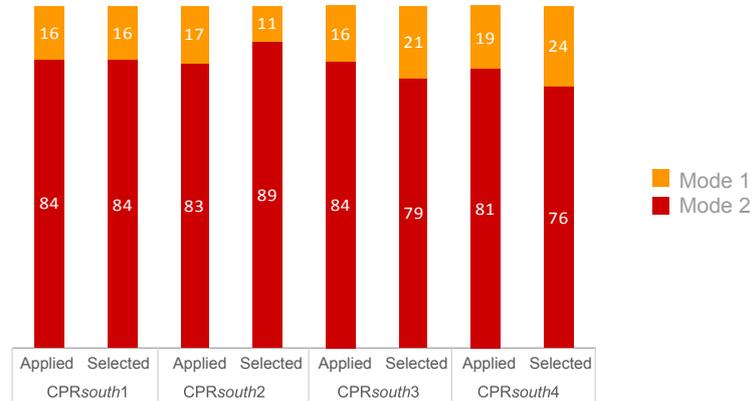


Figure 10: CPRsouth paper presenters by mode, applied versus selected (%)

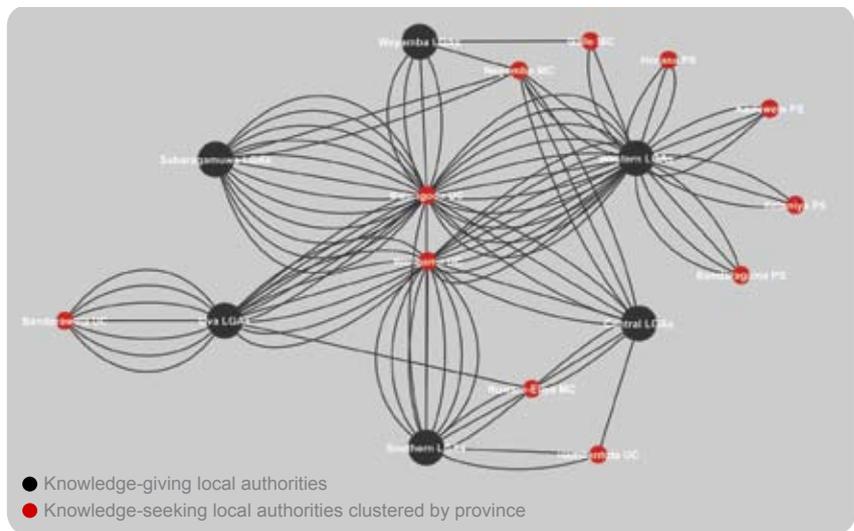


Figure 11: Knowledge-based interactions among knowledge-giving local authorities and knowledge-seeking local authorities clustered by province between October 2009 and January 2010; data gathered by LIRNEasia survey

ity-building platforms. In the case of the knowledge to innovation research, the understanding of networks is an output; in the others, it is a means of achieving the objectives such as successful capacity-building and establishing a well-functioning virtual research organization that spans multiple countries. The multiple streams will hopefully allow for fruitful cross-fertilization that

will lead to better understandings of how knowledge is created and shared in specific contexts.





LIRNEasia is a regional ICT policy and regulation think-tank active across the Asia-Pacific. We focus on creating and disseminating independent, useable, actionable knowledge, through applied research, on documenting and disseminating regional best practices, on training and on short-term advisory assistance to governments/parties who request it.

Our primary audiences are senior policymakers, regulators and senior executives of telecom operators and manufacturers. Our secondary audiences are the media and opinion leaders who shape the symbolic environments of our primary audiences. LIRNEasia is a young and lean organization. We maintain a physical presence in Colombo; however, much of our work happens virtually. Currently we have 16.5 employees based in Colombo. However, LIRNEasia's dynamic group of research and policy fellows, from Bangladesh, India, Indonesia, Pakistan, the Philippines, Sri Lanka and Thailand, are team members in the fullest sense. This setup is an economical solution to the problem of mobilizing LIRNEasia's geographically-dispersed human resource pool. In addition, over the last year, we had four young researchers from India, Myanmar (studying in Singapore), Peru and South Africa complete one to six month internships with us.

LIRNEasia's principal strength is its people and the way it builds that strength is by spending time and energy on selecting its people, on motivating them, on upgrading their skills, and in involving them in collective design of key activities. A strong commitment to doing actionable research and to communicating it to identified key audiences is a defining feature. Given that we seek to develop subject expertise among our senior staff, research managers have their subject expertise reflected in a second half of their

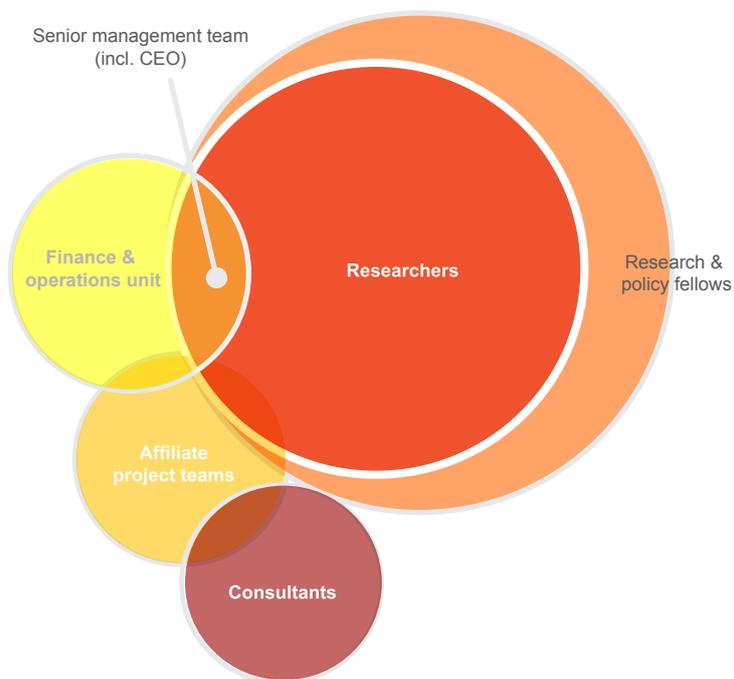


Figure 12: LIRNEasia organizational structure (March 2010)

titles (e.g., Senior Research Manager and Broadband Specialist).

The organization was developed organically, starting from a single room that accommodated two full-time and several part-time staff to what it is now. The organizational culture was defined in opposition to government culture in Sri Lanka and the less productive aspects of university culture. For example, LIRNEasia has only one messenger and a part-time cleaning associate, with researchers expected to make their own coffee, etc. Until 2008, there were no formal weekly meetings and even now, the review meetings are tight and limited to one hour. On the other hand, the colloquium is at the heart of the organization, giving primacy to free debate over research and highlighting the absolute importance of quality assurance.



LIRNEasia colloquium

The resistance to “faculty meetings” in the early days and the change to holding weekly research review meetings since 2008, illustrate the malleability of management. As the organization grew in a location more spacious than the single room we started in, it was realized that internal communication had to be formalized because the earlier informal and highly effective methods were

no longer working, and so the change was made.

On the other hand, there has been no change in direction from the highly decentralized IT structure that was put into place at the beginning (e.g., one of the first WiFi offices in Sri Lanka; no PABX; no receptionist; blog with static components instead of conventional website). If anything, we have decentralized further, with a new Gmail-based email system that makes access from elsewhere as easy as from the office. Researchers (as well as key finance and administrative staff) are equipped with laptops and mobiles and increasingly with mobile broadband dongles too. To the greatest extent, we are a paperless office: we print (and fax) only as a last resort, or to fulfill legal obligations. Most of our communication happens over email, Skype, phone or coffee. We figure out what works and what does not, and then we formalize into procedures.

The financial management of a complex organization with five separate research projects, each with its own reporting requirements, multiple currencies, researchers and activities in multiple countries, etc., is done by two people, supplemented by one junior. Here again, the key was the hiring of a senior financial manager capable of creatively managing the transition from ad hoc to formal but with organization-appropriate procedures.

Strategic directions of the organization are set by the CEO in consultation with the COO and staff and with the concurrence of the Board, comprising senior individuals from civil society, the private sector and higher education. The international advisory board also contributes. Inputs for the strategic thinking come from close interactions with key audiences in the course of research dissemination and from the febrile Web.

LIRNEasia's blog

www.lirneasia.net, our blog, or (as we often call it) our key electronic interface with the world, is maturing. We no longer see a steady increase in the number of visitors as was observed from the blog's inception until quarter one of 2009. Instead, the number of hits per month has reached a plateau.

The second quarter of the year 2009 saw a decline in the number of visits, leading us to conduct a major revamp of the site. Our attempts appear successful as visitor numbers improved, with a threefold increase in the number of unique visitors between April and August 2009. Subsequent months showed a slight decline; however, results for the first quarter of 2010 were up.

The number of unique visitors per month between January and March 2010 ranged between 21,000 and 24,000; approximately one eighth of them were returning (regular) visitors.

There has also been an overall drop in the number of comments posted on the site. This could be, in part, due to a shift of part of the discussion to Twitter. Some posts have also been "retweeted" by readers of our blog.



Figure 13: Monthly website statistics for www.lirneasia.net, 1 April 2009-31 March 2010
Source: StatCounter

Page loads:

The number of page views or loads on the website.

Unique visitors:

Based purely on a cookie, the number of returning visitors and first-time visitors to the website (all visitors).

Returning visitors:

Based purely on a cookie, the number of persons returning to the website for another visit an hour or more later.

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Team: 2009-10



Aileen Agüero | former Research Intern | Aileen is an economist and a research assistant at the IEP [Instituto de Estudios Peruanos – the Institute of Peruvian Studies], affiliated with DIRSI, LIRNEasia's sister network in Latin America. She joined LIRNEasia in May 2009 where she completed a six-month internship. Her research at LIRNEasia focused on exploring the use of mobile phones among low-income earners in emerging Asia. At IEP, she has been involved in different research projects, including those initiated by DIRSI on rural telephony and universal access, and through consultancies on competition policy for utilities regulators. Aileen holds a bachelor's degree in economics from the Pontificia Universidad Católica del Perú.



Erwin Alampay, PhD | Research Fellow (Philippines) | Erwin is associate professor at the National College of Public Administration and Governance (NCPAG), University of the Philippines. He is a co-founder of the Philippine ICT Research Network. Much of his research has focused on bridging the digital divide in the Philippines through universal access to ICTs. At LIRNEasia, he has studied the use of mobile phones for payment transactions and related regulatory requirements. He has also led research on measuring telecom sector and regulatory performance in the Philippines. Erwin has also served as a consultant to the World Bank, Asian Development Bank and SIDA. Other research interests include e-government, ICT regulation and ICT service industries. Erwin holds a PhD in development administration and management from the University of Manchester, UK.



Sanchala Arangalage | former Operations Manager | Sanchala was responsible for all administrative functions at LIRNEasia. She previously worked for the Ministry for Economic Reform, Science and Technology and the Public Utilities Commission of Sri Lanka in secretarial and administrative positions. She completed her studies at the Sri Lanka Law College in 2008, qualifying as an Attorney-at-law in 2009. She currently serves in the Public Utilities Commission of Sri Lanka in the area of institutional relationships and legal matters. Sanchala also holds an International Professional Secretaries Diploma from Singapore Informatics, Sri Lanka.



Subhash Bhatnagar, PhD | Research Fellow (India) | Subhash is an Honorary Professor of Information Systems at the Indian Institute of Management (IIM), Ahmedabad, India. As a research fellow at LIRNEasia, he has led research on the use of government services over mobile phones (m-government) in India. Subhash is a member of the National Advisory Council on e-government in India. He has also served as a consultant to the World Bank and visiting professor at various universities in the USA, Asia and Africa. His research interests include national information technology (IT) policy, corporate IT strategy, IT for development, e-government and e-commerce. Subhash holds a master's degree in business administration and a PhD from the IIM, Ahmedabad, India.



Harsha de Silva, PhD | Consultant Lead Economist | Harsha is a development economist with a PhD from the University of Missouri, Columbia. Having co-founded and built the nation's largest market research company, Harsha now focuses on creating efficiencies in rural agricultural and financial markets in the emerging Asian region using ICTs. His other focus is on pro-poor development policy in Sri Lanka. Harsha is an Eisenhower Fellow and, since April 2010, a Member of the Parliament of Sri Lanka.



Sajeevani de Silva | former Researcher | Sajeevani was a researcher in LIRNEasia's Knowledge to Innovation project, where she examined the use of stakeholder networks for fostering innovation in services. Her area of focus was on building knowledge networks among local authorities and community groups in the management of solid-waste services. She currently works as an English-Medium Science teacher under the Education Ministry of Sri Lanka. Sajeevani holds a bachelor's degree in agriculture from the University of Ruhuna, Sri Lanka, and is a registered member (studying) of the Chartered Institute of Marketing, UK.



Iran Fernando | Junior Researcher | Iran is a researcher in agriculture-related projects at LIRNEasia. He works with Sriganesh Lokanathan and Harsha de Silva in exploring how ICTs can improve farmers' decision-making abilities through reducing information asymmetry in market price information. Prior to joining LIRNEasia, Iran worked as a field coordinator for Business Development Centre (Pvt.) Ltd. Iran holds a bachelor's degree in agriculture, specializing in agriculture economics, from the Rajarata University, Sri Lanka, and is reading for his postgraduate degree in organizational management from the University of Peradeniya, Sri Lanka.



Helani Galpaya | Chief Operations Officer & Indicators Specialist | Along with her administrative duties as COO, Helani oversees the carrying out of all research at LIRNEasia. Her personal research is on measuring ICT and telecom sector performance using subjective and objective indicators. This ongoing research includes the Telecom Regulatory Environment (TRE) surveys of expert stakeholders, and the compilation of mobile and broadband price indicators to benchmark performance of emerging Asian countries. She works with national regulatory agencies (NRAs), national statistical organizations (NSOs) and operators in the SAARC and ASEAN regions to develop, collect and report comparable sector indicators. She also leads capacity-building initiatives among NRAs and NSOs. She is involved in researching various policy aspects of using mobile phones for more-than-voice services, and previously conducted research on the use of ICTs for increasing product traceability in agricultural markets. She has also conducted research on e-governance. Before joining LIRNEasia, Helani worked at ICTA, the apex ICT body in Sri Lanka. Prior to that, she was a management consultant in the USA, working with both public and private sector clients. Helani holds a master's degree in technology and policy from the Massachusetts Institute of Technology, USA.



Ranmalee Gamage | Junior Researcher | Ranmalee is responsible for the compilation of LIRNEasia's benchmarking reports on fixed and mobile broadband price and quality indicators, international voice prices and international roaming tariffs in emerging Asia. She also manages CPRsouth, LIRNEasia's capacity-building initiative to develop Asia-Pacific expertise and knowledge networks in ICT policy regulation. Before joining LIRNEasia, Ranmalee worked at Dialog Axiata PLC (formerly Dialog Telekom PLC), Sri Lanka's leading mobile service provider. She is presently reading for a bachelor's degree in economics and management from the London School of Economics, UK (external program). She is also a registered affiliate member (studying) of the Chartered Institute of Marketing, UK.



Sujata Gamage, PhD, MPA | Lead Scientist; Project Director | Sujata is a scientist who specializes in knowledge for development. She heads the Knowledge to Innovation (K2I) project at LIRNEasia where she explores K2I processes in the context of solid-waste services provided by the local government in Sri Lanka. She also studies the role of universities in developing countries, assessing their capacity and experimenting creative ways of connecting universities to development processes. Sujata has many years of experience in strategic planning and consultancy at both Sri Lankan and US academic, research and governmental organizations. Sujata holds a PhD in chemistry from the University of British Columbia, Canada, and a master's in public administration from the Ohio State University, USA.



Chammi Gunathilake | Researcher | Chammi is a researcher in LIRNEasia's Knowledge to Innovation project. She is presently examining the use of networks among solid-waste managers for fostering innovation in services and factors associated with the performance of solid-waste managers. She also coordinates other action research among several local government authorities. Before joining LIRNEasia, Chammi worked as a demonstrator at the Department of Zoology, University of Kelaniya, Sri Lanka. She is currently reading for a master's degree in disaster management at the University of Peradeniya, Sri Lanka.



Tahani Iqbal | Research Fellow | Tahani is currently conducting a study on online dissemination strategies for LIRNEasia. Previously, she managed LIRNEasia's capacity-building initiative, CPRsouth. She has also conducted studies on mobile number portability in emerging Asia, ICT access and use among Asia's bottom of the pyramid, and comparative mobile price indicators across the SAARC region. Before joining LIRNEasia, Tahani worked for the Secretariat for Coordinating the Peace Process and the National Agribusiness Council of Sri Lanka. She holds a master's degree in public policy from the Lee Kuan Yew School of Public Policy, National University of Singapore.



Pratchi Joshi | former Research Intern | Pratchi joined LIRNEasia on a five-month internship in August 2009. She conducted research on preconditions for a knowledge-based economy in the Asia-Pacific region, as well as the potential of online communication platforms for furthering LIRNEasia's mission. Before joining LIRNEasia, she worked as a teaching assistant at the Department of Communications and New Media, National University of Singapore (NUS). At NUS, she also assisted in research on Global Patterns of Creative Commons License Use and the PAN Localization Project. Pratchi holds a master's degree in history from Delhi University, India, and a master's degree in communications and new media studies from NUS.



Nilusha Kapugama | Research Manager | Nilusha's main research areas include broadband quality indicators and national regulatory authority website indicators, particularly with regard to transparency. She managed LIRNEasia's capacity-building initiative, CPRsouth, in 2008 and 2009. She has also been involved in research on virtual organizations, identifying sustainable models for regional collaboration through the use of ICTs. She is regularly involved in LIRNEasia's internal evaluations, having been trained in outcome mapping and other evaluation methodologies. Nilusha's past experience includes teaching high-school-level economics and interning at the Institute of Policy Studies and the Standard Chartered Bank, Sri Lanka. She holds a master's degree in development economics and policy from the University of Manchester, UK.



Abu Saeed Khan | Senior Policy Fellow (Bangladesh/Malaysia)¹ | Abu is a strategy analyst at Ericsson's Southeast Asian head office in Malaysia. Previously, he was technology editor for bdnews24.com, Bangladesh's first online newspaper, as well as a research analyst at EMC World Cellular Database (currently owned by Informa) covering the mobile markets of Bangladesh, Pakistan and Nepal. At LIRNEasia, he conducted research into the replicability of a microfinance approach to extending rural connectivity in Bangladesh. He has also provided consultancy expertise in telecommunications to local and international organizations. Between 2001 and 2004, he also served on the faculty of regional regulatory training courses offered by The Energy and Resources Institute (TERI). Abu holds a bachelor's degree in Bengali language and literature from Titumir College, Dhaka, and is a member of the IEEE.



Malathy Knight-John | Research Fellow (Sri Lanka) | Malathy is a research fellow and the head of the Industry, Public Enterprise Reform and Regulatory Policy research unit at the Institute of Policy Studies, Sri Lanka. At LIRNEasia, she has led research in measuring telecom sector and regulatory performance in Sri Lanka. She has also conducted research into the replicability of a microfinance approach to extending rural connectivity in Bangladesh and the development of a national early warning system in Sri Lanka. She has written extensively in these areas both locally and internationally and has served on various committees appointed by the government. She is currently reading for a PhD in privatization, competition and regulatory governance in Sri Lanka's telecommunications sector at the University of Manchester, UK.



Asanka Kumara | Researcher | Asanka is a researcher in LIRNEasia's Knowledge to Innovation project. He holds a bachelor's degree in agriculture from the University of Rajarata, Sri Lanka. He is currently reading for an MPhil in solid-waste among local government authorities (LGAs) of Sri Lanka at the University of Sri Jayawardenepura, Sri Lanka. His research thesis examines factors affecting the effectiveness of site-composting programs conducted by LGAs.



Priyadarshani Liyanage | Accountant | Priyadarshani assists the senior finance manager with all finance-related functions at LIRNEasia. She has extensive experience in this capacity at various organizations in both the public and private sector. She is a member of the Association of Accounting Technicians (AAT) of Sri Lanka, and has completed the licentiate and professional levels (Part I) at the Institute of Chartered Accountants of Sri Lanka. She also holds a higher national diploma in accountancy from the Sri Lanka Technical College.



Sriganesh Lokanathan | Senior Research Manager | Sriganesh manages LIRNEasia's research on the use of ICTs for the efficient functioning of agricultural markets and improved rural livelihoods in South Asia. He also works on issues pertaining to telecom policy and regulation. His recent work includes an assessment of the telecom regulatory environment in Afghanistan as well as market dynamics and incentive structures in Bangladesh's international voice market. He is also one of the initiators of LIRNEasia's supply-side indicators research. Prior to LIRNEasia, he worked as a consultant and software architect both in Sri Lanka and the US. He has also worked as a researcher on several technology projects at the Massachusetts Institute of Technology (MIT), USA. He holds a bachelor's degree in computer science from MIT, and a master's degree in public policy from the Lee Kuan Yew School of Public Policy, National University of Singapore.

¹Abu serves in his personal capacity and not as a representative of Ericsson.



