

ICT for Poverty Reduction in Lao PDR



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Information and communication technology holds the promise of making the world a fairer place. Indeed, in many countries increased information access and social networking are giving citizens a larger voice in local, national, and regional affairs. But while its individual and social transformational capacity is immense, it is often those who already have a voice in national agendas that benefit from the amplifying effect of the technology.

Yet these days, with the rapid growth of private sector investment in mobile communication, increasingly large numbers of poor and those living in remote communities now have access to ICT devices and connectivity. This development has now opened the door for ICT to have the same transformative effect on poor communities that it has had on the more affluent mainstream. But how can we realize the potential of ICT to empower poor rural communities in order to alleviate poverty? Since ICT is an enabling and amplifying technology and not a solution in and of itself, we must first understand the nature of the problem of local level empowerment, independent of the technology, before we can answer this question. We illustrate with an example from our ongoing work in Lao PDR.



Sousath Sayakoummane

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Lao PDR is one of the poorest countries in Asia. It ranks 122 on the human development index, with 27% of the population living on less than one dollar per day. The Ministry of Agriculture and Forestry there is currently refining its strategies for rural agricultural development, in an effort to achieve food security, help communities develop agricultural production for cash, stabilize shifting cultivation to alleviate poverty, and sustainably develop forests. As in many developing countries, weak capacity of staff at the local level is the main constraint to effectively

realizing the government's poverty reduction strategy. This is a well-recognized problem in Laos and consequently most rural development initiatives include capacity-building for local staff as a central component. But the resulting primarily technical training is mainly driven by the immediate needs of a particular project or program, with little consideration of long-term needs of the local development agency staff or their broader human resources development plan. The result is that these local-level staff often lack the needed breadth of knowledge and skills that would enable them to become effective, creative problem solvers.

In 2007, the Ministry of Agriculture and Forestry embarked on a program to address this weakness. In collaboration with the Wetlands Alliance, the Ministry developed a more strategic approach to the professional development of its staff for poverty reduction. They piloted a highly innovative professional Bachelors degree program in Poverty Reduction and Agriculture Management (PRAM) to provide broad skills

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at the grass-roots level. In contrast to the piecemeal short-term training that many development projects provide, the PRAM program provides students with a more complete spectrum of skills to form a broader base of competencies for poverty reduction. The success of the pilot led the Ministry of Agriculture and Forestry to ask how it could be scaled up to serve a large proportion of the 5,000 extension workers throughout the country. But the lack of sufficient numbers of qualified teachers and the fact that the poorest districts are also the most remote pose great challenges.

Fortunately, private sector development in Laos has begun to provide a viable ICT infrastructure in rural areas, including 3G Internet connectivity. What is yet lacking in order to unlock the latent capacity of this rich infrastructure is appropriate software and content designed so that it fits into local contexts, as well as capacity-building in ICT itself. Recognizing an opportunity where ICT can augment an existing approach and leverage existing infrastructure, the United Nations University International Institute for Software Technology (UNU-IIST) entered into a strategic partnership to support the Ministry of Agriculture and Forestry in designing and building software for capacity-building at the grass-roots level. The system is designed with full participation from national, provincial, and district levels, as well as PRAM students and teachers. Such a participatory process is crucial to local ownership of the initiative. In response to the needs expressed by the extension officers, the system being built will enable them to record and communicate valuable local-level knowledge concerning successful poverty reduction projects. It will connect extension workers through peer-to-peer learning networks and will create a communication channel to better inform national level poverty reduction policy.

Because many developing countries have conditions and challenges similar to those in Laos, it is hoped and expected that the methodology and some of the solutions being developed here will have widespread applicability to help empower those who have been too long neglected.

ProSPER.Net Highlights 2011

ProSPER.Net members gathered in the Philippines for the 4th General Assembly and the 7th Board Meeting, on 11 and 12 July 2011. The meeting was hosted by the University of the Philippines Diliman, in Quezon City.



ProSPER.Net Members gathered in the Philippines

Both meetings were intense; members discussed and approved a number of documents that aim at refining and enhancing procedures and frameworks for transparent decision-making and quality assurance of ProSPER.Net projects, briefly mentioned below.

With the purpose of increasing the network's outreach and impact, and with long-term strategies for membership expansion and securing financial resources in mind, ProSPER.Net Board approved the Membership Policy and Procedures document, the Cooperation with Similar Networks document and the Fundraising Strategies document.

