



2011

a year in review

2012

 LIRNEasia  
[www.lirneasia.net](http://www.lirneasia.net)

## 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*

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# CEO's message



The second year of a research cycle is usually about completing projects and dissemination. The year in review, 2011-12 had those qualities, but it was different because it saw the commencement of new projects as well. Senior Policy Fellow M. Aslam Hayat braved the isolation of the South Pacific and tribulations of island hopping to lay the foundation for the Pacific ICT Regulatory Resource Center, based at the University of the South Pacific in Suva, Fiji and serving 14 countries in the Pacific region. This work is being done through a contract awarded on a competitive basis by the World Bank. Nuwan Waidyanatha also commenced work on two disaster early warning projects.

What yielded greatest satisfaction in the year ending 31 March 2012 was the traction we achieved on disseminating the findings from the agricultural supply chain. Agriculture was terra incognita in terms of knowledge of, and relationships with, decision makers and stakeholders. But in the end, we pulled it off. The Lanka Fruit and Vegetable Producers, Processors and Exporters Association organized a special event at the Ceylon Chamber of Commerce to discuss our Sri Lanka findings. We were able to build on relationships with key FAO (Food and Agriculture Organization) personnel first established in the course of work on an IDRC and IFAD (International Fund for Agricultural Development) funded program and also at an innovation-focused event in Helsinki. The results included a speaking invitation that took Senior Research Manager Sriganesh Lokanathan to a Global South-South Development Expo in Rome in December 2011 and a regional meeting of senior agricultural officials convened by the FAO in Bangkok in April 2012. The above are simply a few examples of our dissemination efforts in the agricultural space. They are no different from what we are used to doing in the ICT policy and regulation space. But the joy was that much greater because we started from almost nothing in agriculture.

On 27 April 2011, the 2<sup>nd</sup> Annual LIRNEasia Disaster Risk Reduction Lecture was delivered by Dr. Aad Correlje of the Delft University of Technology in the Netherlands. The



Pacific ICT Regulatory Resource Center, Fiji



Workshop on Mobile Technologies for Food Security, Agriculture and Rural Development organized by the FAO and the National Electronics and Computer Technology Center (NECTEC) in Bangkok  
Copyright FAO/ NECTEC

event allowed reflection on the twin floods that ravaged the North and East of the country in January 2011 and resulted in the breach of over 200 small dams. The event also commemorated the 25<sup>th</sup> anniversary of Sri Lanka's last major dam breach at Kantale. A 17 minute documentary made by Divakar Goswami in 2005 was screened. Representatives of government organizations with responsibility for dam safety participated in the discussion. The LIRNEasia CEO



LIRNEasia staff outing to Colombo North

was invited to Minneriya in the North Central Province by farmer organizations to discuss their concerns about reservoir management as a result of the event. LIRNEasia is grateful to the Netherlands Embassy in Sri Lanka for making it possible to invite a Dutch expert to deliver the Annual Lecture. LIRNEasia hopes to alternate between local and foreign speakers at its principal CSR activity.

In January 2012 we welcomed Roshanthi Lucas Gunaratne into the team. Roshanthi is a telecom engineer with an MBA from Cambridge. She worked at the Global Fund to Fight AIDS, Tuberculosis and Malaria in Geneva for several years prior to joining LIRNEasia. She was not really a stranger to us, having worked as an intern in 2010. Don Rodney Junio and Tilan Wijesooriya joined as interns. Nirmali Sivapragasam, a researcher who was actively involved in research and publication at LIRNEasia since October 2007 left LIRNEasia in May 2011 to pursue a Master's degree in public policy at the Lee Kuan Yew School of Public Policy of the National

University of Singapore. She was the third from LIRNEasia to receive a full scholarship from the LKY School.

The LIRNEasia family grew in 2011-12. Aslam Hayat and Nighat Hayat and their children Fatima and Taimoor welcomed the twins, Raihan and Burhan. Ayesha Zainudeen and Zafir Hashim and Yameena welcomed Zahra into their family and ours in September 2011. In 2011-12, we began to mark a different kind of life event when Dhanika, the son of Harsha and Deviyan de Silva, departed for Hamilton College in the US followed by classmate Thiluk, son of Prashanthi Weragoda and Thiwanika Jayakody, who commenced his studies at the Australian National University.

Rohan Samarajiva  
Chief Executive Officer

# About LIRNEasia



## LIRNEasia is a think-tank working across Asia-Pacific on regulatory and policy issues in the ICT sector and others such as agriculture and health which can benefit from ICT.

We create and disseminate independent, actionable knowledge that is gained through applied research. Our primary audiences are senior policymakers, regulators and senior executives of ICT sector firms, particularly telecom operators. 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. At the end of the 2011-12 financial year, we had 10.5 full-time equivalent (FTE) employees (eight full-time and five part-time) and four experts based in Colombo and 3 FTEs based in Suva, Fiji at the Pacific ICT Regulatory Resource Center which LIRNEasia runs on behalf of the World Bank. 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.

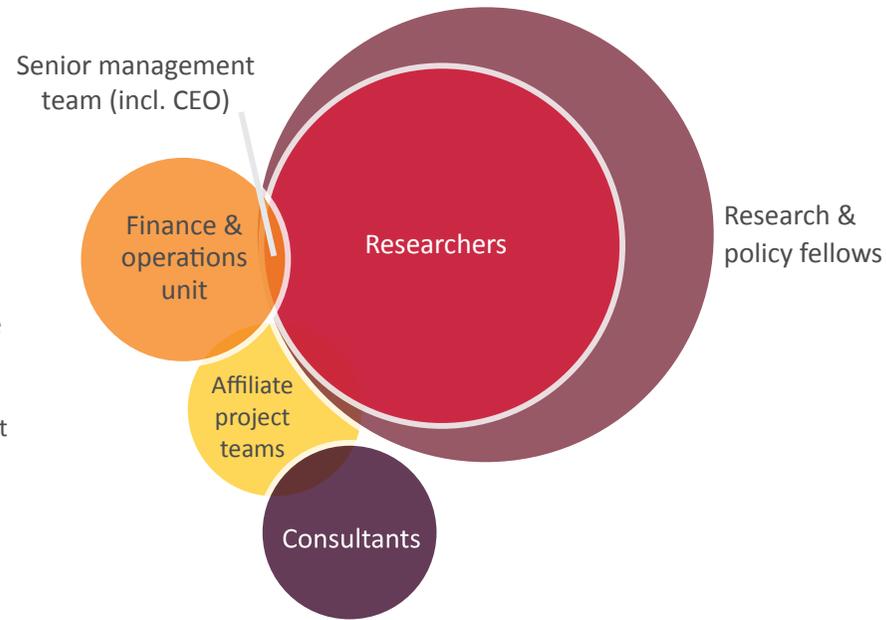


Figure 1: LIRNEasia organizational structure (March 2012)

## Board of directors



**Rohan Samarajiva, PhD (Chair)**  
Chief Executive Officer,  
LIRNEasia,  
Sri Lanka



**Milagros Rivera, PhD**  
Associate Professor, Department of  
Communications and New Media,  
National University of Singapore



**Vinya Ariyaratne,**  
**MD, MPH, MSc (Community Medicine),**  
**MD (Community Medicine)**  
General Secretary,  
Sarvodaya Shramadana Movement,  
Sri Lanka



**Mervyn de Silva,**  
**BSc, ACMA, FCA, PGDip**  
Managing Director,  
Hayleys Industrial Solutions,  
Sri Lanka



**Indrajit Coomaraswamy, PhD**  
Former Director,  
Economic Affairs Division,  
Commonwealth Secretariat



**Luxman Siriwardena, MA**  
Executive Director,  
Pathfinder Foundation,  
Sri Lanka



**Anoja J. Obeyesekere,**  
**Attorney-at-law, LL.M**  
Consultant- Executive Vice President,  
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## Scientific Advisory Council



**William H. Melody, PhD (Chair)**  
LIRNE.NET, Denmark; Center for Communication, Media and IT, Copenhagen Institute of Technology, Aalborg University, Denmark



**Johannes M. Bauer, PhD**  
Department of Telecommunication, Information Studies and Media, & Quello Center for Telecommunication Management and Law, Michigan State University, USA



**Hernan Galperin, PhD**  
DIRSI; Universidad de San Andrés, Argentina; Annenberg School for Communication, University of Southern California, USA



**Alison Gillwald, PhD**  
Research ICT Africa, South Africa; Infrastructure Management Reform and Regulation, Graduate School of Business, University of Cape Town, South Africa



**Sherille Ismail, JD**  
Federal Communications Commission, USA<sup>1</sup>



**Ashok Jhunjhunwala, PhD**  
Department of Electrical Engineering, Indian Institute of Technology, Madras, India



**K.F. Lai, PhD**  
BuzzCity, Singapore



**Robin Mansell, PhD**  
Department of Media and Communications, London School of Economics and Political Science, UK



**Partha Mukhopadhyaya, PhD**  
Centre for Policy Research, India



**Sam Paltridge, PhD**  
OECD, France



**Visoot Phongsathorn**  
Independent development professional, Thailand



**Randy Spence, PhD**  
Economic and Social Development Affiliates, Canada

<sup>1</sup> Not serving in an official capacity.

