



Fostering Nutrition Security

In this second edition of the Direct2Farm newsletter, we would like to highlight some of the emerging issues in Nutrition Security and how we might help address these through the use of mobile technology. Malnutrition today contributes to one third of all under-five child deaths in developing countries*.

Solving the issue of malnutrition is not just a case of increasing the quantity of food available, for example by increasing crop yields. There is also a need to improve the nutritional value of the food that is grown and consumed. One of the key contributing factors to the growing problem of nutrition insecurity, especially among the rural population, is the decrease in cropping diversity. Currently, most of the farmers in developing countries, such as India, are growing a limited range of crops mainly restricted to cereals such as wheat, rice and maize or commercial crops such as sugarcane, oil palm etc. As a result, farmers are not growing enough vegetables or indigenous crops such as millet,

which are rich in minerals and protein. People are therefore increasingly being deprived of the nutritional benefits that would result from a more varied diet.

Through the Direct2Farm agro-advisory, we are trying to spread awareness about this very important aspect of farming by providing information about mixed cropping techniques and advice on which crops and varieties to grow to gain nutritional benefits. Along with this awareness generation at farm level, using the Direct2Farm platform, farmers can be linked with the growing markets for “healthy cereals” such as Ragi, Sorghum etc. which are in high demand in the processed food markets in urban areas. By providing farmers with a market for these highly nutritional crops, it is hoped that they will be encouraged to grow more of them, thus improving their diet and making them more readily available in the local supply chain. – Editor

*World Health Organisation fact sheet 178

Establishing a Robust Agro-value Chain



The majority of the food produced in developing countries comes from smallholder farmers, and agricultural workers make up the majority of these countries' labour forces. It is therefore vital that smallholders are effectively integrated into markets in order to help transform the agricultural sector of the country.

Establishing an efficient agro-value chain that improves the links between suppliers, farmers and buyers is key to supporting this transformation. Currently, there are significant gaps in the existing value chains, and one of the major causes is the lack of free exchange of information among the various entities in the chain.

The smallholder farmers are the group in the value chain who are typically most badly affected by this lack of information exchange. Often, they lack information about either the supply side; fertilizer, agrichemicals and agriculture research or the demand side; market prices. Deprived of information, these smallholders are critically exposed to risks including sudden floods and drought and also to fluctuating market prices of inputs and produce. This, in turn, can leave them open to potential exploitation by multiple layers of middlemen, who have

access to the information the farmers lack. All of these factors combine to create barriers preventing the smallholder farmers from moving away from a purely subsistence model and starting to generate increased incomes to lift them out of poverty.

Mobile based solutions can play a pivotal role in improving information sharing and developing links between the players in the value chain. By providing small holders with access to critical and timely information from both supply and market sides, we can help them play a more effective role in the value chain.

The Direct2Farm Mobile Infomediary service provides an efficient information exchange platform that helps to remove the information asymmetries in the agro-value chain. By providing farmers with accurate and up to date information we can help farmers to make better, more informed, farming decisions resulting in increased productivity and profitability.

Success Story

The following example shows how the information and advice offered can benefit farmers and how it can help in creating a more connected value chain. Pardip Shelke, a farmer from the village of Ramegaon in Maharashtra contacted the IKSL[†] helpline service to enquire about the current and expected future price for soybean.

He was informed that the present market rate of soybean was 2850INR*/quintal**, but advised to keep hold of his harvest for another 2 to 3 months when the forecast price would rise to 3100-3300 INR/quintal (as quoted by National Commodity and Derivatives Exchange Ltd).

By withholding his produce, the farmer made an additional 350INR/quintal on a stock of 60 quintals of soybean. He therefore profited by 21000 INR by following the advice. He also shared the information with the other farmers of his village, which in turn benefited them.

[†] IKSL is a partner in the Direct2Farm project *55INR = 1USD (approx.)

**quintal = 100kg

Encouraging Women's Participation in Agriculture

“In the Indian Himalayas a pair of bullocks works 1064 hours, a man 1212 hours and a woman 3485 hours in a year on a one hectare farm, a figure that illustrates women's significant contribution to agricultural production” (Shiva FAO, 1991).

Approximately, 43% of the total agricultural work force in developing countries is comprised of women, and just under half of all self-employed farmers in India are women. Added to this, the agriculture sector in India employs 80% of all the economically active women in the country. These sort of statistics start to demonstrate the vital role women play in agriculture. In fact, in some cases, women can make up the majority of the workforce. For example, there are 75 million women engaged in dairying in India as against 15 million men.

However, despite the major role played by women in agriculture,

there remains an imbalance in ownership of, access to, and control of livelihood assets (such as land, water, energy, credit, knowledge, and labor) that can negatively affect women's food production.

One of the key aims of the Direct2Farm project is to support the empowerment of farm women through providing access to knowledge and enabling community participation. In the Direct2Farm repository, every piece of information is gender tagged in order to identify and trace the flow of information to women. During 2012-13; for example, it was found that approximately 10% of all the callers who used the IKSL helpline were women.

Through the mKisan project, educational videos sourced from Digital Green are being disseminated to farmers; approximately 25% of the videos (489) had woman as the main role player and 1578 out of a total of 1930 were viewed by women. (Digital Green 2013). Being able to track how women are using the service, will help us to understand more about their information needs and how best to provide them with the most effective solution.

