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## **Training Needs of the State Officials of Agriculture and Allied Departments of Western India**

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### **Authors' contributions**

*This work was carried out in collaboration between all authors. All authors read and approved the final manuscript.*

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### **ABSTRACT**

The need for professional training of agricultural sectors is increasing day by day. Advanced methodologies of farming needed to adopt all the native workers of the dedicated zones which are still in trial. Perhaps some of the training institutes take some initiatives to make a healthy community of farmers so that the betterment of agricultural sector would dominate the economic structure at every possible perspective of states like Gujarat, Maharashtra, Madhya Pradesh, Chhattisgarh, Rajasthan, Goa and Union territories of Dadra Nagarhaveli, Div and Daman. These states have education institutes which organize some training programs by involving several state officials of agriculture to enhance the knowledge of different types of farming by incorporating various on campus, off campus and collaborative methods for the sectors where. These skill developing programs cover the following soft skill: Communication Skill for effective Extension (rank I), Soft skills for Personality Development (rank II), Time and Stress Management for Better Performance of Extension Personnel (rank III), PRA Tools and Techniques for SREP Development (rank IV) and Leadership Development and Team Building Skills for Extension Functionary (rank V).

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## 1. INTRODUCTION

The Govt. of India has established four Extension Education Institutes viz. one at Anand (Gujarat) for western states, Second at Hisar (Haryana) for northern states, Third at Jorhat (Assam) for eastern states and fourth at Hyderabad (AP) for southern states to cater the needs of Extension Training, extension functionaries of different development departments of the country. The Extension Education Institutes, Anand is popularly known as EEI. It is an Apex Regional Training Institute formed on September 17, 1962. The Extension Education Institute, Anand cater the extension training needs of Western Zone States viz., Gujarat, Maharashtra, Madhya Pradesh, Chhattisgarh, Rajasthan, Goa, and Union territories of Dadra Nagarhaveli, Div and Daman by conducting on campus, off campus, collaborative and consultancy training programmes. In all, EEI, Anand has conducted 1431 training programmes for extension functionaries wherein 30630 participants were trained after the establishment of EEI, Anand in the year 1962-63 to the year 2015-16. Now, it is high time to find out the training needs of the state officials of agriculture and allied Departments of Western India, Keeping in view the above said facts, the study on "Training needs of the state officials of agriculture and allied Departments of Western India" was carried out [1,2,3].

### 1.1 Objectives

1. To study the profile of the state officials of agriculture and allied departments of Western India.
2. To find out the training needs of the state officials of agriculture and allied departments of Western India.

## 2. METHODOLOGY

For the above study, five on campus and five off-campus training programmes organized by EEI,

Anand during 2016-17 were selected randomly. Thus total 10 training programmes were selected for the study. Ten participating officials from each selected training programmes were selected randomly, thereby comprising of a total of hundred respondents [4]. The questionnaire was developed in consultation with the Government of India, New Delhi in accordance with the objectives of the study. The data were collected from randomly selected 100 participating officers of the selected training programmes organized by EEIs during the year 2016-17 [5].

## 3. RESULTS AND DISCUSSION

The Table 1 reveals that more than two-fifths (43.00 percent) of the officers belonged to young age group followed by 35.00 percent had middle age while 22.00 percent had old age under the study during the year 2016-17.

The Table 2 shows that more than half (55.00 percent) of the officers were Graduate followed by 26.00 were Post Graduate, and 11.00 percent of the officers were PhD while 8.00 percent of the officers had Secondary and higher secondary (8th to 12th std.) under the study during the year 2016-17.

The data presented in Table 3 reveal that nearly half (45.00 percent) of the officers were General Category followed by 26.00 percent of the officers were in OBC category, whereas 14.00 percent were in SC as well as ST category under the study during the year 2016-17.

The data presented in Table 4 show that three-fifth (60.00 percent) of the officers were having Agriculture discipline followed by Animal husbandry discipline (22.00 percent) and Forest discipline (15.00 percent) respectively under the study during the year 2016-17.