## Funding

During the year in review, LIRNEAsia's research and capacity-building programs were funded by the International Development Research Centre (IDRC), Canada, the Department for International Development (DFID), UK, the World Bank, Kubatana Trust of Zimbabwe, Humanitarian Innovation Fund, Xavier Institute of Management, India and International Labour Organization (ILO). In addition to these, LIRNEAsia has received funding from the following

sources in past years: Telenor Research and Development Centre, Malaysia, the United States Agency for International Development (USAID), the Gates Foundation through the Institute for Money, Technology and Financial Inclusion of the University of California at Irvine, infoDev, the Canadian International Development Agency (CIDA) and the ICT Agency of Sri Lanka (ICTA).

**Tahani Iqbal, Assistant Manager regulatory affairs division at a telecom company**

“The learnings and experiences during my LIRNEAsia days have had the most influence on my current occupation, my career goals, and also my personal life. It was Professor Samarajiva who encouraged me to complete my Masters in Singapore - where I met my husband. Professor Samarajiva also recommended me for my current job at Axiata Group, Malaysia.”



Relationships as treasure

## People

When King Datusena (455-473 CE) was asked where his treasure was, he pointed to the water of the Kala Weva reservoir that was built in his reign, which even today serves the people of Sri Lanka's North Central Province. If we at LIRNEasia are asked what assets we have built up over the seven years of our existence, we too cannot point to land, or buildings, or bank deposits of any magnitude. We cannot even point to water like the King did.

LIRNEasia does own some physical assets, a vehicle, the laptops, the projector, an exercise machine, and so on, but they're peanuts. Our real asset is intangible: the brand. But that is too abstract.

Brand is the aggregate of all relationships that LIRNEasia has. But even that is not specific enough. No one has a relationship with an organization, unless it is a generic customer relationship where one is just an entry in a database. Any significant relationship one has with an organization is with some human being who is part of it.

Our most valuable asset is the aggregate of the professional (and to some extent personal; all professional relationships have a personal component, but not vice versa) relationships maintained by LIRNEasians. Relationships are embodied in people.

Our real assets are the people who are part of LIRNEasia. That's what we portray on the cover of this year's Annual Report.

What do we do to build up our assets? What do we do to safeguard them?

## Hiring and retention

We can't offer lifetime employment. We can't even guarantee a job beyond two years, the average length of an anchor project. We can't compete with most private-sector salaries. So a stimulating and intellectually challenging work environment and opportunity to build your own personal brand have to be sufficient inducement. It helps that people we want to hire consider travel to exotic locations as a bonus, not a chore. Over the years, we've tried our best to be flexible –allowing researchers to move from part-time to full-time employment or vice versa based on their personal circumstances, and by allowing employees to work from home where possible, even when home is as far away as China and the United Kingdom.

We've found some brilliant people through ads in newspapers or social media sites. Some of our best people have come to us through the grapevine. Others have found us through CPRsouth, our primary capacity building vehicle, and joined us as interns.

It's not enough that the CEO or the COO is impressed. When we are serious about hiring someone, we insist on a "coffee chat." The rest of the staff take the prospective employee to coffee and all get to ask the questions they were too polite to ask during the formal interview. Input from coffee chats has swung a hiring decision more than once.

**Dimuthu Ratnadiwakara, manager at own consultancy firm**

“I had no prior experience working as a consultant. However, as part of my work, I was exposed to bidding, preparing project proposals, making presentations and report writing. I also became familiar with the management of consultancies. This knowledge has been extremely useful in my current work.”

## Review

The challenge of any organization is to ensure it meets its objectives, while also fulfilling those of its employees. Our annual review is our attempt to meet it. Researchers are evaluated in three areas: how well they contribute intellectually to the research, how well they carry out research management duties, and how well they build their personal profile and LIRNEasia's public profile.

A staff member who doesn't regularly work with the evaluatee carries out the evaluation. The evaluator must talk to the researcher's seniors, peers and juniors, and also to one or more persons outside LIRNEasia the researcher works with. Based on the gaps identified, a professional development plan is mapped out for the following year. As a small organization, we can't always implement the recommended changes, but we have moved researchers from one project to another or given them different professional challenges based on their development plans. We have also consciously invested in training people and insisted they take part in field research.

There are no routine pay raises. The grade from the annual evaluation determines the pay increase.

**Divakar Goswami, Manager strategy & operations at a consulting firm**

“Compared to LIRNEasia, I now work in a much larger, more formal, transnational organization. However, I feel the concepts we developed at LIRNEasia, particularly with relation to cross border collaboration and virtual organization structures, are still applicable to my current work.”

## LIRNEasia as a platform

With LIRNEasia being purely project-funded, it is tough to provide lifetime career paths. There was a time, early in LIRNEasia's development, when we thought of career paths in terms of graduate school. One joins LIRNEasia; works for 2-4 years; gains good experience, gets a good publication or two and builds relationships; and gets admission to a good graduate school on those strengths. We did send three of our researchers on full scholarships to the Lee Kuan Yew School of Public Policy at the National University of Singapore.

But the strategy was flawed because it only served the needs of young researchers who wanted to go to grad school, but not of others who had joined us with Masters Degrees and who did not want to go on for a PhD. They were not senior enough to mentor the junior researchers and they could not benefit from LIRNEasia's ability to prepare them for further education. The biggest flaw was that the strategy did not address the needs of the senior researchers. It imposed burdens without commensurate benefits. If you were senior enough to mentor you got extra work and no benefit other than the intrinsic rewards of mentorship.

So, we have now evolved a different approach. We now see LIRNEasia as a platform. The emphasis now is on attracting mid to senior-level researchers (i.e., those with a second degree, Masters or PhD) and providing them with opportunities to develop their personal brands whilst advancing the objectives of the organization. As they develop their profiles and relationships (measured and rewarded in the annual reviews), they will become capable of launching their own social or commercial enterprises.

If it is a commercial enterprise and LIRNEasia supports its launch, we hope to set up some mechanisms for the enterprise to give something back, thus supporting LIRNEasia's continued existence. If it is a social enterprise or a project that fits within the mission of LIRNEasia, we will provide the administrative support, eliminating the need to

engage in the onerous tasks of setting up new organizations, establishing financial systems, etc. Nuwan Waidyanatha's real-time bio-surveillance program is an example.

In this model, we do not push good research managers out because there is no room to rise. Some will, we hope, stay in the organization taking over the leadership. Others are encouraged to branch out, using LIRNEasia as their platform.

The new strategy does not mean that LIRNEasia no longer welcomes junior researchers. However, they will be recruited only in numbers that can be supported by the existing senior staff. If they wish to pursue graduate studies, all encouragement will be given. Once the degree has been obtained, they would be welcome to return as research managers.

**Natasha Udu-gama , PhD student at Macquarie University in Sydney**

“Because of my work in the HazInfo project, I became more aware of the opportunities and challenges of partnerships, in ensuring that community early warning systems are community-owned. The contact base I developed during my work at LIRNEasia has also been helpful in working further in these areas and this is what I am now focusing on for my PhD at the Macquarie University in Sydney, Australia.”

## Alumni

The cover page includes pictures of alumni: those who once worked with us, but now are doing something else. The Report also includes quotes of selected alumni. This indicates that we do not really see alumni as external to the organization: as we sometimes say, “you can never really leave LIRNEasia.”

The conceptualization of LIRNEasia as a platform naturally leads us to think of our alumni as part of our achievements. When one of our own moves on to work in government or in a company, that means leverage for our ideas and values. When projects are developed and companies started to commercialize knowledge that means our mission of catalysis is effective.

We try to maintain the relationships with alumni through the website, social events and otherwise. It's too early to start an alumni organization, but who knows? That day might come.

**Asanka Kumara, entrepreneur - manufacturing and retailing compost and exporting fresh vegetables**

“Whilst gathering information on solid-waste management techniques for the 3R project, I identified a large, unmet demand for compost in areas such as Puttalam and Kalpitiya. Therefore, I decided to start my own compost site in the Kurunegala District, to market the compost to farmers in Puttalam. So my compost manufacturing venture is a direct result of my exposure while working at LIRNEasia.”

**Chammi Gunatilake, teacher of biology and chemistry**

“Teachers do not have practical experience in conducting research and application of different research techniques. So their knowledge of research is more theoretical than practical. However, I have been able to teach the course module on Research Methodologies more effectively, as I am able to illustrate how to apply these methodologies in real life.”

**Sanchala Arangalage, Attorney-at-law, a Company Secretary and Notary Public**

“I was not qualified as a Company Secretary and had not considered this profession. It was my work at LIRNEasia that directed me towards this field.”

**Iran Fernando, Rice Project Executive**

“Due to my extensive dealings with farming communities, I am extremely adept at conducting meetings and communicating with farming communities. In addition, my contact base in the agriculture sector has been useful in many different ways.”