Payal Malik | Senior Research Fellow (India) | Payal is associate professor of economics at the Delhi University, India. She is also associated with the Indian National Council of Applied Economic Research, LIRNEasia, and Indicus Analytics. She has previously collaborated with the OECD, Orbicom, University of Toulouse (France), CEPR, EU, ICEGEC (Hungary), Telecom Regulatory Authority of India (TRAI), Ministry of Power, Planning Commission of India, the Competition Commission of India, CSO and WSP-SA (World Bank). Her research focuses on issues of regulation and competition of network industries such as telecommunications, power, water and gas. She has done extensive research on the ICT sector, and more recently, in competition policy. At LIRNEasia, she has led research on measuring India's telecom sector and regulatory performance, including a study on universal service instruments as well as on the issuance of licenses for service provision and frequencies. She has written for both professional journals and the economic press, and is a regular columnist for the Financial Express, India. Payal holds MA and MPhil degrees from the Delhi School of Economics and an MBA in finance from the University of Cincinnati, Ohio.



Deunden Nikomborirak, PhD | Research Fellow (Thailand) | Deunden is a research director for the Economic Governance, Sectoral Economics Program at the Thailand Development Research Institute. As a research fellow at LIRNEasia, she has led research on measuring telecom sector and regulatory performance in Thailand. She is also a former secretary to the Ministry of Finance in Thailand. Deunden holds a PhD in economics from McGill University, Canada.



Sumudu Pagoda | Operations Manager/Event Organizer | Sumudu is responsible for all administrative and operational functions at LIRNEasia, and assists both the CEO and senior finance manager in related matters. She has organized meetings with ministerial officials, local and international seminars and other public events. Sumudu started her career in 1997 as a Cadet Officer and eventually a Flight Lieutenant for the Sri Lanka Air Force. She holds an MBA from the University of Honolulu, USA. She has also completed a postgraduate diploma in human resources development and personnel administration from the Indian Institute of Management and Technology, Madras, India, as well as diplomas in labor law and human resources management from the University of Colombo, Sri Lanka. She is presently following a diploma in human rights and peace studies at the University of Colombo.



K. Parvati | Cleaning Associate | Parvati ensures we have a spic-and-span office to come to everyday, and manages all grocery purchases and housekeeping.



G. Dharmasena Perera | former Office Assistant | Dharmasena, affectionately known as "Uncle," was LIRNEasia's "main man" for day-to-day errands and administrative affairs. He was part of the finance and operations unit, assisting in banking and other administrative work.



Ranjula Senaratna Perera | Junior Researcher | Ranjula is currently involved in knowledge-mapping work at LIRNEasia. She is working on strengthening LIRNEasia's dissemination activities, through making past and current research more accessible in the public domain. Previously, she worked for the risk advisory division of KPMG Ford, Rhodes and Thornton, Sri Lanka. Ranjula holds a bachelor's degree in industrial economics from the University of Warwick, UK, and is presently studying for the Chartered Institute of Management Accountants Professional qualification (CIMA).



Il-haam Petersen | former Research Intern | Il-haam completed a three-month internship at LIRNEasia between October and December 2009. Her research included developing a typology of universities in Sri Lanka and South Africa, with the aim of contributing to the understanding of university systems in developing countries. Il-haam holds a master's degree in psychological research from the University of Cape Town, South Africa. She is currently reading for a PhD in sociology at the University of Dublin, Trinity College, Ireland.



Rohan Samarajiva, PhD | Chair & Chief Executive Officer | Rohan is founding Chair and CEO of LIRNEasia. His most recent book, *ICT infrastructure in emerging Asia: Policy and regulatory roadblocks* (Sage and IDRC, 2008), is a compilation of LIRNEasia research. Rohan was team leader at the Sri Lanka Ministry for Economic Reform, Science and Technology (2002-04) responsible for infrastructure reforms, including participation in the design of the USD 83 million e Sri Lanka Initiative. He was director general of telecommunications in Sri Lanka (1998-99), a founder director of the ICT Agency of Sri Lanka (2003-05), honorary professor at the University of Moratuwa in Sri Lanka (2003-04), visiting professor of economics of infrastructures at the Delft University of Technology in the Netherlands (2000-03) and associate professor of communication and public policy at the Ohio State University in the US (1987-2000). Rohan was policy advisor to the Ministry of Post and Telecom in Bangladesh (2006-09).



Hina Sarfaraz | Research Fellow (Pakistan) | Hina has led research on freedom of expression in the dissemination of mobile content, a part of LIRNEasia's research on mobiles for more-than-voice. She has also conducted research on measuring Pakistan's telecom sector and regulatory performance at LIRNEasia. She has previously served as a research assistant in the Law and Policy Department of the Lahore University of Management Sciences, Pakistan. Her key areas of interest are business, ICTs and law. Hina has a master's degree in business administration from the Institute of Management Sciences, Pakistan, and a master's degree in law, specializing in international commercial law, from the University of Westminster, UK.



Puree Sirasoontorn, PhD | Research Fellow (Thailand) | Puree is assistant professor at the Faculty of Economics, Thammasat University, Thailand. She has led research on business models for delivering mobile value-added services in Thailand, a component of LIRNEasia's Mobile 2.0 study. Her research interests include the economics of regulation, industrial organization and energy economics. Her experiences in the energy policy and regulatory field have been extensive; these have included research projects on energy tariff regulation, the implications of the Energy Industry Act on Thailand's energy sector and economic and policy measures for managing energy crises. Recently, her research interests have extended to the analysis of sectoral-level economic measures and policies for managing climate change. Puree is also a referee committee member of three journals, Regulation and Governance, the International Energy Journal and the Thammasat Economic Journal. She has been the recipient of many educational and research scholarships and awards. Puree holds a PhD in economics from the Australian National University.



Nirmali Sivapragasam | Researcher | Nirmali is primarily involved in research exploring the demand for ICTs among low-income earners in emerging Asia. Her most recent research examines the use of mobiles for sending migrant remittances. She has also explored the use of cost-saving strategies among the bottom of the pyramid such as the user-driven "missed calling" phenomenon, as well as the shifting use of traditionally-popular public phones in favor of personal mobile phones. Prior to LIRNEasia, Nirmali interned at the Institute of Policy Studies, Sri Lanka's leading economic policy think-tank. She also has experience in conducting first-hand field research at Nielsen, Sri Lanka's leading market research company. Nirmali holds a bachelor's degree in economics and management with first class honors from the London School of Economics, UK (external program).



Juni Soehardjo | Research Fellow (Indonesia) | Juni is an executive at KADIN, the Indonesian Chamber of Commerce and Industries, where she assists the Vice Chair in ICT-related work both at local and international levels. She is a former program manager at MASTEL (also known as the Indonesian Infocom Society), an industry association focusing on ICTs in Indonesia. At LIRNEasia, she has been involved in research on assessing telecom sector and regulatory performance in Indonesia. Her areas of interest include telecommunications, broadcasting, cyberlaw and cybercrime law as well as international property rights and content-related creative issues. She is a graduate in law from the University of Indonesia and is a certified holder of ACCS (Accredited Cyber Crime Studies) from STMIK, Indonesia.



Christoph Stork, PhD | Consultant | Christoph is a senior researcher at Research ICT Africa (RIA), LIRNEasia's sister organization, based in South Africa. He is a consultant to LIRNEasia's project on ICT access and use among the bottom of the pyramid in emerging Asia. Christoph's responsibilities at RIA include designing and conducting quantitative and qualitative research and interacting with policymakers and regulators. His main research interests are in measuring the impact of ICTs on economic growth, employment creation and poverty alleviation. Christoph holds a PhD in financial economics from the London Guildhall University, UK.



Kasun Suranga | Trainee Accounts Assistant | Kasun joined LIRNEasia soon after completing his Advanced Level examination. He assists the accountant and senior finance manager in all accounting-related work. Kasun is studying chartered accountancy at the Institute of Chartered Accountants of Sri Lanka and has recently gained acceptance to study accountancy at the University of Colombo, Sri Lanka.



Nuwan Waidyanatha | Project Director (China) | Nuwan manages LIRNEasia's mobile health-related project: Evaluating a real-time bio-surveillance program (RTBP). Previously, he managed research on a last-mile hazard warning system for Sri Lanka. His current research interests include developing early-warning systems and information-exchange platforms for emergency communication. He is also the director of Spot On Solutions, which provides specialized affordable "service-type" planning solutions using Free and Open Source Software, particularly for small and medium industries in Sri Lanka. Nuwan also works closely with Sarvodaya, Sri Lanka's leading community-based organization, and is a program and standards committee member of the Sahana Software Foundation. Previously, Nuwan worked as a software architect/operations research analyst for various organizations both in Sri Lanka and the USA. Nuwan holds a master's degree in operations research from the University of Montana, USA. He works from Kunming, China.



Chanuka Wategama | Senior Research Manager & Broadband Specialist | Chanuka manages LIRNEasia's Mobile 2.0 project, which examines basic competitive and regulatory conditions for the use of mobiles for more-than-voice, as well as operational mobile applications of the same in emerging Asia. He also leads research on broadband quality-of-service experience (QoSE). In addition, he has led research in measuring telecom sector and regulatory performance in Indonesia, as well as the development of indicators for measuring the effectiveness of national regulatory authority websites in providing information to stakeholders. Chanuka has over 14 years of experience working at specialist and management-level positions on developmental issues. Before joining LIRNEasia, he worked as a program specialist in ICTs for development at the UNDP, where he was involved in various projects including telecom regulation, disaster management and e-government. He is a regular writer and commentator on ICT issues in the Sri Lankan media, and has coauthored several books on media and ICTs. Chanuka holds an MBA from the University of Colombo, Sri Lanka, and an engineering degree from the National Institute of Technology, Karnataka, India.



Prashanthi Weragoda | Senior Finance Manager | Prashanthi is in charge of finances and accounts at LIRNEasia and has handled all financial and event-related matters since its inception in 2004. She has 20 years of finance-related experience in the fields of merchant banking, corporate finance and general financial management, including budgeting and performance-monitoring. She has been attached to two listed investment-banking companies in the Colombo Stock Exchange in the past and subsequently worked at Shell Renewables Lanka Limited. She has also undertaken a number of assignments for the Department of Health and Aging and for Air Services in Canberra, Australia. She holds a bachelor's degree in commerce from the University of Sri Jayewardenepura, Sri Lanka, and is an Associate Member of the Chartered Institute of Management Accountants (CIMA), UK.



Haymar Win Tun | former Research Intern | Haymar completed a one-month internship at LIRNEasia in December 2009. She worked with Rohan Samarajiva on a paper examining the application of the World Bank's Knowledge Assessment Methodology (KAM) for building knowledge economies. Haymar holds a master's degree in public policy specializing in economic policy and analysis from the Lee Kuan Yew School of Public Policy, National University of Singapore.



Ayesha Zainudeen | Senior Research Manager & Demand-side Specialist | Ayesha is involved in research into the use of ICTs. She has managed three multi-country studies on telecom access and use at the bottom of the pyramid in Asia, between 2005 and 2008. She led a study on the potential for m-commerce services in low-income market segments in a case study of CellBazaar in Bangladesh in 2009. She co-edited *ICT infrastructure in emerging Asia: Policy and regulatory roadblocks* with Rohan Samarajiva. She has also researched the replicability of a microfinance approach to extending rural connectivity in Bangladesh, and was part of the team that studied the institutional requirements for an effective disaster warning system for Sri Lanka. She holds a bachelor's degree in economics from the London School of Economics, UK..



Shazna Zuhyle | Research Manager | Shazna is currently working on a project that aims to reduce information asymmetries in the agricultural sector in Sri Lanka. She will also be managing and contributing to the research on ICT performance indicators at LIRNEasia in the coming research cycle. The research will include the analysis of telecom regulatory environments and the compilation of mobile and broadband price indicators among various countries in emerging Asia. Shazna's previous work involved consulting for a project on functional separation in Openreach (British Telecom). She holds a master's degree in telecommunications from the University College London (UCL), UK.

Chanuka Wattegama at two international disaster risk reduction conferences



Chanuka Wattegama being interviewed by Korean electronic media on LIRNEasia's disaster management efforts, Incheon, Republic of Korea, 12 August 2009

LIRNEasia Senior Research Manager and Broadband Specialist, Chanuka Wattegama's previous work on disaster risk reduction, especially his e-primer "ICT for Disaster Risk Reduction", brought him invitations to participate at two major events on the subject last year.

He chaired a thematic session at the International Conference on Building a Local Government Alliance for Disaster Risk Reduction, in Incheon, Republic of Korea, on 11-13 August 2009, organized by the United Nations International Strategy for Disaster Reduction (UN-ISDR). The thematic session brought together specialists from the Asia-Pacific to share knowledge and experiences on ways in which ICTs had been used in response, recovery and risk-reduction efforts. The conference was attended by senior government policymakers, disaster managers and representatives from international and regional agencies.

He was also one of two speakers from Asia at the Third European Civil Protection Forum, organized by the Directorate of Environment, European Commission on 25-26 November 2009 in Brussels, Belgium. He spoke at one of the six practice-oriented seminars that examined how European civil protection was integrated with other international actors in the three major phases of an emergency (prevention, preparedness and response). Chanuka shared his post-Indian Ocean tsunami experiences with the European audience.

Helani Galpaya represents LIRNEasia at several international academic and policy conferences



LIRNEasia Chief Operating Officer and Indicators Specialist Helani Galpaya's work on ICT indicators, e-government and regulation saw her being invited to several international academic and policy conferences over the past few years.

Helani's early work on m-government won her a Best Paper award at the first International Conference on the Theory and Practice of e-governance (ICEGOV). She has since served on the ICEGOV Program Committee and as a paper reviewer for subsequent conferences. Although LIRNEasia is neither a government organization nor an international government organization, she has, on several occasions, also served as a sole panelist representing the Asia-Pacific region at conferences where other regions were represented by the OECD, EUROSTAT, ECLAC and other regional bodies. Her work on supply-side benchmarking and indicators resulted in invitations and presentations at the International Telecommunications Union's (ITU's) annual meetings on ICT indicators. Her research on TRE [Telecommunications Regulatory Environment] surveys, mobile business models and telecom investment trends has also been presented at various global academic venues such as International Telecommunications Society (ITS) and European Communications Policy Research (EuroCPR) conferences, and at policy events such as the Brazilian government's Broadband Seminar in November 2009.

Partner organizations

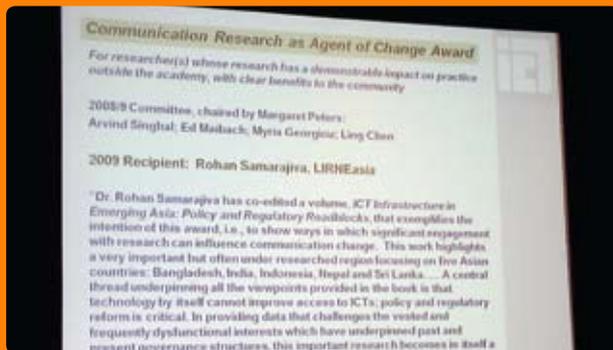
LIRNEasia has established and maintained working partnerships with several organizations over the past year.

Table 4: LIRNEasia partners (2009-10)

Partner	Organization type	Project/area	Partner type
Balangoda Urban Council Solid Waste Management Centre, Sri Lanka	Public	Knowledge to innovation	Implementation partner
Carnegie Mellon University: Auton Lab, USA	Academic	Evaluating a real-time bio-surveillance program	Research partner
Central Bank of Sri Lanka	Public	Agricultural information and markets	Research partner
Colombo Municipal Council, Sri Lanka	Public	Knowledge to innovation	Implementation partner
CPR <i>south</i>	Academic	Capacity-building	Training partner
Dambulla Dedicated Economic Zone, Sri Lanka	Public-private	Agricultural information and markets	Research partner
Department for International Development, UK	Public	General	Funding partner
Department of Communications and New Media, National University of Singapore	Academic	General	Research partner
Deshodaya, Sri Lanka	Civil society	Knowledge to innovation	Implementation partner
Dialog Axiata PLC, Sri Lanka	Private	Agricultural information and markets	Technology partner
DIRSI (Regional Dialog on the Information Society), Latin America and the Caribbean	Academic	General	Internships
Farmer associations in the Dambulla area, Sri Lanka	Civil society	Agricultural information and markets	Research partner
Federation of Sri Lankan Local Government Authorities, Sri Lanka	Public	Knowledge to innovation	Implementation partner
Institution of Engineers, Sri Lanka	Civil society	Measuring ICT sector and regulatory performance	Workshop co-host
International Development Research Centre, Canada	Public	General	Funding partner
Kaduwela Pradeshiya Sabha, Sri Lanka	Public	Knowledge to innovation	Implementation partner
Lee Kuan Yew School of Public Policy, National University of Singapore	Academic	Capacity-building	Masters enrollment; internships
LIRNE.NET, Denmark	Academic	General	Research partner
Ministry of Trade, Marketing Development, Co-operatives and Consumer Services, Sri Lanka	Public	Agricultural information and markets	Research & implementation partner
Research ICT Africa, Africa	Academic	General	Research partner
Respere Lanka, Sri Lanka	Private	Evaluating a real-time bio-surveillance program	Research partner

Table 4: LIRNEasia partners (2009-10) (cont.)

Partner	Organization type	Project/area	Partner type
Rural Technology and Business Incubator (RTBI), Indian Institute of Technology, Madras, India	Academic	Evaluating a real-time bio-surveillance program	Research partner
Sarvodaya Shramadana Movement, Sri Lanka	Civil society	Evaluating a real-time bio-surveillance program; General	Research partner
Sri Lanka Girl Guides' Association, Sri Lanka	Civil society	Knowledge to innovation	Implementation partner
Telenor Research and Development Centre, Malaysia	Private	Teleuse at the bottom of the pyramid	Funding partner
Tenet Group, Indian Institute of Technology, Madras, India	Academic	Measuring ICT sector and regulatory performance	Research partner/ Workshop co-host
Tertiary and Vocational Education Commission, Sri Lanka	Public	Knowledge to innovation	Implementation partner
The Edge Institute, South Africa	Academic	Capacity-building	Conference co-host
University of Alberta, Canada	Academic	Evaluating a real-time bio-surveillance program	Research partner
University of Sri Jayewardenepura, Sri Lanka	Academic	Knowledge to innovation	Research partner
USAID/Connecting Regional Economies (CORE)	Public	Agricultural information and markets	Funding partner
Western Province Waste Management Authority, Sri Lanka	Public	Knowledge to innovation	Implementation partner



ICA award ceremony, 59th Annual conference of the ICA, May 2009, Chicago, USA

Awards and honors

Best Paper award, ICTD 2009 | Research Fellow, Subhash Bhatnagar (PhD), and coauthor Nupur Singh's paper, "Results from a study of impact of e-government projects in India", was selected as the best paper at the 2009 International Conference on Information and Communication Technologies and Development, organized by Carnegie Mellon, Qatar, held in Doha, Qatar, in April 2009.

ICA Communication Research as an Agent of Change award | Chair and CEO, Rohan Samarajiva (PhD), was awarded the International Communication Association 2009 Communication Research as an Agent

of Change Award in May 2009. The award honors one person each year whose work has had a demonstrable impact on practice outside the academy, with clear benefits to the community.

International Program for Development Evaluation Training Scholarship | Senior Research Manager & Broadband Specialist, Chanuka Wattegama, was awarded a scholarship to attend the International Program for Development Evaluation Training course, organized by the Independent Evaluation Group of the World Bank and Carleton University in Ottawa, Canada, from 8 June-3 July 2009.

Eisenhower Fellowship | Lead Economist, Harsha de Silva (PhD), was named the Sri Lanka Fellow for the Eisenhower Fellowship 2010 Multinational Program in July 2009. The award recognizes outstanding individuals from the public service, private business and the professions. It provides professional and leadership development programs to individuals who have demonstrated potential for advanced leadership and positive impact in their home countries.

Shortlisted for 2009 Bastiat Prize for Online Journalism | Rohan Samarajiva was one of three included in the shortlist by the International Policy Network for his "Choices" column in *Lanka Business Online*.

1st Runner-up Award for Best Paper, CPRsouth4 | Nirmali Sivapragasam's paper, "The future of the public phone: Findings from a six-country Asian study of telecom use at the BOP", was awarded the 1st Runner-up Prize at the 4th Communication Policy Research south conference held in Negombo, Sri Lanka in December 2009.



