

Promotion of Organic Farming using Mobile & Internet Computer Technology tools by creating interactive knowledge network among Farmers of Haryana and Punjab.

“Organic Agriculture is a production system that sustains the health of soils, ecosystems and people. It relies on ecological processes, biodiversity and cycles adapted to local conditions, rather than the use of inputs with adverse effects. Organic agriculture combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved”.

In India the Organic Agricultural growth is mainly hindered by low productivity, a shrinking agricultural land base, urbanization, diversification in production and consumption bases, poor market linkages and other factors like erosion of Traditional Knowledge. Usually the Organic Agricultural sector, and in particular farmers, are highly vulnerable to risks due to high variability in climatic conditions and to market uncertainties. The farmer's exposure to risk and uncertainty is often aggravated by lack of knowledge about local weather, organic inputs, organic farm management practices or market prices, and this lack of knowledge has an adverse impact on organic crop production and farmers income.

Some of these risks, for example the risk of a bad monsoon, affect agriculture as a whole, while other risks vary from region to region, and the severity of their effect depends on an individual farmer's knowledge and ability to cope. The evidence suggests that a farmer who receives quality, up to date knowledge, and who has the ability to use that knowledge, is able to lessen the effect of these risks.

Role of Knowledge Network in Organic Agriculture

Practical experiences, skills and knowledge of the farmers play very important role in helping other farmers who face similar problems. For example during Kharif 2008 at the end of season there was a severe attack of Black Hopper on the paddy crop. The conventional farmers tried various cocktails of deadly chemicals on their conventional paddy crops. The organic farmers of Mohanpur village in district Kurukshetra had a meeting and discussed on various non chemical alternatives to control the disaster. One farmer suggested that there are two methods to control the pest activity one is to kill them by use of chemical and second is to create hindrance in their movements. For creating hindrance in the pest movement *Jaggery Solution* was identified. Farmers sprayed jaggery Solution on their standing crop, which caused stickiness in the fields and the pest population was reduced below threshold level. This practical idea was published in local news paper and thousands of conventional and organic farmers used this idea and saved their valuable crop by using homemade concoction.

Mobile and Internet Computer Technology

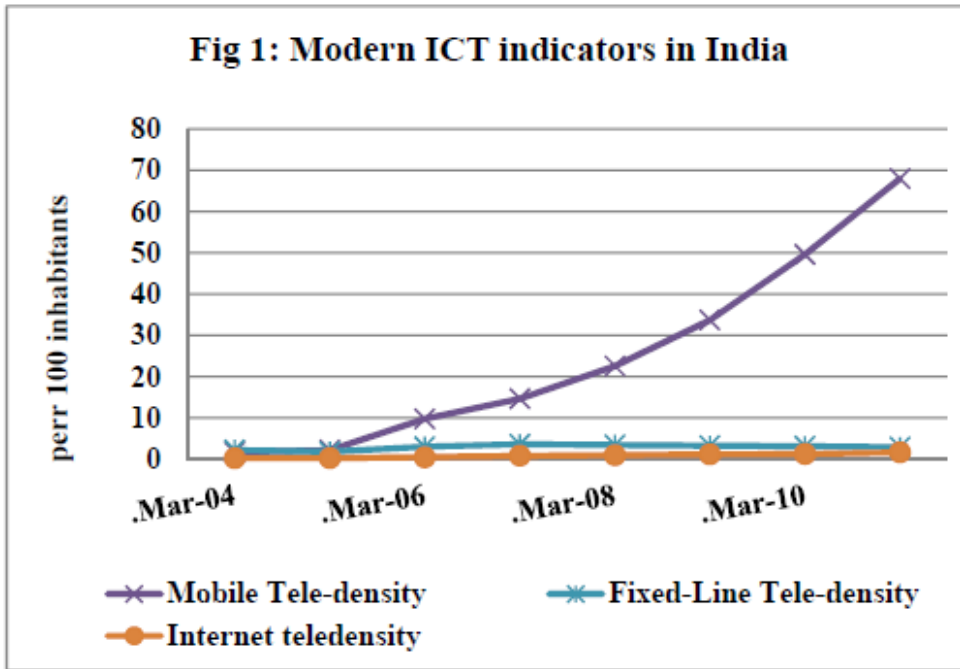


Fig 1: Modern ICT indicators in India

Source: International Telecommunication (ITU) and Telecom Regulatory authority of India (TRAI)