# Review of activities

## RESEARCH PROJECTS

### Knowledge-based economies (KBE): Inclusive agriculture

Knowledge-based economies was the thematic focus of LIRNEasia's 2010-2012 research cycle. The research concentrated on identifying the existing knowledge and information gaps in the agriculture supply chains (specifically those which are export oriented and have high potential for value addition) and how the supply chains can be made more efficient and inclusive for smallholders. Two supply chains each were studied in three countries; jute and potato in Bangladesh; mango and pomegranate in India; rubber and pineapple in Sri Lanka. In Thailand, a report was done on existing case studies that looked at the successful use of ICTs to overcome the limitations faced by smallholders.

The research showed that the agriculture sector is plagued with structural issues such as small land size which prevent farmers achieving economies of scale and that some of these issues disproportionately affect smallholders, the largest segment of growers in the countries we work in (Table 1).

One such issue identified by the study is the smallholder quality penalty (SQP). The SQP is a financial penalty on the prevailing price imposed on the smallholder by the first-handler due to the uncertainty of produce quality. This allows the first-handler to offset potential losses due to possible perception of lower quality when selling to the next handler downstream. SQP is based on perception and may be partly justified. Smallholders are often resource-constrained and are unable to make the investments necessary to ensure

quality. However, even if the smallholders are able to take the necessary steps to improve quality, the perception of inferior quality produce persists, reducing incentives to invest in the first place. This creates a vicious cycle, depressing investment by smallholders. Evidence of SQP was seen in Bangladesh, India and Sri Lanka.

The research also showed instances of the SQP being overcome through collective action, in the form of farmer societies. The farmer societies were able to control the quality of their produce by ensuring members adhered to the necessary standards and were able to gain more bargaining power, thereby allowing them to get a better price for their produce.

Apart from the above, a number of other issues were identified. Growers from Bangladesh and Sri Lanka were affected by the unavailability of good quality seed material in the jute, potato and pineapple supply chains. The need for post-harvest infrastructure such as food-irradiation facilities for mangoes and cold storage for potatoes was also highlighted in the research reports. The use of ICTs was limited in all supply chains studied except in the case of pomegranate. The study showed that ICTs are predominantly used by the medium and large scale pomegranate farmers who then pass on the information and knowledge to the smallholders.

*Project Managers: Sriganesh Lokanathan and Nilusha Kapugama*

**Table 1:** Average landholding size and percentage of smallholdings by country

	Bangladesh (2005)	India (2002)	Sri Lanka (2002)	Thailand (2003)
Average landholding size (ha)	0.6	1.3	0.83	3.2
Percentage of smallholdings of total landholdings	88.5% (≤1ha)	81.8% (≤2ha)	70.5% (≤2ha)	64.5% (≤3.2ha)

Bangladesh agricultural sample survey (2005), Indian agricultural census (2001/ 2002), Sri Lanka agricultural census (2002), Thailand agricultural census (2003)

### Sriganesh Lokanathan at FAO's Global South-South Development Expo

LIRNEasia's Senior Research Manager, Sriganesh Lokanathan, was amongst the invited speakers at an FAO panel on agriculture, food security and capacity development in Rome in December 2011. The panel session was part of the Global South-South Development Expo 2011, which was held that year at the FAO headquarters in Rome.

High-ranking officials from government and UN agencies as well as academics and practitioners participated in the Expo showcasing solutions for enhancing the capacities of developing countries in food production, agricultural technology and nutrition.

Sriganesh spoke on the role of mobiles in rural development using case studies from India and Sri Lanka. He emphasized the value of public-private partnerships rather than government-only or private-only solutions, in utilizing ICTs for rural development.



*Photograph courtesy of FAO/Giulio Napolitano*

### Seminar for the Lanka Fruit and Vegetable Producers, Processors and Exporters Association

LIRNEasia was invited by the Lanka Fruit and Vegetable Producers, Processors and Exporters Association to conduct a seminar for their members. The event, held at the Ceylon Chamber of Commerce was attended by large, medium and small scale actors of the fruit and vegetable supply chains in Sri Lanka. These included representatives from companies such as Hayleys (HJS condiments), Jagro, Nidro Supply and Serene International.

LIRNEasia presented its findings of the agriculture and knowledge-based economies research which included the role of ICTs in agriculture, need for standards and the importance of traceability for competing in export markets, the information and knowledge gaps in the Sri Lankan pineapple supply chain and the use of communities of practice for sharing information and knowledge.



The seminar provided a forum to discuss about some of the problems faced by the supply chain actors. The discussion focused on the need to reduce the quality penalty suffered by smallholder growers as well as the value of smallholders organizing themselves into farmer societies. The exporters highlighted the need for increasing the supply at acceptable quality levels and competitive prices. The importance of knowledge was recognized by all.

## Measuring ICT sector and regulatory performance: Indicators

ICT indicators reported by LIRNEasia since 2006 have proven valuable to policy makers, regulators and operators and in rapid response actions. One of our first products, mobile benchmarks, was discontinued after the International Telecommunication Union (ITU) started reporting on mobile prices as baskets (the methodology<sup>1</sup> LIRNEasia adopted from the OECD) as opposed to costs of three minute calls.

LIRNEasia continues to report the following annually:

- Broadband prices for specified retail packages including the annual cost for 100km of a 2Mbps Domestic Private Leased Circuit (DPLC)
- Broadband quality of service experience (QoSE), based on the AshokaTissa methodology which measures the following performance dimensions; upload and download speeds, round-trip time (RTT), jitter, packet loss and network availability (The methodology<sup>2</sup> was developed by LIRNEasia and IIT-Madras in the previous grant period)
- International voice tariffs (fixed and mobile) from and to South Asian Association for Regional Cooperation (SAARC) countries and to selected countries in Southeast Asia, East Asia, Australasia, Europe, North America, South America, Africa and the Middle East
- International roaming tariffs for incoming and outgoing voice (to home and visiting countries) and Short Message Service (SMS); the home country is within the SAARC and ASEAN (Association of Southeast Asian Nations) regions and the visiting countries are within regions specified above

ICT Sector Performance Reviews (SPRs) were conducted in South Asian and Southeast Asian countries. SPRs are a comprehensive evaluation of the ICT sector and include a Telecom Regulatory Environment (TRE) assessment<sup>3</sup>. The mobile-centric growth in phone access continues in all countries. However, broadband adoption is lagging. The necessity for applications that bring utility or entertainment value is therefore vital to encourage use of broadband. Apart from creating an environment conducive to mobile applications development, the key challenges in the region are still around spectrum (ensuring sufficient spectrum is made available at the right time through transparent and predictable mechanisms) and license renewal (ensuring that the numerous mobile licenses that are expiring in the next several years are renewed in a manner that creates the least uncertainty). The increasing importance of domestic and international backhaul is also highlighted in some reports.

*Project Manager: Helani Galpaya and Shazna Zuhyle*

**Nirmali Sivapragasam, postgraduate student at the Lee Kuan Yew School of Public Policy**

“I credit the many opportunities I was given at LIRNEasia to make presentations at conferences and to publish in journals, as having directly influenced my decision to apply to the Lee Kuan Yew School of Public Policy of National University of Singapore and be offered a full scholarship by it.”

<sup>1</sup> <http://lirneasia.net/wp-content/uploads/2008/07/preliminary-methodology-for-mobile-benchmarking-mar-071.pdf>

<sup>2</sup> <http://www.lirneasia.net/wp-content/uploads/2008/03/broadband-quality-test-plan1.pdf>

<sup>3</sup> Except for the Maldives, Bhutan and Afghanistan where only Sector Performance Reviews were carried out

## Shazna Zuhyle presents LIRNEasia research at the ITU World Telecom Indicators meeting

A presentation on LIRNEasia's broadband quality of service (QoSE) methodology was made at the International Telecommunication Union (ITU) World Telecom Indicators (WTI) meeting held in Mauritius, 7-9 December 2011. Measuring broadband quality across multiple countries in a comparable manner is a challenge faced by many. Regulators and policy makers are now increasingly engaging in broadband quality measures. As such it was a key topic discussed at the WTI meeting. The presentation addressed the issues a user may face while accessing the Internet and the quality indicators that can better measure the online experience. It also included LIRNEasia's test results and approaches that can be taken for such analysis. The Mauritius ICT Authority (ICTA) is interested in creating a directive on QoSE measures to be implemented by the broadband service providers of



Mauritius. LIRNEasia has been contacted in this regard and is providing guidance to ICTA. The AT Tester (the software LIRNEasia developed in collaboration with the Indian Institute of Technology Madras) is being revamped and is scheduled to be implemented by ICTA and Bhutan InfoComm & Media Authority (BICMA). The Communication Authority of Maldives (CAM) is also considering implementation.

## Assisting with organizational improvements at BICMA

In 2001, Rohan Samarajiva spent time in Bhutan helping the government lay the foundation for the telecom regulatory agency. They followed his recommendations for the most part and achieved good results. Bhutan's regulatory agency, now called Bhutan InfoComm and Media Authority (BICMA), works closely with LIRNEasia. When BICMA began planning a new building, the question of an organizational overhaul also came up. In 2010, Dilini Wijeweera spent time in Bhutan developing recommendations on organizational changes and related design parameters for the building.

As a result of her work, BICMA obtained approval to shift the proposed location to a more conducive one. The design parameters issued by BICMA were also improved. But the most difficult element was the proposals on organizational change. During the May 2011 visit by LIRNEasia to Thimphu, Dilini and Rohan spent several hours in intense discussion with all the staff at BICMA on the proposals that had been made. There is no way to tell how successful this intervention was. Unlike changing a policy, changing an organization takes time.

