

Making E-Agriculture Work through Public Private Partnership in Asia
An On-line Discussion
March 10-28, 2008

Final Report¹

1. Introduction

E-agriculture.org hosted a special online forum² on “Making E-Agriculture Work through Public Private Partnership in Asia” from March 10 to March 28, 2008. Areas explored included:

- a. The scope of public private partnerships (PPP) to implement e-agriculture successfully.
- b. Understanding the major and common constraints in PPP based on past experiences and current practices.
- c. Suggestions and solutions to overcome challenges and to focus on bringing practical solutions.
- d. The roles of stakeholders: government, private sector, and others.

With the objective to bring together ideas, experiences and suggestions of practitioners and policy makers on how e-agriculture benefits farmers through successful partnerships between the private and public sectors in Asia, the discussion was divided into three weeks:

- The discussion in Week I (10 – 14 March) focused on various public-private partnership models in e-agriculture, how different actors work together, lessons therein along with identifying challenges.
- Week II (17 – 21 March) discussion involved recognizing specific cases of successful public-private partnerships in e-agriculture in Asia.
- Week III (24 – 28 March) focused on reviewing the key points and content identified in Weeks I and II and sought a more in-depth review of those priority areas. The forum’s output focused on where the e-agriculture community should consider going next with PPP, and how the valuable suggestions from the forum can be further disseminated to successfully implement e-agriculture to benefit the farmers.

The forum³ was sponsored and moderated jointly by FAO and Katalyst⁴.

2. Public Private Partnership in e-Agriculture: Roles and Incentives of Stakeholders

PPP is an initiative formed and operated through a partnership of government or a public sector entity and one or more private sector companies and or NGO/Civil society organizations. Fundamental to forging this partnership is the understanding of why the partnership is required, the respective mandates and incentives of the partners, and their roles in the partnerships. Some examples of PPP in Asia discussed were ITC’s e-Choupal, the LifeLines-India, Krishi Vigyan Kendra, Commonwealth of Learning supported Lifelong Learning for Farmers Project, the Kisan Call Centers, and Grameen Phone’s Community Information Centers, among others. In India, e-Choupal (run by ITC, a private sector entity) shows how cooperation between ITC, rural entrepreneurs, state agricultural universities and the Indian government’s extension machinery has served to bolster the farmers’ expertise and day-to-day awareness of what needs to be done to cope with myriad agricultural needs. In Bangladesh,

¹ Prepared by Manish Pandey (Katalyst), Michael Riggs (FAO) and Charlotte Masiello-Riome (FAO), with our thanks for the support given by Shahiduddin Akbar, Arafat Hossain, Shahroz Jalil and Shehzaad Shams.

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³ <http://www.e-agriculture.org/399.html>

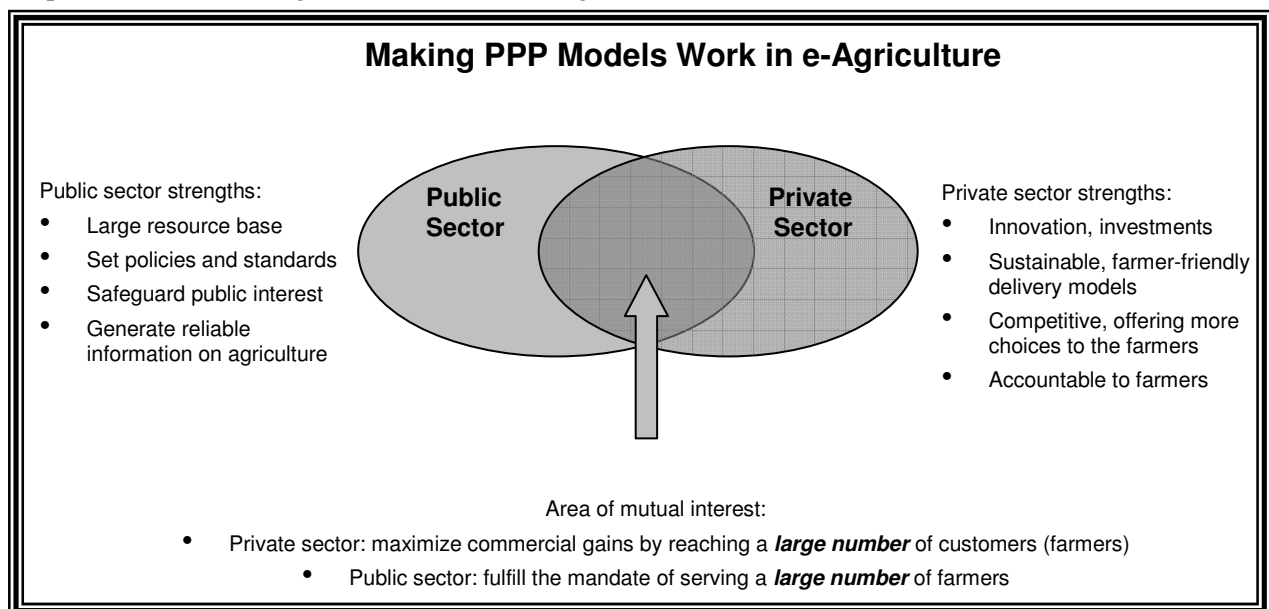
⁴ Katalyst is a Bangladesh-based market development project funded by Canadian International Development Agency (CIDA), Department for International Development (DFID), Embassy of the Kingdom of the Netherlands, and Swiss Agency for Development and Cooperation (SDC) and implemented by Swisscontact, the Swiss Foundation for Technical Cooperation and co-implemented by GTZ-International Services.

