

# ICT4D Community Newsletter



Volume 1, Issue 1: January 2017

## In this issue

### Editorial

#### Initiatives in ICT4D

- Participatory Research and Ownership with Technology, Information, and Change (PROTIC)
- Business Planning and Market Linkage initiative of BIID
- ICT for women empowerment – WIFI
- Data revolution for sustainable development
- Launch of the Fish Farming AgriHack in West Africa

#### Upcoming Events

- Nutrition Hackathon at Nutrition Olympiad 2017
- ICT4D Conference 2017

## Editorial

For many of us, information and communication technologies (ICTs) have become an indispensable part of everyday life. This often makes us oblivious to the fact that there are many people across the world who do not have access to and are not able to use ICTs pragmatically. The advancement of global technologies has revolutionized the world, exposing the deficiencies in ICT infrastructures of many developing countries at the same time. While developed countries of the world are coming up with new technologies that will drive the digital age, the developing countries are trying to play the catch-up owing to lack of adequate ICT infrastructure and services. This scenario leads to widening the digital divide between the countries as well as within communities. New information and communications technologies can change the way people do business, transform public service delivery and democratize innovation. ICT today is in many parts of the world enabling a transformation of public services such as education, health care and also advance low-income countries' economies such as agriculture, trade/commerce, and transportation. The broad application of ICT is a profound reason for optimism, as ICTs are "leapfrog" and transformational technologies, enabling countries to achieve their Sustainable Development Goals (SDGs). The ICT4D Community Newsletter is an effort to highlight the present and the vision for future of ICT for development (ICT4D); it aims to evolve into an interactive platform to voice the words of ICT doers and makers. The newsletter will also serve as the

platform for knowledge sharing and innovation in the field of ICT4D at national and global level. This issue highlights various