A Day in the Sugar Bowl of India

SDC Delegation Visit to IKSL Farmers' Call Centre in Northern India



Towards the end of April, a team from SDC (The Swiss Agency for Development and Cooperation) along with CABI's Direct2Farm team, went to visit a farmers' call center in Meerut, near Delhi. As well as being historically significant in Hindu mythology, Meerut is one of the key sugar producing zones in India, with about 40 sugar mills operating in the vicinity. The major crops in the region are sugarcane, wheat and potatoes.

After passing through Delhi and the industrial town of Ghaziabad, the first stop for the team was a farmer call centre based at the office of IFFCO Kisan Sanchar Limited (IKSL). CABI has been a partner of IKSL since 2009, helping them in developing content for their agro-advisory service and providing quality assurance. The farmer call center is managed by a young agriculture professional, Mr Firdos Khan and caters for around 30,000 farmers in the surrounding area. The setup is simple and efficient. A call center agent receives calls from the farmer, talks to the farmer to understand their query, registers them and then, if the query is simple, provides them with solutions by referring to IKSL's in-house agri-knowledge bank. In the case of complex queries, the farmers are connected through a tri-party conferencing system to a respective subject matter expert to find a solution.

Firdos and his colleagues in the call centre demonstrated to the group how content is first developed and then disseminated through a mobile phone in the form of automated voice calls. They also explained how they are using the factsheets developed under D2F as the reference for developing messages and answering farmers' queries. While the delegation was in office, they witnessed about a dozen farmers calling up the helpline and talking to the agent.

Next stop for the delegation was a roadshow organized by IKSL and its mobile partner Airtel that is used to promote the service to local farmers. They saw how a public address system was used to explain to groups of farmers what the service offered.

They then went on to a local village to visit a farmer, Mr Ramesh, who has been a regular user of the IKSL service for last few years and has many stories about how it has helped him on different occasions. He told the delegation that, during last cropping season, he had seen insects in his paddy field, but was not sure what type they were and whether they were pests. He had immediately called up the helpline and described the problem. The agent had told him that it was an insect called Gandhi Bug and had explained to him how to control it. Mr Ramesh estimated that he may have saved at least 25,000 INR (USD 500) because of the timely advice.

The local farmers in the village went on to explain that the public extension service in the area is very thinly spread and also stated that they have, on occasion, suffered losses due to misleading advice from agrochemical dealers. Now they largely depend on the IKSL service to solve their problems.

The SDC team also got a chance to interact with the village women during the visit, and discovered that many of them own personal mobile phones. It is this phone ownership that has prompted IKSL to start providing other related information on subjects such as education, women's health and rural jobs, through their mobile service.

It was a long but fruitful day and all the delegates returned with first-hand knowledge about how the rural poor in India have started using mobile phones to improve their lives.

The following quote from Dr Carmen Thönnissen from the SDC Global Food Security Programme sums up their experience:

"...What struck us is how this service allows information to 'quickly' reach women and men farmers, even those that are not at ease with writing and reading.... It empowers farmers to stay informed, to share this information with others, and based on that decide themselves to make informed choices..... The approach bears a high potential and can exploit synergies with other CABI activities, such as implemented by Plantwise"

Direct2Farm Online Repository

As part of our on-going pursuit for the best user experience, we have made some improvements to the Direct2Farm online repository. Responding to feedback from a range of stakeholders in India and Africa, we have included some additional user friendly features. There is now a new way to display content through a dashboard in grid format and the ability to use filters to easily find required content.

Search Engine Optimisation has also been conducted to make sure that the Direct2Farm web application appears in the top list of search engines, making it easier to find online. Significant development has also been carried out to the resources section to improve both the design and administrative capabilities. Visit www.direct2farm.org to see the new improved site.

CABI News

Focus on Mobile

Reflecting the increasing potential for ICT, and mobile in particular, to help address issues in agriculture, CABI has initiated a programme focussing in this area. Under the Mobile Programme, CABI will continue to develop services that reach large numbers of farmers, providing them with vital information and advice.

This new programme fits well with CABI's broader goal to improve people's lives worldwide by providing information and applying scientific expertise to solve problems in agriculture and the environment, and supports CABI's 2020 vision for the future to help 100 million farmers across the globe to improve their lives.



Bharat Jyoti Award to Dr R.K. Khetarpal

Dr R.K. Khetarpal, Regional Director of CABI South Asia, was awarded the prestigious Bharat Jyoti Award (Glory of India Award) for the year 2013 by the India International Friendship Society.

This award has been conferred to him in recognition of the remarkable achievements in his life. Some of the previous recipients of this award include Mother Teresa, Air Chief Marshal N.C. Suri, General Cariappa, Deva Nand, Rajesh Khanna, Pankaj Udhas, Sunil Gavaskar, B.D. Jatti, Dhanraj Pillay, Sunil Dutt, Ustad Umjad Ali Khan to name a few.



Follow us on



Editor: Priyanka Anand p.anand@cabi.org

Technical input: Himanshu Verma, Rekha Yadav

Photographs by: Sharbendu Banerjee

For project information and collaboration: Sharbendu Banerjee s.banerjee@cabi.org



KNOWLEDGE FOR LIFE