## Pacific ICT Regulatory Resource Centre (PIRRC)

Moves to establish a regional ICT center in the Pacific began in the mid-2000s. With interest shown by the World Bank, Ministers of ICT whose countries belong to the Pacific Islands Forum agreed in 2009 to establish a regional regulatory resource center. This came to fruition in November 2011, when the PIRRC was formally inaugurated at the main campus of the University of the South Pacific in Suva, Fiji. LIRNEasia, as a consultant for World Bank, was contracted to manage the PIRRC on the Bank's behalf. Muhammad Aslam Hayat, Senior Policy Fellow, was posted to Fiji as the PIRRC's first Director. The Center is funded by the World Bank, with some of its programs under Asian Development Bank funding. Since November 2011, Aslam has been very busy with recruiting staff for the Center. The Center's website [www.pirrc.org](http://www.pirrc.org) was launched within a month and includes pages on basic regulatory information about member countries, ICT indicators for the island countries, news, blog, roster of experts, forum and important ICT events.

Rohan Samarajiva and Aslam Hayat also led a training workshop for regulators in the Pacific who have become members of PIRRC. Topics discussed varied from the regulatory web survey, the indicators database, and key principles of regulation to challenges of broadband for small Pacific nations. The Center has issued a white paper on international best practices to handle international grey traffic. It conducted a benchmarking survey of websites of national regulatory authorities in the Pacific. It also showcased two benchmarking reports on international direct dialing and mobile roaming within Pacific island countries.

From the beginning of 2012, the PIRRC Director has been on the road, visiting some of the Pacific island countries. Such visits afforded Aslam the opportunity to meet all key stakeholders and partners, and gain a better understanding



of the ICT status of each member country. Member countries on the other hand were able to learn and understand the workings of PIRRC and how they can utilize the many services it offers.

The PIRRC's expertise has also been sought in ICT forums in Fiji and the Pacific, as well as in draft regulations and policies that required expert commentaries and critique. This was true with regard to Fiji's draft national ICT policy, and International Telecommunications Union's (ITU's) model cybercrime policy and legislation. In addition to presentations at PIRRC's training workshops, the Center has participated at several forums in Fiji, Norfolk and in all the countries the Director had visited.

*Project Director: Muhammad Aslam Hayat*

## Teleuse at the bottom of the pyramid (Teleuse@BOP4)

Teleuse at the bottom of the pyramid (BOP) is a series of demand-side studies of ICT use among the BOP. Teleuse@BOP4 builds on three previous studies. The present study seeks to understand if and how mobile phones are being used for productive purposes by the BOP, especially within the agriculture sector. The study was conducted in Bangladesh, Pakistan, India, Sri Lanka, Indonesia (Java) and Thailand using quantitative and qualitative methods. The quantitative study constituted a representative survey of telecom users among 10,154 BOP respondents. Additionally, a non-representative sample of 952 growers (smallholders) and micro entrepreneurs from the agriculture sector from India, Bangladesh, Sri Lanka and Thailand were also surveyed to complement the Teleuse@BOP4 research and the KBE

supply chain studies. Qualitative protocols including focus group discussions, mini-ethnographies and home visits were conducted among over 100 subjects to further investigate findings from the surveys.

The survey also showed that though use of mobile phones for voice are extremely high (as was the case in previous surveys), awareness of 'more-than-voice services' (MTV) in all countries continues to be poor. However awareness of entertainment related services and competition polls is relatively high, especially in Sri Lanka. Percentage of BOP using MTV however has fallen from 2008. The qualitative findings also show that convenience of use, experiential value, economic value and the relevance of information can determine uptake of MTV services.

**Table 2:** Key survey findings from Teleuse@BOP4 (2011)

	Bangladesh	Pakistan	India	Sri Lanka	Java	Thailand
<b>(% of BOP teleusers)</b>						
Used a phone in the week preceding the survey	87	89	78	94	82	96
Mobile ownership- individual	49	65	37	71	68	89
Internet use	1	2	2	10	21	21
<b>Mobile phone use (% of BOP mobile owners)</b>						
Prepaid	100	100	100	95	100	96
Postpaid	-	-	-	5	-	4
Send/ receive SMS	19	38	23	55	89	37
Take photos/video	19	7	8	14	26	19
Play games	27	21	18	11	31	16
Listen to radio	13	15	12	17	26	18
Listen to music	25	5	15	8	26	30
Multiple SIM ownership	18	9	11	17	12	11
Use phone at least once a week, for financial, business or work (% of BOP phone owners)	48	23	34	33	64	23



the main sources of information (after themselves) throughout the crop cycle. The interest in market prices only peaked at the time of harvesting and selling the produce. Similar to the representative survey, the micro entrepreneur survey data also showed that for both growers and non-growers, mobile phones were the most accessible form of ICT. Producers were interested in potential buyers and non-producers were interested in sources of

agricultural produce, indicating a need for platforms that connected buyers and sellers.

*Project Managers: Ayesha Zainudeen and Ranjula Senaratna Perera*

The results of the survey on micro entrepreneurs in the agriculture sector show that the information required by growers varies significantly at different stages of the crop cycle. Information requirements were highest in the growing and selling stages. Farmers considered other farmers as

## Nirmita Narasimhan visits Sri Lanka to discuss ICT access and inclusion for persons with disabilities



Nirmita Narasimhan, a lawyer and Program Manager at the Center for Internet and Society (CIS) in Bangalore, India visited Sri Lanka at LIRNEasia's invitation in April 2011. At the time, Nirmita was working on policy research and advocacy related to intellectual property rights reform and technology access for persons with disabilities. During her short visit

to Sri Lanka, Nirmita had meetings with the public sector (Telecom Regulatory Commission, the ICT Agency) and private companies (Jinasena Training and Rehabilitation Trust) about accessibility for people with disabilities.

Her interactions with these organizations helped her confirm the view that Sri Lankans with disabilities faced the same problems as their Indian counterparts, *"My meetings with the regulator and other agencies confirmed for me that persons with disabilities in Sri Lanka and India are facing similar problems. A severe challenge for persons with disabilities is to make policy makers and developers aware of their needs and new developments in technology so that appropriate initiatives are taken which are low cost, available in local languages, and scalable"*. In her report she also stressed the need to get the private sector involved in initiatives to increase accessibility in order to provide solutions, choice and competition.

During her short visit, Nirmita also gave a colloquium at LIRNEasia titled *"ICT access and inclusion for persons with disabilities: challenges and opportunities"*.

## 10 days in December 2011 for a digitally connected organization

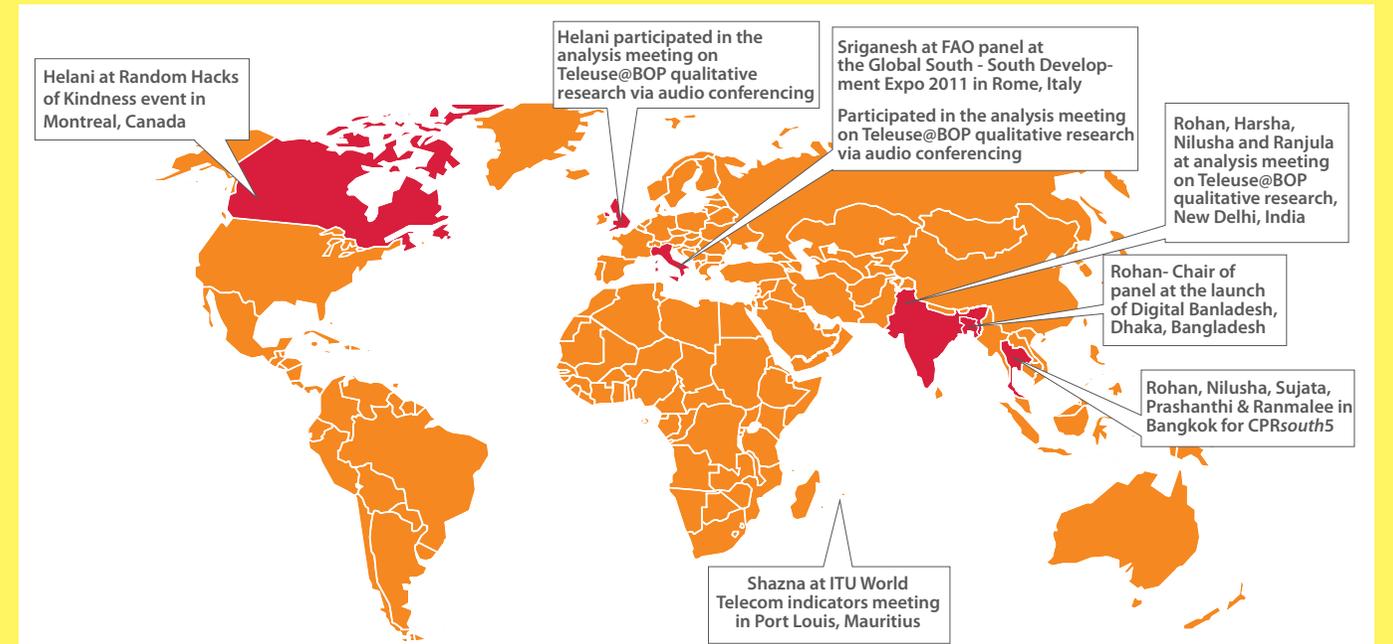
December 2011 was a busy month for LIRNEasia. The team attended six events in the first week of December. Those who could not attend in person, participated in meetings virtually.