LIRNEasia@5 speakers (left to right)

Aditya Dev Sood, CKS, India | Alison Gillwald, Research ICT Africa, South Africa | Ananda Raj Khanal, Nepal Telecommunication Authority | Anjani Sinha, National Spot Exchange Limited, India | Atiq Ahmed, Asian Disaster Preparedness Centre, Thailand | Chanuka Wattergama, LIRNEasia, Sri Lanka | B.P. Sanjay, Central University of Tamil Nadu, India | H.E. Bruce Levy, High Commissioner of Canada to Sri Lanka and the Maldives | Ayesha Zainudeen, LIRNEasia, Sri Lanka | Chirag Jain, GupShup, India | Christoph Stork, Research ICT Africa, South Africa | Deepal Sooriyaarachchi, Eagle Insurance and Education Subcommittee of the Ceylon Chamber of Commerce, Sri Lanka | Deunden Nikomborirak, Thailand Development Research Institute | Divakar Goswami, ex-LIRNEasia, India | Dumindra Ratnayake, Etisalat (formerly Tigo), Sri Lanka | Emmanuel Lallana, IdeaCorp, The Philippines | Evan Due, IDRC Regional Office for Southeast and East Asia, Singapore | Fiona Smith, GSM Association, India | Glenda Kruss, Human Science Research Council, South Africa | Hans Wijayasuriya, Dialog Axiata, Sri Lanka



LIRNEasia@5 speakers (left to right)

Harsha de Silva, LIRNEasia, Sri Lanka | Helani Galpaya, LIRNEasia, Sri Lanka | Hernan Galperin, DIRSI, Argentina | Ilyas Ahmed, Communication Authority of the Maldives | Johannes Bauer, Michigan State University, USA | Joseph Wilson, Competition Commission of Pakistan | K. F. Lai, BuzzCity, Singapore | Kristin Due Hauge, GSM Association, UK | Koesmarihati Sugondo, DG Postel (and former regulator, BRTI), Indonesia | Kentaro Toyama, Microsoft Research, India | Milinda Moragoda, M.P., Minister of Justice and Law Reforms, Sri Lanka | Pirongrong Ramasoota Rananand, Chulalongkorn University, Thailand | Nuwan Waidyanatha, LIRNEasia, China | Partha Mukhopadhyay, Center for Policy Research, India | Per Helmersen, Telenor Research and Innovation, Norway | Phet Sayo, IDRC, India | Muhammed Yaseen, Pakistan Telecommunication Authority | Pratap Bharu Mehta, Centre for Policy Research, India | Puree Sirasoontorn, Thammasat University, Thailand | R.K. Arnold, Telecom Regulatory Authority of India

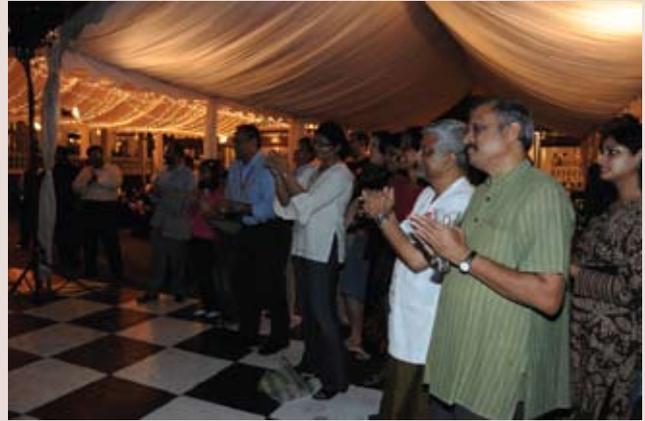


LIRNEasia@5 speakers (left to right)

Rajat Kathuria, ICRIER, India | Randy Spence, Economic and Social Development Affiliates, Canada | Sanna Eskelinen, Nokia, Finland | Rasheed Sulaiman, Centre for Research on Innovation and Science Policy, India | Ranjit Pawar, Reuters Market Light, India | Rohan Samarajiva, LIRNEasia, Sri Lanka | Robin Mansell, London School of Economics and Political Science, UK | Sherille Ismail, Federal Communications Commission, USA | Sriganesh Lokanathan, LIRNEasia, Sri Lanka | Stephen McGurk, IDRC, India | Stuart Weinstein, Pacific Tsunami Warning Center, USA | Sudharma Yoonaidharma, National Telecommunications Commission, Thailand | Sujata Gamage, LIRNEasia, Sri Lanka | Tahani Iqbal, LIRNEasia, Sri Lanka & National University of Singapore | Sultanur Reza, Grameenphone, Bangladesh | Tim Kelly, infoDev, World Bank, USA | Timothy Gonsalves, Indian Institute of Technology (IIT), Madras | Veena Ravichandran, IDRC, Canada | Wangay Dorji, Bhutan InfoComm and Media Authority, Bhutan | William Melody, LIRNE.NET and Aalborg University, Denmark

NOT PICTURED: Gehan de Silva Wijeyeratne, Jetwing Eco Holidays, Sri Lanka; Xue Lan, Tsinghua University, China







Research

Research, spanning multiple cycles and countries, have provided raw material for our policy work. Short descriptions and a few key learnings from each are highlighted. More information is on our website.

Teleuse at the bottom of the pyramid 3 (Teleuse@BOP3)

Much of the growth of the last billions of mobile connections has been attributed to emerging markets, particularly those in India, China and other Asian countries. Given that Asia is, unhappily, still home to the largest number of poor people, it may be inferred that

Table 5: Key survey findings from Teleuse@BOP3 (2009)

	Bangladesh	Pakistan	India	Sri Lanka	Philippines	Thailand
Primary access mode (% of BOP teleusers)						
Mobile phone	43	37	34	30	61	74
Fixed phone (household)	0	3	6	41	0	7
Public phone	32	8	33	7	4	3
Other people's phone (neighbor, relative, etc)	26	52	27	23	35	16
Ownership (% of BOP households)						
Mobile phone	40	34	31	19	50	65
Fixed phone (household)	0	2	4	33	0	1
Both	1	3	3	12	0	5
Mobile phone use (% of BOP mobile owners)						
Prepaid	99	99	98	95	100	98
Postpaid	1	1	2	5	0	2
SMS use	32	47	33	52	100	53
Missed call use	94	84	84	73	86	39
Mobile expenditure (USD)						
Average price paid for handset	54	37	46	57	47	86
Average last prepaid top-up	0.50	0.85	1.65	0.94	0.64	2.49
Multiple SIM ownership (% of BOP mobile owners)						
Own more than 1 active SIM card	10	23	9	16	19	13
Internet awareness and use (% of BOP teleusers)						
Awareness	44	43	37	77	90	80
Use	1	2	1	3	21	23
Mobile 2.0¹ awareness and use (% of BOP mobile owners)						
Awareness	22	30	19	80	68	60
Use	2	9	5	19	13	23

¹ Includes awareness or use of any of the following services accessed through a mobile: banking and financial; payment; government; health; voting/polling; general information; agricultural and fisheries information.

many of these new subscribers in Asia have come from the bottom of the pyramid, or the BOP. Innovations in technology, business models and policy are required to serve the BOP efficiently. Therefore, good insight into the growing demand for telecom services at the BOP is important.

Teleuse at the bottom of the pyramid, or Teleuse@BOP, pioneered by LIRNEasia in 2005, is a series of cutting-edge, demand-side studies of ICT use among the BOP. It was the first large-sample study to assess demand for ICT services among emerging Asia's BOP.

Over the past five years, LIRNEasia has built a profile in demand-side telecom research. The findings have proved useful in helping governments understand the significance of telecom, especially the mobile. They have contributed to debates on universal service policies, on taxation and even on the registration of phones for security purposes. The wide media attention received in multiple countries and in multiple languages points to the relevance of, and need for, such research.

Teleuse@BOP3 involved a detailed survey of 9,750, representative of the BOP in India, Pakistan, Bangladesh, Sri Lanka, the Philippines and Thailand, as well as focus group discussions, mini-ethnographies and home visits among more than 200 subjects in the six countries in early 2009. Additional surveys of migrant workers in the six countries were conducted to understand the potential for mobile remittance and other services.

The premise of much of LIRNEasia's research in the 2008-10 cycle was that the mobile will be the primary device through which the BOP in emerging markets will engage with the Internet, for tasks such as information retrieval, payments and remote computing. It appears that many others are coming around to our thinking. Teleuse@BOP3 has provided LIRNEasia with hard evidence that this is the case; its findings have formed the basis of many contributions to this new discourse, most significantly through a background paper presented by Rohan Samarajiva at a joint OECD/World Bank workshop on policy coherence in ICT for Development in September 2009 (see p. 67). We have seen great progress in telecom access and ownership across countries since 2006; the access challenge at the BOP has been met. Although the use of services beyond voice (or Mobile 2.0 services) has been poor, encouraging levels of awareness have been seen, especially in countries with higher penetration levels, indicating that as penetration grows, awareness is likely to grow.

The research has also fed into work such as understanding of the "budget telecom" network business model that has enabled impressive gains in voice connectivity as well as the beginnings of more-than-voice applications over mobiles. Drawing from findings of the quality of service experience (QoSE) research, LIRNE has extended the argument to broadband connectivity also.

Research Manager: Ayesha Zainudeen



Agricultural information and markets (AgInfo)

Since 2002, before the creation of LIRNEasia, some of our researchers were trying to understand how to make agricultural markets more efficient. Part of that work culminated recently in the launch of TradeNet, a mobile phone-based service which allows farmers to receive price alerts from three agricultural wholesale markets in Sri Lanka. The service is provided by Dialog Axiata PLC, the largest mobile operator in Sri Lanka (see p. 48). The prices are provided by Govi Gnana Seva (GGS), a non-profit organization (founded by Harsha de Silva and managed by Sriganesh Lokanathan), which is then disseminated via Dialog's TradeNet platform. To coincide with the countrywide launch of this service, LIRNEasia has initiated studies to understand the likely impacts of such services on farmers' livelihoods, as well as to articulate and implement some of the longer-term steps needed to bring down price volatility of agricultural markets of Sri Lanka. The research has been funded by the International Development Research Centre of Canada and USAID (via their CORE program).

While research is still ongoing, we have already begun to collate some important findings. A 700-sample survey helped us ascertain users' willingness to pay for agricultural information through mobile phones. The survey also confirmed the hypothesis that farmers place a high degree of value in being able to reach buyers directly. The TradeNet platform enables matching buy orders (from traders) with sell orders (from farmers). The next challenge is ensuring that price collection systems and hence, GGS, remains effective and sustainable in the long term.

During the 2006-07 research cycle, LIRNEasia research quantified the high information search costs incurred by farmers across different stages of the crop cycle, from deciding which crops to grow to actual harvesting. Current research is examining how such information costs can be brought down through improved access to market price information via mobiles; farmers using the service are already showing positive results. This is exemplified by the story of Dissanayake, a farmer with a one-acre plot in the village of Kaloga-haela in Matale, Central Sri Lanka. During the last harvest period in May 2010, he received an SMS alert informing him that cabbages were selling at LKR 25 per kilogram, at the Dambulla Dedicated Economic Centre, the largest wholesale agricultural market in the country. Not satisfied, he decided to wait. That afternoon, he received another alert informing him that prices had risen by 40 percent to LKR 35 per kilogram. Eager to cash in on the opportunity, he harvested his crop, and sold it at the market that evening at LKR 45 per kilogram, a staggering 80 percent above the morning price.



Our research is also showing how farmers are increasingly responding to price-based signals in deciding what crops to grow next. Such findings are in line with LIRNEasia's objective of going beyond the passive use of ICTs (agInfo) to active use by farmers in making market-based decisions that lead to improved livelihoods (agStrategy).

Our research recognizes the importance of legal and institutional frameworks. Improved livelihoods for poor farmers can be realized only through market-based activities where supply matches demand continuously; through spot and forward markets depending on the type of produce and, in the ideal case, even futures exchanges. Realizing this long-term vision requires several intermediate steps. Commodity-backed financing, for example, can enable farmers to ride out periods of oversupply in the market. Backed with research conducted in India, we are working on bringing together multiple stakeholders to formulate solutions for Sri Lanka. Starting with the launch of TradeNet, LIRNEasia's evidence-based research is now facilitating multi-stakeholder initiatives among both the private and public sector in improving livelihoods.

Project Director: Harsha de Silva
Research Manager: Sriganesh Lokanathan

The launch of GGS-Dialog TradeNet agri-price information service



The launch of Dialog TradeNet. From left: Rohan Samarajiva; Harsha de Silva, Founding Director, GGS; Hon. Bandula Gunawardena, Minister of Trade, Marketing Development and Consumer Affairs; Hans Wijayasuriya, Director and Group Chief Executive, Dialog Axiata PLC

Photo courtesy of Sameera Wijerath

In 2002, even before LIRNEasia existed, Harsha de Silva and Sriganesh Lokanathan began trying to understand ways in which operational efficiencies of agricultural markets could be increased. Building relationships with farmers, traders and buyers, Govi Gnana Seva (GGS) or the Farmer Knowledge Service was started in 2003, initially as a pilot funded under the e-Sri Lanka initiative, to collect and disseminate wholesale agricultural prices, with the aim of reducing information asymmetry in agricultural markets. On 23 December 2009, GGS was launched nationwide as a part of Dialog TradeNet, a trading platform launched by Dialog Axiata PLC, Sri Lanka's largest mobile service provider. The trading platform and market price alerts are accessible via multiple technologies including WAP, web, SMS, voice and USSD. The platform is specifically designed to facilitate information flows and trading via the mobile phone.

LIRNEasia's Consultant Lead Economist appointed to scientific advisory committee of eARN Africa



LIRNEasia's Consultant Lead Economist, Harsha de Silva, was one of five people appointed to the Scientific Advisory Committee of a two-year multi-country African research project, "eAgriculture Network for Africa (eARN Africa): Effectiveness of Electronic-Based Interventions in Linking African Farmers to Markets". The project, which commenced in March 2009, aims to study the efficacy of ICT-based interventions in African agriculture with findings to be fed into African governments and stakeholders. The countries are Kenya, Malawi, Uganda, Ghana, Benin and Madagascar. The project is funded by the International Development Research Centre (IDRC) of Canada.

Harsha leads agriculture-focused research at LIRNEasia, including a study on the impact of ICTs on transaction costs in agricultural markets. The findings of his research with LIRNEasia have been incorporated in Sri Lanka's first mobile trading platform by Dialog Axiata, the country's largest mobile service provider.

Measuring ICT sector and regulatory performance: Indicators 2009-10

How do we know telecom sector reforms are working? This is one of the key questions LIRNEasia has grappled with from the start. One could simply measure sector outputs and see if the performance is satisfactory (in comparison to peers, perhaps), because regulators and policy-makers often get credit (or blame) for good sector performance. Or one could evaluate regulatory and policy actions alone, irrespective of sector performance. We recognize the value of both approaches and, hence, have continued our research on both in the past year.

Measures of ICT sector performance

One way of assessing whether the goals of reforms have been achieved is by measuring sector outputs. That is, to examine if connectivity is increasing, prices are decreasing, choice is increasing and quality is improving. Twice a year, in February and October, we publish online the results of our benchmarking research: a broadband benchmarks report (comparing wholesale and retail broadband prices as well as quality of service experience [QoSE] measures) and a mobile benchmarks report (comparing retail mobile prices, using a modified version of OECD methodology). These data are useful in making evidence-based interventions in policy and regulatory processes. They also provide regulators and policymakers with timely, accurate and comparable data.

Mobile benchmarks: Given the role played by mobile phones in getting the masses in the Asia-Pacific connected electronically, we continued to report the average monthly cost of using mobile phones. The methodology, originally developed by the OECD, was modified for Asian markets. Separate baskets were calculated for prepaid and postpaid users. Our 2009 and 2010 mobile benchmarking across eight SAARC countries (Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan and Sri Lanka) revealed that Pakistan had overtaken Bangladesh as the country with the cheapest monthly prepaid mobile low-user basket. Among the East and Southeast Asian countries, Mongolia, which was included in the study from October 2009, recorded the lowest monthly prepaid costs for low users, followed by Thailand, Indonesia, Malaysia, the Philippines and Singapore in February 2010.

We continued to publish and advocate such tariff indicators, as opposed to simpler measures such as the per-minute prices then used by the ITU [International Telecommunications Union]. However in the first quarter of 2009, we were delighted to see the ITU adopting the OECD methodology. LIRNEasia will no longer calculate or report mobile basket data.

Broadband price benchmarks: Although innovative business models are fast closing the voice connectivity gap, broadband connectivity in our

part of the world continues to lag behind developed countries. Affordability of the big pipes (wholesale connectivity costs) has been identified as a key reason. In addition to wholesale prices, LIRNEasia continued to benchmark fixed and mobile broadband retail prices as well. Time series data show that, with the exception of Afghanistan (a market with unique investment risks), retail prices in nearly all other countries we study have begun to converge (Figure 14).

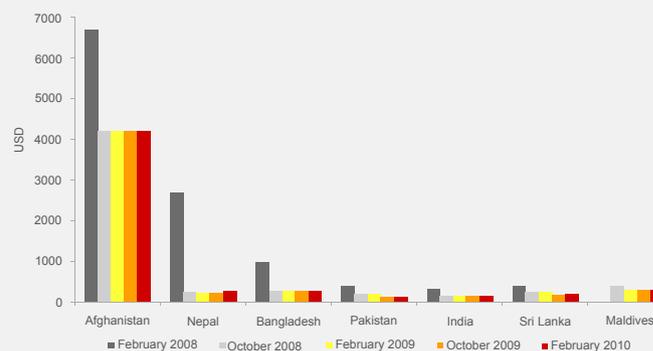


Figure 14: Annual cost, 256kbps broadband residential connection (unlimited download)

Broadband quality of service [QoSE] benchmarks: In collaboration with the Indian Institute of Technology (IIT), Madras, LIRNEasia has developed a cutting-edge methodology to measure broadband quality of service experience. The methodology measures both traditional indicators of quality (upload and download speeds) as well as indicators such as jitter, packet loss and round-trip time. Each indicator is measured in relation to a server within the ISP, a server within the same country and a server located within the Internet cloud. Instead of relying on operators and/or regulators to measure and report broadband quality from central locations, the methodology measures quality at various times of the day as experienced by users; data are automatically uploaded to a publicly-accessible website. The software is freely downloadable from <http://www.broadbandasia.info/>.

In October 2009, the quality of service experience of selected fixed broadband packages in two developed countries, Canada and the USA, was compared with that of selected cities in Bangladesh, India and Sri Lanka. The packages tested were Bell/6 Mbps and Rogers/10 Mbps from Ottawa Canada, Verizon/3 Mbps from Buffalo, USA, and Comcast/6 Mbps from Denver, USA. The comparison was also carried out on delivery versus promised speeds and on delivered value for money (kbps per US Dollar).

The comparison indicated that users from Bangladesh, India and Sri Lanka receive less value for money than their counterparts in North America (Figure 15).

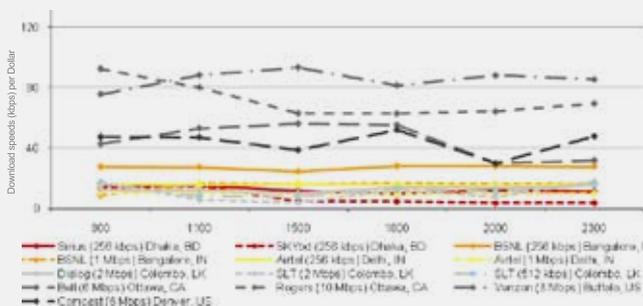


Figure 15: Broadband download speeds per US Dollar (kbps/USD) in selected cities when accessing an international server, October 2009

Below are some other findings:

- Indian operators are best at delivering what has been advertised: Although they only advertised at minimum speeds (256 kbps or 512 kbps are common entry-level speeds advertised in most Indian cities), almost all tested packages were found to deliver them. In fact, some operators delivered more than was promised.
- Quality of fixed broadband packages in Sri Lanka and India have improved: For example, tests in February 2008 showed users only experiencing speeds of 20-25 percent of what was promised when accessing international sites. A year later, at least one package in each country had achieved a performance rate of approximately 40 percent during peak hours, and 60 percent at off-peak; other packages were not far behind. This shows that while international bandwidth issues remain, some remedial action has been taken.
- Latency of many, but not all, fixed broadband operators in Bangladesh, India and Sri Lanka is now approaching IDA [Infocomm Development Authority of Singapore]-specified levels. IDA standards were the only benchmarks for latency but TRAI [Telecom Regulatory Authority of India] has since adopted its own. Results for February 2009 show that most operators in the three countries now perform closer to 300 milliseconds (ms), the Singaporean regulator standard. A correlation between price and QoS changes was observed in Bangladesh.
- Overall quality of HSPA [High Speed Packet Access] in Sri Lanka has improved. Mobile broadband packages of two operators in Sri Lanka were formally tested in September 2008. While download speeds were better than with fixed packages, there was still room for improvement. However, in the next round of testing in February 2009, an improvement in quality was observed on the other parameters. Both mobile broadband operators did better in delivering what had been advertised than their fixed counterparts.

Measures of ICT regulatory performance

LIRNEasia's TRE [Telecom Policy & Regulatory Environment] survey measures regulatory performance directly.

The Telecom Policy and Regulatory Environment (TRE) is a perception-based survey across seven dimensions: market entry, allocation of scarce resources, interconnection, regulation of anti-competitive practices, universal service obligation, tariff regulation and quality of service regulation. Fixed, mobile and broadband sectors were studied. Over 300 telecom experts, ranging from operators and private investment houses to research institutions and the media, were interviewed in Afghanistan, Bangladesh, India, Indonesia, Maldives, Pakistan, the Philippines, Sri Lanka and Thailand. A select group of senior stakeholders from three different categories (those directly involved in the sector such as operators and equipment vendors; those indirectly involved in the sector with broader interest such as consultants and lawyers; and those who represent broader public interest groups such as media personnel, other government officials, retired regulators and civil society organizations) were surveyed.

