

# Assessment of International Training Program on ICT Applications in Agricultural Extension Management for Officials from Africa and Asia

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## Abstract

*The application of Information and Communication Technologies (ICTs) has become increasingly important in agriculture. Today we are seeing the growing use of ICT in the learning process. Currently, ICT based advisory services are a part of the extension system in several developing countries. A study was conducted to assess an International training program on ICT applications in Agricultural Extension Management (Farmers' Call Centre) organized by MANAGE, under Feed the Future India Triangular Training (FTF ITT) initiative, for officials from Africa and Asia. Participants from six countries attended the training and were the respondents of the study. The Program was assessed on five points and most of the participants rated the program as excellent to good and their responses revealed that they were satisfied with the training programme.*

**Keywords:** Training, ICTs, agricultural extension

## Introduction

The application of Information and Communication Technology (ICT) across different sectors of the global economy has become a game changer. ICT plays an important role in enhancing work efficiency, accurate processing of data and output. The utility of ICTs is increasing in the agricultural sector for advisories on crop production/protection, post-harvest management, market scenario, efficiently managing land, labour, capital, and soil.

Training is considered as a tool through which organizations can enhance the human capital. With the focus on the application of ICTs, it is important to design training programs to

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impart knowledge and skills in using and developing ICT tools for future use. The International training program on ICT applications in Agricultural Extension Management (Farmers' Call Centre) organized by MANAGE during 11th to 25th March 2019, under Feed the Future India Triangular Training (FTF ITT) initiative was one such effort to train officials in Africa and Asia based on ICT innovations adopted in Indian agriculture.

The Kisan Call Centre (Farmer Call Centre) is an innovative and modern national scheme for expeditiously delivering extension information and support to the farmers, using the telecommunication network. It helps overcome the challenges such as less manpower in extension systems to respond to the needs of every farmer. Further, the Kisan Call Centre (KCC) plays a significant role in meeting the urgent demands and queries for the latest information by the farmers. Similar constraints were also reported in several developing countries of Asia and Africa (The Manufacturer's Annual Manufacturing Report, 2017). Hence, there was a need for training and capacity development of agriculture extension officers on the use of ICT applications. This study was planned with the objective to assess the International training program on ICT applications in Agricultural Extension for officials from Africa and Asia.

## **Methodology**

This research was carried out with the help of a structured interview questionnaire which was then administered using Google Forms. After feeding the questionnaire in the Google Form, the link to the Form was sent by email to a total of 35 executives who had participated in the training. The data was collected on the profile of the trainees and the assessment of the training by the trainees. The assessment and feedback were ascertained on course content, facilitation for arrival and departure, coordinators' skill and support at the training institute and overall learning from the course. The specific feedback from the trainees was obtained for 10 points with options to respond as 'agree', 'undecided' and 'disagree'. The responses were received from 29 executives and analysed. The frequency and percentage analysis were followed to extrapolate the data.

The training programme focused on the concept of Information and Communication Technology (ICT) and its role in agriculture and rural development, advanced ICT' tools in agriculture and allied sectors, impact of ICTs on farmer's welfare, case studies on ICTs and their implication in developing countries and introduction to the Farmers' Call Centre (FCC), Kisan Knowledge Management Repository, Farmers' Portal and M-Kisan Portal.

## Results and Discussion

The distribution of executives based on country, general assessment of the training programme by the respondents and specific feedback on the programme by the respondents is discussed below:

### *Distribution of executives based on country*

The findings (Table 1 and Table 2) clearly show that out of 35 executives, 20 were from Afghanistan, four from Nepal, three from Tanzania, two from Myanmar and one each from Cambodia, Kenya and Malawi. There were 31 male executives and four female executives from different organisations. Out of 35 executives, 30 executives were from agriculture and allied sciences, three from private companies and two from civil societies. Kisan Call Centre (Farmers' Call Centre) was one innovation that impressed the trainees the most. Trainees who had attended the FTF training conducted at MANAGE had requested for this training program with special focus on Farmers Call Centre.

As part of this program, a total of 35 executives, from eight countries, who are working on replicating the KCC in their respective countries were taken to the Ministry of Agriculture to demonstrate the real-time operations of the KCC.

Countries	Number of Executives
Afghanistan	20
Cambodia	01
Myanmar	02
Nepal	04
Sri Lanka	03
Kenya	01
Malawi	01
Tanzania	03
<b>Total</b>	<b>35</b>

**Table 1: Distribution of executives based on country**

Public: Agriculture and Allied Sciences	30
Private: Private Companies	3
Civil Society: NGOs, Cooperatives	2
<b>Total</b>	<b>35</b>

**Table 2: Sector-wise distribution of executives**

## **General assessment of training programme by the respondents**

Figure 1 depicts the general assessment of the training programme by the respondents on five aspects, viz., course content, facilitation for arrival and departure by MANAGE, coordinator's skill and support at the training institute, relevance to their needs and overall learning from the programme.