The week started with at the launch of Digital Bangladesh where Rohan Samarajiva chaired a session on broadband access. The initiative hoped to increase ICT literacy in Bangladesh, provide government services over e-platforms and create service industry jobs for the wave of young people entering the job market.

The results of the Teleuse@BOP qualitative research were being discussed and synthesized at a workshop in New Delhi on 5-6 December. Rohan, Harsha de Silva, Nilusha Kapugama and Ranjula Senaratna Perera were present for this. Being a digitally connected organization, the spatial dispersion did not stop some of the team members from participating in events.

Helani Galpaya and Sriganesh Lokanthan, who took part in the field work, joined in through audio conferencing. Helani had just returned to London from Montreal after taking part in the Random Hacks of Kindness (RHoK) where she was in the company of 80+ software developers who had volunteered to develop ICT solutions to development problems. Sriganesh was in Rome speaking on the role of mobiles in rural development using case studies from Sri Lanka and India at a panel at the Global South-South Development Expo 2011 at the FAO headquarters in Rome.

Immediately after the Delhi workshop, Rohan and Nilusha joined Sujata, Prashanthi and Ranmalee in Bangkok for the CPRsouth5 conference. In the same week, Shazna Zuhlye was in Mauritius presenting LIRNEasia's broadband quality of service experience (QoSE) testing results at the annual ITU World Telecom Indicators meeting in Port Louis, Mauritius.





## CAPACITY-BUILDING

LIRNEasia's involvement in capacity-building comes in different forms; conducting training courses, teaching and internships

### CPRsouth

Through the Communication Policy Research south (CPRsouth) conferences, LIRNEasia aims to develop Asia-Pacific based policy intellectuals on ICT policy regulation among junior to mid-level scholars.

The sixth (CPRsouth6) conference and tutorials were held in Bangkok, Thailand from 9-10 December 2011. The event was co-organized by the faculty of Communication Arts of the Chulalongkorn University. The conference was attended by 78 participants from 23 countries where 20 research papers were presented.

Abhisit Vejjajiva, the former Prime Minister and the current leader of the opposition gave the key note speech where he spoke about the role of policy intellectuals in Thai media policy and regulation. The dinner speech was delivered

by Wangay Dorji, who spoke about his experiences as the Telecom Division Head of the Bhutan InfoComm and Media Authority (BICMA). In keeping with the conference theme "From Research to Policy", senior scholars and policy makers discussed their experiences in taking their research into the policy process and making use of research in making policies, respectively.

The CPRsouth tutorials brought together 30 young scholars from 14 countries where, over a period of two days, they received training on a range of topics including how to conduct quantitative and qualitative research and how to effectively communicate. In addition to the taught sessions, the young scholars discussed their research proposals with a senior scholar and received feedback.



### Other LIRNE.NET events

Rohan Samarajiva and Helani Galpaya were invited to lecture and review papers at the CPRAfrica conference and tutorials organized by Research ICT Africa. CPRAfrica was held from 15–19 April 2011 in Nairobi, Kenya. Rohan was also a panelist in the opening session on "Connectivity and Convergence - Regional Perspectives".

Helani was invited to lecture at the Young Scholar tutorials that preceded the annual ACORN-REDECOM conference held this time in Lima, Peru in May 2011.

### Internships

Don Rodney Junio, a senior research analyst at Technology Research Project Corporate joined LIRNEasia in December 2011 for a six month internship.

#### Why did you decide to do an internship at LIRNEasia?

LIRNEasia has a solid reputation of producing high quality research output in the field of ICT and telecom policy topics that I have a genuine interest in. When I saw LIRNEasia's call for interns posted on its website, I knew I just had to grab this opportunity.

#### What did you do during your internship?

I wrote two papers on broadband policies in Asia-Pacific; one was accepted at the Russian Summer School on Institutional Analysis 2012 and the other was accepted at the CPRsouth7 conference. I also attended a few colloquia and participated in LIRNEasia's journal club meetings.

In between reading and writing reports, I managed to squeeze in a few travels exploring Sri Lanka's beautiful countryside. All in all, it was a rewarding six month experience for me and I can't believe time quickly passed by!

#### What are your next plans?

I will rejoin Technology Research Project Corporate and continue doing research on issues surrounding the ICT and telecom policy space in Asia-Pacific.



#### How has LIRNEasia helped you in your research goals?

My experience at LIRNEasia cemented my desire to be involved in the ongoing conversations on ICT and telecom policies in Asia-Pacific especially in my country the Philippines.

## 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 of project-specific communication strategies and flexibly and opportunistically communicating to stakeholders. We have 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.

Rohan Samarajiva (Chair and CEO of LIRNEasia) responded to Government of India's request for comments on a draft

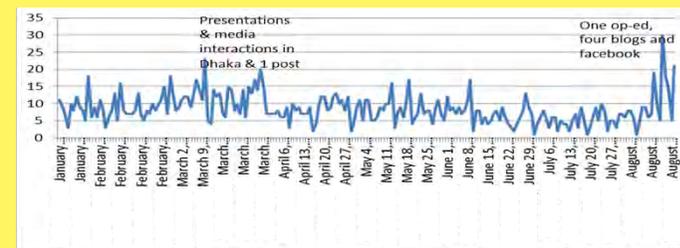
national telecommunications policy. Rohan commented on a number of issues including international backhaul, broadband and universal service obligation fund among others. More could have been said, but the response chose to focus on a few areas where the impact would be the greatest and LIRNEasia had a comparative advantage.

Harsha de Silva (Consultant Lead Economist) made a submission in response to the Bangladesh Telecommunication Regulatory Commission's (BTRC's) call for comments on a draft regulatory and licensing guidelines on renewal of mobile telecommunication services in Bangladesh in February 2011. The submission focused on a few important issues, relating to economic efficiency, transparency and good governance. LIRNEasia questioned the seemingly arbitrary justification used to set the upfront lump-sum license renewal fees. In a follow-up to this intervention Harsha and Rohan wrote op-ed pieces which were published in the Daily Star of Bangladesh in June and August 2011 respectively.

The LIRNEasia website saw an increase in visits from Dhaka, Bangladesh after the August op-ed and as a result of the blog posts on license renewal in Bangladesh.

By the end of August, the government settled on a total of BDT 75.6 billion (USD 1 billion, roughly) as fees from the four operators as spectrum charges, a 54% decline from the proposed total amount of BDT 140 billion (USD 2 billion) when

Figure 4: Visits from Dhaka, Bangladesh, to LIRNEasia website



Source: Google analytics

draft guidelines were published. The final amounts paid by the Bangladesh operators were not very different from those set by auction in Pakistan several years ago, and which were referred to in LIRNEasia interventions. The ratio between payments from largest operator and the smallest of the four up for renewal was 7:1 in December 2010; at end point it was roughly 5:1 (same license; more or less same amount of spectrum)

### Media coverage

Media are an indirect and supporting means of reaching LIRNEasia's target audiences (policymakers, regulators and industry leaders). Below is a list of *selected* media coverage of LIRNEasia activities received over the financial year, 2011-12. In total, LIRNEasia received at least 87 pieces of coverage via print, online and TV. For a comprehensive list of coverage from 2004 to date (including web links, where applicable), please visit <http://lirneasia.net/about/media-coverage/>.

*Twenty five years after Kantale: Have we learned?*  
The Daily Mirror (Sri Lanka), 6 April 2011

*Today, it is cheaper to make a call to the US than to your SAARC neighbors*  
Voice & Data (India), 20 April 2011

*BD's performance in telecom sector below average*  
The Financial express (Bangladesh), 13 May 2011

*BICMA facilities better Internet services*  
Bhutan Observer (Bhutan), 20 May 2011

*Pakistan ranked top for best regulatory regime*  
Daily Times (Pakistan), 16 July 2011

*India best in telecom tariff regulation, low on spectrum issues*  
The Economic Times (India), 17 July 2011

*Making pineapple a winning Sri Lankan export crop*  
The Sunday Times (Sri Lanka), 30 October 2011

*Need highlighted to bridge digital divide*  
Fiji Sun (Fiji), 10 November 2011

*Low call charges within each network major reason for owning multiple-SIM*  
Republica (Nepal), 13 December 2011