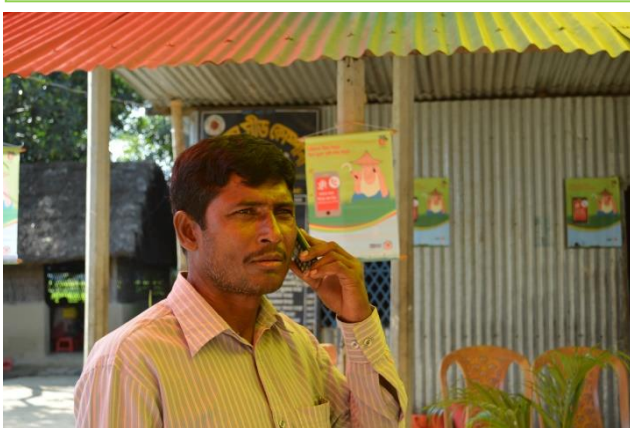


Photo Credit: BIID

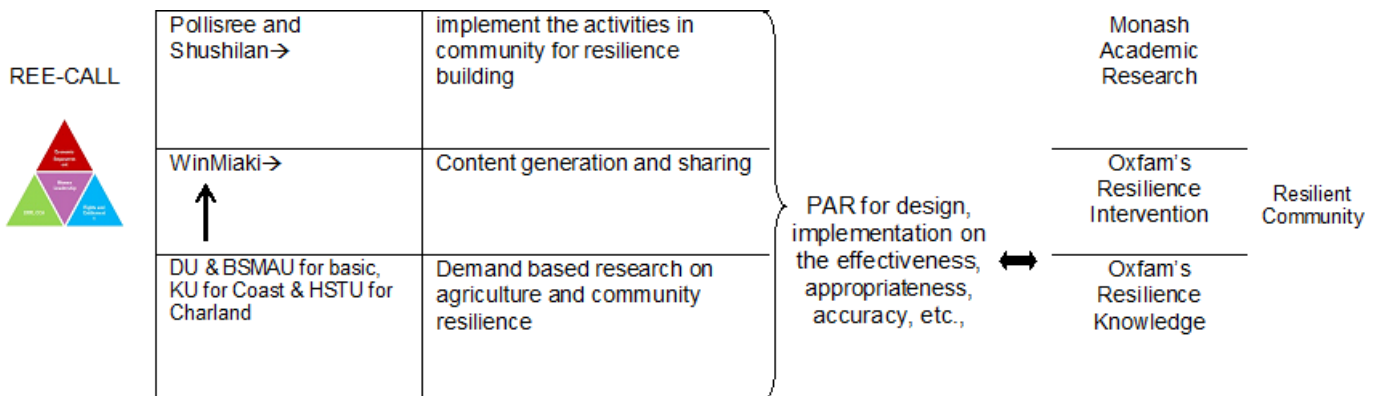
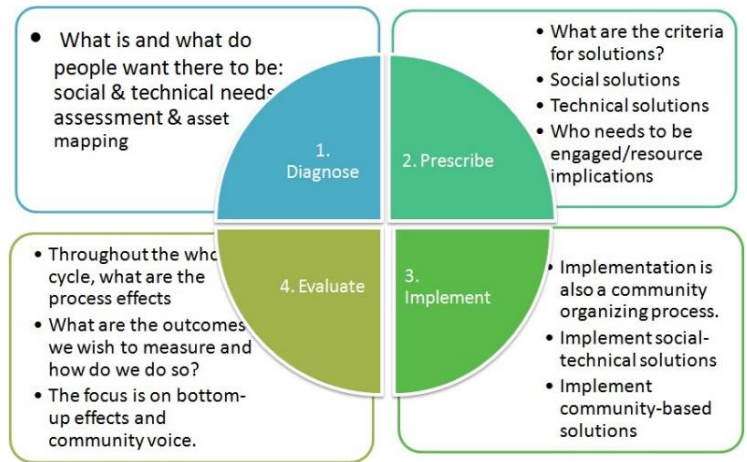
ongoing initiatives where ICTs are used as a tool for development of communities and women empowerment, ICT in agriculture in different regions and use of data for sustainable development. In the long run, we hope to evolve into a leading journal for ICT for development (ICT4D).

**Shahid Uddin Akbar**  
Bangladesh Institute of ICT in Development (BIID)

# INITIATIVES IN ICT4D

## Participatory Research and Ownership with Technology, Information, and Change (PROTIC)

Participatory Research and Ownership with Technology, Information, and Change (PROTIC) has been initiated to begin specifically addressing women's economic empowerment in agriculture for resilience. The project partially fulfills the knowledge management requirement of Oxfam's 'Resilience through Economic Empowerment, Climate Change Adaptation, Leadership and Learning (REECALL) Program', which considers economic development, women's transformative leadership, rights and governance, climate change adaptation and disaster risk reduction. These are the pillars for the development of poor, marginalized and vulnerable people towards resilience. Through the Participatory Action Research (PAR) approach, PROTIC aims to enhance the economic situation of poor and marginalized climate change vulnerable community through providing relevant, comprehensive and accurate information which is trustworthy and well-timed. The project aims to increase women's participation, helping to strengthen their leadership role and to enhance their economic situation by developing customized information systems for agriculture including crop farming, homestead gardening, fisheries, livestock, horticulture, and poultry. PROTIC is implemented in Borokupot village under the Atuliya Union in Shyamnagar Upazilla, Satkhira and in Dakshin Kharibari village under the Tepa Kharibari Union in Dimla Upazilla, Nilphamari. There are two control villages, Henchi and Uttar Kharibari, near the two working villages to compare the progress and effectiveness of the intervention. Oxfam's implementing partners Pollisree and Shushilan are executing the project activities as a component of REECALL in Charland and Coast in that order. Monash University, Australia is leading the research aspects of the project.



In this project, 200 female farmers from the two areas (100 from each area) have been equipped with smartphones along with internet access. Through these mobile phones they are getting SMS, Outbound Dial (OBD), Interactive Voice Response (IVR), Apps and Call Centre services on agriculture, agrometeorology, and early warning system.