Since we had conducted TRE surveys in many of these countries earlier, we were able to see TRE scores tracking changes in policy and regulation; Indian TRE scores for universal service obligation (USO) are the best example. When we conducted the TRE survey in 2006, India's USO score was the lowest among the countries studied and also the lowest dimension within India itself. At that time, India's USO policy channeled funds levied from mobile operators to the incumbent (government-owned) fixed operator. However, rural areas were, in fact, being served by mobile operators. In March 2007, the Indian policymaker changed the rules, making mobile operators eligible for USO funds. TRE scores for India increased by 64 percent, the largest increase in a TRE score we had ever seen (Figure 16).

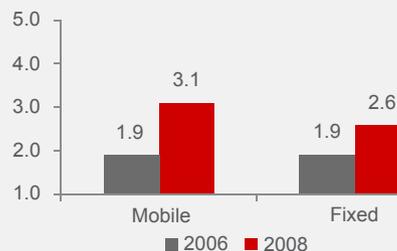


Figure 16: TRE scores for universal service obligation (USO) in India (2006 vs 2008)

Research Manager: Helani Galpaya

Mobile 2.0 at the bottom of the pyramid (Mobile 2.0@BOP)

Mobile 2.0 describes the second wave of mobile phone use for “more-than-voice”. Mobiles can send/receive voice, text and images; they can be used as organizers, for making payments and even as radios; many relatively low-cost mobiles can now also access the Web. It is envisaged that in the next few years, most handsets will be capable of all functions associated with the Internet, including information-retrieval and publishing.

Arguing that the dominant “fat pipe” (coaxial cable, fiber coming into each household carrying voice, data and entertainment) narrative had little applicability to emerging Asia, LIRNEasia postulated Mobile 2.0 as an alternative narrative. Due to the significantly higher cost of providing Internet facilities over personal computers (PCs) to the BOP in emerging Asia, it is likely that the majority will tread a wireless-network path to the Internet.

LIRNEasia’s research in 2008-10 interrogated this thesis exploring services such as mobile payments and remittances, agricultural applications, disaster-warning applications and e-government services. In addition, fundamental policy and regulatory issues affecting this path were also explored.

Although Mobile 2.0 is still inchoate, our research reveals signs of things to come. LIRNEasia’s six-country survey of Teleuse@BOP found low levels of awareness, but these levels differed by age group, indicating that the younger cohort was primed to move to use from awareness.

CellBazaar, a popular mobile-based electronic marketplace available to Grameenphone customers in Bangladesh allows buyers and sellers to find each other over mobiles. The service offers only search and a basic feedback mechanism at present (Figure 17), but it can be used via SMS, WAP and voice (interactive voice response [IVR]), as well as the Web.

Blue-collar workers in multiple countries use mobile phones to participate in the online social networking service MyGamma offered by BuzzCity. In India, numerous ICT interventions (e-Choupal, m-Krishi, etc.) have been initiated to reduce information asymmetries and provide alternative markets and exchanges for farmers. A system developed by the Zero Mass Foundation (ZMF) has taken mobile payments services to the BOP. Studies also documented the preconditions for effective use of mobiles for public warning regarding rapid-onset disasters and mobile-based payments for public transport services.

Findings from the policy/regulatory component showed the need for market-based allocation and pricing of frequencies for mobile telephony and data services. There was little support for the implementation of mobile number portability in any of the countries studied, if looked at from the perspective of the BOP.

Research Manager: Chanuka Wattegama

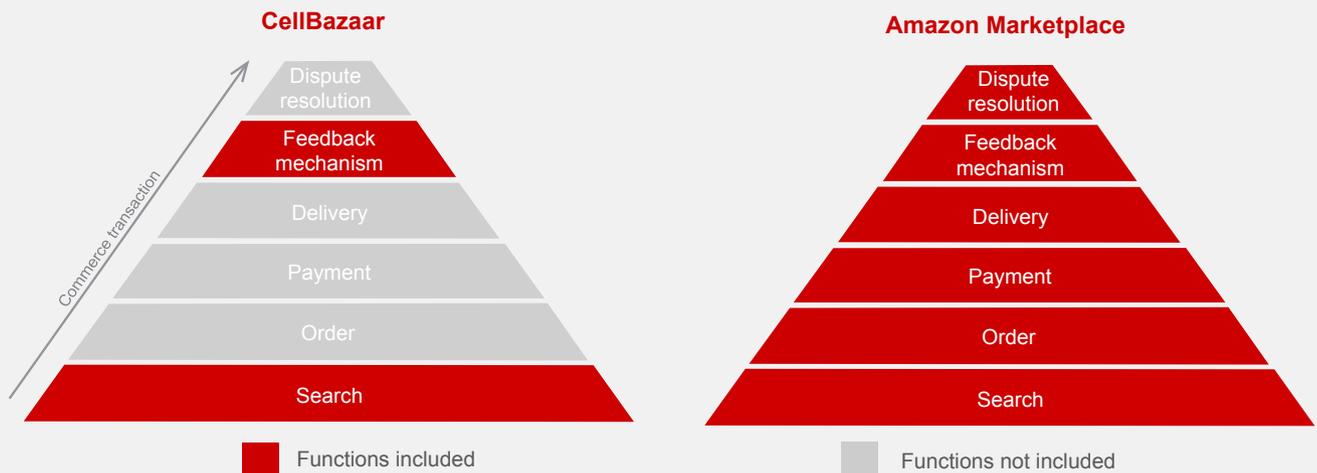


Figure 17: Comparison of e-commerce functionalities by CellBazaar and Amazon Marketplace

Knowledge to innovation (K2I)

Soft infrastructures such as education, training and knowledge networks are just as important for society as hard infrastructures such as telecommunication and roads. The knowledge to innovation (K2I) project represents the soft-infrastructure side of LIRNEasia.

LIRNEasia's K2I work has matured from an exploratory project to a fully-fledged research program in developing education, training and knowledge networks to address several intractable problems in Sri Lankan society. The K2I program is based on the premises that (a) connecting pockets of knowledge through communities of practice is as important as creating new knowledge, and (b) knowledge created in the workplace (also known as mode-2 knowledge) is central to service innovation (with mode-1 knowledge producers such as universities and research institutes playing a supporting role). The current focus is on solid-waste (SW) services among local government authorities (LGAs) in Sri Lanka. To date, the project team has tested several tools for knowledge-sharing among stakeholders. Attempts to apply the tools in partnership with provincial and local authorities are ongoing.

In 2008-09, we examined whether connectedness among individual and organizational stakeholders in SW services would lead to better performance and what lessons, if any, could be generalized to other local government services. This included the use of ICTs.

There are 331 LGAs in Sri Lanka's nine provinces. Between October 2009 and January 2010, the study surveyed SW managers in 217 LGAs in six provinces on whether they sought external knowledge inputs. The responses yielded a measure of connectedness. The knowledge-seeking activities of LGAs (Figure 18) indicate that from among a total of 634 knowledge-seeking interactions, 36 percent are with the central government (dark grey); 27 percent with other local authorities (red), 15 percent with provincial governments (yellow), 6 percent with universities (light grey) and 17 percent with other sources (orange).

We also asked SW managers about their "success" in managing waste. The existence of a functioning site-separation program or a program to systematically manage the waste after collection was used as the measure of success. All successful LGAs showed some level of connectedness but those connected to peers or other non-governmental sources were more successful than those connected primarily to government sources. Research is currently underway to develop tools to prod unsuccessful LGAs into action.

Project Director: Sujata Gamage

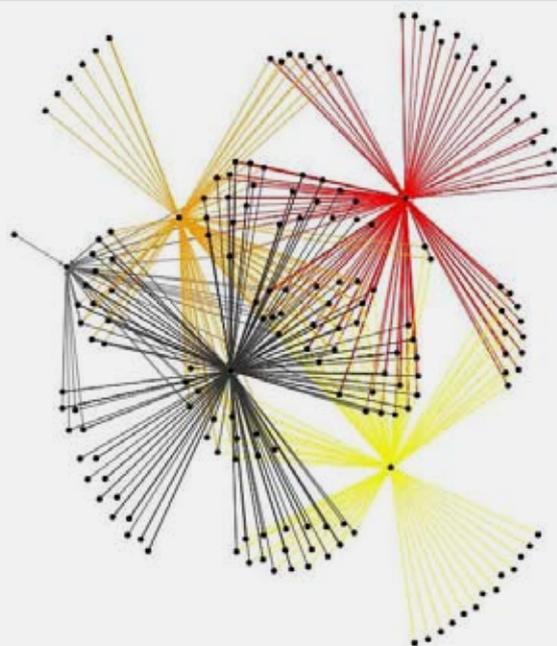


Figure 18: Solid-waste-related knowledge-seeking links between local authorities in Sri Lanka and the central government (dark grey), provincial governments (yellow), other local authorities (red), universities (light grey) and other organizations (orange) in 2009

Real-time bio-surveillance program: A pilot project (RTBP)

The research question that the real-time bio-surveillance program (RTBP) seeks to answer, within the context of studying its human, technology and policy implications, is “can software programs that analyze health statistics and mobile phone applications that collect and report health information be effective in the early detection, intervention and prevention of disease outbreaks?”

Conventional paper-based notification systems have not proven effective in providing the much-needed near-real-time detection for containing disease outbreaks before it takes lives. RTBP has introduced a mobile phone application for collecting clinical information, real-time detection of adverse events with spatiotemporal statistical analyses tools, and standardized alerting to improve situational awareness in providing epidemiology units with the means of responding to disease outbreaks before they reach the tipping point.

Nurses in the Sivaganga District in the state of Tamil Nadu, India, and Sarvodaya Suwadana Center primary health workers in the Kurunegala District, Sri Lanka, were given mobile handsets, costing around USD 100 each, equipped with the RTBP-developed mHealth-Survey java software applications for submitting patient records. The district health officials use the T-Cube web interface anomaly detection software to identify statistical patterns indicating adverse events. Upon discovering any events of interest, the health officials use SMS, email and Web technologies to notify respective health workers of imminent health threats (Figure 19).

The current existing systems, the India Integrated Disease Surveillance Program (IN-IDSP) and the Sri Lanka Disease Surveillance and Notification System (LK-DSNS), which are confined to monitoring 25 diseases, allocate the majority of resources to data collection with little or no emphasis given to event detection and alerting. In contrast, RTBP’s m-health solutions for India (IN-RTBP) and Sri Lanka (LK-RTBP) reduce such costs (Figure 20), while also introducing a more comprehensive, disease and syndrome monitoring and mitigation system.

Partners include the Ministry of Health and Nutrition, Wayamba Province, Sri Lanka, the Department of Health and Family Welfare, Tamil Nadu, India, the Indian Institute of Technology (IIT), Madras’s Rural Technology and Business Incubator, the National Centre for Biological Sciences, India, the Sarvodaya Shramadana Movement, Sri Lanka, Carnegie Mellon University’s Auton Lab, the University of Alberta, Canada and Respere Lanka (Private) Limited, Sri Lanka.

Project Director: Nuwan Waidyanatha

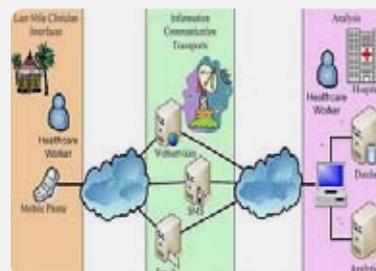


Figure 19: M-health wireless communications system architecture

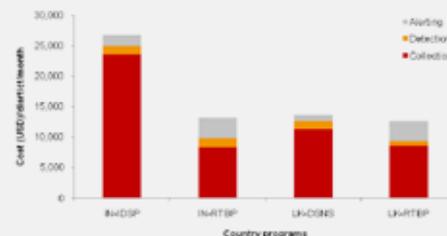


Figure 20: Costs of present disease surveillance programs vs. real-time bio-surveillance programs in India and Sri Lanka

HazInfo to m-health: Early warning research and development continues



Figure 21: Data collection, event detection, and alerting process flow

LIRNEasia’s long-term research and development on Common Alerting Protocol (CAP) all-hazards all-media content standard for emergency communications, which started with the HazInfo project, is being advanced for m-health. The m-health project enhanced the Sahana Messaging module (first built as part of the HazInfo project) in to a CAP-based messaging broker. This is now being tested in India and Sri Lanka.

The Sahana Messaging / Alerting Module (SMAM) is being used to disseminate information on adverse events to healthcare workers’ mobile phones for immediate response. In addition to the substantial gains in operational efficiencies, the m-health project, because it allows access to a richer and more comprehensive dataset, can improve economic efficiencies tenfold, and will allow health departments to monitor and control a greater number of infectious diseases than at present.

Epidemiologists issue health alerts on to health worker phones using Sahana Alerting.



Rasheda Sultana: Exemplar of mode-2 capacity-building

Rasheda Sultana, a regulatory economist at Grameenphone, the leading mobile telecom operator in Bangladesh, exemplifies CPRsouth's efforts at mode-2 capacity building. Rasheda first came in to contact with CPRsouth when she was selected as a young scholar at the third annual conference held in Beijing in 2008. She subsequently applied and was selected as a paper presenter at the fourth conference in Negombo, Sri Lanka; her paper, entitled, Mobile banking: An overview of regulatory frameworks in emerging markets, examined mobile banking business models and regulatory frameworks in emerging Asia. The paper has been downloaded 100 times and its abstract has been viewed over 300 times on SSRN as of 30 June 2010; it was also listed as one of ten top papers in the SSRN Economics eJournal, "Emerging Markets" in March 2010.

"CPRsouth gives young scholars and paper presenters a valuable platform for both personal and professional growth. It contributes to individual capacity-building from three aspects; firstly, and most importantly, it gives attendees the opportunity to avail of the coaching/mentoring of senior scholars regarding research methods and its implications in the field of communications and policy. Secondly, CPRsouth provides a showcase for research work conducted by researchers in other countries or industries which helps one evaluate one's own work as well learn from others' work. Thirdly, cross-cultural interaction with people from different countries and professions enables attendees to share knowledge, experience and views. I have attended two CPRsouth conferences which have enriched my knowledge and opened doors for me to meet senior scholars, which would not have been possible otherwise. It has also given me the platform and confidence to present my work, which was later published on SSRN. The ranking the paper received as well as positive feedback from academia in the region really boosted my confidence and has encouraged me to continue my endeavor in carrying out research in new areas."



Mobile broadband quality tested in Colombo

If fixed broadband testing is like driving a light vehicle, mobile broadband testing is like piloting an aircraft. The complexity increases many fold. A mobile link has to be tested from multiple locations (since that is how it is used), both when stationary and on the move. Fixed testing can ignore the effect of end-device and operating system (a PC is a PC) but the capabilities of mobile handsets vary depending on its hardware and software.

LIRNEasia conducted the first round of mobile broadband testing in Colombo in June 2009 simulating as much as possible the true operational conditions when using mobile broadband services. Public transport was used as we believe those at the bottom of the pyramid (BOP) are more likely to use mobile Internet services from a bus or train, rather than from a car.

A recruited user testing mobile broadband speeds on a bus in Colombo



Knowledge for development: Toward a framework for benchmarking the performance of universities in the South

The importance of knowledge for development is undisputed. So is the importance of the role played by universities in the production and dissemination of knowledge in the developed world. Less well understood is its role among universities in developing countries.

Sujata Gamage (PhD), Lead Scientist and Project Director at LIRNEasia, as part of her collaboration with Glenda Kruss (PhD) of the Human Science Research Council (HSRC), South Africa, hosted Il-haam Petersen (pictured), a research intern from the HSRC, at LIRNEasia for three months in 2009-10, to develop a common framework for benchmarking the performance of universities in the South.

From a range of benchmarking instruments, the team picked the Carnegie Foundation's basic classification framework as most appropriate for assessing the performance of universities in producing bachelor or associate degrees in South Africa as well as in South Asia. The cross-country benchmarking exercise revealed issues that intra-country benchmarking would not have. The results of the study were well received by Judy Backhouse and staff of the Council on Higher Education in South Africa as well as by S. Mahmood Raza and staff at the Higher Education Commission of Pakistan.

The World Bank and other intergovernmental organizations invest much in improving the quality and relevance of universities across the world; however, no substantive efforts have been made to benchmark their performance. This study shows that it may be possible to set up web-based benchmarking tools for the higher education sector in developing regions, similar to that provided by the Carnegie Foundation in the USA.

Is the Federal Communications Commission following in LIRNEasia's footsteps?

The Federal Communications Commission (FCC) used the term "crowdsourcing" for what we called "volunteer computing." That was, perhaps, the only difference.

In March 2010, the FCC requested broadband and smartphone users in the USA to use their broadband testing tools to help the FCC and consumers know what speeds were actually available, and not just what was promised by service providers. Netizens can now go to the FCC's Broadband.gov site, enter their IP address and test their broadband speed using one of two testing tools.

We, however, have been at this game for nearly two years. In September 2008, LIRNEasia released the first version of a broadband speed test application, AT-Tester, developed by its research partner, the Indian Institute of Technology (IIT), Madras. The application can be downloaded from www.broadbandasia.info. LIRNEasia has also published findings from its own round of testing using the AT-Tester tool in multiple cities in Bangladesh, India and Sri Lanka. Initially compatible with only Windows XP, the software is now available on all Windows platforms. A web-based version is also available.

This was how Wired.com documented the FCC's efforts (which are applicable more or less to LIRNEasia's solution too):

Crowdsourcing this data is a brilliant move, given that telecoms have long fought against telling federal regulators what areas they cover and at what speed, arguing that information will be used by competitors to poach their customers. The data can also be used as a way to prevent telecoms from over-promising and under-delivering on upload and download speeds. If you listen closely you might actually hear the telecom companies hitting the backspace key to revise the speed numbers on their promotional fliers.

- Singel, R. (2010, March 11). *The FCC wants you to test your broadband speeds.* Available at <http://www.wired.com/epicenter/2010/03/fcc-broadband-test/>.

Capacity-building

Through *CPRsouth*, LIRNEasia seeks to identify potential policy intellectuals in the Asia-Pacific and enhance their capacities. In addition, it provides conventional training.

CPRsouth4, Negombo



CPRsouth4, December 2009, Negombo, Sri Lanka

The fourth Communication Policy Research south (*CPRsouth4*) conference, themed, “Truth to Power” was held in Negombo, Sri Lanka, on 5-8 December 2009. The conference was attended by 78 senior, mid-level and young scholars from 24 countries. Of the ten sessions, seven consisted of research papers selected through a competitive process. The remainder gave the attendees a glimpse of the manner in which policy processes are conducted and a flavor of research conducted by senior scholars. The tutorials gave 30 young scholars the opportunity to learn about the basics of information economics and communicating research to policymakers.

A majority of *CPRsouth* applicants are in academia (mode-1). However, participation by those whose primary work is not knowledge production (mode-2) is actively encouraged and has increased to 24 percent of selected applicants in 2009 compared to previous years (see p. 21).

CPRsouth conducts an annual survey to track the activities of past attendees (both paper presenters and young scholars). Table 6

shows the activity level of 45 participants of *CPRsouth* conferences 1, 2 and 3 between October 2008 and 2009. The response rate was 38 percent.

Table 6: Activities of past paper presenters and young scholars² in the year following the *CPRsouth3* conference (no. of respondents)

	Paper presenters	Young scholars
Wrote policy papers / briefs	11	11
Made policy submissions / presentations	9	10
Wrote op-ed pieces in the media	4	1
Gave media interviews	1	1
Wrote in blogs	6	3
Had journal publications accepted	7	6
Presented conference papers	13	8
Submitted thesis proposals	3	3
Submitted theses	3	4
Submitted grant proposals	4	6
Received grants	7	5

Indicators training course, Bangkok

A training course on “Measuring information and communication technology access and use by households and individuals” was organized on 19-23 October 2009 in Bangkok, Thailand by LIRNEasia and the International Telecommunication Union (ITU). The Ministry of Information and Communication Technology (MICT), Thailand, served as local host.

The training covered topics on survey planning, data sourcing and collection techniques, questionnaire design, data processing and dissemination techniques, among others. Course participants consisted of staff from national statistics offices (NSOs) and other government institutions in 12 countries across the Asia-Pacific, including Afghanistan, Mongolia, Cambodia and Vietnam.

This course was a follow-up to previous NSO and NRA capacity-building programs conducted by LIRNEasia in 2007 and 2008.

² Based on annual survey responses of (all) past *CPRsouth* participants (paper presenters, young scholars, faculty and board members). Participants are cumulatively surveyed 10 months after the annual conference on their activities since the conference. The response rate for the 2009 survey was 38%.

13th executive course on telecom reform, Cape Town

The 13th executive course on telecom reform was held on 20-24 April 2009, in Cape Town, South Africa. It was offered by Research ICT Africa (RIA) and the University of Cape Town's Graduate School of Business. Rohan Samarajiva and Helani Galpaya served on the course faculty.

Themed "Connectivity and convergence: Alternative regulatory strategies for telecommunications", the course was designed to enhance the strategic thinking of a select group of senior decision-makers in telecom and related sectors in Africa and elsewhere. After having been offered in Europe, Asia, the Caribbean and Latin America, this executive program is now being offered in Africa.