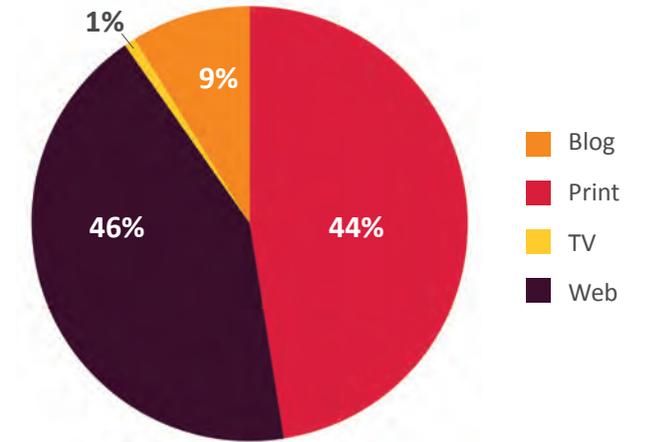


Figure 5: Coverage by media type (%), 2011-12

*Political vision a must for policy implementation*  
The Daily Star (Bangladesh), 15 December 2011

*Phones a bare essential for bottom of pyramid: Study*  
The Financial Express (Thailand), 15 December 2011

*More poor people own mobile phones, but productive use still a far cry*  
The Hindu Business Line (India), 19 December 2011

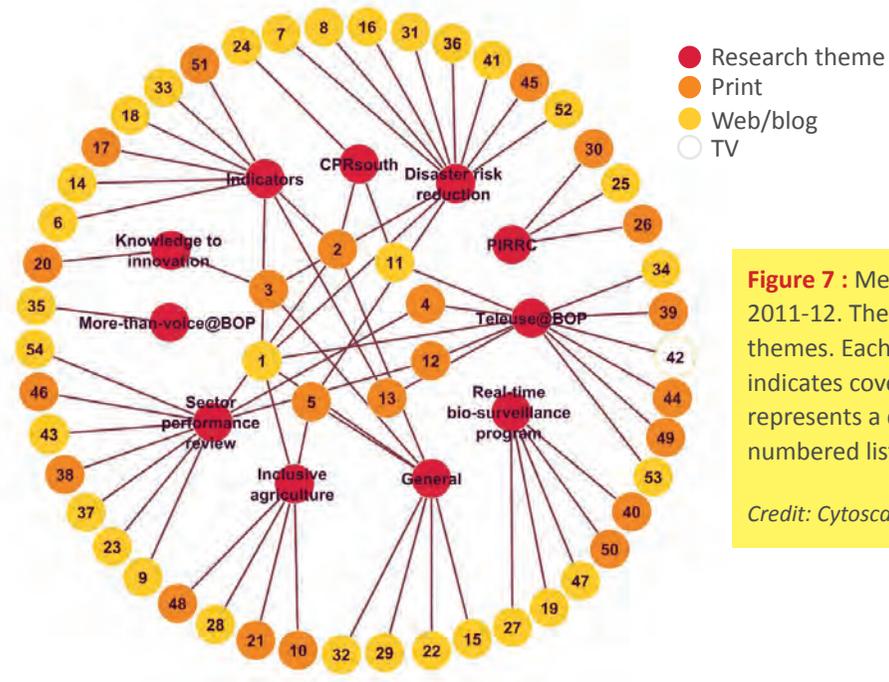
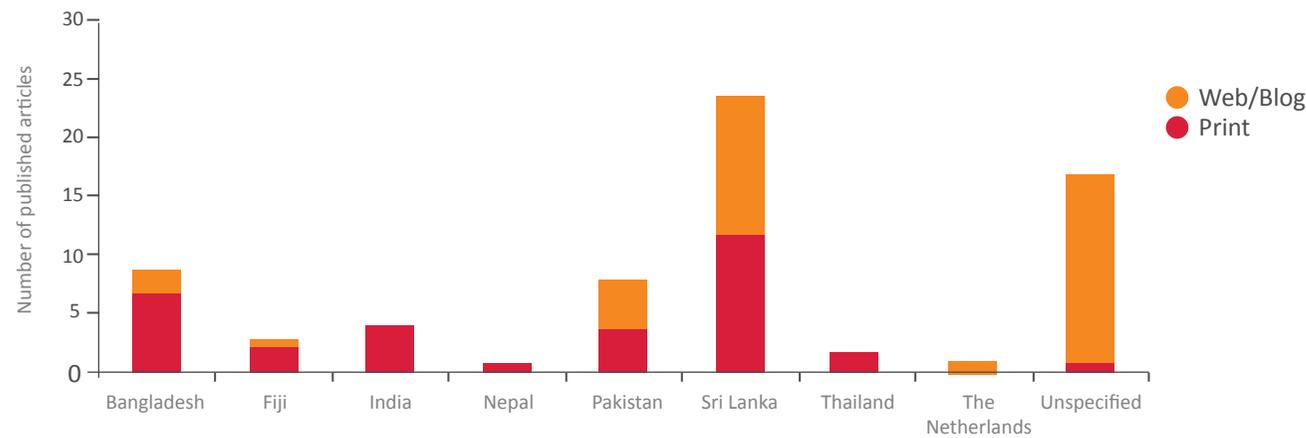
*How the poor use cell-phones*  
The Nation (Thailand), 14 January 2012

*Steps urged to control dengue*  
The News (Pakistan), 20 January 2012

*Experts call for national eHealth strategy*  
The Express Tribune (Pakistan), 22 January 2012

*Horticulture sector suffers due to poor market linkages*  
The Hindu (India), 12 March 2012

**Figure 6:** Media coverage (print and web/blog) by country, 2011-12



**Figure 7 :** Media coverage received by research theme, 2011-12. The magenta subject nodes indicate research themes. Each line extending from the subject node indicates coverage (print, web/blog and TV). Each number represents a different publication (see Table 3 for a numbered list of publishers)

Credit: Cytoscape, <http://cytoscape.org>

**Table 3:** Media that carried LIRNEasia stories, 2011-12

ID	Publication, ranked by frequency	Location
1	Lanka Business Online	Sri Lanka
2	The Daily Star	Bangladesh
3	The Sunday Leader	Sri Lanka
4	Daily Times	Pakistan
5	The Sunday Times	Sri Lanka
6	Indi.ca	Unspecified
7	Moving Images, Moving People	Sri Lanka
8	Next Generation Infrastructure	Unspecified
9	Pro Pakistani	Pakistan
10	Sunday Observer	Sri Lanka
11	Telecentre.org	Unspecified
12	The Financial Express	Thailand
13	The Nation	Sri Lanka
14	Total telecom	Unspecified
15	AlphaTrade.com	Unspecified
16	Asian Tribune	Unspecified
17	Bhutan Observer	Bhutan
18	Capacity magazine	Unspecified
19	CDAC Network	Unspecified
20	Daily Mirror	Sri Lanka
21	Daily News	Sri Lanka
22	Discount India Fares	Unspecified
23	Economist	Pakistan
24	Faculty of Communication arts, Chulalongkorn University	Thailand
25	Fiji Government Online Portal	Fiji
26	Fiji Sun	Fiji
27	Freedom Fone	Unspecified

ID	Publication	Location
28	Fresh Plaza	Unspecified
29	HiTek Magazine	Unspecified
30	ICT boost	Fiji
31	International Strategy for Disaster Reduction	Unspecified
32	IT News Online	Unspecified
33	Lanka Independent	Sri Lanka
34	newsfirst.lk	Sri Lanka
35	OpenPR	Unspecified
36	PreventionWeb	Unspecified
37	Priyo	Bangladesh
38	Ravaya	Sri Lanka
39	Republica	Nepal
40	Searchlight South Asia	Unspecified
41	Sinhale Hot News	Sri Lanka
42	Sirasa TV News First	Sri Lanka
43	Telecompaper	The Netherlands
44	The Bottom Line	Sri Lanka
45	The Daily Mirror	Sri Lanka
46	The Economic Times	India
47	The Express Tribune	Pakistan
48	The Hindu	India
49	The Hindu Business Line	India
50	The News	Pakistan
51	Voice & Data	India
52	Window to Nature	Sri Lanka
53	Wireless Catalog	Bangladesh
54	Yahoo News	Unspecified

### Workshop on actionable research from LIRNEasia: Mobile and broadband

LIRNEasia, at the invitation of the Bhutan InfoCom and Media Authority (BICMA), presented a selection of its research, relevant to Bhutan in Thimpu on 9-10 May 2011. The audience included representatives from several Ministries, the Bhutanese private sector (including telecom operators) as well as donor agencies.

LIRNEasia presented findings from its health, agriculture, disaster management and broadband quality of service experience (QoSE) research. The findings on the Broadband QoSE garnered the most interest. The results showed poor connectivity among Bhutan's Internet Service Providers (ISPs). The results initiated a discussion about the need for a national Internet exchange in Bhutan.

The health ministry officials were particularly interested in the scalability of the real-time bio-surveillance project (RTBP) which effectively used a mobile application and bio-surveillance algorithms to enable early disease detection. The economic analysis showed that the project was indeed scalable for Bhutan at a monthly cost of USD 0.025 per citizen.

The event was also used to launch the least cost frontier (LCF) tool by BICMA on their website. The tool enables the users to compare between available broadband packages from different operators and choose one that is most appropriate for them in terms of affordability and use.

## Conferences and workshops

Below is a *selected* list of conferences and workshops that LIRNEasia researchers have participated in.