This is a project funded by Monash University, Australia and academic research partners will include four public universities in Bangladesh; University of Dhaka, Bangabandhu Sheikh Mujibur Rahman Agricultural University, Khulna University and Hajee Mohammad Danesh Science and Technology University. WIN MIAKI is in charge of developing digital content and data management systems. The Bangladesh Institute of ICT for Development (BIID) and Research Initiatives Bangladesh (RIB) are responsible for working on learning dissemination and capacity

building with PAR. The project is closely working with local government including the Union Digital Centre (UDC) as well as the sub-district and district administration. The project is recognized by the national government for its contribution towards Digital Bangladesh in line with Vision 2021.

#### The expected outcomes of this project are:

- \_ To engage stakeholders to hear community voices. To build the community's capacity towards resilience with information and knowledge on agriculture through technology that will make meaningful change in the life of marginalized female farmers
- \_ To develop and implement an interactive knowledge management system, a mobile phone focused information system and responsive information hub (Community Information and Advice Service) capable of providing reliable, expert information on agriculture
- \_ To extend significant practical and theoretical insights to share with the development and academic communities

### Case Study of PROTIC Participant

**Name: Provati Rani, Occupation: Female Farmer (Homestead gardening), Village: Borokupot, Union: Atulia, Upazilla: Shyam Nagar, District: Satkhira**

In the photo, Provati Rani, a female farmer, is promoting homestead gardening and vermicompost cultivation and income generation. She stays at home but sells her compost in the market along with the other villagers through her mobile phone given from the project. Apart from this, she is getting different information regarding seasonal homestead vegetables through SMS and call center services. She is also using different apps on agriculture provided by the local department of agriculture office to get information regarding her vegetable garden and vermicompost. This year, she produced seasonal vegetables in her garden. She applied new and innovative techniques in her garden from the SMS service of the project. By doing this, her production doubled this year. She sold 25Kg vegetables and earned a good amount of money to fulfill family needs. She also sells 15-20 kg of compost fertilizers worth 20 taka per kilo every month.



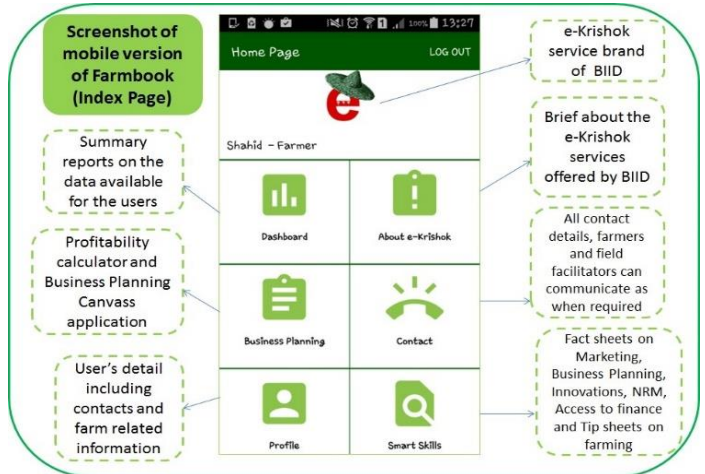
Photo: Provati Rani, Source: Facebook

After receiving the mobile phone all sorts of information is available to her which helps to increase her income. Now she regularly communicates with her husband which also helps her to maintain a happy marriage and family relationship. She uses Facebook to disseminate her learning and experience among other community members. By doing these things, Provati is gradually becoming a role model in her community.