IDRC PAN-all conference, Penang

LIRNEasia was invited by the International Development Research Centre (IDRC) to conduct a training session and share its knowledge and experience on effective communication of research at the third IDRC Pan Asia Networking (PAN)-all partners' conference held on 10-12 June 2009 in Penang, Malaysia. The training, conducted by Rohan Samarajiva, Helani Galpaya and Nilusha Kapugama, covered topics from identification of relevant audiences to formulation of effective communication strategies.

Workshop on communication for influence on policy and practice, Ulaanbaatar

Stemming from interactions at the IDRC PAN-all partners' conference in June 2009, Rohan Samarajiva and Helani Galpaya were invited to conduct a two-day workshop on "Communication for influence on policy and practice" on 16-17 October 2009 in Ulaanbaatar, Mongolia. The workshop was organized by the Development Research to Empower All Mongolians through Information Communications Technology (DREAM-IT) Mega Mongolia project. The workshop sought to provide training on effective communication strategies for taking research to policymakers and practitioners. Participants consisted of DREAM-IT project partners working in both government and non-government sectors.

Other capacity-building activities

Teaching

In addition to the above capacity-building efforts, senior LIRNEasia staff members are often invited to teach and supervise theses at Sri Lankan universities. Helani Galpaya is currently supervising a Master's thesis on awareness and perception of Internet security among Sri Lankan university students, at the University of Colombo.

Researcher training

While building capacity throughout the region, LIRNEasia also builds internal capacity. Training programs attended by staff included:

International program for development evaluation training 2009
Organized by the World Bank and Carleton University
8 June-3 July 2009. Ottawa, Canada

Development of evaluation capacity in ICT4D (DECI) meeting
Organized by the International Development Research Centre
11 June 2009. Penang, Malaysia

Course in social science research methodology
Organized by the Marga Institute
22 February-22 April 2010. Colombo, Sri Lanka

Internships

Aileen Agüero from the Instituto de Estudios Peruanos – Institute of Peruvian Studies (IEP)/ Diálogo Regional sobre la Sociedad de la Información (DIRSI), Pratchi Joshi from the Department of Communication and New Media of the National University of Singapore (NUS), Il-haam Petersen from the Human Science Research Council (HSRC), South Africa, and Haymar Win Tun from NUS's Lee Kwan Yew School of Public Policy completed one to six-month internships at LIRNEasia during 2009-10.

Advocacy and dissemination

Serious and systematic attention to the problem of moving research findings to policy and regulatory practice has been a signature of LIRNEasia's work. Key to our approach has been the development and implementation of project-specific communication strategies, flexibly and opportunistically. It has also sought to break out of the straitjacket of project funding, by intervening on topics whenever policy windows open.

Rapid response

Based on the idea of the teachable moment, LIRNEasia responds quickly to specific requests for advice by governments or other entities in the region. The response primarily takes the forms of (a) a written submission (e.g. to a public consultation or to media) or (b) a country visit that includes one or more presentations.

During the current period the following rapid responses were undertaken:

- Helani Galpaya of LIRNEasia with Alison Gillwald of Research ICT Africa (RIA) responded to the Bangladesh Telecommunication Regulatory Commission's (BTRC) public consultation paper on proposed significant market power (SMP) regulation. The response drew from South Africa's recent experience in using SMP determinations in regulation. Contrasting that experience with Namibia and Botswana, which do not use SMP, it was pointed out that implementing complicated market definitions or SMP determinations are often difficult, even for sophisticated and skill-endowed agencies in developed countries. Furthermore, implementing them in South Asia, given the levels of development, would be, at best, complicated and, at worst, unfeasible. Hence, it was recommended that the BTRC view with caution solutions that are taken "as-is" from developed countries, without recognizing ground realities in Bangladesh.
- LIRNEasia facilitated the publication of an article in one of Sri Lanka's leading English newspapers by Muhammed Aslam Hayat on regional experiences and concerns with mobile payments. Aslam is a legal expert currently based in Bangladesh but with extensive regional experience. The article was aimed at raising interest in mobile payments, in light of the Central Bank of Sri Lanka's indication, at the start of 2009, that it would be formulating policies addressing mobile payment solutions. Not having observed much progress on this front, LIRNEasia facilitated a contribution from Aslam, which was published in the Financial Times on 12 July 2009. The mobile payment regulations were issued just before the report went to press.
- Sometimes, the response is rapid, but it takes a little time for it to be implemented. LIRNEasia was asked several years ago by the Bhutan InfoComm and Media Authority (BICMA) for advice on how best to implement its legal mandate to ensure that media content was in line with Bhutanese culture. Knowing the miniscule size

of the regulatory agency and the difficulties of defining content standards and policing them, LIRNEasia proposed a self-regulatory model whereby associations of media suppliers (e.g., cable TV operators) would come up with the standards for their industry and ensure that the standards were adhered to; BICMA would enter the picture only when a dispute had to be resolved. We learned recently that this proposal has been implemented and is working quite well.

Media coverage

This sub-section provides a list of selected media coverage of LIRNEasia activities received over the period, organized by research area/project.

Media are an indirect and supporting means of reaching LIRNEasia's target audiences (policymakers, regulators and industry leaders). LIRNEasia had significant interactions with the media over the period. Ten press releases were issued, in addition to many interviews. Media representatives were invited to ten of LIRNEasia's dissemination events. Articles and advertisements showing research findings have also been strategically placed in local newspapers to reach target audiences.

Table 7 summarizes the media that carried LIRNEasia stories in 2009-10. For a comprehensive list of coverage from 2004 to date (including Web links, where applicable), please visit <http://lirneasia.net/about/media-coverage/>.

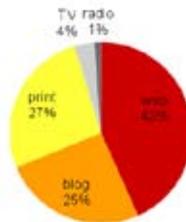


Figure 22: Coverage by media type (%), 2009-10

Teleuse@BOP3

PCs not the best vehicles for providing IT-delivered services to rural areas
Telecentre Magazine (India), 1 April 2009

The economics of chhota recharge
The Financial Express (India), 22 May 2009

Why wireless makes sense
fredericknoronha (via YouTube) (India), 14 June 2009

Higher taxes lead to lower revenue: PTA shows futility of raising mobile taxes
TeaBreak (Pakistan), 25 June 2009

Safe, comfy and chatting away - women's empowerment at PCO booths
Sindh Today (Pakistan), 28 June 2009

TV coverage of presentation of findings from the Teleuse@BOP3 migrant worker study, Dhaka, Bangladesh
ATN Bangla (via YouTube) (Bangladesh), 28 June 2009

Expat Bangladeshis spend more calling home than others: survey
bdnews24.com (Bangladesh), 28 June 2009

TV coverage of presentation of findings from the Teleuse@BOP3 migrant worker study, Dhaka, Bangladesh
Boishakhi TV (via YouTube) (Bangladesh), 28 June 2009

TV coverage of presentation of findings from the Teleuse@BOP3 migrant worker study, Dhaka, Bangladesh
Diganta TV (via YouTube) (Bangladesh), 28 June 2009

TV coverage of presentation of findings from the Teleuse@BOP3 migrant worker study, Dhaka, Bangladesh
ETV (via YouTube) (Bangladesh), 28 June 2009

Safe, comfy and chatting away: women's empowerment at PCO booths
 Inditop.com (India), 28 June 2009

Safe, comfy and chatting away: women's empowerment at PCO booths
 Jansamachar.net (India), 28 June 2009

Safe, comfy and chatting away: women's empowerment at PCO booths
 NewKerala.com (India), 28 June 2009

Safe, comfy and chatting away: women's empowerment at PCO booths
 Sify (India), 28 June 2009

Safe, comfy and chatting away: women's empowerment at PCO booths
 Sulekha.com (India), 28 June 2009

Safe, comfy and chatting away: women's empowerment at PCO booths
 WebIndia123.com (India), 28 June 2009

Safe, comfy and chatting away: women's empowerment at PCO booths
 Yahoo India (India), 28 June 2009

Safe, comfy and chatting away: women's empowerment at PCO booths
 Aussielndolanka (International), 28 June 2009

Safe, comfy and chatting away: women's empowerment at PCO booths
 Breaking News 24/7 (International), 28 June 2009

Safe, comfy and chatting away: women's empowerment at PCO booths
 Thalndian (International), 28 June 2009

Coverage of Teleuse@BOP3 migrant worker study (in Bangla)
 Amader Shomoy (Bangladesh), 29 June 2009

Coverage of Teleuse@BOP3 migrant worker study (in Bangla)
 Amar Desh (Bangladesh), 29 June 2009

Coverage of Teleuse@BOP3 migrant worker study (in Bangla)
 Banglabazar Patrika (Bangladesh), 29 June 2009

Coverage of Teleuse@BOP3 migrant worker study (in Bangla)
 Bhorer Kagoj (Bangladesh), 29 June 2009

Coverage of Teleuse@BOP3 migrant worker study (in Bangla)
 Ittefaq (Bangladesh), 29 June 2009

Coverage of Teleuse@BOP3 migrant worker study (in Bangla)
 Jajaidin (Bangladesh), 29 June 2009

Coverage of Teleuse@BOP3 migrant worker study (in Bangla)
 Jugantor (Bangladesh), 29 June 2009

Expat Bangladeshis make calls home more than others
 New Age (Bangladesh), 29 June 2009

Bangladeshis spend more calling home than others
 News Today (Bangladesh), 29 June 2009

Coverage of Teleuse@BOP3 migrant worker study (in Bangla)
 Prothom Alo (Bangladesh), 29 June 2009

Coverage of Teleuse@BOP3 migrant worker study (in Bangla)
 Shamokal (Bangladesh), 29 June 2009

Bangladeshi migrants call home more frequently: survey
 The Daily Star (Bangladesh), 29 June 2009

Calling home means a lot to Bangladeshi expat workers
 The Financial Express (Bangladesh), 29 June 2009

Public telephone booths: means to empower women
 Khaleej Times (UAE), 29 June 2009

Women's empowerment at PCO booths
 Overseas Indian (India), 29 June 2009

Safe, comfy and chatting away: women's empowerment at PCO booths
 NextBillion.net (International), 29 June 2009

Empowered by phone
 Shvoong (International), 29 June 2009

Phones outnumber radios among South Asia's poor
 The Hindu (India), 5 July 2009

Phones outnumber radios among poor in South Asia
 New Kerala (India), 5 July 2009

Phones outnumber radios among poor in South Asia
 Samachar.in (India), 5 July 2009

Phones outnumber radios among poor in India
 Silicon India (India), 5 July 2009

Phones outnumber radios among poor in South Asia
 Smashits.com (India), 5 July 2009

Phones outnumber radios among poor in South Asia
 Prokerala.com (India), 5 July 2009

Phones outnumber radios among poor in South Asia
 Thalndian (International), 5 July 2009

Phones outnumber radios among poor in South Asia
 Zillr (International), 5 July 2009

<i>Phones outnumber radios among poor in South Asia</i> Breaking News 24/7 (International), 5 July 2009	Digital Opportunity (International), 11 July 2009	<i>Coverage of Teleuse@BOP3 migrant worker study, (in Sinhala)</i> Ravaya (Sri Lanka), 2 August 2009
<i>No computers in poor Bangladeshi households</i> News Bangla (Bangladesh), 6 July 2009	<i>Only Indians make, receive missed calls: Study</i> South-South Information Gateway (International), 11 July 2009	<i>Mobile phones for inward remittances, awaiting guidelines</i> The Sunday Times (Sri Lanka), 2 August 2009
<i>No computers in poor Bangladeshi households</i> New Age (Bangladesh), 7 July 2009	<i>Only Indians make, receive missed calls</i> Telugu Dreams (India), 13 July 2009	<i>Sri Lanka: Mobile phones for inward remittances, awaiting guidelines</i> Diaspora Journey (International), 3 August 2009
<i>No computers in poor Bangladeshi households</i> Dhaka Mirror (Bangladesh), 7 July 2009	<i>Only Indians make, receive missed calls: Study</i> NAM News Network (International), 13 July 2009	<i>India's "connected" poor</i> Business Today (India), 9 August 2009
<i>I'll give you a missed call</i> Uber Desi (India), 9 July 2009	<i>Don't talk time</i> The Times of India (India), 15 July 2009	<i>TV interview with Ayesha Zainudeen on the Teleuse@BOP3 study</i> Channel One (MTV): Biz 1st (Sri Lanka), 14 August 2009
<i>Only Indians make, receive missed calls: study</i> The Times of India (India), 10 July 2009	<i>Over 100 million rural mobile subscribers in India: Opportunity for MVAS</i> Watblog (India), 15 July 2009	<i>Cellphones can shrink geographic distances</i> Zomzy Studio (International), 17 August 2009
<i>Missed facts in missed calls article</i> Techgoss (India), 10 July 2009	<i>Plain talk? Not anymore</i> Voice & Data (India), 20 July 2009	<i>When FM radio meets the mobile phone in Pakistan</i> MediaShift Idea Lab (USA), 19 August 2009
<i>Lifestyle: Only Indians make, receive missed calls - study</i> Spoonfeedin (India), 10 July 2009	<i>Radio interview with Kabir Hashim</i> Lakhanda (Sri Lanka), 24 July 2009	<i>The dream of a digital Bangladesh</i> The Daily IJ (Germany), 24 November 2009
<i>Only Indians make, receive missed calls: Study</i> Chaos, myself and the universe (via blogspot) (India), 10 July 2009	<i>Million mark: Sri Lanka Airtel says tops one million customers</i> Lanka Business Online (Sri Lanka), 28 July 2009	<i>Coverage of Helani Galpaya's presentation entitled, "Political economy of ICT in Asia" at the Symbiosis Institute of Telecom Management</i> YouTube (India), 29 November 2009
<i>Only Indians make, receive missed calls</i> Exbii (International), 10 July 2009	<i>Sri Lanka Airtel says tops one million customers</i> Lanka Business Online (Sri Lanka), 28 July 2009	<i>India: Mobiles for gender empowerment</i> IPS (International), 4 December 2009
<i>Only Indians make, receive missed calls, study</i> Bollywhat Forum (India), 10 July 2009	<i>LIRNEasia clarifies facts</i> Techgoss (India), 29 July 2009	
<i>Phones outnumber radios among South Asia's poor</i>	<i>Teleuse survey: what women want</i> Voice & Data (India), 1 August 2009	

Bottom of the pyramid expenditure patterns on mobile phone services in selected emerging Asian countries
DIRSI (Peru), 9 December 2009

Move over computer, the mobile is here
Expanding Horizons (Finland), 1 January 2010

Teleuse at the bottom of the pyramid (Part 1 of 2)
Encyclopedia.com (International), 1 January 2010

Poor people in Bangladesh own more mobile phones than the same group in India and Pakistan
Bangladesh Phone Number (Bangladesh), 2 January 2010

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Farming message: Sri Lankan farmers can gain from mobile phone services - expert
Lanka Business Online (Sri Lanka), 14 December 2009

Sri Lanka farmers get mobile phone trade service
e-agriculture (International), 23 December 2009

Dialog TradeNet: GGS in partnership
The Daily News (Sri Lanka), 24 December 2009

Dialog TradeNet: GGS in partnership set to revolutionize agri-market access
Spot.lk (Sri Lanka), 24 December 2009

Empowering farmers with data
The Nation (Sri Lanka), 27 December 2009

Benchmarking telecom sector performance

Reducing roaming rates: making South Asian regional integration real
Lanka Business Online (Sri Lanka), 7 April 2009

Broadband quality war: are you a winner or a loser?
Wireless Bangladesh (Bangladesh), 4 May 2009

Workshop on mobile broadband quality of service experience, Colombo 2009
Wireless Bangladesh (via BlogCatalog) (Bangladesh), 7 May 2009

Non-metros enjoy three times better broadband service
SiliconIndia (India), 26 May 2009

Rest of TN has better broadband quality than Chennai
The Economic Times (India), 26 May 2009

Broadband woes continue
Express Computer (India), 7 September 2009

Net users in South Asia get less value for money
The Hindu (India), 9 November 2009

Digital divide: South Asian broadband stuck in international bottleneck - study
Lanka Business Online (Sri Lanka), 9 November 2009

Developed countries getting better value from broadband
Top 10 broadband (UK), 9 November 2009

South Asia news in brief: 29 October-11 November 2009
SciDev (International), 11 November 2009

Sri Lanka's broadband shows over-advertising and under-delivery
The Sunday Times (Sri Lanka), 15 November 2009

Ideal spectrum: Sri Lanka to get high speed WiMAX connectivity - regulator
Lanka Business Online (Sri Lanka), 3 December 2009

Sri Lanka to get high speed WiMAX connectivity: Regulator
AJ's blog (via WordPress) (Sri Lanka), 3 December 2009

New Year greetings.... FX & Nat Geo Wild (comments)
Dialog TV Forum (Sri Lanka), 29 December 2009

Sri Lanka regulator checks advertised broadband speeds
Lanka Business Online (Sri Lanka), 30 December 2009

Sri Lanka regulator checks advertised broadband speeds
AJ's Blog (via WordPress) (Sri Lanka), 30 December 2009

Prerequisites for making Sri Lanka (Gampaha District) a knowledge hub
Lanka Business Online (Sri Lanka), 1 March 2010

Measuring regulatory performance

Coverage of Helani Galpaya's presentation entitled, "Political economy of ICT in Asia" at the Symbiosis Institute of Telecom Management
YouTube (India), 29 November 2009

Slow connections: Sri Lanka behind Pakistan in regulatory transparency - study
Lanka Business Online (Sri Lanka), 29 December 2009

Mobile 2.0@BOP

Notes from the ICA pre-conference
Mobile Communication (International), 24 May 2009

World Disasters Report 2009
International Red Cross (International), 1 June 2009

Early warning: cell broadcast ideal for Maldives public warning - think tank
Lanka Business Online (Sri Lanka), 17 July 2009

Mobile messages could aid early warning in the Maldives
SciDev (International), 18 August 2009

Now use mobile to get pension
The Financial Chronicle (India), 9 November 2009

Exit PC, enter mobile
The Hindu Business Line (India), 16 November 2009

Mass banking through the mobile: move over e-governance, social services are now reaching the bottom of the pyramid through cell phones
The Financial Express (India), 7 January 2010

Merge or lose out: confusion over spectrum allocation still prevails. So what would be the best model for spectrum management?
Voice & Data (India), 3 February 2010

Lack of policy prevents mobile banking model from clicking
Economic Times (India), 3 March 2010

LIRNEasia unveils report on m-money in Bangladesh
Cnews (Bangladesh), 31 March 2010

K2I

Religious events related 3R programs
Sri Lanka Girl Guides' Association (Sri Lanka), 17 June 2009

Going green
The Sunday Times (Sri Lanka), 19 July 2009

Waste composition analysis to estimate prevalence of recyclables
Environment Sri Lanka Blog (Sri Lanka), 1 February 2010

RTBP

ICTD2009 highlights new developments in technology for developing countries
Zawya.com (International), 18 April 2009

HazInfo

A lasting wave: five years after the Indian Ocean tsunami, reflections on what was lost and what was learned
Newsweek, (USA), 21 December 2009

A lasting wave: five years after the Indian Ocean tsunami, reflections on what was lost and what was learned
NAFSO-Convener's diary (Sri Lanka), 21 December 2009

Sri Lanka: financial times elaborates on spam issue raised by LIRNEasia
newSriLanka (Sri Lanka), 8 January 2010

Book: ICT infrastructure in emerging Asia: policy and regulatory roadblocks

Withdrawing from the world: ICTs and censorship

NewSriLanka (Sri Lanka), 16 January 2010

CPRsouth

Mentors for PhD in biotechnology, JMET, GATE, MTech Engineering
MentorPolis Blog (International), 21 December 2009

LIRNEasia@5

Radio interview with LIRNEasia senior staff on its research work and the LA@5 conference
Radio Canada International: Masala Canada (Canada), 28 November 2009

Evident policy: lack of evidence-based policymaking can be disastrous - Sri Lanka policy forum
Lanka Business Online (Sri Lanka), 10 December 2009

Live blogging LIRNEasia conference
Indi.ca (Sri Lanka), 10 December 2009

Sri Lanka policy forum in knowledge economy drive
AJ's blog (via WordPress) (Sri Lanka), 11 December 2009

TV interview with Rohan Samarajiva and Alison Gillwald
Channel One: Biz 1st (Sri Lanka), 11 December 2009

Knowledge drive: Sri Lanka policy forum in knowledge economy drive
Lanka Business Online (Sri Lanka), 11 December 2009

Capital question: Sri Lanka telecom CAPEX plummet amid price war - operators
Lanka Business Online (Sri Lanka), 15 December 2009

New data on mobile tariffs in Latin America
DIRSI (International), 17 December 2009

Live online
The Sunday Leader (Sri Lanka), 20 December 2009

Tigo and Dialog CEOs on the state of mobile industry
The Sunday Leader (Sri Lanka), 20 December 2009

General

Government, regulation irrelevant in telcoms
South Africa Connect (South Africa), 15 April 2009

Govt. regulation irrelevant in telecoms
ITWeb (South Africa), 15 April 2009

Sarvodaya Institute of Higher Learning
Sarvodaya (Sri Lanka), 1 May 2009

Discussing power conservation measures in AC comfort
The Sunday Times (Sri Lanka), 24 May 2009