As regards ProSPER.Net activities' quality assurance, members have been discussing ways to measure outputs since the previous meeting in Seoul. Some procedures were standardized to facilitate monitoring and evaluation of projects and the Joint Project Proposal Guidelines and Project Assessment

Yokohama National University

Ever since its establishment in 1949, YNU has been committed to the spirit of solving actual, real-world problems by putting theory into practice, encouraging new endeavors, opening its doors to the society, and fostering exchange with other nations. International collaborations for education and research have been promoted at YNU especially in the International Graduate School of Social Sciences, Leadership Programme in Sustainable Living with Environmental Risk, the Center for Oceanic Studies and Integrated Education, Global COE programme "Global Eco-Risk Management from Asian Viewpoints", and the Japanese Coordinating Committee of UNESCO's Man and the Biosphere Programme.

YNU is a member of RCE Yokohama and has launched YNU/UNU-IAS liaison office at the International Graduate School of Social Sciences that conducted a joint research on regional practice of ESD from 2005 to 2007. Leadership Programme in Sustainable Living with Environmental Risk at the Graduate School of Environment and Information Sciences collaborates with affiliated universities in Asia and Africa. The Center for Oceanic Studies and Integrated Education offers education opportunities to pursue marine management from perspective on sustainable use of marine resource and a study abroad programme. GCOE programme "Global Eco-Risk Management from Asian Viewpoints" offers a minor program to foster personnel who can contribute in addressing eco-risk in Asian countries.

Guidelines were approved.

In order to provide the means for project documentation, information sharing and an academic instrument for outputs dissemination, the ProSPER.Net Working Paper Series was created and all projects were invited to submit papers.

Finally, on the occasion of the ProSPER.Net 5th anniversary, the network is envisioning a book to highlight ProSPER.Net contributions to implement ESD within the Asia-Pacific region. This book project will need to be further discussed and revised, which will be done in the next meetings.

*All the documents referred to in this section are either available on the ProSPER.Net website (www.ias.unu.edu/efsd/prospernet) or upon request to the Secretariat at prospernet@ias.unu.edu.

Network Activities

ProSPER.Net annually holds the ProSPER.Net-Scopus Young Scientist Award and the ProSPER.Net Young Researchers' School, featured below.

Awardees tackle Sustainability Challenges

Sustainable development is critical to the human quest for global survival and environmental preservation. Access to sustainable healthcare, education, food and water are some of the important sustainability challenges society faces, and it is in these fields that three young researchers recently received commendation for their cutting-edge work.

Arul Chib, Rajeev Bhat and Junguo Liu were the proud recipients of the 2011 Prosper. Net-Scopus Young Scientist Award in Sustainable Development. The award is a joint collaboration between ProSPER.Net and Elsevier, and is given annually to young scientists or researchers, based in the Asia-Pacific region, who have made significant contributions in the area of sustainable development.

Here, the winners share their stories of success in sustainability.



Arul Chib

Arul Chib won the Young Scientist Award in the category of Information and Communications Technology (ICT) for Sustainable Development. Making use of the rapidly growing cellular networks in developing countries, Chib used mobile phone technology to improve communication and medical information between, and amongst, health workers and local communities. In tsunami-struck Aceh, Indonesia, this method proved to be effective, decreasing the response time in critical cases. It also helped stimulate a preventative approach to health care by facilitating medical data-sharing between rural midwives and the urban health infrastructure, leading to improved maternal and infant health. From Singapore's Nanyang

Technological University, Chib's work has also been applied in remote areas of countries such as China, India, Nepal, Peru, Singapore, Thailand and Uganda.

1. *What inspired you to tackle this type of work?*

At a fairly early point in my life, I had an epiphany. I had recently completed an MBA and started working for Procter & Gamble in Mumbai. Here was a fresh-faced MBA thinking to conquer the world with brands like Old Spice, Clearasil, and other soap products. When P&G assigned a six-month period of sales training, I chose to go to Madhya Pradesh, a region that has a lot of tribal areas. I would go out to meet with remote communities; families with hardly any possessions, wearing minimal clothing, coming out of the jungle to trade bark, roots, animal pelts, and other forest goods for salt, oil, matches, soap and other commercial products. Meanwhile, the Government of India had a health clinic nearby, but none of the tribals were going there to avail themselves of those free public services such as vaccinations; instead they were buying commercial brands like Coke, Pepsi, Vicks, etc. I wondered how was it possible that these private corporations were doing a better job of selling healthcare than the Government?