### CPRAfrica conference

15-19 April 2011, Nairobi, Kenya

### Workshop on 21st Century Media: New frontiers, new barriers

3 May 2011, Colombo, Sri Lanka

### Workshop on actionable research from LIRNEasia: Mobile and broadband

9-10 May 2011, Thimphu, Bhutan

### 2011 WSIS Forum

17 May 2011, Geneva, Switzerland

### 11th APT Policy and Regulatory Forum

17-19 May 2011, Hanoi, Vietnam

### ACORN-REDECOM Conference 2011

19-20 May 2011, Lima, Peru

### CommunicAsia 2011

21-24 June 2011, Singapore

### Asia-Pacific Business Forum

26 July 2011, Bangkok, Thailand

### Future Gov Forum

20 July 2011, Colombo, Sri Lanka

### Workshop on Regulatory Framework for Emerging Telecom Environment

7 September 2011, New Delhi, India

### eAsia 2011

3 December 2011, Dhaka, Bangladesh

### Global South-South Development Expo 2011

6 December 2011, Rome, Italy

### International Telecommunication Union (ITU) World Telecom Indicators (WTI) meeting

7-9 December 2011, Port Louis, Mauritius

### LIRNEasia organized panel "Broadband Bottlenecks in Asia at the Regional International Telecommunications Society India Conference 2012

22-24 February 2012, New Delhi, India

### Fifth International Conference on Information and Communication Technologies and Development (ICTD2012)

12-15 March 2012, Atlanta, USA

## Research outputs

Below is a list of *selected* journal articles, conference proceedings and reports by LIRNEasia researchers.

Agüero, A., de Silva, H. & Kang, J. (2011). Bottom of the pyramid expenditure patterns on mobile services in selected emerging Asian countries. *Information Technology and International Development*, 7(3) Mobile Telephony Special Issue, 19-32.

de Silva, H., Ratnadiwakara, D. & Zainudeen, A. (2011). Social influence in mobile phone adoption: Evidence from the bottom of the pyramid in emerging Asia. *Information Technology and International Development*, 7(3) Mobile Telephony Special Issue, 1-18.

Galpaya, H. & Zuhyle, S. (2011). South Asian broadband service quality: Diagnosing the bottlenecks. *Proceedings of the Telecommunications Policy Research Conference, Arlington, USA.*

Kapugama, N., Lokanathan, S. & Senaratna Perera, R. (2011). Improving farmer services by understanding their information needs. *Proceedings of the 6<sup>th</sup> Communication Policy Research south conference, Bangkok, Thailand.*

Nikomborirak, D. & Pongsukcharoenkul, N. (2012). Towards a knowledge based economy: Case studies of the use of ICTs in enhancing agricultural value chains in Thailand. [http://lirneasia.net/wp-content/uploads/2010/07/thai.vc\\_.pdf](http://lirneasia.net/wp-content/uploads/2010/07/thai.vc_.pdf)

Rao, L. & Malik, P. (2011). Study of the mango and pomegranate value chain in India. [http://lirneasia.net/wp-content/uploads/2010/07/India.VC\\_.pdf](http://lirneasia.net/wp-content/uploads/2010/07/India.VC_.pdf)

Samarajiva, R. (2011). Mobile at the bottom of the pyramid: Informing policy from the demand side (Guest editor's introduction). *Information Technology and International Development*, 7(3) Mobile Telephony Special Issue, iii-vii.

Sivapragasam, N., Agüero, A. & de Silva, H. (2011). The potential of mobile remittances for the bottom of the

pyramid: Findings from emerging Asia", *info*, 13 (3), 91 – 109.

Sivapragasam, N. & Kang, J. (2011). The future of the public payphone: Findings from a study on telecom use at the bottom of the pyramid in South and Southeast Asia. *Information Technology and International Development*, 7(3) Mobile Telephony Special Issue, 33-44.

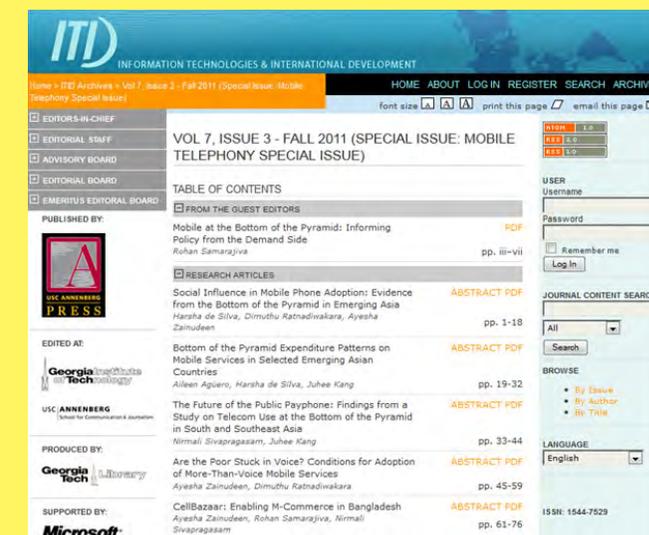
Zainudeen, A. & Ratnadiwakara, D. (2011). Are the poor stuck in voice? Conditions for adoption of more-than-voice mobile services. *Information Technology and International Development*, 7(3) Mobile Telephony Special Issue, 45-59.

Zainudeen, A., Samarajiva, R. & Sivapragasam, N. (2011). CellBazaar: Enabling m-Commerce in Bangladesh. *Information Technology and International Development*, 7(3) Mobile Telephony Special Issue, 61-76.

Zuhyle, S. & Gamage, R. (2011). International voice tariffs: Disparities and recommendations for convergence in South Asia. *Proceedings of the ACORN- REDECOM conference, Peru.*

## Special ITID issue presenting Teleuse@BOP findings

Although LIRNEasia's Teleuse@BOP demand-side survey results have gained much media attention and have been communicated to policy makers, not a lot of effort was put into scholarly publication, other than in our 2008 book and a few academic publications. However in 2011, an entire issue was devoted to analyses of Teleuse@BOP in the leading journal in the ICT for development (ICT4D) field, *Information Technology and International Development*. All the papers went through peer review. Past and present interns, as well as LIRNEasia alumni worked with LIRNEasia researchers to complete the analysis. LIRNEasia was very pleased to be able to work with ITID on this project since it allowed the combination of open access and rigorous peer review.



# Financial statements



## 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 2012, and 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 2012 and the financial statements give a true and fair view of the Association's state of affairs as at 31 March 2012 and its result for the year then ended in accordance with Sri Lanka Accounting Standards.

Sgd.

*Wijeyeratne & Company*  
CHARTERED ACCOUNTANTS  
Colombo  
10 July 2012

## Statement of income | Year ended 31 March 2012

	Notes	2012 LKR	2011 LKR
<b>Turnover</b>	5	19,358,570	19,539,658
Other income	6	180,014	89,862
		<hr/>	<hr/>
		19,538,584	19,629,520
Administration expenses		(17,582,497)	(18,689,275)
		<hr/>	<hr/>
<b>Profit from operations</b>	7	1,956,086	940,245
Finance cost		(816,697)	(905,648)
		<hr/>	<hr/>
<b>Profit before taxation</b>		1,139,389	34,597
Taxation	8	(369,348)	(250,087)
		<hr/>	<hr/>
<b>Profit/(loss) after taxation</b>		<u>770,041</u>	<u>(215,490)</u>

## Balance sheet | as at 31 March 2012

	Notes	2012 LKR	2011 LKR
<b>Assets</b>			
<b>Non-current assets</b>			
Property, plant and equipment	9	2,820,229	4,709,122
Term deposit	10	4,143,109	
		<u>6,963,338</u>	<u>4,709,122</u>
<b>Current assets</b>			
Trade and other receivables		4,327,946	4,184,053
Bank balances		33,160,170	39,154,539
		<u>37,488,116</u>	<u>43,338,592</u>
<b>Total assets</b>		<b>44,451,454</b>	<b>48,047,714</b>
<b>Equity and liabilities</b>			
<b>Reserves</b>			
Profit and loss account		761,280	(8,761)
		<u>761,280</u>	<u>(8,761)</u>
<b>Non-current liabilities</b>			
Projects	11	20,410,448	38,129,050
Retirement benefit obligation	12	1,687,260	1,250,851
		<u>22,097,708</u>	<u>39,379,901</u>
<b>Current liabilities</b>			
Trade and other payables		20,916,454	8,011,774
Provisions for taxation		369,348	250,087
Bank overdraft		306,664	414,713
		<u>21,592,466</u>	<u>8,676,575</u>
<b>Total equity and liabilities</b>		<b>44,451,454</b>	<b>48,047,714</b>
Signed on behalf of the board of directors			
<b>Directors:</b>		Sgd. <b>Rohan Samarajiva</b> Chair and CEO	Sgd. <b>Luxman Siriwardena</b> Director