Reconstructing Sri Lanka: top down, bottom up, or both?
new SriLanka (Sri Lanka), 15 June 2009

Daft draft: Sri Lanka govt. transport policy slammed by critics
Lanka Business Online (Sri Lanka), 24 July 2009

Domestic freight, postwar regions not given enough attention
The Island (Sri Lanka), 25 July 2009

Dr. Harsha de Silva picked for Eisenhower Fellowship
The Island (Sri Lanka), 26 July 2009

Wire drop: Sri Lanka wireline use drops
Lanka Business Online (Sri Lanka), 29 July 2009

Small is the revolution
Voice & Data (India), 27 August 2009

Sri Lanka columnist shortlisted for Bastiat online journalism prize
Lanka Business Online (Sri Lanka), 28 August 2009

South Asia mobile summit starts in city
The New Nation (Bangladesh), 22 October 2009

Bangladesh ranks low in South Asia mobile use
The Daily Star (Bangladesh), 26 October 2009

eSri Lanka: promise realized?
IFAP Information Society (International), 3 December 2009

Digital divide: Sri Lanka state ICT initiative funding not guaranteed - World Bank
Lanka Business Online (Sri Lanka), 4 December 2009

Sri Lanka's computer literacy up; UN e-government rankings down
Lanka Polity (Sri Lanka), 8 December 2009

eSri Lanka: promise realized?
newSriLanka (Sri Lanka), 20 December 2009

Sri Lanka Bangladesh population: dividend of danger?
newSriLanka (Sri Lanka), 4 January 2010

Rajapaksa's New Year SMS smacks of bias towards one candidate - experts
The Sunday Times (Sri Lanka), 17 January 2010

Mobile broadband in India
Telecomstatistics.com (International), 8 February 2010

Choices: prerequisites for making Sri Lanka a hub - telecom
Lanka Business Online (Sri Lanka), 8 February 2010

Prerequisites for making Sri Lanka a hub
AJ's blog (via WordPress) (Sri Lanka), 8 February 2010

Price-fixing by mobile telecom companies
State of Telecom Industry in Pakistan (Pakistan), 12 February 2010

Communications must contribute to economic growth, (in Sinhala)
Ravaya (Sri Lanka), 14 February 2010

ICT industry fears Internet censorship; TRC chief denies
Daily FT (Sri Lanka), 15 February 2010

Quo warranto, TRC?
Daily FT (Sri Lanka), 15 February 2010

Speechless
The Puppeteer (via WordPress) (Sri Lanka), 15 February 2010

ICTs and development: workshop at IIT, Delhi (Day 1)
Tim Unwin's blog (International), 11 March 2010

Table 7: Media that carried LIRNEasia stories, 2009-10 (ordered by frequency)

Number	Name of publisher	Country	Number	Name of publisher	Country
1	Lanka Business Online	Sri Lanka	59	Jaijaidin	Bangladesh
2	new SriLanka	Sri Lanka	60	Jansamachar.net	India
3	The Sunday Times	Sri Lanka	61	Jugantor	Bangladesh
4	AJ's blog (via WordPress)	Sri Lanka	62	Khaleej Times	UAE
5	Impact PR (via YouTube)	Bangladesh	63	Lakhanda	Sri Lanka
6	Voice & Data	India	64	Lanka Polity	Sri Lanka
7	DIRSI	International	65	MediaShift Idea Lab	USA
8	Ravaya	Sri Lanka	66	MentorPolis Blog	International
9	SiliconIndia	India	67	Mobile Communication	International
10	Breaking News 24/7	International	68	NAFSO-Convener's Diary	Sri Lanka
11	Channel One (MTV): Biz 1st	Sri Lanka	69	NAM News Network	International
12	Cnews	Bangladesh	70	News Bangla	Bangladesh
13	Daily FT	Sri Lanka	71	News Today	Bangladesh
14	e-agriculture	International	72	Newsweek	USA
15	New Age	Bangladesh	73	NextBillion.net	International
16	New Kerala	India	74	Overseas Indian	India
17	SciDev	International	75	Prokerala.com	India
18	Symbiosis Institute of Telecom Management	India	76	Prothom Alo	Bangladesh
19	Techgoss	India	77	Radio Canada International	Canada
20	Thalndian	International	78	Samachar.in	India
21	The Daily Star	Bangladesh	79	Sarvodaya	Sri Lanka
22	The Economic Times	India	80	Shamokal	Bangladesh
23	The Financial Express	India	81	Shvoong	International
24	The Hindu	India	82	Sify	India
25	The Island	Sri Lanka	83	Sindh Today	Pakistan
26	The Sunday Leader	Sri Lanka	84	Smashits.com	India
27	The Times of India	India	85	South Africa Connect	South Africa
28	Amader Shomoy	Bangladesh	86	South-South Information Gateway	International
29	Amar Desh	Bangladesh	87	Spoonfeedin	India
30	ATN Bangla	Bangladesh	88	Spot.lk	Sri Lanka
31	AussielndoLanka	International	89	Sri Lanka Girl Guides' Association	Sri Lanka
32	Banglabazar Patrika	Bangladesh	90	State of Telecom Industry in Pakistan	Pakistan
33	Bangladesh Phone Number	Bangladesh	91	Sulekha.com	India
34	bdnews24.com	Bangladesh	92	TeaBreak	Pakistan
35	Bhorer Kagaj	Bangladesh	93	Telecentre Magazine	India
36	Boishakhi TV	Bangladesh	94	Telecomstatistics.com	International
37	Bollywhat Forum	India	95	Telugu Dreams	India
38	Business Today	India	96	The Daily IJ	Germany
39	Chaos, myself and the Universe (via blogspot)	India	97	The Daily Mirror	Sri Lanka
40	Dhaka Mirror	Bangladesh	98	The Daily News	Sri Lanka
41	Dialog TV Forum	Sri Lanka	99	The Financial Chronicle	India
42	Diaspora Journey	International	100	The Financial Express	Bangladesh
43	Diganta TV	Bangladesh	101	The Hindu Business Line	India
44	Digital Opportunity	International	102	The Nation	Sri Lanka
45	Encyclopedia.com	International	103	The New Nation	Bangladesh
46	Environment Sri Lanka Blog	Sri Lanka	104	The Puppeteer (via WordPress)	Sri Lanka
47	ETV	Bangladesh	105	Tim Unwin's blog	UK
48	Exbii	International	106	Top 10 broadband	UK
49	Expanding Horizons	Finland	107	Uber Desi	India
50	Express Computer	India	108	Vinuthomas.com	India
51	fredericknoronha (via YouTube)	India	109	Watblog	India
52	IFAP Information Society	International	110	WebIndia123.com	India
53	Indi.ca	Sri Lanka	111	Wireless Bangladesh	Bangladesh
54	Inditop.com	India	112	Wireless Bangladesh (via BlogCatalog)	Bangladesh
55	International Red Cross	Switzerland	113	Yahoo India	India
56	IPS	International	114	Zawya.com	International
57	Ittefaq	Bangladesh	115	Zillr	International
58	ITWeb	South Africa	116	Zomzy Studio	International

Conferences, workshops and media events

This sub-section lists the conferences, workshops and media events that LIRNEasia research has been disseminated at over the period, through invited talks, keynotes, panel chairing and participation, inter alia; the entries are organized by research area/project.

Teleuse@BOP3

SA connect public seminar series

Organized by the Graduate School of Business, University of Cape Town
14 April 2009. Cape Town, South Africa

Connectivity and convergence: Alternative regulatory strategies for telecommunications
Organized by LIRNE.NET and the Graduate School of Business, University of Cape Town
14-17 April 2009. Cape Town, South Africa

Mobile 2.0: Beyond voice? Pre-conference of the International Communication Association (ICA)

Organized by LIRNEasia
20-21 May 2009. Chicago, USA

IDRC Pan Asia Networking (PAN)-all partners' conference

Organized by the International Development Research Centre (IDRC)
12-14 June 2009. Penang, Malaysia

3rd annual connecting rural communities Asia forum

Organized by the Commonwealth Telecommunications Organization (CTO)
3-25 June 2009. New Delhi, India

LIRNEasia dissemination event (Bangladesh): Teleuse@BOP3

Organized by LIRNEasia
28 June 2009. Dhaka, Bangladesh



LIRNEasia at IDRC PAN-all partners' conference

Photo courtesy of Suchit Nanda

In June 2009, IDRC invited participants from organizations funded by the Pan Asia Networking (PAN) program to a three-day networking meeting in Penang, Malaysia. While many activities were arranged as breakout sessions and workshops, LIRNEasia, as a "flagship project" (their words, not ours), was asked to participate in two plenary sessions. The first saw Helani Galpaya participating in the "Change talk show," an Oprah-style show complete with the audience being warmed up, opening music and commercial breaks. IDRC Director of Information and Communication Technologies for Development (ICT4D), Michael Clarke was Oprah. Helani talked about policy changes enabled by IDRC's funding of LIRNEasia in the Asia-Pacific region. The next day, Rohan Samarajiva was the proponent in "The great mobile debate", a highly entertaining verbal dual between him and Rafal Rohozinski, Principal with the SecDev Group and former Director of the Advanced Network Research Group, Cambridge Security Program (who also happened to be an old friend of Rohan's from when they were two of five Ford Foundation funded fellows at the Social Science Research Council). The resolution under debate was that "mobiles have the potential to be the most transformative ICT for developing countries".

Rohan made a data-heavy opening statement, drawing from LIRNEasia's research on mobiles and citizens at the bottom of the pyramid. Rafal upped the ante by appealing vigorously (and loudly) to emotion. However, Rohan lived up to his introduction as "Rohan 'Pit Bull' Samarajiva" by making an even more dramatic response, and, in the end, won the debate with a mixture of fact and vicious rebuttal. The winner was selected by the audience voting with their feet, moving from one side of the room to the other as the debate progressed. The YouTube videos of the debate (<http://www.youtube.com/watch?v=KQ3Xfkzr6YY> and http://www.youtube.com/watch?v=xaXjXm0k_5M) testify to the entertainment value of the debate.

TEDx Colombo

Organized by Beyond Borders
19 July 2009. Colombo, Sri Lanka

Policy coherence in the application of information and communication technologies for development

Organized by the OECD and infoDev/World Bank
10-11 September 2009. Paris, France

Asian telecom seminar

Organized by the Symbiosis Institute of Telecom Management
25-26 September 2009. Pune, India

The 37th research conference on communication, information and Internet policy

Organized by Telecom Policy Research Conference (TPRC) Secretariat
25-27 September 2009. Fairfax, USA

Mobile communication and social policy

Organized by Rutgers University
9-11 October 2009. New Brunswick, USA

Communicating for influence on policy for researchers (training)

Organized by the DREAM IT Mega Mongolia Project
16-17 October 2009. Ulaanbaatar, Mongolia

Measuring ICT access and use by households and individuals (training)

Organized by LIRNEasia and the ITU; hosted by the Ministry of Information and Communication Technology (MICT), Thailand
19-23 October 2009. Bangkok, Thailand

LIRNEasia dissemination event (India): Broadband quality of service experience (QoSE)

Organized by LIRNEasia and the Indian Institute of Technology (IIT), Madras
3 November 2009. Chennai, India

LIRNEasia dissemination event (India, Part 1): Mobile2.0@BOP

Organized by LIRNEasia
5 November 2009. New Delhi, India

Alternatives for infrastructure development and broadband access

Organized by the Secretariat of Strategic Affairs of the Presidency
16 November 2009. Brasilia, Brazil

Expanding access to the Internet and broadband for development

Organized by the OECD
16 November 2009. Sharm el Sheikh, Egypt

National symposium at the Indira Gandhi National Open University

Organized by the Indira Gandhi National Open University
20 November 2009. New Delhi, India

4th Communication Policy Research south (CPRsouth4) conference

Organized by the CPRsouth Secretariat and LIRNEasia
5-8 December 2009. Negombo, Sri Lanka

LIRNEasia@5: Research → policy → knowledge-based economies

Organized by LIRNEasia
9-11 December 2009. Colombo, Sri Lanka

Pacific telecom conference (PTC) 2010

Organized by the PTC Secretariat
17-20 January 2010. Honolulu, USA

ICTs and development: an international workshop for theory, practice and policy

Organized by the Indian Institute of Technology (IIT), Delhi
11-12 March 2010. New Delhi, India

ITU-APT annual convention on equitable communication for all

Organized by the ITU-APT Foundation of India
22 March 2010. New Delhi, India

18th convergence India

Organized by Exhibitions India Group
23-25 March 2010. New Delhi, India

The 25th European communications policy research conference (euroCPR)

Organized by the EuroCPR Secretariat
28-30 March 2010. Brussels, Belgium

AgInfo

Conference on protecting the poor in Sri Lanka in crisis and beyond

Organized by the Institute of Policy Studies and the World Bank
24 June 2009. Colombo, Sri Lanka

Joint national conference on information technology in agriculture

Organized by the University of Moratuwa and the University of Ruhuna
16 July 2009. Moratuwa, Sri Lanka

The 27th international conference of agricultural economists

Organized by the International Association of Agricultural Economists
16-22 August 2009. Beijing, China

4th Communication Policy Research south (CPRsouth4) conference

Organized by CPRsouth Secretariat and LIRNEasia
5-8 December 2009. Negombo, Sri Lanka

LIRNEasia@5: Research → policy → knowledge-based economies

Organized by LIRNEasia
9-11 December 2009. Colombo, Sri Lanka

The launch of Dialog TradeNet

Organized by Dialog Axiata PLC
23 December 2009. Colombo, Sri Lanka

Benchmarking telecom sector performance

SA connect public seminar series

Organized by the Graduate School of Business, University of Cape Town
14 April 2009. Cape Town, South Africa

Connectivity and convergence: alternative regulatory strategies for telecommunications

Organized by LIRNE.NET and the Graduate School of Business, University of Cape Town
14-17 April 2009. Cape Town, South Africa

Broadband quality war: are you a winner or a loser?

Organized by LIRNEasia and the Institution of Engineers, Sri Lanka
29 April 2009. Colombo, Sri Lanka

Mobile broadband quality of service experience (QoSE) measuring approaches

Organized by LIRNEasia
30 April 2009. Colombo, Sri Lanka

IDRC Pan Asia Networking (PAN)-all partners' conference

Organized by the International Development Research Centre (IDRC)
12-14 June 2009. Penang, Malaysia

Policy coherence in the application of information and communication technologies for development

Organized by the OECD and infoDev/World Bank
10-11 September 2009. Paris, France

Beyond broadband access: data-based information policy for a new administration

Organized by the Pennsylvania State University, Michigan State University, Rutgers University, Beijing University of Posts and Telecommunications and New America Foundation's Open Technology Initiative
22-24 September 2009. Fairfax, USA

Asian telecom seminar

Organized by the Symbiosis Institute of Telecom Management
25-26 September 2009. Pune, India

Communicating for influence on policy for researchers (training)

Organized by the DREAM IT Mega Mongolia Project
16-17 October 2009. Ulaanbaatar, Mongolia

Measuring ICT access and use by households and individuals (training)

Organized by LIRNEasia and the ITU; hosted by the Ministry of Information and Communication Technology (MICT), Thailand
19-23 October 2009. Bangkok, Thailand

How the developing world may participate in the global Internet economy: Innovation driven by competition

Much of LIRNEasia's research in 2009-10 was based on the idea that the mobile is becoming the primary device through which the BOP in emerging markets (such as the ones that LIRNEasia works in) engages with the Internet, or the tasks normally associated with the Internet such as information-retrieval, payments and remote computing. The Teleuse@BOP3 and Mobile2.0@BOP research provide evidence that this is beginning to happen.

In September 2009, Chair and CEO Rohan Samarajiva was invited to author and present a background paper for a joint workshop organized by the Organization for Economic Co-operation and Development (OECD) and the Information for Development Program (InfoDev) / World Bank on "Policy coherence in the application of information and communication technologies for development". The paper went through review within OECD and infoDev and was presented at a workshop in Paris and also at the Internet Governance Forum in Sharm el Sheikh, Egypt.

The fundamental argument of the paper is that many millions of poor people are engaging in tasks normally associated with the Internet such as information-retrieval, payments and remote computing using relatively simple mobiles. Understanding the business model that enabled impressive gains in voice connectivity as well as the beginnings of more-than-voice applications over mobiles is important not only because widespread broadband access among the poor is likely to be achieved by extending this model but because it would be the basis of coherent and efficacious policy and regulatory responses.

The final text appears in p. 75-118 of *ICTs for development: Improving policy coherence*. Paris: OECD: <http://www.oecd.org/dataoecd/39/15/44003919.pdf>.

LIRNEasia dissemination event (India): Broadband quality of service (QoSE) experience

Organized by LIRNEasia and the Indian Institute of Technology (IIT), Madras
3 November 2009. Chennai, India

Expanding access to the Internet and broadband for development

Organized by the OECD
16 November 2009. Sharm el Sheikh, Egypt

4th Communication Policy Research south (CPRsouth4) conference

Organized by the CPRsouth Secretariat and LIRNEasia
5-8 December 2009. Negombo, Sri Lanka

LIRNEasia@5: Research → policy → knowledge-based economies
Organized by LIRNEasia

9-11 December 2009. Colombo, Sri Lanka

How broad is your broadband?

Organized by LIRNEasia
13 February 2010. Colombo, Sri Lanka

ICTs and development: an international workshop for theory, practice and policy

Organized by the Indian Institute of Technology (IIT), Delhi
11-12 March 2010. New Delhi, India

18th convergence India

Organized by Exhibitions India Group
23-25 March 2010. New Delhi, India

Measuring regulatory performance
Connectivity and convergence: alternative regulatory strategies for telecommunications

Mobile 2.0: What we have learnt



LIRNEasia's key research theme for 2008-10 explored the use of mobiles for more-than-voice. This included services such as micropayments and remittances, agriculture applications and e-government services; in addition, fundamental policy and regulatory issues affecting the evolution of mobile technology along this path was also explored. Below is a snapshot of selected findings:

- Consumers demand a range of mobile content and applications. Mobile service providers would be best served by leaving the necessary innovation to applications providers, while focusing their energies on extending connectivity and on payment capabilities. In short, the app store model.
 - Even in unfavorable environments, innovative mobile-based marketplaces such as CellBazaar (Bangladesh) link buyers and sellers, providing the first step towards affordable m-commerce.
 - M-payments and the use of automated ticketing machines can address most concerns of bus owners and commuters. The main hurdles will be the drivers and conductors, who may benefit from the pilferage possible through current manual revenue collection systems.
- Using a mobile phone for the National Old Age Pension (NOAP) in Andhra Pradesh, India, eliminates two major issues: (i) logistical difficulties in making payments to the unbanked; and (ii) money leakages within the system caused by phantom beneficiaries.
 - Mobile service providers and financial institutions such as banks have an incentive to offer m-money services. However, effective steps need to be taken in addressing mental, material and skill barriers connected to accessing these services, particularly among those at the bottom of the pyramid (BOP).
 - Telecom regulators should incentivize operational efficiency and innovation by mandating spectrum-sharing and trading among service providers. This could likely lead to tariff reductions.
 - The key challenge in implementing m-agriculture applications is localization. Mobile service providers should place greater emphasis on voice-based solutions, important for reaching partial-literates.
 - Mobile number portability (MNP) may not be as useful as it appears. Multiple SIM use among the poor is likely to result in low MNP take-up at the BOP.

Organized by LIRNE.NET and the Graduate School of Business, University of Cape Town
14-17 April 2009. Cape Town, South Africa

4th International Telecommunications Society (ITS) Africa-Asia-Australasia regional conference

Organized by the ITS Secretariat
16-18 August 2009. Perth, Australia

Asian telecom seminar

Organized by the Symbiosis Institute of Telecom Management
25-26 September 2009. Pune, India

LIRNEasia dissemination event (Thailand): Telecom regulatory environment (TRE)

Organized by LIRNEasia, the Thai Media Policy Advocacy Center, Chulalongkorn University and Siam Intelligence Unit, Thailand
19 October 2009. Bangkok, Thailand

Alternatives for infrastructure development and broadband access

Organized by the Secretariat of Strategic Affairs of the Presidency
16 November 2009. Brasilia, Brazil

Mobile2.0@BOP

Mobile 2.0: beyond voice? Pre-conference of the International Communication Association (ICA)

Organized by LIRNEasia and the ICA
20-21 May 2009. Chicago, USA

Release of report on cell broadcasting for early disaster warning in the Maldives

Organized by LIRNEasia and the Communications Authority of the Maldives
15 July 2009. Male, Maldives

Policy coherence in the application of information and communication technologies for development

Organized by the OECD and infoDev/
World Bank
10-11 September 2009. Paris, France

Mobile communication and social policy

Organized by Rutgers University
9-11 October 2009. New Brunswick, USA

LIRNEasia dissemination event (Thailand):

Telecom regulatory environment (TRE)
Organized by LIRNEasia, the Thai Media Policy Center, Chulalongkorn University, and Siam Intelligence Unit, Thailand
19 October 2009. Bangkok, Thailand

2nd India disaster management congress

Organized by the National Institute of Disaster Management (NIDM)
4-6 November 2009. New Delhi, India

LIRNEasia dissemination event (India, Part 1):

Mobile2.0@BOP
Organized by LIRNEasia
5 November 2009. New Delhi, India

Expanding access to the Internet and broadband for development

Organized by the OECD
16 November 2009. Sharm el Sheikh, Egypt

Civil protection forum: towards a more resilient society

Organized by the European Commission
25-26 November 2009. Brussels, Belgium

4th Communication Policy Research south (CPRsouth4) conference

Organized by the CPRsouth secretariat and LIRNEasia
5-8 December 2009. Negombo, Sri Lanka

LIRNEasia research makes it to the US House of Representatives and Canadian Parliament

LIRNEasia's research on Universal Service Obligation (USO) policy, conducted by Senior Research Fellow, Payal Malik, and Consultant Lead Economist, Harsha de Silva, was cited in a presentation made to the US House of Representatives' House Committee on Energy and Commerce's Subcommittee on Communications, Technology, and the Internet, in March 2009. The paper, entitled, "Using competitive bidding to reform the universal service high cost fund", cited LIRNEasia's analysis of similar auctions conducted in India and other countries. LIRNEasia examined India's subsidy mechanism for expanding rural telephony through two instruments, a universal service fund and an access deficit charge. More on LIRNEasia's case study of USO policy in India is available at <http://tiny.cc/3135c>.