During this entire time, I'd been using some very advanced communication technologies like VSAT [a satellite communications system that enables video, audio and data] and email to interact with corporate offices around the globe. The convergence of the tribals bartering for health products, the rapid diffusion of easily-accessible communication technologies and the Government's futile efforts to deliver health care made me realize that, rather than selling for-profit products, I would rather devote my career to selling health and education... especially in communities where most can't even afford the basic essentials of life. Since then, I've become an academic, researching how we can apply emerging communication technologies for social benefit.

2. *How does your work benefit communities worldwide?*

My hope is that this work will benefit communities not just in the short term, during the length of a particular research project, but that it will contribute to long-term benefits, in terms of the influence the research has on policymakers, government decision-makers, and corporations, leading to critical investments in the right technology. I hope to continue to bring a balanced perspective to the field of ICT for development. So far this field has developed with much promise and it has captured the imagination of various sectors – from academic researchers to multi-national corporations, to national governments and international organizations such as the United Nations. But it's going to require scientific rigor to provide evidence of the real benefits of the technology and get beyond the rhetoric around its potential.

3. *How will the Young Scientist Award help you in your work?*

My work has three main pillars. The first is research – designing research projects, writing scientific papers and getting published. The second pillar is to make sure my work is embedded in practice – it has to be tested and used in the communities that the technologies were designed for. This requires the support of other stakeholders, like the major multi-national corporations I used to work for. The third pillar is policy, which is to influence those at national and international levels to encourage them to support, and invest in, these ideas. My training has been primarily in research – that's what I do well. So the practice and policy pillars are real challenges because the people working within these domains have very different ways of functioning than the research community.

It's wonderful to receive the Young Scientist Award because it has become a lever that can be used to influence and inform policymakers and decision-makers. Getting the award brings with it a spotlight that allows me to establish networks in new areas. It's about more than recognition; it's about allowing me to move into and learn more about the pillars in which I wouldn't necessarily consider myself an expert.

4. *If you could give just one line of advice to other young scientists, academics or even young MBA students, what would it be?*

That's a fairly simple answer: Make it personal! We can't keep waiting around for other people to work on social issues that affect us both individually and as a society. Don't keep waiting for someone else to pick up the baton and run with it – make it personal and do your own bit.

Rajeev Bhat's research on wild legumes won him the Young Scientist Award in the category of Science and Technology, with a Focus on Poverty Eradication. Concerned with global levels of malnutrition and poverty, Bhat has focused his research work on exploring the nutritional qualities of wild legumes/seeds, with an aim to improve their overall qualities to be an efficient alternative local food supply. Dr. Bhat (presently based at the Universiti Sains Malaysia) through his extensive efforts and hard work, was able to identify low-cost, healthy and safe alternative sources of protein among wild legumes, thus providing appropriate scientific basis for local practices. In addition to the nutritional benefits of his research, Bhat has also opined that cultivating

wild legumes may lead to better land use, promoting agricultural development and consequently improve the economic self-sufficiency of local farmers.

1. *What inspired you to tackle this type of work?*

Population explosion, economic instability, an increase in food prices, food insecurity, policy constraints on food marketing, poverty, malnutrition and natural disasters are some of the recurring problems we see in developing and under-developed regions of the world. According to recent reports, there is an alarming increase in the number of starving people the world over and nearly 25,000 people are estimated to die every day, due to hunger or hunger-related causes. Continuous efforts made by most of the world governing bodies have led to a decline in global hunger rates up to certain extent. However, protein-energy malnutrition and lack of a nutritious food supply still remain high in the developing world. These are the facts that have tremendously influenced me and it's why I started exploring the possibility of using wild legumes to tackle problems like malnutrition and hunger.

2. *How did you feel when you found out you won the Young Scientist Award?*

I was really happy and felt honoured when my name was announced for this prestigious award. I felt satisfied that my work and efforts throughout all these years had been finally recognized internationally and by world renowned organizations.

3. *What does this award mean to you and how might it inspire other young scientists like yourself?*

Apart from getting the recognition, it has also motivated me to work even harder towards improving the living standards of poor and malnourished people who lack basic amenities. This award will help me strengthen my work base at international levels and to collaborate and work with like-minded people whose common aim is to provide a dignified life to all humans.

There might be several youngsters the world over who, like me, are involved in various arenas of research work aimed at improving the living standards of poor and making this world a better place to live in. Definitely, this type of award and recognition, including the wide publicity it's given, will inspire them to provide more inputs to that work.

4. *What do you plan to do next?*

I have plans to develop new low-cost, nutritious healthy food products or 'functional foods', aimed towards reducing chronic hunger and starvation through a sustainable approach. Apart from this, I wish to scientifically educate local populations, especially in the developing regions of the world, to effectively utilize wild legumes as a lost cost alternative to animal proteins or other common legumes.