The data presented in Table 5 indicate that more than two-fifths (41.00 percent) of the officers were up to 7 years experience followed

**Table 1. Distribution of the respondents according to their age. n=100**

Sr. No.	Age group	Number	Percent
1	Young age (Up to 35 years)	43	43.00
2	Middle age (Above 36 to 50 years)	35	35.00
3	Old age (Above 50 year)	22	22.00
Total		100	100.00

**Table 2. Distribution of the respondents according to their level of education. n=100**

Sr. No.	Level of education	Number	Percent
1	Secondary and higher secondary (8th to 12th std.)	08	08.00
2	Graduate	55	55.00
3	Post Graduate	26	26.00
4	PhD	11	11.00
Total		100	100.00

by 21.00 percent had more than 25 years experience, whereas 14.00 percent had Above 19.0 to 25 years experience under the study during the year 2016-17.

**Table 3. Distribution of the respondents according to their category. n=100**

Sr. no.	Caste	Number	Percent
1	SC	14	14.00
2	ST	14	14.00
3	SEBC	01	01.00
4	OBC	26	26.00
5	General	45	45.00
Total		100	100.00

**Table 4. Distribution of the respondents according to their discipline. n=100**

Sr. No.	Discipline	Number	Percent
1	Agriculture	60	60.00
2	Animal husbandry	22	22.00
3	Horticulture	00	00.00
4	Forest	15	15.00
5	Others	03	03.00
Total		100	100.00

**Table 5. Distribution of the respondents according to their experience. n=100**

Sr. no.	Experience	Number	Percent
1	Up to 7 years	41	41.00
2	Above 7.0 to 13 years	12	12.00
3	Above 13.0 to 19 years	12	12.00
4	Above 19.0 to 25 years	14	14.00
5	More than 25years	21	21.00
Total		100	100.00

The Figures Presented in parenthesis indicates percentage.

With a view to know Extension Management related area of Training Need, officers were requested to give their views regarding Extension Management related workshop conducted by EEI, Anand during year-2016-17. Such information had been presented in Tables 6 & 7.

Data presented in Table 6 revealed that 95.05 percent of the State officials of Agriculture and allied Departments of Western India opined that the Extension Management related Workshops conducted by EEI, Anand was Most Needed and Needed whereas only 4.95 percent of them opined that the Extension Management related Workshops conducted by EEI, Anand were not Needed.

With a view to know technology related area of Training Need officers were requested to give their views regarding technology-related workshop conducted by EEI, Anand during year-2016-17. Such information had been presented in Table 6 & 7.

Data presented in Table 6 revealed that 94.58 percent of the State officials of Agriculture and allied Departments of Western India opined that the technology related Workshops conducted by EEI, Anand was Most Needed and Needed whereas only 5.42 percent of them opined that the technology related Workshops conducted by EEI, Anand were not Needed.

While responding to the open end question like any other Subject/Area, in which training required, 99.00 percent of the respondents had not mentioned any other Subject/Area, in which training required for them whereas only 1.00 percent of the respondents suggested following one New Subject/Area, in which training required for them.

(i) Workshop on "Farm Machinery and Power Equipment Management"

EEI, Anand will try to organize an above mentioned new workshop during the year 2017-18 as per availability of time and resources.