Similarly, LIRNEasia work on ICTs and agricultural markets in the South Asian region was included by the Canadian Minister of International Cooperation in his annual report to the Canadian Parliament on Canada's official assistance for 2008-2009. The relevant excerpt is included below.

Mobile phones connect poor farmers to small markets

IDRC-supported research led by LIRNEasia (Learning Initiatives on Reforms for Network Economies, a think-tank based in Colombo, Sri Lanka) is exploring how mobile phones and related technologies can improve the lives of the poor. LIRNEasia researchers completed an extensive study of how 10,000 poor people use information and communication technologies in Bangladesh, India, Pakistan, the Philippines, Sri Lanka, and Thailand. The research results are being applied to help farmers use mobile phones as a tool to get better prices for their produce at markets, for example. This year, the largest mobile phone operator in Sri Lanka will apply findings from the study to get market price information to farmers using text messaging, the Internet, or call centres.

Summary of the Government of Canada's Official Development Assistance Report for 2008-09, p.17.

LIRNEasia@5: Research → policy → knowledge-based economies
Organized by LIRNEasia
9-11 December 2009. Colombo, Sri Lanka

LIRNEasia dissemination event (India, Part 2): *Mobile2.0@BOP*
Organized by LIRNEasia
4-5 March 2010. New Delhi, India

ICTs and development: an international workshop for theory, practice and policy
Organized by the Indian Institute of Technology (IIT), Delhi
11-12 March 2010. New Delhi, India

LIRNEasia dissemination event (Bangladesh): *Mobile2.0@BOP*
Organized by LIRNEasia
28 March 2010. Dhaka, Bangladesh

LIRNEasia dissemination event (Thailand): *Mobile2.0@BOP*
Organized by LIRNEasia
30 March 2010. Bangkok, Thailand

K2I

LIRNEasia@5: Research → policy → knowledge-based economies

Organized by LIRNEasia

9-11 December 2009. Colombo, Sri Lanka.

International forestry and environment symposium 2009

Organized by University of Sri Jayawardenepura, Sri Lanka

18-19 December 2010. Colombo, Sri Lanka

International symposium on innovation and development

Organized by WITS University

24-26 February 2010. Johannesburg, South Africa

RTBP

Connectivity and convergence: alternative regulatory strategies for telecommunications

Organized by LIRNE.NET and the Graduate School of Business at the University of Cape Town

14-17 April 2009. Cape Town, South Africa

International conference on information and communication technologies and development (ICTD)

Organized by Carnegie Mellon University (CMU)/TechBridgeWorld

17-19 April 2009. Doha, Qatar

Introduction to T-Cube

Organized by LIRNEasia and the Sarvodaya Community Disaster Management Center, Moratuwa

21 April 2009. Moratuwa, Sri Lanka

Machine learning in support of biomedical security

Organized by the University of Colombo

23 April 2009. Colombo, Sri Lanka

eAsia

Organized by the Centre for Science, Development and Media Studies (CSDMS) and Information and Communication Tech-

Incentives, not intervention: LIRNEasia Chair and CEO at Harvard Forum II



Seated left to right: Amartya Sen, Harvard University; Michael Spence, Stanford University; Clotilde Fonseca, Omar Dengo Foundation and Yochai Benkler, Harvard University at the conclusion of Harvard Forum II

LIRNEasia Chair and CEO, Rohan Samarajiva participated in the second Harvard Forum on "Connection and human development" in September 2009, at Harvard University, USA.

Harvard Forum II was convened by Nobel Laureates Amartya Sen and Michael Spence, in collaboration with Randy Spence and the International Development Research Centre. Its aim was to bring together leading thinkers in the area of development to discuss how ICTs could contribute to poverty reduction in developing countries, both now and in the future. It was a follow-up to the Harvard Forum I held in 2003, where several needs in the ICT for development (ICT4D) area were identified (including ICT governance and regulatory reform, especially in the telecommunication sector). One of the outcomes of Harvard Forum I was the funding of organizations such as LIRNEasia that seek to remove policy and regulatory barriers to the use of ICTs. This time, the focus was on "what next?". Implicit was the question of whether such organizations need to shift their focus to applications, since the access problem has been more or less solved. One of the key takeaways was the need to concentrate on incentives, rather than on interventions.

nology Agency (ICTA)

2-4 December 2009. Colombo, Sri Lanka

Lecture on data mining and applications

Organized by the University of Peradeniya

21 December 2009. Peradeniya, Sri Lanka

7th Indian Association for Social Sciences and Health (IASSH) conference

Organized by the Banaras Hindu University

5-7 March 2010. Varanasi, UP, India

2010 international symposium on medical informatics and communications technology (ISMICT)

Organized by the ISMICT Secretariat

22-25 March 2010 Taipei, Taiwan

HazInfo

Mobile communication and social policy

Organized by Rutgers University

9-11 October 2009. New Brunswick, USA

LIRNEasia@5: Research → policy → knowledge-based economies

Organized by LIRNEasia

9-11 December 2009. Colombo, Sri Lanka

Universal service: India case study
Connectivity and convergence: alternative regulatory strategies for telecommunications

Organized by LIRNE.NET and the University of Cape Town
14-17 April 2009. Cape Town, South Africa

IDRC Pan Asia Networking (PAN)-all partners' conference

Organized by the International Development Research Centre (IDRC)
12-14 June 2009. Penang, Malaysia

CPRsouth

Development of evaluation capacity in ICT4D (DEC) meeting

Organized by the International Development Research Centre (IDRC)
11 June 2009. Penang, Malaysia

General

Sanvada on the impact of the new electricity act and regulatory challenges

Organized by the Pathfinder Foundation
13 May 2009. Colombo, Sri Lanka

The 59th annual conference of the International Communication Association (ICA)

Organized by the ICA Secretariat
21-25 May 2009. Chicago, USA

Roundtable on SAFTA: prospects and opportunities for trade in services

Organized by the SAARC Chamber of Commerce and Industry
24 June 2009. Thimphu, Bhutan

Seminar on the draft national transport policy of the Ministry of Transport

Organized by the Pathfinder Foundation and the Chartered Institute of Logistics and Transport
23 July 2009. Colombo, Sri Lanka

International conference on building a local government alliance for disaster risk reduction

Organized by the Incheon Metropolitan City and the United Nations International Strategy for Disaster Reduction Secretariat (UNISDR)

11-13 August 2009. Incheon, Korea

Harvard Forum II: ICTs, human development, growth and poverty reduction

Organized by Harvard University and the International Development Research Centre (IDRC)
23-24 September 2009. Boston, USA

Invited talk at the Center for Policy Research, India

Organized by the Center for Policy Research, India
11 March 2010. New Delhi, India

Internal meetings

Research meetings

Research proposal planning meeting for 2010-12

10 July 2009. Kukule Ganga, Sri Lanka

Small and medium enterprises (SME) survey discussion

26 November 2009. Colombo, Sri Lanka

Brainstorming meeting on mobile money

9 March 2010. Colombo Sri Lanka

Colloquia

Broadband quality war: are you a winner or a loser? Chanuka Wategama, 28 April 2009

CellBazaar, a mobile-based e-marketplace: Success factors and potential for expansion, Rohan Samarajiva, Ayesha Zainudeen and Nirmali Sivapragasam, 12 May 2009

Social influence in mobile phone adoption: evidence from the bottom of the pyramid in emerging Asia, Harsha de Silva and Nishantha Hewavithana, 13 May 2009

The future of community-based hazard information systems: insights from the Internet-sharing economy, Gordon Gow, 17 June 2009

Mobile 2.0: mobile money for the unbanked, Erwin Alampay, 30 June 2009

Mobile 2.0: an evaluation of different models for the issuance of licenses for service provision and frequencies, Payal Malik, 9 July 2009

Mobile 2.0: business models for delivering mobile value-added services - the case of BuzzCity in Thailand, Puree Sirasoonporn, 13 July 2009

Mobile 2.0: freedom of expression in mobile content: Pakistan, Hina Sarfaraz, 22 July 2009

Telecommunication regulation in m-banking, Erwin Alampay, 30 July 2009

Evaluation basics, Chanuka Wategama, 31 July 2009

Identifying conditions for delivery of successful m-government services to the bottom of the pyramid (BOP) in India, S.C. Bhatnagar, 7 August 2009

Challenges for the new millennium: demographic perspectives, Indralal De Silva, 8 September 2009

Prospects of a volunteer computing model in performance data gathering for broadband policy formulation, Chanuka Wategama and Nilusha Kapugama, 16 September 2009

Towards a knowledge-based economy: an analysis of small and medium enterprises (SMEs) in Sri Lanka, India and Bangladesh, Pratchi Joshi, 2 October 2009

Indicators to measure a knowledge-based economy, Aileen Agüero, 5 October 2009

LIRNEasia research papers on SSRN

In January 2010, over 40 LIRNEasia research papers and reports from 2004 onwards were uploaded to the Social Science Research Network (SSRN) website. Hosting the papers on SSRN has enabled LIRNEasia to extend its presence on the Web by making past and current research more accessible. The table below lists the most downloaded papers on SSRN as of 30 June 2010, and corresponding abstract view counts. LIRNEasia's paper on *Telecom Regulatory and Policy Environment in Indonesia: results and Analysis of the 2008 TRE Survey* also appeared on SSRN's top ten download list for Emerging Markets: Economics (Editor's Choice) e-Journal in May 2010.

Table 8: LIRNEasia's top 13 downloaded papers on SSRN, as at 30 June 2010

Title of paper	Author(s)	Paper downloads	Abstract views
Measuring effectiveness of telecom regulation using perception surveys	H. Galpaya and R. Samarajiva	33	89
How the developing world may participate in the global Internet economy: innovation driven by competition	R. Samarajiva	31	106
Mobile banking, mobile money and telecommunication regulations	E. Alampay	27	41
Telecom regulatory and policy environment in India: results and analysis of the 2008 TRE survey	P. Malik	26	70
Teleuse on a shoestring: poverty reduction through telecom access at the bottom of the pyramid	H. de Silva and A. Zainudeen	23	68
Social influence in mobile phone adoption: evidence from the bottom of pyramid in emerging Asia	H. de Silva, D. Ratnadiwakara and A. Zainudeen	22	53
Telecom regulatory and policy environment in Pakistan: results of the 2008 TRE survey	J. Wilson	20	76
Liberalizing the telecommunications sector: making Pakistan an information economy	J. Wilson	17	46
Telecom regulatory and policy environment in Indonesia: results and analysis of the 2008 TRE survey	C. Wattegama, J. Soehardjo and N. Kapugama	16	74
Who's got the phone? The gendered use of telephones at the bottom of the pyramid	A. Zainudeen, T. Iqbal, R. Samarajiva and D. Ratnadiwakara	14	43
Telecom regulatory and policy environment in Thailand: results and analysis of the 2008 TRE survey	D. Nikomborirak and S. Cheevasittayanon	12	37
National early warning system: Sri Lanka - a participatory concept paper for the design of an effective all-hazard public warning system	R. Samarajiva, M. Knight-John, P. Anderson and A. Zainudeen	12	45
Telecom use on a shoestring: strategic use of telecom services by the financially constrained in South Asia	A. Zainudeen, R. Samarajiva and A. Abey Suriya	12	40

Innovation systems in agriculture: Sri Lankan perspectives, Seetha I. Wickremasinghe, 6 October 2009

Mobile 2.0: mobile number portability in emerging South Asia, Tahani Iqbal, 7 October 2009

Implementing inclusive ICTs: mobile cell broadcasting for public warning and commercial use, Natasha Udu-gama, 13 October 2009

Towards a knowledge-based economy: agriculture and the ITS sector in Bangladesh, India, the Philippines and Sri Lanka - Part 2, Pratchi Joshi, 13 November 2009

Classifying universities in developing countries, Il-haam Petersen, 24 November 2009

Bottom of the pyramid expenditure patterns on mobile phone services in selected emerging Asian countries, Harsha de Silva and Aileen Agüero, 25 November, 2009

The future of the public phone: findings from a six-country Asian study on telecom use at the BOP, Nirmali Sivapragasam, 30 November 2009

Empowering market players through ICTs, Shazna Zuhyle, 3 February 2010

Green ICT: asking the right questions, Nalaka Gunawardene, 4 March 2010

Research outputs

Book chapters and journal articles

Samarajiva, R. (2009). How the developing world may participate in the global Internet economy: innovation driven by competition. In *ICTs for development improving policy coherence* (p. 75-118). Paris: OECD.

Samarajiva, R. & Iqbal, T. (2009). Banded forbearance: a new approach to price regulation in partially liberalized telecom

markets. *International Journal of Regulation and Governance*. 9(1), 19-40.

Samarajiva, R. & Waidyanatha, N. (2009). Two complementary mobile technologies for disaster warning. *Info*. 11 (2), 58-65.

Gow, G. & Waidyanatha, N. (2010). Using common alerting protocol to support a real-time bio-surveillance program in Sri Lanka and India. In T. Kass-Hout, & X. Zhang, X (Eds.), *Bio-surveillance: methods and case studies* (p. 268-288). Boca Raton, FL: Taylor & Francis.

Prashant, S. & Waidyanatha, N. (2010). User requirements towards a bio-surveillance program. In T. Kass-Hout & X. Zhang (Eds.), *Bio-surveillance: methods and case studies* (p. 240-263). Boca Raton, FL: Taylor & Francis.

Sampath, W., Waidyanatha, N., Ariyaratne, V., Ratnayake, R., Hemachandra, P., & Edirisinghe, E. (2010). Real-time bio-surveillance pilot program. *Sri Lanka Journal of Bio-Medical Informatics 2010*, 1(3), 139-154.

Waidyanatha, N. (2010). Towards a typology of integrated functional early warning systems. *International Journal of Critical Infrastructures 2010*, 6 (1), 31 – 51.

Conference proceedings

Agüero, A., & de Silva, H. (2009). Bottom of the pyramid expenditure patterns on mobile phone services in selected emerging Asian countries. *Proceedings of the 4th Communication Policy Research south (CPRsouth4) conference, Negombo, Sri Lanka*.

Alampay, E., & Bala, G. (2009). Mobile 2.0: m-money for the BOP in the Philippines. *Proceedings of the International conference on mobile communication and social policy, New Brunswick, USA*.

Dubrawski, A., Ganesan, M., Gow, G., Sabhnani, M., Waidyanatha, N., & Weerakoon, P. (2009). Real-time bio-surveillance

pilot in India and Sri Lanka. *Proceedings of eAsia 2009, Colombo, Sri Lanka*.

Dubrawski, A., Sabhnani, M., & Waidyanatha, N. (2009). T-Cube web interface for real-time bio-surveillance program in Sri Lanka. *Proceedings of the 8th International Society for Disease Surveillance (ISDS) Conference, Las Vegas, USA*.

Galpaya, H., & Samarajiva, R. (2009). Measuring effectiveness of regulation using perception surveys. *Proceedings of the 4th regional conference of the International Telecommunications Society (ITS), Perth, Australia*.

Ganesan, M., Prashant, S., Janakiraman, N., & Waidyanatha, N. (2009). Real-time bio-surveillance program: field experience from Tamil Nadu, India. *Proceedings of the 7th Indian association for social science and health (IASSH) conference, Varanasi, India*.

Kumara, W. G. A. S., Gamage, S. N., & Bandara N. J. G. J. (2009). Adaptation of different composting techniques by local government Authorities (LGAs); case of solid waste management sector in Sabaragamuwa, Central, North Central, North Western and Western Province of Sri Lanka. *Proceedings of the International forestry and environment symposium 2009: The Department of Forestry and Environment Science, University of Sri Jayawardenapura, Sri Lanka, 13*.

Kumara, W. G. A. S., De Silva, W. S. S., & Gunathilake, M. K. C. G. (2009). Waste composition analysis to estimate the prevalence of recyclables to develop a conceptual framework of waste to money in Kirulapone division, Colombo municipal area. *Proceedings of the international forestry and environment symposium 2009: The Department of Forestry and Environment Science, University of Sri Jayawardenapura, Sri Lanka, 14*.

de Silva, H., Ratnadiwakara, D., & Zainudeen, A. (2009). Social influence in mobile phone adoption: evidence from the

bottom of the pyramid in emerging Asia. *Proceedings of the Mobile 2.0: Beyond voice? Pre-conference of the International Communication Association (ICA), Chicago, USA.*

Sivapragasam, N. (2009). The future of the public phone: findings from a six-country Asian study of telecom use at the BOP. *Proceedings of the 4th Communication Policy Research south (CPRsouth4) conference, Negombo, Sri Lanka.*

Wattegama, C., & Kapugama, N. (2009). Prospects of a volunteer computing model in performance data gathering for broadband policy formulation: a case study from South Asia. *Paper presented at an Experts' workshop: Beyond broadband access: Data-based information policy for a new administration, Fairfax, USA.*

Kannan, T., Sheebha, R., Vincy, P., & Waidyanatha, N. (2010). Robustness of the mHealthSurvey MIDlet for real-time bio-surveillance, intelligent mobile computing for better medical services. *Proceedings of the 4th International symposium on medical information and communication technology (ISMICT 10), Taipei, Taiwan.*

Research papers

CKS Consulting (2009). *Teleuse@BOP3: a qualitative study.*

Bhatnagar, S. (2009). *Exploring conditions for delivery of successful m-government services to the bottom of the pyramid (BOP) in India.*

Gonsalves, T.A., & Bharadwaj, A. (2009). *Comparison of AT-Tester with other popular testers for quality of service experience (QoSE) of the Internet.*

Gow, G., & Waidyanatha, N. (2009). *Mobile phones and the challenge of sustainable early warning systems: reflections on HazInfo Sri Lanka and opportunities for future research.*

Lokanathan, S. (2009). *Telecom regulatory and policy environment in Afghanistan: results and analysis of the 2008 TRE survey.*

Safaraz, H. (2009). *Freedom of expression in mobile content: Pakistan.*

Waidyanatha, N., Kannan, T., Ryer, Sheebar, Pushpa-Marry, V., Prashant, S., Muthiah G., & Gow, G. (2009). *Challenges of operationalizing the real-time bio-surveillance program's mHealthSurvey.*

Uppal, M., & Malik, P. (2009). *An evaluation of different models for the issuance of licenses for service provision and frequencies.*

Alampay, E. (2010). *Mobile banking, mobile money and telecommunication regulations.*

Iqbal, T. (2010). *Mobile number portability in South Asia.*

Lokanathan, S., & de Silva, H. (2010). *Leveraging Mobile 2.0 in India for agricultural market access.*

Ramachander, S. (2010). *The willingness to pay for mobile telephony services among low income households in six countries of Asia.*

de Silva, H. (2010). *The need for an efficient bus and train ticket sale-and-purchase system in Sri Lanka: possibilities for a Mobile 2.0 solution.*

Sirasoontorn, P. (2010). *Economic analysis of business models for delivering mobile value-added services in Thailand.*

Sivapragasam, N., Agüero, A., & de Silva, H. (2010). *The potential for mobile remittances at the bottom of the pyramid: findings from emerging Asia.*

Udu-gama, N. (2010). *Mobile cell broadcasting for commercial use and public warning in the Maldives.*

Zainudeen, A., Samarajiva, R., & Sivapragasam, N. (2010). *CellBazaar, a mobile-based e-marketplace.*

Policy memos

LIRNEAsia (2010). *Agricultural value-added services (VAS) through Mobile 2.0.*

LIRNEAsia (2010). *Business models for delivering mobile value-added services (VAS) in developing markets.*

LIRNEAsia (2010). *CellBazaar: enabling m-commerce in Bangladesh.*

LIRNEAsia (2010). *Is mGov the way forward?*

LIRNEAsia (2010). *Policy implications of introducing mobile money (m-money) for the BOP.*

LIRNEAsia (2010). *Possibilities for bus tickets to go mobile in Sri Lanka.*

LIRNEAsia (2010). *Spectrum management: unleashing the potential of mobile technologies for the bottom of the pyramid (BOP).*

LIRNEAsia (2010). *To MNP or not: that is the question.*

News releases

LIRNEAsia (2009, June 28). *Bangladeshi overseas migrants call home more often than other Asian migrants (and pay the most); some domestic migrants use mobiles to remit money to families.*

LIRNEAsia (2009, July 15). *Peace of mind for a tourist paradise.*

LIRNEAsia (2009, November 4). *India broadband users face bottlenecks in accessing international servers.*

LIRNEAsia (2009, November 4). *India's broadband quality: serious mismatches between advertised and delivered.*

LIRNEasia (2009, November 4). *South Asians receive less value for money in broadband quality, shows study.*

LIRNEasia (2009, November 4). *Speed is not everything; broadband users in India suffer even with "fast" links.*

LIRNEasia (2010, March 28). *Mobile number portability is not for Bangladesh's poor.*

LIRNEasia (2010, March 28). *Real potential for m-money in Bangladesh is among poor.*

LIRNEasia (2010, March 30). *BuzzCity in Thailand: ideal mobile social networking model but attracting advertisers a challenge.*

LIRNEasia (2010, March 30). *Thais at the BOP and m-cash: a unique opportunity for m-commerce.*

Video

LIRNEasia (2009). *Teleuse@BOP profile: Sayar Singh.* Video available at <http://lirneasia.net/projects/2008-2010/bop-teleuse-3/teleuse3videos/>.