**Course Content:** The findings clearly show that more than three-fifths of the respondents (65.52%) found the content of the training programme very good followed by 31.03 per cent, who indicated that the course content was excellent. Only 3.45 per cent of the respondents indicated that the course content was fair.

**Facilitation for arrival and departure by MANAGE:** Similarly, 44.82 per cent of the respondents indicated that the facilitation for arrival and departure by MANAGE was very good, followed by 41.38 per cent who indicated that it was excellent. An equal per cent of the respondents i.e. 6.90 per cent stated that the facilitation for arrival and departure by MANAGE was fair and average.

**Coordinator's skill and support at training institute:** More than two-fifths of the respondents (41.39%) found the Coordinator's skill and support at the training institute very good. This was followed by 31.03 per cent of the respondents who indicated that it was excellent, 20.68 per cent informed that the Coordinator's skill and support at the training institute was fair while a few respondents (6.90%) indicated that the Coordinator's skill and support at the training institute was average.

**Relevance to their needs:** Further the findings indicated that nearly two-fifths of the respondents (37.93%) had stated that the relevance of the training programme to their needs was very good followed by 31.03 per cent who informed that the relevance of the training programme was fair. About 27.59 per cent of the respondents informed that the relevance of the training programme to their needs was excellent while only 3.45 per cent of the respondents informed that the relevance of the training programme to their needs was average.

**Overall learning from the course:** Further, 62.07 per cent of the respondents (indicated that they had very good overall learning from the course, followed by 31.03 per cent of

the respondents who stated that the overall learning from the course was excellent whereas a few of them (6.90%) stated that the overall learning from the course was fair.

Therefore, it can be concluded that a majority of the respondents found the course content, facilitation for arrival and departure by MANAGE, coordinator's skill and support, relevance of the training programme and overall learning experience from the training very good. This finding was in line with findings by Giangreco et al. (2010); Sitzmann, et al. (2008); and De Meuse et al. (2007). Therefore, there is scope for MANAGE to further improve the course content to make the content excellent to the international extension personnel.

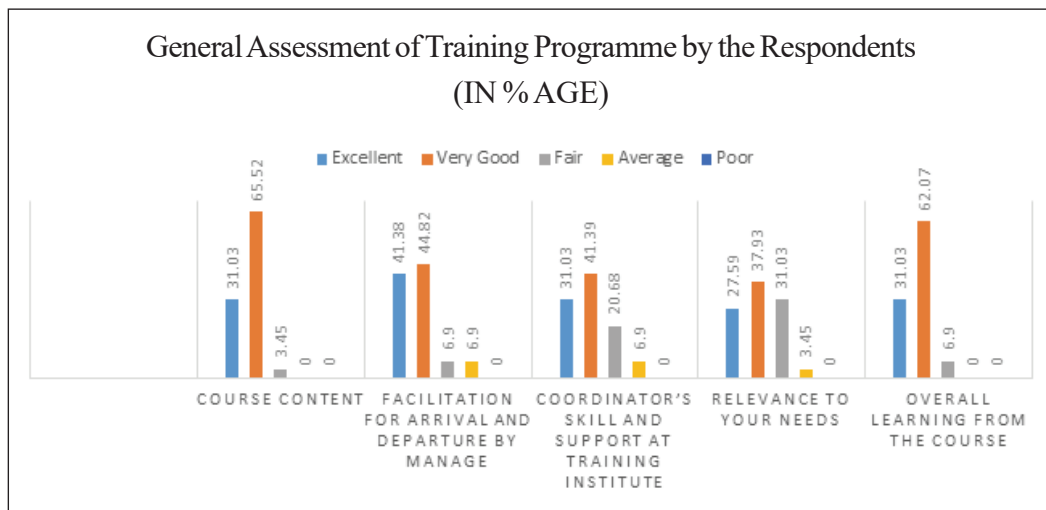


Fig. 1: General assessment of training programme by the respondents

### Specific Feedback on the Training Programme by the Respondents

The specific feedback on the training programme by the respondents is presented in Table 3. It is seen from the findings that a majority of the respondents (93.10%) agreed that they could use the information which they had learnt and the skills acquired followed by 89.66 per cent who responded that additional knowledge was gained due to the programme, teaching aids used were well prepared and comfortable in viewing, 89.65 per cent responded that they would recommend this programme to others and participants had enough opportunities to interact with the trainers. Resource materials were well organised, useful and adequate according to 86.20 per cent of the respondents and topics

were updated to suit the present scenario (82.75%). Around 72.41 per cent of them agreed that the training methodologies used were interesting and relevant for the purpose, speakers were clear in their presentation and trainees were given relevant information, and expectations from the course were mostly fulfilled. A little over half of the respondents (51.72%) agreed that the proportion of exercises/case studies/examples was adequate.