Rajeev Bhat with UP President Alfredo Pascual and Christoph Elineau from the German Ministry of Education and Research



Junguo Liu with UP President Alfredo Pascual and Christoph Elineau from the German Ministry of Education and Research

A young professor at Beijing Forestry University, **Junguo Liu**, won the prize in the area of Biodiversity and Natural Resource Management for his research on sustainable use of freshwater and ecosystem services and management. Part of Liu's work is assessing the use of green water (water stored in soil from precipitation) and blue water (water from rivers, lakes, reservoirs, ponds and shallow aquifers), which has led to increasing attention to green water management. According to his findings, 84% of the water used for agricultural purposes worldwide in the year 2000 was green water. His research will thus have the potential to significantly impact poverty levels through promoting rain-fed agriculture.

1. *What inspired you to tackle this type of work?*

I have worked on hydrology and water resources for more than 10 years. During that time, I've realized that many

countries are more and more heavily relying on irrigation infrastructure to guarantee a higher crop yield and food security. This can trigger many negative environmental problems. By reading a few articles from Prof. Falkenmark – who's known as the "mother" of green water – I realized that green water plays an important role not only for natural ecosystems but also for agricultural systems. Since then, I started to work on the assessment and management of green and blue water resources.

2. *How do you hope your work benefits communities worldwide?*

I hope our green and blue water assessment will enhance the awareness within global communities of the importance of green water and rain-fed agriculture. Improvement in green water management can significantly contribute to food security in particular in many developing countries. It will also release the high pressure of the ecosystems from the overuse of blue water.

3. *How did you feel when you found out you won the Young Scientist Award?*

This is an encouraging award. It gives me encouragement for my past work and will also give me more motivation in furthering my research in natural resources assessment and management.

4. *What does this award mean to you and how might it inspire other young scientists like yourself?*

This award shows that the best policy relevant research can make an impact. I hope this will encourage more young scientists to work on natural resources protection.

5. *What do you plan to do next?*

I plan to do more research on sustainable water use and wetland ecosystem services. It will be great to bring our research results into practice for better nature conservation.

Young Researchers' School focuses on Urban Sustainability

Sixteen PhD students were awarded scholarships to the 2011 ProSPER.Net Young Researchers' School. An annual activity of ProSPER.Net, the two-week intensive course was hosted this year by Hosei University in Tokyo, Japan. With the theme "Learning from Japan's experience on Urban Sustainability", the students were able to improve their research and communication skills, as well as expand their knowledge on Japan's remarkable policies and solutions concerning urban development and disaster management.



Professor Yuji Suzuki

Professor Yuji Suzuki, who chaired the Organizing Committee for this year's programme, shares his thoughts on the experience.

1. *Why was it important to you to be involved in the Young Researchers' School?*

There were three main reasons. First, it gave our university an opportunity to host young scholars of the ProSPER.Net member universities to exchange their research ideas, methodologies and activities. I believe that receiving young scholars from Asian universities will be further encouraged at our campus. Second, it was an opportunity for our research and teaching staff to offer their disciplinary knowledge to students of diverse disciplines. It was a good challenge as well. Last but not least was the fact that it was a rare opportunity for our postgraduate students to become more confident in sharing their common interest in promoting humane values beyond differences in nation, culture, religion, language and sex.

2. *How did the experience benefit you and Hosei University?*

It offered, first of all, a good opportunity to understand the meaningfulness of being a member of ProSPER.Net in education as well as research. Also it provided additional encouragement among our staff to consolidate our cooperation as the host university. Taking into consideration that the themes and issues involved are multi-disciplinary, we needed to set up an organizing committee that included scholars from diverse disciplines, both junior and senior. This made us more conscious about the need of inter-disciplinary cooperation in the field of sustainability studies. Indeed, global thinking requires more local actions. Our university, I believe, has become more serious in promoting that trend.

3. What was the most important outcome from the experience, in your opinion?

Two things should be mentioned here. The first is the fact that YRS 2011 was held in the aftermath of the tri-disasters of March 11 in East Japan. Many events were cancelled, conferences postponed, and we even suffered a shortage of electricity. We worried about our plan but, with a good amount of support from across the world - including UNU/IAS, the German Ministry of Research and Education and our member universities, which were willing to send their hopeful students to a "dangerous Japan" - we became more confident than ever about our mission for sustainable society building. Against this background, I think the most impressive outcome is the tremendous impact upon those young scholars and researchers of our university, who hitherto had been very inward-looking in their frame-of-mind. Within two weeks, those who participated from our university gradually and steadily opened their eyes to the outside world and become serious about learning from it. At the beginning, our scholars looked less pro-active, but in two weeks they transformed themselves far more than expected. Seeing is believing, indeed.