Grameen Phone in collaboration with WIN and a development project has established Community Information Centers (CICs) to disseminate agriculture-related information to farmers in their native language Bengali. Both models reflect the interests of both the public partners and private partner, complementing each other to address the needs of the farmers and rural communities.

The competence of the public entity in generating authentic and reliable information fits well with the private sector’s interest in using its expertise to disseminate information on a sustainable basis.

To understand the dynamics of a successful PPP in e-agriculture, a good understanding of the roles and objectives of the public and private sector is required. The forum identified key roles of the public sector in implementing e-agriculture as being preparing and effectively disseminating relevant content (as public information) on crop cultivation techniques, information on input, disease, soil and fertilizer dosage, etc. It is also in its mandate to ensure that the necessary infrastructure, connectivity and easy access to that information by target groups, i.e. farmers, are in place.

The role of the private sector was discussed as involving efficient and quality commercial services. Identifying a profit model and understanding its social importance is critical for the private sector to ascertain early in forging a partnership with the public sector. The stakeholders need to clearly identify and stipulate common objectives, incentives and expectations out of the partnership to implement effective e-agriculture thus benefiting the ultimate beneficiaries, i.e. farmers.



3. The Key Issues and Challenges in Making PPP Work in e-Agriculture

While the importance of PPP in supporting successful applications of e-agriculture was appreciated by the discussants, it was noted that the challenges of striking successful partnerships were many fold. One issue discussed was a common lack of clarity on the roles of the public and private sectors. This has meant that many initiatives aimed at helping the farming community either do not achieve their objectives or do not continue on for a long period of time (i.e. are unsustainable). As an example it was pointed out that many public sector programs that are subsidized and aimed at the farming communities stop as soon as the external funding ceases. Similarly many initiatives led by the private sector falter due to a lack of credibility and/or appropriate pre-requisites such as adequate infrastructure, which in some cases could have been provided by the public sector.

Infrastructure is not well developed in many rural areas, creating a significant challenge to e-agriculture initiatives. With poor basic infrastructure such as electricity, modern communication is severely hampered making it difficult for well-meaning initiatives to reach the farmers in need. Reaching the “last mile” where connectivity is non-existent or severely limited poses a significant

challenge. Farmers in remote areas lack access to basic services and the scarcity of the basic infrastructure necessitates the proponents of PPP to innovate in reaching the under- or un-served farmer communities.

Another key challenge regards data and agricultural information. In many cases, the poor reliability and availability of data is a constant hurdle in making information available to farmers. Consequently, the public sector faces a constant challenge in generating timely and relevant information. Even when these issues are resolved, the issues of data authenticity, validation, updating, proprietary rights (commercial vs. non-commercial), etc. remain a challenge.

Yet another key challenge is the need to generate awareness about the services among farmers and make them aware of the benefits so that they are appreciated and used appropriately.