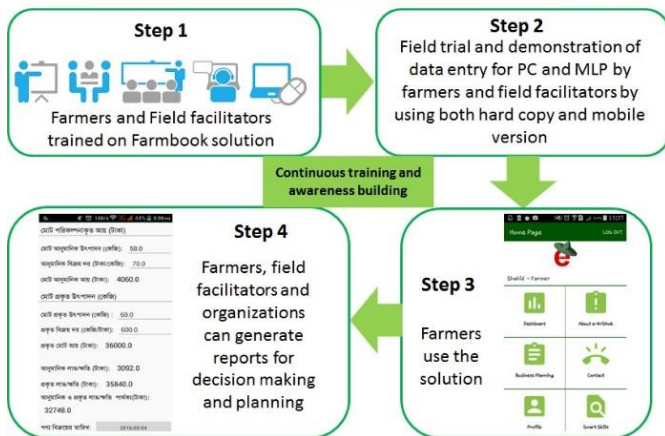
## Making ICT works for farmers: *ekrishok Farmbook*, a Business Planning solution



BIID jointly with Oxfam has been implementing Farmbook in Bangladesh under the REE-CALL program of Oxfam Bangladesh. The two organizations have a partnership to provide ICT service to the 45 producer group members of the 3 project locations to provide support in market accessibility through ICT services and assessment of training modules. The overall goal of the project is to graduate farmers from traditional practices into smart approaches with the integration of ICT-enabled products and services. BIID framed the business model, Farmbook solution as *eKrishok Farmbook* application in collaboration with telecom operators, schools, and input



### How Farmbook works ?



companies which will lead to scaling up of the application to a wider audience (farmers, extension agents, and organizations). Responding to the field feedback and practices and built on the existing facilities the project has converted through the detailed version of Farmbook into a simple business planning tool. This includes a profitability calculator. Anyone with a smartphone can avail the service and understand the basics of business planning.

In rural economies as in Bangladesh, farming has long been regarded as a subsistence mechanism. Extension services are mostly focused on advancing new technology, variety, giving solutions to pests or diseases and

increasing productivity. Only a few farmers keep records of their transactions and do proper planning before taking any production decision. They also use very traditional ways to manage their information. To address these issues, Farmbook is a field-based application designed to understand the cost elements, quality input support services and monitoring the profits that different types of farmers gain using technologies and linking to markets. It also helps farmers to develop skills for marketing plans for their specific crops. The system has also been developed as a means of helping to manage field agents, and support the needs of

remote field agents to able to share their data with project managers. Thus, it is a tool to enable field agents to help farmers plan their farm businesses more effectively and evaluate their productivity and profitability.



Women farmers are using e-krishok mobile application & market linkage program.  
Photo Credit: BIID

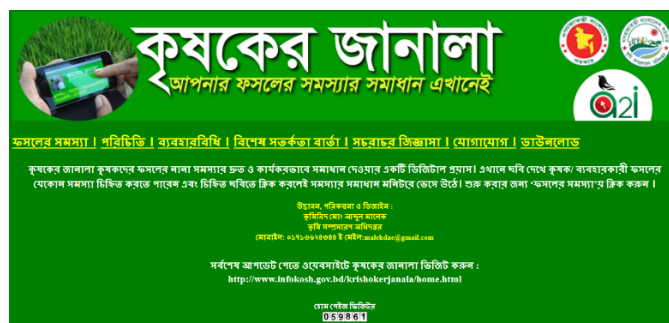
Read more about Farmbook @ [http://wp.ekrishok.com/?page\\_id=384](http://wp.ekrishok.com/?page_id=384)

## E-Agriculture Extension Services of Department of Agriculture Extension

The Department of Agricultural Extension (DAE), Bangladesh has introduced different e-agricultural extension services i.e. ICT enabled platforms for the farmers. Some of these services are mentioned here.

### ■ Farmer's Window

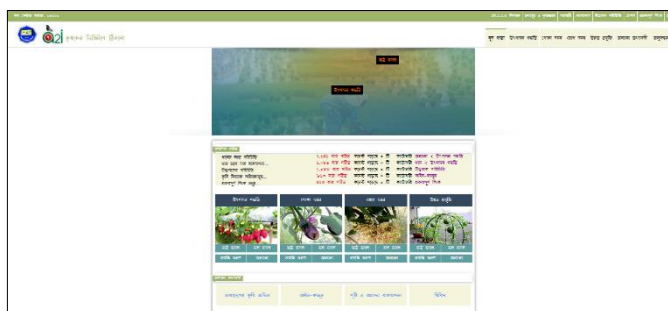
It deals with common diseases and their preventions for different crops. Users can select a problem seeing the picture/list and clicking on that problem will lead to the solution of the problem. It contains more than 1000 diseases, insects and fertilizer-related solution for 120 crops which are categorized as – Field Crops, Fruit, Vegetables, Spice, Flower, and others. Problem explanations include – symptoms, solution, prevention and precautions.