**Table 6. Areas of training needs of respondents n=100**

No	Title of the course	Most needed	Needed	Most needed + needed	Not needed
<b>A. Extension management related workshops</b>					
1	Workshop on Communication Skills for Effective Extension Services	68(68.00)	30(30.00)	98(98.00)	02(02.00)
2	Workshop on Promotion of Public-Private Partnerships Under Extension Reforms	42(42.00)	51(51.00)	93(93.00)	07(07.00)
3	Workshop on Training Methods And Farm School Under Extension Reforms	40(40.00)	54(54.00)	94(94.00)	06(06.00)
4	Workshop on Management Development Programmes (MDP) for ATMA PDs And Dy.PDs	39(39.00)	53(53.00)	92(92.00)	08(08.00)
5	Workshop on Participatory Extension Management In Agriculture & Allied Fields	46(46.00)	49(49.00)	95(95.00)	05(05.00)
6	Workshop on Use of Mass Media for Transfer of Technology	54(54.00)	42(42.00)	96(96.00)	04(04.00)
7	Workshop on Farm Business Management for Extension Functionary	38(38.00)	55(55.00)	93(93.00)	07(07.00)
8	Workshop on PRA Tools And Techniques for SREP Development	49(49.00)	49(49.00)	98(98.00)	02(02.00)
9	Workshop on Participatory Training Management Skills	43(43.00)	53(53.00)	96(96.00)	04(04.00)
10	Workshop on Leadership Development And Team Building Skills for Extension Functionary	56(56.00)	39(39.00)	95(95.00)	05(05.00)
11	Workshop on Human Resource Development for Extension Personnel	59(59.00)	38(38.00)	97(97.00)	03(03.00)
12	Workshop on Agribusiness & Marketing Information System	44(44.00)	54(54.00)	98(98.00)	02(02.00)
13	Workshop on Time & Stress Management for Better Performance of Extension Personnel *	58(58.00)	36(36.00)	94(94.00)	06(06.00)
14	Workshop on Project Planning, Monitoring And Evaluation	45(45.00)	47(47.00)	92(92.00)	08(08.00)
15	Workshop on Soft Skills for Personality Development *	48(48.00)	47(47.00)	95(95.00)	05(05.00)
16	Workshop on Entrepreneurship Development For Rural Transformation	46(46.00)	53(53.00)	99(99.00)	01(01.00)
17	Workshop on Recent Extension Approaches for Effective Transfer of Technology	37(37.00)	56(56.00)	93(93.00)	07(07.00)
18	Workshop on Management of Commodity Interest Groups And Farmers' Organizations	41(41.00)	52(52.00)	93(93.00)	07(07.00)
<b>Average</b>		<b>47.38(47.38)</b>	<b>47.67(47.67)</b>	<b>95.05(95.05)</b>	<b>04.95(04.95)</b>
<b>B. Technology related Workshops</b>					
1	Workshop on Climate Change And Its Effect on Agriculture & Allied Fields	59(59.00)	35(35.00)	94(94.00)	06(06.00)
2	Workshop on Promotion of Organic Farming for Sustainable Agriculture	62(62.00)	34(34.00)	96(96.00)	04(04.00)
3	Workshop on Value Addition And Post Harvest Management of Agricultural & Horticultural Crops (NHM)	43(43.00)	50(50.00)	93(93.00)	07(07.00)
4	Workshop on Knowledge Management System And Web Designing for Agriculture & Allied Fields	48(48.00)	47(47.00)	95(95.00)	05(05.00)
5	Workshop on Community Based Natural Resources Management *	44(44.00)	52(52.00)	96(96.00)	04(04.00)
6	Workshop on Promotion of Integrated Pest Management	46(46.00)	47(47.00)	93(93.00)	07(07.00)
7	Workshop on ICT Application In Agriculture & Allied Fields	35(35.00)	60(60.00)	95(95.00)	05(05.00)
<b>Average</b>		<b>48.15(48.15)</b>	<b>46.43(46.43)</b>	<b>94.58(94.58)</b>	<b>05.42(05.42)</b>

**Table 7. Areas of training needs of respondents n = 100**

No	Title of the course	Mean score	Rank
<b>A. Extension Management related Workshops</b>			
1	Workshop on Communication Skills for Effective Extension Services	2.66	I
2	Workshop on Promotion of Public-Private Partnerships Under Extension Reforms	2.35	XIII
3	Workshop on Training Methods And Farm School Under Extension Reforms	2.34	XIV
4	Workshop on Management Development Programmes (MDP) for ATMA PDs And Dy.PDs	2.31	XVI
5	Workshop on Participatory Extension Management In Agriculture & Allied Fields	2.41	X
6	Workshop on Use of Mass Media for Transfer of Technology	2.50	V
7	Workshop on Farm Business Management for Extension Functionary	2.31	XVI
8	Workshop on PRA Tools And Techniques for SREP Development	2.47	VI
9	Workshop on Participatory Training Management Skills	2.39	XI
10	Workshop on Leadership Development And Team Building Skills for Extension Functionary	2.51	IV
11	Workshop on Human Resource Development for Extension Personnel	2.56	II
12	Workshop on Agribusiness & Marketing Information System	2.42	IX
13	Workshop on Time & Stress Management for Better Performance of Extension Personnel *	2.52	III
14	Workshop on Project Planning, Monitoring And Evaluation	2.37	XII
15	Workshop on Soft Skills for Personality Development *	2.43	VIII
16	Workshop on Entrepreneurship Development For Rural Transformation	2.45	VII
17	Workshop on Recent Extension Approaches for Effective Transfer of Technology	2.30	XVIII
18	Workshop on Management of Commodity Interest Groups And Farmers' Organizations	2.34	XIV
<b>B. Technology related Workshops</b>			
1	Workshop on Climate Change And Its Effect on Agriculture & Allied Fields	2.53	II
2	Workshop on Promotion of Organic Farming for Sustainable Agriculture	2.58	I
3	Workshop on Value Addition And Post Harvest Management of Agricultural & Horticultural Crops (NHM)	2.36	VI
4	Workshop on Knowledge Management System And Web Designing for Agriculture & Allied Fields	2.43	III
5	Workshop on Community Based Natural Resources Management *	2.40	IV
6	Workshop on Promotion of Integrated Pest Management	2.39	V
7	Workshop on ICT Application In Agriculture & Allied Fields	2.30	VII

