Video conferencing for organising research- extension - farmer interface programmes

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Introduction

Systematic research conducted at Central Plantation Crops Research Institute (CPCRI) has yielded a substantial number of viable technologies related to crop production, crop protection and processing for enhancing income from coconut. However, farmers are not able to exploit the production potential from these technologies to the extent desirable. Low efficacy of transfer of technology and feedback system is an important constraint in improving technology utilization by coconut farmers to earn more income. Effective linkages between research, extension and farming community is a crucial requirement for sustainable coconut development. There is great potential for the use of Information and Communication Technology for enhancing the efficiency of technology transfer initiatives for improving coconut farming. Interactive Video conferencing, as an ICT tool, provides two-way point-to-point or multi-point video and audio connections. As video conferencing becomes more widely available, it is important that there is a new awareness of its vast potential in order to ensure that this technology is fully exploited for the benefit of farmers. Innovative extension approaches, including interactive video conferencing as part of cyber extension, are being employed by CPCRI for improving technology utilization by coconut farmers.

Dr George V.Thomas, Director and Scientists of CPCRI interacting with extension personnel during intetrafce on coconut farming through video conferencing

The interactive video-conferencing programmes employ different modes of interaction between the participants. Scientist-Farmer interface mostly utilize question-answer mode at times supported by use of power point presentation. Scientist-Extension personnel interface programmes on specific themes use power point presentation by the scientist followed by discussion. The interaction between SHGs employ demonstration of techniques of production of value added products, question-answer and discussion.

Interactive video confer -encing for organising Research-Extension -Farmer interface programmes on coconut farming

As part of the cyber extension activities, a group video conferencing system through ISDN was installed at the ATIC, CPCRI, Kasaragod to facilitate interaction between various stakeholders for enhancing technology utilization in coconut. The Research-Extension-Farmer Interface facilitated through

video conferencing under Cyber Extension Project was formally inaugurated at CPCRI, Kasaragod during the year 2007. Since then, the Institute has been organizing interface programmes involving different categories of stakeholders at regular intervals to strengthen the technology transfer efforts. In the year 2010, the video conferencing facility for organizing interface programmes was strengthened by procuring a mobile CODEC. The additional facility of mobile CODEC enhanced the scope of interface programmes by linking the scientists at the Institute head quarters with farmers and other stakeholders in distant locations, which do not have videoconferencing facility, either through ISDN or IP-network. This facility provides more opportunities for the researchers at the Institute to have interactions on field problems with farmers and other stakeholders located in distant places.

The details of interface programmes facilitated through video conferencing organized by CPCRI are furnished below.

A total of 55 interface programmes facilitated through video conferencing were organized by CPCRI during the period from 2007 to 2012. The programmes thus organized can be broadly categorized as follows.

Type 1. In this type of interface programme, scientists of the institute interact on themes related to production technologies of coconut and coconut based cropping systems with extension personnel and farmers located in distant places. Mostly this type of interface programmes have been initiated in collaboration with commodity boards such as Coconut Development Board (CDB), State Department of Agriculture/ Horticulture and Krishi Vigyan Kendras (KVKs).

Type 2. In this type of interface programme, scientists of the institute interact with farmers located in distant places. Mostly this type of interface programmes have been initiated at the request of commodity based farmers' groups such as coconut farmers groups.

Type 3. In this type of interface programme, scientists of the institute interact with extension personnel attending training programmes at other horticulture research institutes on topics related to coconut based cropping systems.

Type 4. In this type, interaction is facilitated between extension personnel attending training programmes at CPCRI and scientists at other horticulture research institutes on themes related to improved varieties and agro techniques of horticulture crops suitable for inter/mixed cropping in coconut gardens.

Type 5. In this type, interaction between SHGs are facilitated mainly to share their experiences in production and marketing of value added products and also to facilitate demonstration of techniques involved in the production to benefit the members of SHGs at the other end of interaction.