## Cash flow statement | Year ended 31 March 2012

	2012 LKR	2011 LKR
<b>Cash flow from operating activities</b>		
Net profit before taxation	1,139,389	34,597
<b>Adjustment for</b>		
Depreciation	2,302,615	2,674,112
Gratuity provision	436,409	304,140
Profit from sale of property plant and equipment	(20,872)	(72,755)
Cash generated from operating activities before working capital changes	<u>3,857,541</u>	<u>2,940,094</u>
<b>Increase/decrease in working capital</b>		
Trade and other receivables	(143,893)	1,056,762
Trade and other payables	11,794,173	62,081
Cash generated from / (used in) operating activities	15,507,821	4,058,937
Tax paid	(250,087)	(406,603)
<b>Cash flow from investing activities</b>		
Purchase of property, plant and equipment	(458,320)	(775,324)
Purchase of investment	(4,143,109)	7,807,659
Proceeds from sale of property, plant and equipment	65,470	107,271
	<u>10,721,775</u>	<u>10,791,940</u>
<b>Cash flow from financing activities</b>		
Funds received from project	(16,608,096)	19,184,025
Net (decrease) / increase in cash and cash equivalents	(5,886,321)	29,975,965
Cash and cash equivalents at the beginning of the year	<u>38,739,826</u>	<u>8,763,861</u>
Cash and cash equivalents at the end of the year (Note A)	32,853,506	38,739,826

**Note A**

Cash and cash equivalents at the end of the year

Bank and cash balance

Bankoverdraft

33,160,170

(306,664)

39,154,539

(414,713)

32,853,50638,739,826**Statement of changes in equity | Year ended 31 March 2012**

	Profit and loss account	Total
	LKR	LKR
Balance as at 1 April 2010	206,729	206,729
Net loss for the year	(215,490)	(215,490)
Balance as at 1 April 2011	(8,761)	(8,761)
Net profit for the year	770,041	770,041
Balance as at 31 March 2012	<u>761,280</u>	<u>761,280</u>

**Notes to the financial statements | Year ended 31 March 2012****1. Fundamental accounting assumption and policies****General accounting**

The Financial statements of the association have been prepared in accordance with generally accepted accounting principles 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 their residual value on straight line basis over the expected useful lives of the concerned assets.

Depreciation is provided proportionality 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 33.33%

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 accrual basis.

**5. Turnover**

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

	2012 LKR	2011 LKR
Income received	19,358,570	19,539,658

	2012 LKR	2011 LKR
<b>6. Other income</b>		
Profit on disposal of property, plant & equipment	20,872	72,755
Interest income	17,371	17,107
Other income	<u>141,771</u>	<u>          </u>
	<u>180,014</u>	<u>89,862</u>
<b>7. Profit from Operations</b>		
The following items have been charged in arriving at operating profit.		
Audit Fees	25,000	22,000
Consultancy Fees	2,279,643	2,336,486
<b>8. TAXATION</b>		
Provision for taxation has been made for the year computed in accordance with the Inland Revenue Act No. 10 of 2006		
Provision for taxation	369,348	239,534
Under provision	<u>          </u>	<u>10,553</u>
	<u><u>369,348</u></u>	<u><u>250,087</u></u>

<b>9. Property, plant and equipment</b>					
	Furniture and fittings	Computers	Equipment	Motor vehicle	Total
	LKR	LKR	LKR	LKR	LKR
<b>Cost</b>					
As at 1 April 2011	1,248,816	3,288,153	1,417,250	6,300,000	12,254,219
Additions		361,900	96,420		458,320
Disposals		(1,077,251)			(1,077,251)
As at 31 March 2012	<u>1,248,816</u>	<u>2,572,802</u>	<u>1,513,670</u>	<u>6,300,000</u>	<u>11,635,288</u>
<b>Accumulated depreciation</b>					
Balance as at 1 April 2011	786,894	2,852,102	951,332	2,954,769	7,545,097
Charge for the year	153,838	446,647	127,130	1,575,000	2,302,615
Disposals		(1,032,653)			(1,032,653)
Balance as at 31 March 2012	<u>940,732</u>	<u>2,266,096</u>	<u>1,078,462</u>	<u>4,529,769</u>	<u>8,815,059</u>
<b>Net book value</b>					
As at 31 March 2012	<u>308,084</u>	<u>306,706</u>	<u>435,208</u>	<u>1,770,231</u>	<u>2,820,229</u>
As at 31 March 2011	<u>461,922</u>	<u>436,051</u>	<u>465,918</u>	<u>3,345,231</u>	<u>4,709,122</u>
				LKR	LKR
<b>10. Term Deposit</b>					
Cash deposit					
HSBC bank		4,143,109.00			
NTB bank		<u>          </u>			
		<u>4,143,109.00</u>			<u>          </u>

10. Projects	2012 LKR	2011 LKR
3R project	-	(1,537,110)
Global Development Network	(178,854)	-
ILO project	252,210	36,232
Knowledge sharing of voice-enabled ICT	3,311,588	-
Telenor project	3,210,065	2,917,723
IDRC 2010/2012	5,894,163	34,454,452
CPR <i>south</i> 2010/2012	4,482,779	2,257,752
Pacific ICT project	3,438,497	-
	<u>20,410,448</u>	<u>38,129,049</u>
<b>12 Provision for retiring gratuity</b>		
Balance at the beginning of the year	1,250,851	946,711
Add : Provision made during the year	436,409	304,140
Balance at the end of the year	<u>1,687,260</u>	<u>1,250,851</u>

**13. Directors' interest in contract**

Professor Rohan Samarajiva who is a Director of the organization received a sum of LKR 2,679,529.83 from LIRNE*asia* as consultancy fees during the year.

**Statement of income | Year ended 31 March 2012**

		2012 LKR	2011 LKR
	Schedules		
<b>Turnover</b>			
Income received		19,358,570	19,539,658
Other income	1	180,014	89,862
		<u>19,538,584</u>	<u>19,629,520</u>
<b>Less: Expenses and outgoings</b>			
Administration expenses	2	17,582,497	18,689,275
Finance cost	3	816,697	905,648
		<u>(18,399,194)</u>	<u>(19,594,922)</u>
<b>Profit for the year</b>		<u>1,139,390</u>	<u>34,598</u>

## Schedules to the statement of income | Year ended 31 March 2012

	LKR 2012	LKR 2011
<b>1. Other income</b>		
Interest income	17,371	17,107
Other income	141,771	
Profit on disposal of property, plant and equipment	20,872	72,755
	<u>180,014</u>	<u>89,862</u>
<b>2. Administration expenses</b>		
Audit fees	25,000	22,000
Consultancy and research fees	2,279,643	2,336,486
Courier charges	44,691	45,500
Training and educational expenses	179,589	190,217
Professional fees	324,043	104,894
Furniture fittings hiring & maintenance charges	547,617	482,771
Printing and stationary	796,836	973,465
Telephone charges (local and international)	638,872	769,142
General expenses	97,337	29,786
Water	44,625	56,205
Travelling expenses	893,944	917,626
Accounting charges	-	4,798
Staff welfare	812,353	860,929
Casual wages	103,798	91,219
Office maintenance	295,798	396,434
EPF	415,097	421,533
ETF	103,773	114,898
Salaries	3,406,839	3,569,929
Business development and improvement expenses	212,842	984,296
Web maintenance	418,504	368,368
Insurance	617,652	930,666
Newspaper / magazine, advertising	2,394	122,181

Rent	687,606	636,794
Electricity	336,500	463,008
Depreciation	2,302,615	2,674,112
Subscription	63,373	102,559
Computer repairs	448,868	474,437
Vehicle maintenance	421,767	162,661
Variable payments	114,605	-
Colloquium expenses	38,831	-
CSR expenses	468,569	-
Gratuity provision	436,409	304,140
Surcharges	2,107	-
USB stock Write off		78,224
	<u>17,582,497</u>	<u>18,689,275</u>
<b>3. Finance cost</b>		
Interest expenses	-	19,258
Bank charges	379,928	533,912
Exchange loss	436,670	292,766
Debit tax	99	59,711
	<u>816,697</u>	<u>905,648</u>

## Schedules to the balance sheet | Year ended 31 March 2012

	LKR
<b>1. Trade and other receivables - LKR 4,327,946</b>	
Deposit for cooler and bottles	25,022
Rent deposit	291,428
Staff and other receivables	64,576
Prepayment (Schedule 1.1)	2,676,153
Other receivables	852,606
Staff loan	418,162
	<u>4,327,946</u>
<b>1.1. Prepayment - LKR 2,676,153</b>	
Ceylinco insurance	403,201
Union Assurance	23,671
Other Prepayments	883,822
Office Rent	1,365,459
	<u>2,676,153</u>
<b>2. Bank balance - LKR 33,160,170</b>	
HSBC-domestic foreign currency account	32,117,592
Cash in hand	77,055
HSBC - local currency account	186,791
NTB - local currency account	392,162
HSBC - Bio Survey - local currency account	386,569
	<u>33,160,170</u>
<b>3. Trade and other payables - LKR 20,916,454</b>	
Accrued expenses (Schedule 3.1)	17,081,478
Direct non-related project expenses	3,834,977
	<u>20,916,454</u>

<b>3.1. Accrued expenses - LKR 17,081,478</b>	
CONNECTasia	11,039,998
Telephone bills	22,050
Water	3,938
Electricity	29,226
EPF, ETF and PAYE	190,784
HSBC credit card payable	26,026
Other payables	3,166,211
Audit fee payable	25,000
Staff development provision	2,578,244
	<u>17,081,478</u>
<b>4. Bank overdraft - LKR 306,664</b>	
HSBC current account	<u>306,664</u>