As displayed above in Fig-1, the mobile Tele-Density has increased significantly as compared to Internet Tele-Density and Fixed Line Tele-Density. Farmers are using mobile phones in managing their fields, families and business. There is no Government run extension system for Organic Agriculture in India. Only few projects and local level initiatives of NGO's and Agribusiness Entrepreneurs are playing role in promoting Organic Farming. This extension network can be strengthened by the use of ICT in disseminating knowledge to the target audience – organic farmers.

KISAN SANCHAR EXPERIMENT

Kisan Sanchar is Non Profit Company registered under Section 25 of Indian Companies Act 1956 which has been incorporated to with the objective to provide authentic and actionable knowledge to the farmers for reducing the cost of production and increasing their income. www.kisansanchar.com was launched on 1st November 2010 and at present approx. 65000 farmers are receiving knowledge related to farming practices, animal husbandry and market updates. This service is being provided free of cost to the farmers in 75 districts of India (7 states of Northwest India). This service is a self sustainable service as the cost of messaging is borne by local Krishi Vigyan Kendra (Farm Science Center).

[Digital Empowerment Foundation](#) and [Vodafone India Foundation](#) selected Kisan Sanchar Project of Sristi Gyan Kendra for incubating it under Vodafone Mobile for Good Scheme 2011. Accordingly [Kisan Sanchar](#) was incorporated as nonprofit company under the provisions of Section 25 of Indian Companies Act 1956 on 15th March 2012.

Promoting Organic Farming through ICT

Kisan Sanchar has provided free access to two groups of organic farmers in Haryana and Punjab. In Haryana free access has been given to Keet Saksharta Kendra Nidana (Jind, Haryana) <http://ksknidana.blogspot.in/> which is nonprofit organization being promoted by the farmers of village

Nidana in district Jind of Haryana. The farmers are advised on practical knowledge on insect and pests gathered by women working the fields. In Punjab free access has been given to Kheti Virast Mission <http://www.khetivirastmission.org/>. The farmers are advised on practical ideas of organic farming and important information about Trainings, Organic Food festivals, etc.

Reducing Cost in Interactive Knowledge System

The present system of sharing knowledge through text and Voice messages has following drawbacks:

1. It involves cost (SMS)
2. It consumes space in the Mobile message Inbox
3. It is a Push Service and user group receive similar message.
4. Farmer cannot receive selective messages of his choice.
5. Farmers cannot choose user groups at their own.

Considering all these facts Kisan Sanchar has invested in developing in android based mobile application which is about to complete. This will be launched at OLC session at Bangalore during 26th November to 2nd December.





Fig-2 Screen Shot of Kisan Sanchar Android based mobile application.

Important benefits to the organic farmers of Kisan Sanchar mobile application are, as under:

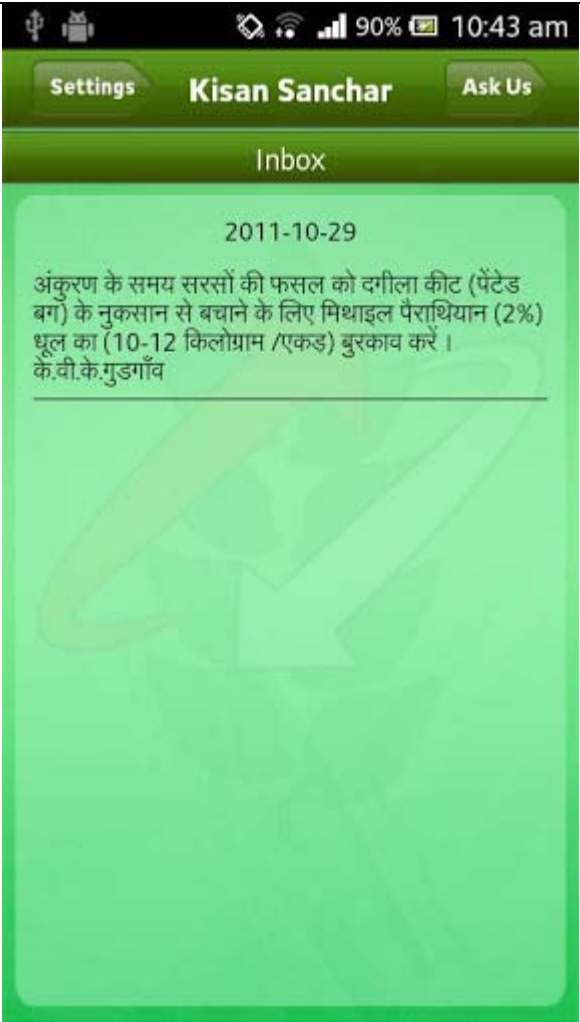
1. This will give fair chance to organic farmers as well as conventional farmers to choose selective content of their choice.
2. This will be 100% free to the farmers and very low cost for the Kisan Sanchar.
3. This will not consume the space in the message memory
4. Farmer can access the database at any point of time.
5. The organic practices will be bearing IFOAM logo.
6. The MIS of the user trends using this application will be available at the Administrator Panel which will be very useful.
7. The organic farmers will be able to access other farmers in their area or any other area of their choice.
8. This application will be irrespective of Mobile based Tele Circles it means it could be accessible from any part of the Globe.
9. This will also help farmers to sell their crops and access the markets.
10. This will help farmers to share their ideas and feedback with the administrator, good and practical ideas will be shared with larger groups with full acknowledgement to the farmer or group who observed it first and used


Annexure-3

| S.No. | Details | Image Description |
|-------|--|---|
| 1. | First Slide of Kisan Sanchar. Here new user can register itself and create Log In ID and the existing user can use the log in and password to access the database. |  <p>The image shows the first slide of the Kisan Sanchar application. It features a green background with a central logo consisting of a green plant with an orange arrow pointing upwards and a white arrow pointing downwards. Below the logo, the text "किसान संचार" and "Kisan Sanchar" is displayed. At the bottom, there are two orange buttons labeled "> SIGNIN" and "> SIGNUP". At the very bottom, it says "Supported By: Digital Empowerment Foundation, Vodafone India Foundation, IFOAM".</p> |

2. Here a user can select the categories and sub categories for receiving messages. These preferences help the user to select the content of his/her choice.



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| <p>3.</p> | <p>The message is displayed as the preferences of the user. By clicking the setting button above on the left side a user can add or delete the preferences. The message can be of any length. The format supports photo messages.</p> <p>By clicking the ask button provided on the top left (above) user will be guided to Slide 4 Which is explained below.</p> |  <p>The screenshot shows the Kisan Sanchar app interface. At the top, there is a status bar with icons for signal, Wi-Fi, and battery (90%), and the time 10:43 am. Below the status bar is a green header with three buttons: 'Settings', 'Kisan Sanchar', and 'Ask Us'. Underneath the header is a section titled 'Inbox'. A message is displayed with the date '2011-10-29'. The message text in Hindi reads: 'अंकुरण के समय सरसों की फसल को दगीला कीट (पेंटेड बग) के नुकसान से बचाने के लिए मिथाइल पैराथियान (2%) धूल का (10-12 किलोग्राम /एकड़) बुस्काव करें। के.वी.के.गुडगाँव'.</p> |
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| 4. | <p>This slide provides opportunity to the registered user for making interactions with the Administrator. User is empowered by providing the facility to write and upload the image/ video and submit. The uploaded content is visible to the Administrator and he can allow or assign the technical team to answer. This facility also opens the doors for interaction of user.</p> |  |
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