Concerns about the ownership of information (particularly in the public sector), and measuring the impact of PPP models in e-agriculture on farm productivity, food security and poverty were also identified as issues that need to be addressed.

4. Identifying Key Practices Found in Successful PPP Work in e-Agriculture

Through the discussion of experiences and the recognition of cases in which some success has been achieved in using PPP for e-agriculture, several key practices were identified⁵.

- **Form win-win situations**

Striking a win-win situation and tapping into the necessary motivation are key to making public-private partnerships work. An example of how this is being done is seen in the IRRI Rice Knowledge Bank (RKB) project in the Philippines. The RKB concept is about producing reliable and robust information which can be used by both private as well as public services. To facilitate the dissemination of its information, IRRI follows the Creative Commons agreement which allows the use and sharing of content with proper acknowledgement of the source generally for non-commercial purposes, and with specific permission for commercial purpose. For example, a vegetable seed company based in the Philippines repackages RKB information as part of their published materials and sells it at a small cost to its extension and farmer community. IRRI acknowledges that through various delivery channels, including this seed company, the material it produces is reaching intended beneficiaries such as farmers and extension persons who may not otherwise have access the information. IRRI's RKB is currently in varying stages of country-level development in Bangladesh, Cambodia, Indonesia, Lao P.D.R., Nepal, the Philippines, Sri Lanka, Thailand and Vietnam.

The Nepali e-Haat Bazaar represents another example of PPP in Asia relating to e-Agriculture⁶. The portal provides market prices and relevant information from 11 major markets around the country and more than 100 agriculture types of produce are profiled. Some of the lessons learned from its experience and shared on the Rural Urban Partnership Programme website include how the initiative gave positive exposure to local entrepreneurs, municipalities and village development committees of the potential of ICT, and it demonstrated that a digitally supported B2B business models can be customized to suit small and micro-entrepreneurs. It should also be noted that this case also identified a capacity gap in local institutions' ability to uptake the initiative.

Understanding the mandates and incentives of the partners and how they fit together is crucial in making these types of partnerships work. A clear understanding allows the public and the private sectors to focus on their core competence and ensures sustainability of the initiative. For example, in

⁵ Refer to Annex 1 for a full list of cases mentioned in the forum, and to the forum discussion at <http://www.e-agriculture.org/399.html> for more detail on the cases mentioned.

⁶ A joint initiation of Rural Urban Partnership Programme (Ministry of Local Development and UNDP) and High Level Commission for Information Technology and Agro Enterprise Center/Federation of Nepalese Chamber of Commerce & Industries. The initiative is linked with www.agripricenepal.com, a website coordinated in conjunction with the Market Development Division (MDD) of Department of Agriculture of Government of Nepal's Ministry of Agriculture and Cooperatives, providing daily agriculture market price information to farmers, traders and the wider business community.

Bangladesh agencies under the Ministry of Agriculture such as the Department of Agriculture Marketing (DAM) or Agriculture Information Services (AIS) have the timely, in demand information and are mandated to provide it to the wider public. Discussions are underway which would allow them to partner with privately owned tele-centers to fulfill their mandate to deliver the information on one hand, and enrich and expand the service offering of the private sector on the other, an example of how public information can be delivered through private channels.

- **Focus on Content**

Forum participants noted that in order to make the current information (from government and other sources) useful, it needs to possess certain characteristics, including, but not limited to being accurate, relevant, and timely; need-based (demand driven, not supply driven); available in local language; validated and/or authenticated by experts or credible institutions, and tested with the users; and, digitized and hosted on an accessible web-based platform or digital medium such as CD ROMs, with hard copies available, when necessary.

An example of a successful public private partnership approach to content provision is seen in Lanxi, China where a community information centre called the “Farmers’ Home” is being run by government entities (the local agriculture, forestry and fisheries conservation bureaus) with private sector involvement. Small scale farmers are an integral part of the success of the centre. The Farmers’ Home provides a “one-stop shop” where the community can obtain agriculture-related information and extension services from trusted sources as well as real-time market prices, learn about new farming input products and purchase input products for which they would not otherwise have access. This centre has many good examples of lessons learned, including the involvement of government staff and, through them, access to digital information (e.g. China Agricultural Information Network), resulting in content that is considered both timely and of good quality by the community. The approach is mutually beneficial for all involved, as it enables the private sector to promote its products and the public sector to recoup some costs of running the centre.

