

# Strategies for Effective Utilization of Interactive Multimedia Compact Disc (IMCD) for Transfer of Farm Technologies

N. ANANDARAJA<sup>1</sup>, K. CHANRAKANDAN<sup>2</sup>, H. PHILIP<sup>3</sup>  
and N. RAVEENDARAN<sup>4</sup>

<sup>1</sup>Tata-Dhan Academy, Madura, India

<sup>2, 3, 4</sup>Tamil Nadu Agricultural University, India

**Abstract:** *Creating access and promotion of any technology among target clientele could be possible with the formulation of appropriate strategies and blue prints. This might include the purchasing capacity, affordability, financial support, need of subject matter specialists to deliver the modules, adequate training etc., to prepare the module for utilizing the benefits. With this in need the present experimental research study entitled, "Developing Farmer-Friendly Interactive Multimedia Compact (IMCD) and testing its Effectiveness in Transfer of Farm Technology" was planned with the objective of proposing strategies for its promotion among farmer groups. The study was conducted in computer owning and non-owning farmers of Thondamuthur block of Coimbatore district of Tamil Nadu. Most of the non computer owning respondents reported that they needed assistance to purchase computer and related accessories. The farmers suggested their liking to hire from SAUs, JDA office, ADA office, ADO and AO's office, AAO's office, village/taluk,/district central library, block development office, village administrative office, panchayat office, community hall, private internet or browsing center and farmers association/society. Cent percent of non-computer owning farmers and nearly one-third of computer owning farmers needed subject matter specialists to operate the computer and IMCD.*

## Introduction

Access to information and improved communication is a crucial requirement for sustainable agricultural development. Modern communication technologies when applied to conditions in rural areas can help improve communication, increase participation, disseminate information and share knowledge and skills. However, it is observed that the rural population still have difficulty in accessing crucial information in order to make timely decisions. There is a concern that the gap between the information rich and information poor is getting wider. New information and communication technologies are generating possibilities to solve problems of rural poverty, inequality and giving an opportunity to bridge the gap between information rich and information poor and support sustainable development in rural and agricultural communities. It is essential that information availability is demand driven rather than supply driven. The challenges are not only to improve the

accessibility of communication technology to the rural population but also to improve socio-economic status and its relevance to local development (Balit et al., 1997).

Today we truly live in a global village, but it is a village with privileged information “haves” and many information “have-nots”. To face the unprecedented challenges brought on by the changing global economy, dynamic political contexts, environmental degradation and demographic pressures, and to make critical decisions, people at all levels of society – especially the food-insecure and the organizations that serve and represent them – *must be able to access critical information and to communicate*. Improved communication and information access are directly related to social and economic development (Taller and Gaudette, 1995).

Managing success and promotion of any technology among target clientele could be possible with the formulation of appropriate strategies and blue prints. This might include the purchasing capacity, affordability, financial support, need of subject matter specialists to deliver the modules, adequate training etc., to prepare the module for utilizing the benefits. With this in need the present experimental research study entitled, “Developing Farmer-Friendly Interactive Multimedia Compact Disc (IMCD) and Testing its Effectiveness in Transfer of Farm Technology” was planned with the objective of, to propose strategies for its promotion among farmer groups.

## **Methodology**

### **Development of IMCD**

Among the different softwares available, Microsoft Office 2000 Power Point was selected specifically for the study purpose. This software possesses number of unique features such as simple operation, create highly interactive multimedia presentation viz., possibility to add sound, photo, picture, animation etc., play movies directly within the power point, create simple hyperlinks, convert the presentation into web pages, pack and wizard have the advanced facility to compress and save our presentation across the multiple disc. *Tamil* language has been adopted for preparing the IMCD, considering the mother tongue of its users (subjects/farmers).

The major criterion considered for the selection of farm technology (subject matter) was that it should be new and be an intense menace. Accordingly, “Integrated packages for the Management of Coconut Eryophid Mite” was selected. IMCD’s prime aim is to transfer the advanced and complex technologies to the farmers in a simple presentation. Hence, for every slide/page of the IMCD, background voice was given. Varieties of photographs related to pest-affected nuts, trees, pest stages, nature of damage and yield losses were inserted in the appropriate place while preparing IMCD. Three video clippings were inserted in IMCD such as symptoms and nature of eryophid damage, application of nutrient and fertilizer for controlling of eryophid mite and methods of application of Tamil Nadu Agricultural University Agrobiocide chemical through root feeding. Finally all the inserted text, pictures, photos and

video clippings are hyper linked with the different action buttons for better interactivity.

### **Study area and sample size**

The study was conducted in Thondamuthur block of Coimbatore district of Tamil Nadu, considering the maximum number of farmers possessing Personal Computer (PC) with Compact Disc drives and highest area under coconut cultivation. The block comprises of 19 revenue villages. Of the 19 villages, three revenue villages viz., Madampatti, Thaliyur and Alandurai were selected. A sample size of 99 respondents including computer owning coconut growers ( $n = 33$ ) and coconut growers not owning computer ( $n = 66$ ) comprising 33 subjects from each village were fixed in consultation with a statistician for the study. The data regarding strategies for effective utilization of IMCD as a tool for transfer of technology among farmers was collected through a well structured interview schedule.