4. If you had one word of advice to give the 16 graduating students from this year's YRS, what would it be?

Search for the truth.

Quotes from YRS students

"I was personally very impressed with the energy level, dedication, devotion and utmost sincerity with which the sessions were conducted besides the warm hospitality extended during the stay. The resilience, tenacity and positivity with which people handle adversity is something which we all need to learn from the Japanese."
- Fawzia Tarannum, TERI University, India

"When you spend two intensive weeks with a group of strangers you have to step out of your comfort zone and almost speak in a different 'language' - people are from a variety of disciplinary and cultural backgrounds and have different senses of humour. In the process of doing this what often happens is that we come to learn a little more about ourselves, which certainly happened with me."
- Jessica Siva, RMIT University, Australia



Jessica Siva and Fawzia Tarannum



Khalid Hossain

"Being a participant from a country constantly affected by natural disasters, I was keen to learn how Japan has been successfully managing natural disasters while ensuring development in a sustainable manner. The Young Researchers' School has created that learning opportunity for me.... I have taken different ideas around resilience and its related factors during my time at the school."
- Khalid Hossain, RMIT University, Australia

"A most rewarding experience. Two pleasant weeks were spent pondering the theme of sustainability in Japan in the company of some very friendly, interesting and intelligent people. Very informative, enriching and especially refreshing!"
- Greg Trencher, Tokyo University, Japan



Greg Trencher with Professor Kumata



Richa Sharma

"I would highly recommend other PhD students to apply for ProSPER.Net Summer School as I feel this is an event that helps one grow both personally and professionally. It also aids in developing a network for young researchers and encourages them to pursue further in this field of research."
Richa Sharma, TERI University, India

International Youth Day Celebration

On 12 August 2011, the participants of the 2011 ProSPER.Net Young Researchers' School and undergraduate students from Europe and Asia gathered at UNU-HQ in Tokyo to celebrate International Youth Day. The celebration was a joint collaboration of UNU-IAS, Hosei University and iuventum, a German NGO, and it was also the closing of the 2011 Young Researchers' School.

The one-day programme 'Inspiring the Next Generation of Researchers in Sustainability' was designed to be delivered by youth speaking to youth with a focus on academic activities that can raise awareness and show that young individuals could bring solutions for collective problems faced by humanity.

The morning programme comprised a keynote speech by Ambassador Mutsuyoshi Nishimura followed by a panel discussion. The panels from RCE Chubu, UNESCO Associated Schools Project Network (ASP-Net) in Osaka and Citynet shared their ESD-related activities led by youth and local government endeavors in urban sustainability.

The afternoon programme was facilitated and presented by the participants of the Young Researchers' School. Young PhD students shared their experience in their PhD research as well as their research proposals developed during the Young Researchers' School. Also the final round of the three-minute thesis competition* took place and all participants helped to choose the winner, PhD candidate Ms. Fawzia Tarannum from TERI University.

*The three-minute thesis competition is an activity whereby researchers present an outline of their research in three minutes and one slide. It is aimed at an educated but non-specialist audience and graded according to three criteria: clarity of presentation, comprehension and the engaging nature of the research.



Group photo of participants at UNU Headquarters in Tokyo

Upcoming events

8th ProSPER.Net Board Meeting

RMIT University will host the 8th ProSPER.Net Board meeting in Melbourne, Australia, on 12 and 13 December 2011. The Board will be discussing new initiatives, resource generation, promotion, communication and dissemination, the publication for Rio+20 and the end of UNDESD as well as ways to build linkages with other networks. The Board will also receive reports from members taking the lead in the ongoing joint projects.

For more information, please contact prospernet@ias.unu.edu

News from Members

In the interest of improving the usefulness of the ProSPER.Net newsletter, we would like to ask you to complete a brief 10 question survey online. Please copy and paste the following URL into your web browser to complete the survey:

<http://www.surveymonkey.com/s/PVBYVSJ>

The survey should take no more than 15 minutes of your time and will help us with redesigning the next issue of this newsletter to better suit your needs.

Much thanks in advance for your support!

The ProSPER.Net Secretariat

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Please send your comments, suggestions and materials to prospernet@ias.unu.edu

We appreciate your collaboration.

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