Another example discussed demonstrating good practices of content provision and the use of delivery mediums, can be seen in the activities of WIN Inc., a private sector firm specializing in information service development, working with Grameen Phone Community Information Centres (CIC) to develop advisory services for rural farmers in Bangladesh. With initial assistance from a development project⁷, WIN has successfully developed information for the CIC in the native language of Bangla. Farmers obtain information from the CIC where the centre operators consult www.ruralinfobd.com for appropriate information and advisory services. For additional queries that cannot be answered by consulting the website, WIN provides solutions through email or mobile phone to the centres. WIN has a contract with Grameen Phone that requires them to regularly update the content, and WIN employs the services of a panel of government and private sectors experts to validate and authenticate the information. WIN and Grameen Phone make public information on agriculture available to the wider communities through the centres charge for the cost of access. The 550-plus CIC⁸ are franchises of Grameen Phone and each centre is owned by a local entrepreneur. This is an example of how private sector can efficiently distribute information previously confined to public domain. Through this case, however, it is also noted that low awareness among the farmers, reliability of the information and developing real-time, market price information service are some of the challenges being faced by WIN.

- **Generate demand for services**

The target groups must demand the services that drive the core interest and incentive of the private sectors in forming partnership with the public bodies. Similarly, the service providers must innovate in developing appropriate need-based services. Innovations need not be limited to only developing the services but also on how the service are delivered. As in the case of LifeLines India, an innovative ICT application or a PPP model in agriculture will be successful only when it is adapted to local

⁷ Katalyst

⁸ (www.gpcic.org)

context and be responsive to farmers' needs. Critical and time dependent knowledge of farm input impacting on crop productivity and profit to the farmers is the key differentiator to create value propositions.

- **Promote models that foster entrepreneurship and diversity**

Having an entrepreneurship model strengthens the objective of reaching the farmers through sustainable technology. Entrepreneurs are central in the successful examples such as ITE e-choupal, Grameen Phone CIC. With entrepreneurs at the forefront of the partnership, it remains in their interest to constantly serve the rural community for commercial purposes and innovate.

In Gotoknow.org, Thailand's largest online knowledge sharing platform and a blogging community of around 30,000 members, most of the bloggers are agricultural professionals and IT savvy farmers, however, membership is not limited to this group. Indeed participation is encouraged from all professions and perspectives, and the resulting multi-disciplinary groups of agricultural experts, farmers, health care professionals, academics and others creates a richer environment for knowledge sharing.

- **Awareness building**

Simple awareness of the availability of these technologies by farmers, and how they can be used, can be one way of supporting farmer's needs. Forum participants offered several recommendations on how to popularize ICT-based services to the general e-agriculture community, with special emphasis on farmers. These recommendations include: 1) use simple communication tools such as campaigns, brochures and pamphlets in local languages, as well as other traditional ICT (including radio, theatre, and word-of-mouth), to help create awareness with stakeholders, and organize community gatherings to mobilize agriculture communities with support from NGOs and their networks; 2) provide on-site training and other capacity building activities to show the benefits of using such technologies and how they can complement existing communication networks; 3) build the capacity of the information service providers to process information and also to articulate the service benefits to the target; and 4) use locations such as market places and storage facilities where farmers congregate.

5. The Way Forward

The forum wrapped up with participants' emphasis that further efforts must be placed on understanding how PPP can facilitate the generation and delivery of relevant, timely content, particularly reaching the farmers over the "last mile", and how to increase knowledge sharing among farmers across regions through mechanisms like virtual farmer networks.