LIRNEasia (2009). *Teleuse@BOP profile: Judy Baltazar.* Video available at <http://lirneasia.net/projects/2008-2010/bop-teleuse-3/teleuse3videos/>.

LIRNEasia (2009). *Teleuse@BOP profile: Chamara Pahalawattage.* Video available at <http://lirneasia.net/projects/2008-2010/bop-teleuse-3/teleuse3videos/>.

LIRNEasia (2009). *Teleuse@BOP profile: Lourdes Casipit.* Video available at <http://lirneasia.net/projects/2008-2010/bop-teleuse-3/teleuse3videos/>.

LIRNEasia (2009). *Teleuse@BOP profile: Kittipong Sangsri.* Video available at <http://lirneasia.net/projects/2008-2010/bop-teleuse-3/teleuse3videos/>.

LIRNEasia (2009). *Teleuse@BOP profile: Pradip Gogoi & Purni Gogoi.* Video available at <http://lirneasia.net/projects/2008-2010/bop-teleuse-3/teleuse3videos/>.

LIRNEasia (2009). *Teleuse@BOP profile: Pradip Soledad Alvis.* Video available at <http://lirneasia.net/projects/2008-2010/bop-teleuse-3/teleuse3videos/>.

Other research output

LIRNEasia (2009). *Mobile benchmarks, South Asia, October 2009.*

LIRNEasia (2009). *Mobile benchmarks, Southeast Asia, October 2009.*

LIRNEasia (2009). *Broadband price benchmarks, emerging Asia, October 2009.*

LIRNEasia (2009). *Broadband quality of service experience (QoSE) benchmarks, emerging Asia, October 2009.*

LIRNEasia (2009). *International roaming benchmarks, South Asia, October 2009.*

LIRNEasia (2009). *International voice benchmarks, South Asia, October 2009.*

LIRNEasia (2010). *Mobile benchmarks, South Asia, February 2010.*

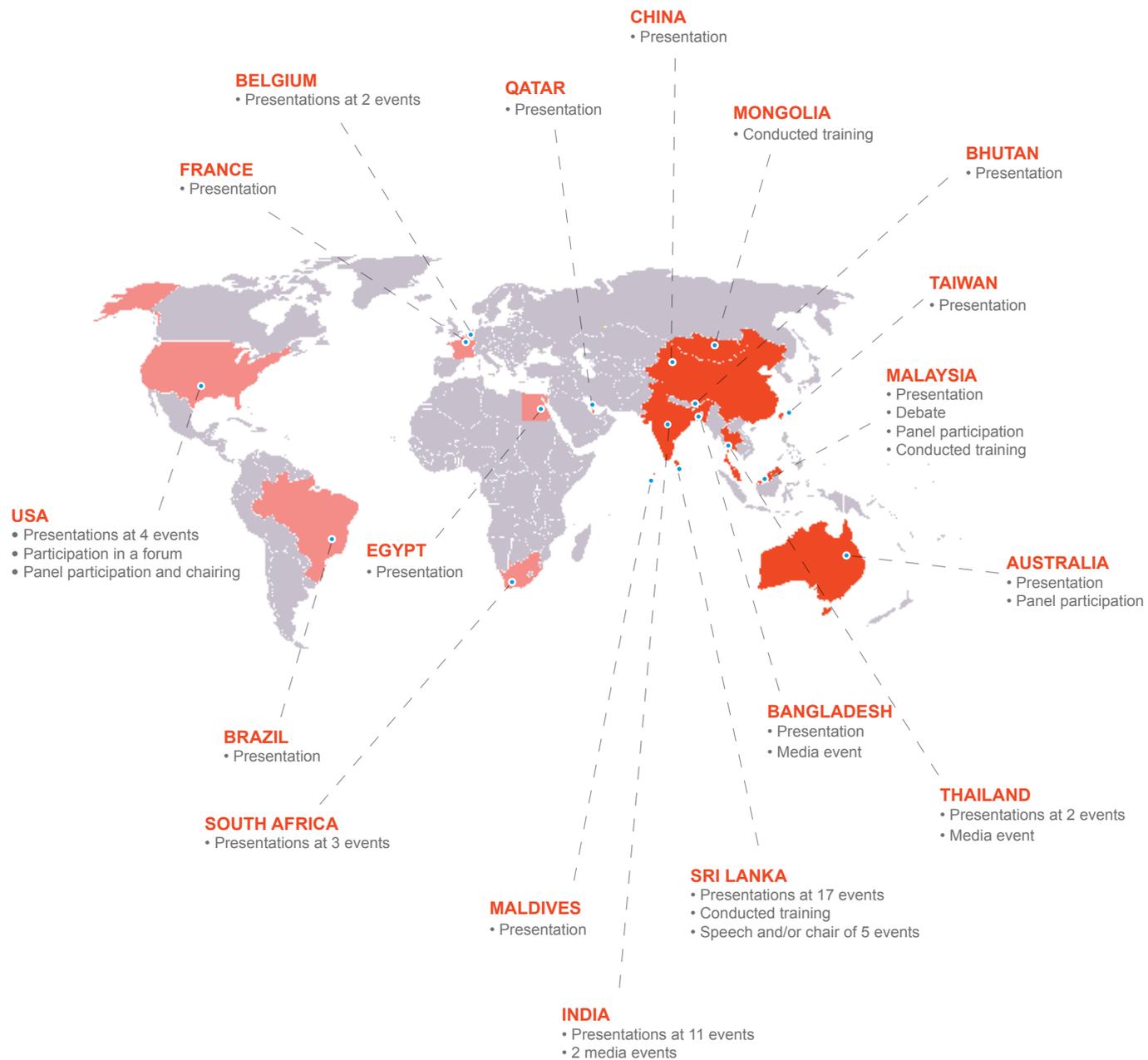
LIRNEasia (2010). *Mobile benchmarks, Southeast Asia, February 2010.*

LIRNEasia (2010). *Broadband price benchmarks, emerging Asia, February 2010.*

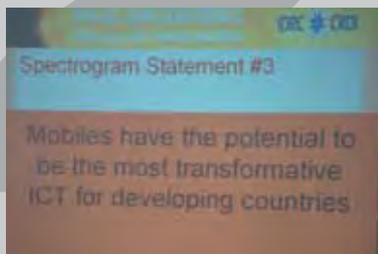
LIRNEasia (2010). *International roaming benchmarks, South Asia, February 2010.*

LIRNEasia (2010). *International voice benchmarks, South Asia, February 2010.*

Figure 23: World map of LIRNEasia-organized and invited events



received 371.34 351.55 593
necessarily **Financial statements**
profit income 472 845
682.21 021 26 25 14 938.00 171 125
less 320.73 590 schedules
administration 692.07 571 37 15
644.74 income 011.05 682.21 income year income
LKR expenses tend turnover
expenses 660.06 881
2009 377.85 315.85 13 year
cost finance 361.41 2010



Report of the auditors

To the members of LIRNEasia

Report on the financial statements

We have audited the accompanying financial statements of LIRNEasia, which comprise the balance sheet as at 31 March 2010, the income statement for the year then ended and a summary of significant accounting policies and other explanatory notes.

Management's responsibility for the financial statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Sri Lanka Accounting Standards. This responsibility includes: designing, implementing and maintaining internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error; selecting and applying appropriate accounting policies; and making accounting estimates that are reasonable in the circumstances.

Scope of audit and basis of opinion

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Sri Lanka Auditing Standards. Those standards require that we plan and perform the audit to obtain reasonable assurance whether the financial statements are free from material misstatement.

An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

We have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purposes of our audit. We therefore believe that our audit provides a reasonable basis for our opinion.

Opinion

In our opinion, so far as appears from our examination, the Association maintained proper accounting records for the year ended 31 March 2010 and the financial statements give a true and fair view of the Association's state of affairs as at 31 March 2010 and its result for the year then ended in accordance with Sri Lanka Accounting Standards.

Sgd.

Wijeyeratne & Company

CHARTERED ACCOUNTANTS

Colombo

13 September 2010

Statement of income

Year ended 31 March

	Notes	2010 LKR	2009 LKR
Turnover	5	26,125,682	14,881,938
Other Income	6	719,361	590,378
		<hr/>	<hr/>
		26,845,044	15,472,315
Administration expenses		(25,636,371)	(13,571,645)
		<hr/>	<hr/>
Profit from operations	7	1,208,672	1,900,671
Finance cost		(1,171,321)	(1,021,660)
		<hr/>	<hr/>
Profit before taxation		37,352	879,011
Taxation	8	(433,845)	(55,171)
Loss / profit after taxation		<hr/> <hr/>	<hr/> <hr/>
		(396,493)	823,840

Balance Sheet

As at 31 March

	Notes	2010 LKR	2009 LKR
Assets			
Non-current assets			
Property, plant and equipment	9	6,642,425	2,460,484
Term deposit	10	7,807,659	24,223,020
		<u>14,450,084</u>	<u>26,683,504</u>
Current assets			
Trade and other receivables		5,134,178	2,927,316
Cash and bank balances		11,066,294	43,360,474
		<u>16,200,472</u>	<u>46,287,790</u>
Total assets		<u>30,650,556</u>	<u>72,971,294</u>
Equity and liabilities			
Reserves			
Profit and loss account		100,090	496,583
		<u>100,090</u>	<u>496,583</u>
Non-current liabilities			
Projects	11	18,945,026	43,085,761
Retirement benefit obligation	12	946,711	-
		<u>19,891,737</u>	<u>43,085,761</u>
Current liabilities			
Trade and other payables		7,949,693	28,728,162
Provisions for taxation		406,603	55,171
Bank overdraft		2,302,434	605,617
		<u>10,658,729</u>	<u>29,388,950</u>
Total equity and liabilities		<u>30,650,556</u>	<u>72,971,294</u>
Signed on behalf of the board of directors:			
Directors:	Sgd.	Sgd.	
	Rohan Samarajiva	Luxman Siriwardena	
	Chair and CEO	Director	

Cash flow statement

Year ended 31 March

	2010 LKR	2009 LKR
Cash flow from operating activities		
Net profit before taxation	37,352	879,011
Adjustment for		
Depreciation	2,648,510	1,329,871
Gratuity provision	946,711	-
Profit from sale of property, plant and equipment	(67,614)	(17,350)
Cash generated from operating activities		
before working capital changes	3,564,958	2,191,532
Increase / decrease in working capital		
Trade and other receivables	(2,206,862)	(802,856)
Trade and other payables	(20,778,469)	18,226,437
Cash generated from / (used in) operating activities	(19,420,374)	19,615,113
Tax paid	(82,413)	
Cash flow from investing activities		
Purchase of property, plant and equipment	(6,851,067)	(837,215)
Purchase of investment	16,415,361	(24,223,020)
Proceeds from sale of property, plant and equipment	88,230	116,724
	(9,850,262)	(5,328,398)

Statement of changes in equity

Year ended 31 March

	Profit and loss account LKR	Total LKR
Balance as at 1 April 2008	(327,257)	(327,257)
Net profit for the year	<u>823,840</u>	<u>823,840</u>
Balance as at 1 April 2009	496,583	496,583
Net loss for the year	(396,493)	(396,493)
Balance as at 31 March 2010	<u><u>100,090</u></u>	<u><u>100,090</u></u>

Notes to the financial statements

Year ended 31 March 2010

1. **Fundamental accounting assumption and policies**

1.1 **General accounting**

The Financial Statements of the association have been prepared in accordance with generally accepted accounting principles in conformity with the Sri Lanka Accounting Standards.

2. **Assets and bases of their valuation**

2.1. **Property, plant and equipment**

Cost incurred in acquiring, improving or extending a property, plant and equipment, have been treated as capital expenditure. Property, plant and equipment have been recorded at cost.

2.2. **Depreciation**

Depreciation is to be calculated in order to write-off the cost of property, plant and equipment less than residual value on a straight-line basis over the expected useful lives of the concerned assets.

Depreciation is provided proportionately in the year of purchase and in the year of disposal of assets. The principal annual rates for depreciation has been used as given below:

Computers	25%
Furniture and fittings	25%
Equipment	25%
Vehicle	25%

2.3. **Other receivables**

Other receivables have been stated at their amounts estimated to be realized.

3. **Liabilities and provisions**

All known liabilities have been accounted for in preparing the Financial Statements.

4. **Income and expenditure**

Incomes and expenditures have been accounted on an accrual basis.

5. **Turnover**

Turnover has been defined as income receivable in respect of project management fees provided during the year.

Notes to the financial statements (cont.)

	2010 LKR	2009 LKR
Income received	26,125,682	14,881,938
6. Other income		
Profit on disposal of property, plant and equipment	67,614	17,350
Interest income	651,747	573,028
	<u>719,361</u>	<u>590,378</u>
7. Profit from operations		
The following items have been charged in arriving at operating profit.		
Audit fees	20,000	18,000
Consultancy fees	1,760,562	803,300
8. Taxation		
Provision for taxation has been made for the year computed in accordance with the Inland Revenue Act No. 10 of 2006.		
	2010	2009
Provision for taxation	406,603	-
Under provision	27,242	-
	<u>433,845</u>	<u>-</u>

Notes to the financial statements (cont.)

9. Property, plant and equipment

	Furniture and fittings	Computers	Equipment	Motor Vehicle	Total
	LKR	LKR	LKR	LKR	LKR
Cost					
As at 1 April 2009	925,315	3,118,161	1,408,940	-	5,452,416
Additions	43,167	507,900	-	6,300,000	6,851,067
Disposals	-	(376,149)	-	-	(376,149)
As at 31 March 2010	<u>968,482</u>	<u>3,249,912</u>	<u>1,408,940</u>	<u>6,300,000</u>	<u>11,927,334</u>
Accumulated depreciation					
Balance as at 1 April 2009	668,645	1,604,350	718,937	-	2,991,932
Charge for the year	177,596	717,988	369,264	1,383,662	2,648,510
Disposals	-	-	(355,533)	-	(355,533)
Balance as at 31 March 2010	<u>846,241</u>	<u>2,322,338</u>	<u>732,668</u>	<u>1,383,662</u>	<u>5,284,909</u>
Net book value					
As at 31 March 2010	122,241	927,574	676,272	4,916,338	<u>6,642,425</u>
As at 31 March 2009	256,670	1,513,811	690,003	-	<u>2,460,484</u>

Notes to the financial statements (cont.)

	2010	2009
	LKR	LKR
10. Term deposit		
Cash deposit		
HSBC Bank	7,807,659	17,367,738
NTB Bank	-	6,855,282
	<u>7,807,659</u>	<u>24,223,020</u>
11. Funds and projects		
	2010	2009
	LKR	LKR
Tsunami Memorial Fund	-	(8,926)
California / IMTFI project	581,387	-
Knowledge to Innovation project	6,006,949	(839,409)
Social Science Research Council project	-	(369,172)
Teleuse on a shoestring II project	-	27,156
Evaluating a real-time bio-surveillance project	9,296,779	997,157
Agricultural information and markets project	-	(31,668)
GGs CORE project	(227,553)	-
Action research pilot project	2,357,877	-
IDRC 2008/2010 project (Grant no. 104918-001)	(6,878,071)	39,396,559
Telenor project	7,807,659	3,637,311
ICT project	-	426,339
Pragati Foundation	-	(149,586)
	<u>18,945,026</u>	<u>43,085,761</u>
12. Provision for retiring gratuity		
Balance at the beginning of the year	-	-
Provision made during the year	946,711	-
Balance at the end of the year	<u>946,711</u>	<u>-</u>
13. Directors' interest in contract		
Professor Rohan Samarajiva who is a director of the organization received a sum of LKR 5,673,158 from LIRNEasia as consultancy fees during the year.		

Statement of income

Year ended 31 March

	Schedules	2010 LKR	2009 LKR
Turnover			
Income received		26,125,682.21	14,881,938.00
Other income	1	719,361.41	590,377.85
		<u>26,845,043.62</u>	<u>15,472,315.85</u>
Less: expenses and outgoings			
Administration expenses	2	25,636,371.34	13,571,644.74
Finance cost	3	1,171,320.73	1,021,660.06
		(26,807,692.07)	(14,593,304.80)
Profit for the year		<u><u>37,351.55</u></u>	<u><u>879,011.05</u></u>

Schedules to the statement of income

Year ended 31 March

	2010 LKR	2009 LKR
1. Other income		
Interest income	651,747.41	573,027.68
Profit on disposal of property, plant and equipment	67,614.00	17,350.17
	<u>719,361.41</u>	<u>590,377.85</u>
2. Administration expenses		
Audit fees	20,000.00	18,000.00
Consultancy and research fees	1,760,561.63	803,300.00
Courier charges	75,937.41	40,076.36
Training and educational expenses	21,535.10	51,264.94
Professional fees	713,973.04	388,202.20
Rent	672,964.77	480,146.26
Printing and stationary	1,090,593.87	844,477.00
Telephone charges (local and international)	1,204,396.15	1,119,023.49
General expenses	205,920.81	108,006.73
Water	46,297.57	55,510.80
Travelling expenses	1,021,334.75	1,516,639.26
Accounting charges	17,000.00	10,414.09
Staff welfare	754,017.86	661,868.23
Casual wages	95,433.28	73,964.54
Office maintenance	1,012,385.72	151,931.18
EPF	295,962.65	327,445.03
ETF	74,520.05	81,861.26
Salaries	2,469,903.55	2,728,703.73
Business development and improvement expenses	1,813,034.78	639,016.84
Web maintenance	360,335.31	183,905.84
Insurance	1,301,983.28	775,254.30
Newspaper / magazine, advertising	96,232.17	113,012.68

Schedules to the statement of income (cont.)

Year ended 31 March

	2010	2009
	LKR	LKR
Furniture fittings hiring and maintenance charges	761,088.80	474,123.17
Electricity	494,174.76	406,210.53
Depreciation	2,648,509.72	1,329,871.46
Subscription	50,784.57	189,414.82
Computer repairs	426,382.94	
Vehicle maintenance	361,496.21	
Gratuity provision	946,710.60	
Strategy development	2,553,300.00	
Staff development provision	2,269,600.00	
	<u>25,636,371.34</u>	<u>13,571,644.74</u>
3. Finance cost		
Interest expenses	566,367.33	497,589.50
EPF surcharges	1,009.97	7,787.02
Bank charges	281,667.57	101,307.76
Exchange loss	253,677.19	364,864.26
Debit tax	68,598.66	50,111.52
	<u>1,171,320.73</u>	<u>1,021,660.06</u>

Schedules to the balance sheet

As at 31 March

LKR

1.	Trade and other receivables - LKR 5,134,178.08	
	Deposit for cooler and bottles	19,854.56
	Rent deposit	188,098.46
	Staff and other receivables	72,744.86
	Credit card deposit	211,192.84
	Prepayment (Schedule 1.1)	3,616,564.04
	USB stock	93,021.86
	Other receivables	808,343.73
	Connect Asia	124,357.71
		<u>5,134,178.08</u>
1.1	Prepayment - LKR 3,616,564.04	
	Central Corporation service	400,448.22
	Ceylinco insurance	102,659.07
	Other prepayments	3,113,456.75
		<u>3,616,564.04</u>
2.	Bank balance - LKR 11,066,294.31	
	Cash at bank	10,899,910.91
	Cash in hand	166,383.40
		<u>11,066,294.31</u>
3.	Trade and other payables - LKR 7,949,692.59	
	Accrued expenses (Schedule 3.1)	3,372,999.08
	Direct non-related project expenses	4,576,693.51
		<u>7,949,692.59</u>
3.1.	Accrued expenses - LKR 3,372,999.08	
	Accountancy charges payable	17,000.00
	Telephone bills	102,705.26
	Water	8,356.38
	Electricity	48,868.70
	EPF, ETF and PAYE	181,621.09
	Withholding tax payable	180,288.44
	Audit fee payable	20,000.00
	Other payables	561,159.22
	Staff development provision	2,253,000.00
		<u>3,372,999.08</u>
4	Bank Overdraft - LKR 2,302,434.20	
	HSBC current account	<u>2,302,434.20</u>

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