Table 1. Research-Extension-Farmer interface programmes facilitated by video conferencing organized by CPCRI

Type of interface programme	Participant at the Institute HQ	Participants at the off campus location	No. of interface programmes conducted during 2007-2012 (up to October)
Type -1	Scientists	Extension personnel and Farmers	16
Type -2	Scientists	Farmers	12
Type -3	Scientists	Extension personnel	17
Type -4	Extension personnel	Scientists	06
Type -5	Scientists and members of SHGs	Scientists and members of SHGs	04
		Total	55

Mode of interactive video conferencing

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Linkages

Effective linkages are established with various agencies such as ICAR institutes, Commodity Boards like CDB, State Department of Agriculture/ Horticulture, State IT Misssion, NGOs, people's representatives and farmer organizations for the effective conduct of the interactive videoconferencing programmes by CPCRI to strengthen technology transfer programmes in coconut, arecanut and cocoa under the cyber extension project.

Locations of interactive video conferencing

Since launching the facilities, interactive video conferencing involving various stakeholders have been conducted between CPCRI headquarters at Kasaragod and various locations in the country as per the details furnished in table 2.

All the four major coconut producing states viz., Kerala, Tamil Nadu, Karnataka and Andhra

Pradesh have been covered through the interface programmes besides other states such as Assam, Bihar and Orissa. In Kerala, more number of locations have been covered through the interactive video conferencing due to the comparative advantage for arranging the logistics for the use of mobile CODEC equipments.

Subject matter areas covered in the interactive video conferencing

The details of subject matter areas covered in the interactive video conferencing programmes involving scientists and farmers are furnished in table 3 below.

Table 2. Locations of interactive videoconferencing

State	Locations covered
Andhra Pradesh	Hyderabad
Assam	Guwahati
Bihar	Patna
Orissa	Bubaneswar (Pitapally)
Karnataka	Bangalore
Tamil Nadu	Chennai, Coimbatore
Kerala	Thiruvanthapuram, Vellanad, Varkala, Kallada, Kollam, Kayangulam, Alappuzha, Kochi, Malappuram, Kuttippuram, Tirur, valanchery, Vadakara, Kalpetta, Kozhikode, Kannur and Kanhangad

As is evident from the above table, crop protection aspects were the subject matter area, which got maximum coverage in the interactive video conferencing programme, followed by post harvest technologies, improved varieties and integrated nutrient management. Incidence of pests and diseases is the most important field problem resulting in substantial loss in income of farmers and hence, farmers showed keen interest to seek technical guidance from the scientists on integrated pest and disease management practices.

Perception of farmers about the interactive videoconferencing

Majority of the farmers rated the interactive video conferencing they have attended as very useful indicating a high level of utility for the programme. Through these interface programmes, farmers at distant locations were able to have one to one interaction with scientists and could get technical guidance on various field problems experienced. Similarly, most of the farmers rated the quality and utility of the audio-visual aids used in the interactive videoconferencing programme as very good. According to farmers, the effectiveness of interface programmes facilitated through video conferencing can be further improved. Conducting the interface programmes in a scheduled manner with intimation to farmers sufficiently in advance, ensuring participation of representatives of developmental agencies to provide information on schemes to provide support for farmers for field implementation of improved technologies, selecting a specific theme for each interface programme rather than a broad topic, organizing follow up programmes for the interface such as diagnostic field visit and conducting training programmes to scale up the technology transfer initiatives were the major suggestions of farmers for improving the interactive videoconferencing.

Conclusion

Experiences of CPCRI have clearly shown that interactive video conferencing as an ICT tool can be effectively used for linking research, extension and farming community. Farmers have perceived high utility for the interface programmes facilitated through videoconferencing since they were able to have one to one interaction with scientists and could get technical guidance on various field problems experienced in coconut farming. There is scope to further enhance the effectiveness of interface programmes facilitated through conducting follow up programmes.

Table 3. Subject matter areas covered in the interactive videoconferencing

Topic	Coverage (%)
Availability of planting materials	5.3
Hybrids and improved varieties	10.5
Cropping/farming systems	5.3
Integrated nutrient management	7.9
Organic farming technologies	2.6
Irrigation and water management	7.8
Integrated pest management	23.7
Integrated Disease management	21.1
Post harvest technology	10.5
Development schemes and Marketing	5.3
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