## **Results and Discussion**

### **Strategies for better utilization of IMCD**

Strategy is a plan designed for a particular purpose or the process of planning / carrying out a plan in a skillful way. In this study, certain percentage of subjects owned computers and the remaining did not own computers. To popularize farm technologies through the IMCD, suggestions were obtained from both the computer owning and non-computer owning respondents.

Based on the discussion with the respondents their preference to access the farm technology through IMCD among the farming community were listed below.

### **Affordability**

From Table 1, it is observed that cent per cent of the computer owning farmers reported that affordability of IMCD and computer were possible. As far as non-computer owning farmers were concerned, about half (51.30 per cent) of them expressed their affordability to IMCD and computer accessories. Besides, about two-fifth of the non-computer owning farmers were (43.90%) found to afford it through group of farmers, followed by nearly one-fourth (9.10 per cent) with by own and the remaining 10.60 per cent through association.

It could be concluded that the entire computer owning farmers expressed they could afford to purchase IMCD, whereas among non-computer owning farmers nearly half percentage of farmers had the positive reply. The reason might be that majority of the non-computer owning farmers belong to marginally small category of farmers, with lower annual income groups.

Table 1: Strategies for better utilization of IMCD

S. No.	Strategies	Computer owned farmers (n = 33)		Non-computer owned farmers (n=66)	
		No.	%	No.	%
1.	Affordability of IMCD and computer	33	100.00	34	51.30
	Affordability				
	a) by own	-	-	6	9.10
	b) by group of farmers	-	-	29	43.90
	c) through association	-	-	7	10.60
2.	Assistance needed to purchase computer	-	-	57	86.40
3.	Availability of CD and computers on hire (IMCD alone)	33	100.00	12	18.20
4.	Like to hire from				
	a) SAUs premises	26	78.80	63	95.40
	b) JDA Office	15	45.50	48	72.70
	c) ADA office	16	48.50	54	81.80
	d) ADO and AOs office	14	42.40	50	75.70
	e) AAOs office	4	12.10	58	87.80
	g) Village / taluk/district central library	23	69.70	52	78.80
	h) Block development office	16	48.50	61	92.40
	i) Village administrative office	29	87.90	64	96.90
	j) Panchayat Office	18	54.50	49	74.20
	k) Community hall	4	12.10	59	89.40
	l) Private internet or browsing centre	22	66.70	11	16.70
	m) Farmers association/society	33	100.00	19	28.80
5.	Needed subject matter specialist for operating the computer and CD	10	30.30	66	100.00
6.	Needed training on the operation of computer and CD	27	81.80	66	100.00
6a	Details of the training required				
	i) Trainer				
	a) Extension Scientist	33	100.00	60	90.90
	b) Other Scientists	-	-	6	9.10
	ii) Type				
	a) Institutional training	33	100.00	60	90.90
	b) Non-institutional training	-	-	6	9.10
	iii) Venue				
	a) TNAU	-	-	19	28.80
	b) Village itself	14	42.40	21	31.80
iv) Month					
a) April-May	31	93.90	58	87.90	
b) Other months	2	6.10	8	12.10	
v) Duration					
a) One day	30	90.90	19	21.20	
b) Two days	3	9.10	52	78.80	
7.	A) Need same facility for other crops/ technologies	33	100.00	66	100.00
	B) Name of the technology				
	i) Grapes disease and nutrient management	26	78.80	14	21.20
	ii) Curing methods of turmeric pest and disease management	23	69.70	51	77.30
	iii) Package of practices for all crops	33	100.00	66	100.00
	iv) Pest and disease management in banana and onion	18	54.50	49	74.20
	v) Other pest and disease in coconut	29	87.90	56	84.50
	vi) Pest and disease management in sugarcane	14	42.40	31	46.90
	vii) IFS component	21	63.60	59	89.40
	viii) Enterprise management	27	81.80	51	77.30

### Assistance needed

Majority (86.40 per cent) of the respondents reported that they needed assistance to purchase computers, whereas none of the computer owning farmers expressed the

need for assistance. This might be due to the reason that, non-computer owning farmers required financial assistance such as long term bank loan, subsidy and insurance for their proportion if they would like to purchase.

### **Availability of IMCD on farm technologies and computer on hire basis**

Cent percent of computer owning farmers reported that they liked to hire the IMCDs, whereas a minimal per cent (18.20 per cent) of the non-computer owning farmers expressed their willing to hire computer and IMCD and the remaining were unwilling to hire.

Cent percent of the respondents liked to hire IMCD via farmer's association/society followed by village administrative office (87.90 per cent), SAU (78.80 per cent), village/taluk/district central library (69.70 per cent), private internet browsing centers (66.70 per cent) and panchayat office (54.50 per cent). Nearly half of the respondents (48.50 per cent) preferred the availability of multimedia CD in ADAs office and BDOs office. Around 45 per cent of the respondents who owned computers prefer to purchase IMCD in JDAs office, followed by ADOs and AOs office (42.40 per cent), AAOs office (12.10 per cent) and at community hall(12.10 per cent).