- **Content first!**

While there seems to be a lot of information lying around in the different government agencies and research institutes, the forum agreed that there is a need to scrutinize the information to ensure its reliability and authenticity. Useful content should have the following characteristics:

- Specific, measurable, accurate, relevant, timely (SMART)
- Need-based, not supply driven (develop and disseminate only the content that is required)
- Prepared in local language
- Validated/authenticated by experts or credible institutions and tested with the users
- Regular updates and assessments
- Available in multiple formats: digitized and hosted on a website, stored on PCs, CD ROMs, etc., and with hard copies made available where necessary
- The link between information sources (government agencies, academia) and content developers needs to be institutionalized

- **Farmers' network**

To help facilitate more interest and clear cut adopting of such services among the rural communities it was suggested that the e-agriculture community of expertise should study and foster the formation of rural e-agrinetworks attached to strong grass root level organizations. To do so would require

conducting information needs assessment surveys, and identifying suitable partners and priority areas. This could be linked up to regional initiatives. (The e-krishok initiative in Bangladesh is one such project mentioned where the Bengali website facilitates registration of farmers according to their home districts, crops produced, etc.) The discussion emphasized timely and easy knowledge sharing among farmers in order to make use of latest information on agricultural innovations, an objective which might be attained through farmers' networks across regions.

The desire for a common and comprehensive information portal/gateway for the agricultural community was discussed. Considering the efforts needed to develop such a portal and ensure its sustainability, it was suggested that a PPP model would perhaps be the best option. The key objectives of such portal could be to:

- Provide a "One Stop" portal to meet most of the knowledge sharing and information needs of the agricultural community
- Ensure sustainability through wide coverage and allows service providers the option for revenue generation
- Provide multilingual capability and options for customization to suit regional/country specific needs
- Offer features that go beyond static content to assist farmers in decision making and e-commerce so that the portal is useful, popular and actively used

6. Conclusion

Measuring and identifying how public private partnership models in e-agriculture impact on the farmer level remains a challenge. The e-agriculture community in Asia will continue to grow and experiment with existing ICT and networking platforms, and we will continue to learn from their experiences. The success of the use of ICT in agricultural development, and in particular through public private partnerships in Asia, can be evidenced by measuring impact through indicators, such as increase in awareness levels; replication of the existing models; increase in income levels; demand for new services; increase in services usage, and so on. But perhaps the best measure of impact can be seen on the improvements of livelihoods in rural areas.

Finally, it was suggested that the virtual discussion should be continued in the future, but needs to be complemented with face-to-face interactions through different events. It has been suggested that the e-agriculture community disseminate the findings of the forum in upcoming events such as:

- e-INDIA 2008 Conference's e-agriculture thread, New Dehli, India, 29-31 July 2008
- Joint Conference of IAALD, AFITA and WCCA World Congress 2008, Tokyo, Japan, 24-27 August 2008

The e-agriculture community is committed to sharing this knowledge and building on what is learned through all avenues made available.

Annex I: case examples discussed in the forum

Agriculture Marketing Information Network (AGMARKNET):

www.agmarknet.nic.in

Agriculture Resources Information System (AgRIS), Haryana State:

www.eindia.net.in/eagriculture/Fullpaper/FullPaperGhanShyamBansal.pdf, www.agric.nic.in

Farmers' Home, China:

<http://www.fao.org/docs/eims/upload/192792/Lanxi%20Farmers%20Home.pdf> for a summary report or <http://www.fao.org/docrep/007/ad504e/ad504e00.htm> for the full study, which is part of a larger group of work by FAO and its partners regarding the rural digital divide. There is a website dedicated to this work at <http://www.fao.org/rdd>.

Grameen Phone Community Information Centers:

www.gpcic.org

IRRI Rice Knowledge Bank (RKB):

<http://www.knowledgebank.irri.org/Rice/Ricedefault.htm>

ITC e-Choupal:

www.e-choupal.com

Kisan Call Centers:

www.dacnet.nic.in/dwd/kisan_call_center.pdf

Krishi Vigyan Kendra:

www.kvkaramati.com, www.mitrakvk.org, www.kvk.pravara.com

LifeLines-India:

www.btglobalservices.com/business/global/en/docs/case_studies/lifelines_oneworld_india_case_study_en.pdf

Lifelong Learning for Farmers:

www.col.org/colweb/site/pid/3083

MS Swaminathan Research Foundation (MSSRF) & Indian Space Research Organization (ISRO):

www.mssrf-nva.org/publications/ISRO-MSSRF%20VRC-2004.pdf

Nepali e-Haat Bazaar:

www.b2b.com.np

V-Agri of ASHWINI Platform:

www.byrrajufoundation.org