Further, more than one-fourth of the respondents (34.49%) were undecided that the proportion of exercises/case studies/examples was adequate, followed by more than one-fifth of the respondents who were undecided that the expectations from the course were mostly fulfilled (24.14%). Around 20 per cent of the respondents were undecided that the training methodologies used were interesting and relevant for the purpose and speakers were clear in their presentation and trainees were given relevant information. Less than one-tenth of the respondents (17.25%), were undecided that the topics were updated to suit the present scenario, 10.35 per cent were undecided that they would recommend this programme to others and 10.34 per cent were undecided that they had gained additional knowledge and teaching aids used were well prepared and comfortable in viewing.

A closer look at the data shows that 13.79 per cent of the respondents disagreed with the statement that the proportion of exercises/case studies/examples was adequate. This suggests that additional hands-on exercises and case studies are necessary to make the program more practical for the learners. 6.90 per cent of participants disagreed with the statements that resource materials were well organized, useful and adequate, speakers were clear in their presentation and trainees were given relevant information and training methodologies used were interesting and relevant for the purpose. Therefore, the future training course on the same theme may take care of this feedback and ensure appropriate learning material and training methodologies. Further, 3.45 per cent of the participants have shown disagreement with the statements that expectations from the course were mostly fulfilled and they had enough opportunities to interact with the trainers. Therefore, a platform may be provided to the trainees to have an open discussion and interaction with the other trainees.

Therefore, it can be concluded that most of the respondents agreed that they could use the information which they had learnt and skills acquired, additional knowledge was gained due to the programme, teaching aids used were well prepared and comfortable in viewing, this programme can be recommended to others and participants had enough opportunities

to interact with the trainers, resource materials were well organised, useful and adequate and topics were updated to suit the present scenario. In addition, the training methodologies used were interesting and relevant for the purpose and speakers were clear in their presentation and trainees were given relevant information, expectations from the course were mostly fulfilled and the proportion of exercises/case studies/examples was adequate. The findings were in accordance with Kharkar et al. (2020).

**Table 3: Specific feedback on training programme by the respondents**

S.No.	Statements	Agree		Undecided		Disagree	
		f	%	F	%	f	%
1.	Expectations from the Course were mostly fulfilled	21	72.41	07	24.14	01	3.45
2.	I will recommend this programme to others	26	89.65	03	10.35	00	00
3.	Proportion of exercises/case studies/examples was adequate	15	51.72	10	34.49	04	13.79
4.	Topics were updated to suit the present scenario	24	82.75	05	17.25	00	00
5.	Additional knowledge was gained due to the programme	26	89.66	03	10.34	00	00
6.	Resource materials were well organized, useful and adequate	25	86.20	02	6.90	02	6.90
7.	Teaching aids used were well prepared and comfortable in viewing	26	89.66	03	10.34	00	00
8.	Speakers were clear in their presentation & trainees were given relevant information	21	72.41	06	20.69	02	6.90
9.	Participants had enough opportunities to interact with the trainers	26	89.65	02	6.90	01	3.45
10.	Training methodologies used were interesting and relevant for the purpose	21	72.41	06	20.69	02	6.90
11.	I can use the information learned and skills acquired	27	93.10	02	6.90	00	00

## **Summary and Conclusion**

The findings of the study revealed that most of the respondents found the course content, facilitation for arrival and departure by MANAGE, coordinator's skill and support, the relevance of the training programme and overall learning experience from the training very good. A majority of the respondents agreed that they could use the information which they had learnt and skills acquired, additional knowledge was gained, teaching aids were well prepared and comfortable in viewing, this programme can be recommended to others and they had enough opportunities to interact with the trainers, resource materials were well organised, useful and adequate and topics were updated to suit the present scenario. The training methodologies used were interesting and relevant for the purpose and speakers were clear in their presentation and trainees were given relevant information, expectations from the course were mostly fulfilled and the proportion of exercises/case studies/examples was adequate.

## **Recommendations**

Only a small percentage of respondents thought that the course material, facilitation, coordinator's skills, and training were fair or average in terms of their relevance. Hence, it is suggested that the curriculum may be redesigned to include more case studies and real case examples. This could be accomplished by organising more practical and a greater number of exposure trips. These will enable them to learn from the real-time experiences and facilitate them in replicating the good practices in their countries. In addition, the courses need to be tweaked to meet the individual demands of CEOs from other nations. Furthermore, a consultative conference with the executives of each FTF-ITT is required in future. This will help in understanding the needs of executives of different FTF-ITT countries, coupled with delivering the need-based training to the executives.

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