Cent per cent of the non-computer owning farmers liked to purchase IMCD in village administrative office, 95.40 per cent of the non-computer owned farmers liked to purchase IMCD at SAUs premises, 96.90 per cent of the non-computer owning farmers preferred to hire IMCDs at village administrative office, followed by block development office (92.40 per cent), community hall (89.40 per cent), AAOs office (87.80 per cent), ADAs office (81.80 per cent), ADO and AOs office (75.70 per cent), panchayat office (74.20 per cent) and JDAs office (72.70 per cent). Only 28.80 per cent of the non-computer owning farmers preferred farmers association / society followed by private internet or browsing center.

Cent per cent of the computer owning farmers preferred to hire IMCD from farmers association/society. The reason might be that these farmers can afford to be a member in farmers association / society.

More than 96 per cent of the non-computer owning farmers preferred VAOs office and 95 per cent of them preferred SAU. The reason might be that majority of them were small farmers and they can't afford to be a member in associations. So they preferred the public institutions.

### **Need for subject matter specialist**

Only 30.30 per cent of the computer owning farmers stated the need for subject matter specialist to operate the computer and interactive CD. The reason for this might be majority of computer owning farmers were familiar with computer operations. In spite of this some of them felt that they were not exposed to certain operations in IMCD. Hence, the need for subject matter specialist was felt.

Cent per cent of the non-computer owning farmers preferred subject matter specialist to operate computer and CD. The reason might be their unfamiliarity with computer and its operations.

### **Need for training**

All the non-computer owning respondents felt that they needed training on the operations of computer and IMCD, whereas only four-fifth (81.80 per cent) of computer owning farmers preferred to get trained in the operations of computer and IMCD.

In spite of the fact that the computer owning farmers were aware of IMCD, they felt that some more enlightenment would bring more confidence to operate IMCD. Since the non-computer owning farmers were no aware of IMCD and it is totally new to them, they needed training on the operations of computer and CD.

### **Details of training requirement**

Almost all the respondents in both categories preferred extension scientists as trainer and less than 10 per cent of non-computer owning farmers preferred other scientists to be their trainers.

Cent per cent of computer owning farmers and 72.20 per cent of non-computer owning farmers were inclined towards institutional training and 28.80 per cent of non-computer owning farmer preferred non-institutional training. This may be because of their credibility towards training provided in institutions.

About two-fifth (42.20 per cent) of computer owning farmers and 31.80 per cent of non-computer owning farmers liked TNAU as the venue of training. More than half of respondents from both categories opted to get trained in their village itself. This decision might be based on their comfort and convenience in their own locations.

A vast majority of the respondents in both categories preferred April-May (off season) as opportune time to get trained. They felt that during off-season they were comparatively free and can devote more time to get trained.

Ninety percentage of computer owning farmers preferred one day training and 78.80 per cent of non-computer owning farmers favoured two day training. Since computer owning farmers were already exposed to basic operations in computer they can cope up easily if they were provided with one-day training. But non-computer owning farmers felt the need to be trained right from the basic operations. Hence, they preferred two days as training duration.

### **Preference to technologies in MCD**

Cent per cent of the respondents in both the categories needed IMCD to be prepared for other crops and related technologies. Since the respondents were very much impressed by the developed module, they wanted the same to be prepared on other crops and farm technologies.

The following were the preferred crops / technologies to be prepared in IMCD, as perceived by computer owning farmers: Package of practices for all crops (100.00 per cent) followed by other major pest and diseases in coconut (87.90 per cent), enterprises management (81.80 per cent), grape diseases and nutrient management (78.80 per cent), curing method of turmeric (69.70 per cent), IFS components (63.60

per cent), pest and disease management in banana and onion (54.50 per cent) and pest and disease management in sugarcane (42.40 per cent).

The non-computer owning farmers preference to technologies through IMCD is as follows: Package of practices for all crops (100.00 per cent) followed by IFS component (89.40 per cent), other pest and disease in coconut (84.50 per cent), enterprises management (77.30 per cent), curing methods of turmeric (77.30 per cent), banana and onion pest management (74.20 per cent), pest and disease of sugarcane (46.90 per cent) and grapes disease and nutrient management (21.20 per cent).

### Conclusion

From the findings, it is concluded that most of the non-computer owning respondents (86.40 per cent) reported that they needed assistance to purchase computer and related accessories. The farmers suggested their liking to hire from SAUs, JDA office, ADA office, ADO and AO's office, AAO's office, village / taluk / district central library, block development office, village administrative office, panchayat office, community hall, private internet or browsing centre and farmers association / society. Cent percent of non-computer owning farmers and nearly one-third (30.30 per cent) of computer owning farmers needed subject matter specialists to operate the computer and CD.

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- K. Chanrakandan**, Professor, Department of Agricultural Extension, Tamil Nadu Agricultural University.
- H. Philip, Professor**, Audio-Video Unit, Directorate of Extension Education, Tamil Nadu Agricultural University.
- N. Raveendaran**, Director, CARDS, Tamil Nadu Agricultural University, Coimbatore, Boys Town Campus, Madurai-625 010, Tamil Nadu, India.