Data presented in Table 7 revealed that areas of training needs of extension management expressed by the State officials of Agriculture and allied Departments of Western India were Communication Skill for effective Extension (rank I), Human Resource Development for Extension Personnel (rank II), Time & Stress Management for Better Performance of Extension Personnel (rank III), Leadership Development And Team Building Skills for Extension Functionary (rank IV), Use of Mass Media for Transfer of Technology (rank V), PRA Tools And Techniques for SREP Development (rank VI), Entrepreneurship Development For Rural Transformation (rank VII), Soft Skills for Personality Development (rank VIII), Agribusiness & Marketing Information System (rank IX), Participatory Extension Management In Agriculture & Allied Fields (rank X), Participatory Training Management Skills (rank XI), Project Planning, Monitoring And Evaluation (rank XII), Promotion of Public-Private Partnership Under Extension Reforms (rank XIII), Training Methods And Farm School Under Extension Reforms and Management of Commodity Interest Groups And Farmers' Organizations (rank XIV), Farm Business Management for Extension Functionary and Management Development Programmes (MDP) for ATMA PDs And Dy.PDs (rank XVI) and Recent Extension Approaches for Effective Transfer of Technology (rank XVIII). The Findings are in line with the results of study conducted by Patel et al. [4].

Data presented in Table 7 revealed that areas of training needs related to technology workshop expressed by officers were Promotion of Organic Farming for Sustainable Agriculture (rank I), Climate Change And Its Effect on Agriculture & Allied Fields (rank II), Knowledge Management System And Web Designing for Agriculture & Allied Fields (rank III), Community Based Natural Resources Management (rank IV), Promotion of Integrated Pest Management (rank V), Value Addition And Post Harvest Management of Agricultural & Horticultural Crops (NHM) (rank VI) and ICT Application In Agriculture & Allied Fields (rank VII). The Findings are more or less in line with the results of the study conducted by Patel et al. [1], Vahora et al. [3]. and Patel et al. [1].

#### 4. SUMMARY AND CONCLUSION

In short, 95.05 percent of the State officials of Agriculture and allied Departments of Western India opined that the Extension Management

related Workshops conducted by EEI, Anand was Most Needed and Needed whereas only 4.95 percent of them opined that the Extension Management related Workshops conducted by EEI, Anand were not Needed. While, 94.58 percent of the State officials of Agriculture and allied Departments of Western India opined that the technology related Workshops conducted by EEI, Anand was Most Needed and Needed whereas only 5.42 percent of them opined that the technology related Workshops conducted by EEI, Anand were not Needed.

Moreover, areas of training needs of extension management expressed by the State officials of Agriculture and allied Departments of Western India were Communication Skill for effective Extension (rank I), Human Resource Development for Extension Personnel (rank II), Time & Stress Management for Better Performance of Extension Personnel (rank III), Leadership Development And Team Building Skills for Extension Functionary (rank IV), Use of Mass Media for Transfer of Technology (rank V), PRA Tools And Techniques for SREP Development (rank VI), Entrepreneurship Development For Rural Transformation (rank VII), Soft Skills for Personality Development (rank VIII). Whereas, areas of training needs related to technology workshop expressed by officers were Promotion of Organic Farming for Sustainable Agriculture (rank I), Climate Change and Its Effect on Agriculture & Allied Fields (rank II), Knowledge Management System and Web Designing for Agriculture & Allied Fields (rank III), Community Based Natural Resources Management (rank IV), Promotion of Integrated Pest Management (rank V).

#### COMPETING INTERESTS

Authors have declared that no competing interests exist.

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