Farmer's Window can be found @ <http://www.infokosh.gov.bd/krishokerjanala/home.html>

### ■ Digital Address of Farmer

It works as the knowledge hub for farmers. It contains all the related information about agriculture. It also has information on production method, insect and diseases cure, technologies, divided into several criteria; field crop, vegetables, fruit, spice, tuber, and others. Other agriculture-related information includes agriculture offices in Bangladesh, Laws, nutrition and weed management, pesticides information and different forms



Digital Address of Farmer can be found @ <http://digitalkrishi.dae.gov.bd/>

### ■ Pesticide Prescriber

This online platform will help to find the name of an appropriate pesticide with correct dosage against a particular pest of crop instantly. There is also an android mobile application which works in the same way as the web version.



Pesticide Prescriber online platform can be found @ <http://pest2.bengalsols.com/>

Pesticide android app can be found @ <https://play.google.com/store/apps/details?id=com.pesticideprescriber.gov&hl=it>

Other e-agricultural facilities used in all over the world can be found @ <http://www.e-agriculture.org>

## ICT for women empowerment – WIFI



The Asian and Pacific Training Centre for ICT for Development (APCICT), a regional institute of the Economic and Social Commission for Asia and the Pacific (ESCAP), is embarking on a new program called Women and ICT Frontier Initiative (WIFI). This program aims to promote women’s entrepreneurship in Asia and the Pacific through ICT capacity development. The WIFI programme was officially launched on 9-10 June 2016 in Korea to develop the appropriate regional and national capacity development in support of the 2030 Agenda for Sustainable Development. It will enhance capabilities of women entrepreneurs so that they and their enterprises can become more productive, thereby enriching their families and improving the welfare of family members and communities. The project will create ICT enabled women entrepreneurs who can actively contribute to community development as well as to the local and national economy. In addition, WIFI will also focus on building capacities of government leaders and policymakers in providing an enabling environment for ICT-empowered women entrepreneurs through gender-responsive policies, programs, and services. At the same time, WIFI will enhance understanding among women entrepreneurs on the necessary policy environment and government support for their enterprises. Through this, women entrepreneurs are better positioned to contribute and participate in designing policies and programs for them.

The WIFI program was launched in Bangladesh in December 2016 by Bangladesh Institute of ICT in Development (BIID), Bangladesh Women in Technology (BWIT) and ICT Division / Bangladesh Computer Council (BCC), Ministry of Posts and Telecommunications and Information Technology).

Read more about WIFI @ <http://unapcict.org/wifi>

## ICT based Customer Care Solution for Poor Farmers by Katalyst

Access to useful, accurate and timely agriculture information is one of the crucial factors for farmers that lead to higher yields and reduction in potential losses for them. The Agri-business for Trade Competitiveness Project (ATC-P), branded as Katalyst is one of the largest market development initiatives in Bangladesh. Katalyst has been working in Bangladesh with an objective to improve the ICT market system in order to ensure that relevant and timely agricultural information reaches to all farmers across Bangladesh whenever they need it. In 2008, Katalyst collaborated with another leading telecom operator, Banglalink, to develop a helpline based agriculture information service for farmers known as “Krishi Jigyasha 7676”. In 2015, Katalyst collaborated and co-designed a free of charge helpline service for farmers with one of the leading seed companies called, Metal Agro Ltd. By March 2017, the missed call based customer care solution is expected to reach approximately 152000 farmers.

Read more about customer care solution of Katalyst @ <http://katalyst.com.bd/ict-based-customer-care-solution-for-poor-farmers/>



## The Data Ecosystem and the Global Partnership



There is a neglected but fundamental problem at the heart of the efforts to eradicate extreme poverty — a problem of unreliable or non-existent data and the lack of skills and willingness to use good data when it is available. The Global Partnership on Sustainable Development Data is a response to that crisis. Whether for reasons of convenience, cost, or corruption, important decisions about how money and resources are allocated to services helping the poorest people in the world's least developed countries are too often made based on data that is incomplete, inaccessible, or simply inaccurate — from health to gender equality, human rights to economics, and education to agriculture.

The partnership is a global network of governments, NGOs, and businesses working together to strengthen the inclusive, trust, and innovation in the way that data is used to address the world's sustainable development efforts. The network will work to bring the resources of national governments, independent non-profits, and private companies to bear on the world's development data poverty. This includes using network to bring the best data, analytical skills, and ideas to solve data problems. For example, satellites can be used to monitor agriculture efforts or citizen engagement tools can be employed to understand sanitation requirements in villages in remote parts of the world. We work to ensure that governments are given the tools they need to ensure they leave no-one behind in these development efforts.

Read more about data revolution for sustainable development @ <https://sustainabledevelopment.un.org/partnership/?p=9691>

## Launch of the Fish Farming AgriHack in West Africa



New innovations continue to revolutionize the way we carry out fish farming. In an increasingly digital world, mobile solutions are also being called upon to tackle some of the challenges that the sector faces. In line with this, the Youth-Enabled Fish Farming AgriHack (YEFFA) project was selected by CTA. The objective of the project is to use information technology to help solve challenges in the fish farming

value chains in Nigeria, Benin, and Togo. The initiative is led by Winnovation Hub (an ICT innovation center in Nigeria) in collaboration with e-triLabs and Woelab (ICT innovation centers in Benin and Togo respectively) and the Foundation for Partnership Initiatives in the Niger Delta (PIND).

The Youth-Enabled Fish Farming AgriHack in West Africa 2016 came to a memorable end with a “6 days onsite incubation program” at Winnovation Hub, Ibadan, Nigeria. A 48-hours hackathon (intensive ICT application development session) have been organized. The CTA project dubbed “AgriHack West Africa”, saw 8 teams comprising of 18 finalists selected from a hackathon earlier in August, come in from various cities across 3 West African countries of Benin, Nigeria and Togo.

Read more about AgriHack in West Africa @ <http://agrihackwestafrica.org/>

Follow the collaborating partners on Twitter:

- [Winnovation Hub](#)
- [e-Trilab](#)
- [WoeLab](#)

Follow CTA's ARDYIS project on [Twitter](#), [Facebook](#) or visit its [website](#).

## Fostering regional ICT4D efforts by Asia Pacific Telecentre Network (APTN)



The Asia Pacific Telecentre Network (APTN) is a regional network of 8 member countries (Bangladesh, Thailand, India, Pakistan, Philippines, Sri Lanka, Fiji, Cambodia) with its Secretariat based in Dhaka, Bangladesh. APTN aims to serve as the knowledge hub for practitioners and policy makers in the field of telecentres and ICT4D in the Asia Pacific region. There are various models (government led, private sector driven, NGO-led, PPP model etc.) and approaches in telecentre domain in Asia Pacific for empowering communities through sustainable development by using ICT enabled solutions. APTN members at country level manage and facilitate telecentre activities and contribute in the field of ICT4D. As a part of Telecentre.org Foundation, there are 6 regional networks including APTN. An Executive Committee comprises representatives of member countries who lead the APTN activities and are responsible for defining strategies. APTN was initiated by UN ESCAP, IDRC and Telecentre.org Foundation in 2007.

Read more about APTN @ <http://www.aptn.asia/index.html>



## SUSTAINABLE DEVELOPMENT GOALS

17 GOALS TO TRANSFORM OUR WORLD



On September 25, 2015, countries adopted a set of goals to end poverty, protect the planet, and ensure prosperity for all as part of a new sustainable development agenda.

Read more about Sustainable Development Goals @ <http://www.un.org/sustainabledevelopment/sustainable-development-goals/>

## UPCOMING EVENTS

### Nutrition Hackathon at Nutrition Olympiad 2017



Bangladesh Institute of ICT in Development (BIID) has initiated the 1<sup>st</sup> **Nutrition Olympiad 2017** under the Nutrition Club initiative supported by INGENAES/USAID. The objective of the Nutrition Olympiad is to demonstrate the potential benefits of engaging youth in nutrition activities and bring relevant stakeholders to a platform for networking and knowledge to build a healthy nation. Nutrition Club ULAB as host, jointly with all Nutrition Clubs will organize the event. The activities will be organized with partners including Department of Agricultural Extension (DAE) of Ministry of Agriculture, ICT Division, Ministry of Posts, Telecom and IT, Bangladesh Association of Software & Information Services (BASIS), IPHN and some other organizations.

Nutrition Hackathon is being organized as a part of the Nutrition Olympiad. In the Nutrition Hackathon, students from all over the country will participate in collaborative computer programming to promote Nutrition awareness. The students will be asked to come up with ICT solutions on awareness building and assisting tools of nutritional healthcare. Students are liberated to select either mobile application (Android) or Web tool. Participants are requested to join the competition by registering @ Eventbrite.

Read more about Nutrition Olympiad @ <http://www.nutritionclub-bd.net/event/nutrition-olympiad-2017/>



#### SHOWCASING AND AWARD GIVING CEREMONY

🕒 10:00 AM – 5:00 PM 📅 MARCH 7, 2017

📍 KRISHIBID INSTITUTE BANGLADESH (KIB), KHAMAR BARI ROAD, FARMGATE, DHAKA

📝 **REGISTER NOW** @ <https://www.eventbrite.com/e/nutrition-olympiad-registration-31192567810>

### ICT4D Conference 2017



The annual ICT4D Conference brings together public, private and civil society organizations from across the humanitarian and international development community. Participants share how they've used innovations in technology to increase the impact of their work. Highly interactive and hands-on, the conference attracts a diverse audience of technical advisors, executives, and others who offer a range of practical insights on applying technology to development challenges.

Following the ratification of the United Nations' Sustainable Development Goals, the 2016 ICT4D conference in Nairobi, Kenya, gave the ICT4D community an opportunity to explore how digital solutions are enabling the achievement of these goals. The 2017 conference will focus on harnessing the power of data to accelerate progress toward the SDGs and increase the impact of our programs.

Read more about ICT4D Conference @ <http://www.ict4dconference.org/about/about-the-conference/>

## Editorial Board

Dr. Larry Stillman, Faculty of Information Technology, Monash University  
Dr. Tom Denison, Faculty of Information Technology, Monash University  
M B Akhter, Programme Director, Oxfam  
Tapas Ranjan Chakraborty, Project Coordinator, ICT, and Development, Oxfam  
Priodarshine Auvi, Sr. Programme Officer, Oxfam  
Jude William Genilo, Ph.D., University of Liberal Arts Bangladesh (ULAB)

## Editor

Md. Shahid Uddin Akbar, CEO, Bangladesh Institute of ICT in Development (BIID)

## Assistant Editors

Sumaiya Nour, Manager (Program), Bangladesh Institute of ICT in Development (BIID)  
Farzana Quader Nijhum, Program Officer, Bangladesh Institute of ICT in Development (BIID)

You can access PDF version of this issue @ <http://www.biid.org.bd/newsletter>

For submission of articles, cases, initiatives and sharing news on ICT4D events or for giving any feedback on ICT4D Community Newsletter, please email us at [newsletter@biid.org.bd](mailto:newsletter@biid.org.bd)



Developed & Published By



**Bangladesh Institute of ICT in Development (BIID)**  
[www.biid.org.bd](http://www.biid.org.bd)

Follow us @ <https://www.facebook.com/BIID.BD>