

Analysis of Constraints faced by State Agricultural Management and Extension Training Institutes (SAMETIs): An Empirical Study

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Abstract

State Agricultural Management and Extension Training Institutes (SAMETIs) are the autonomous institutes to look after the extension and training related aspects of middle, grassroot level extension functionaries and also farmers. The present paper discusses the constraints faced by various SAMETIs in terms of Infrastructure, Human Resources, Financial Matters, Administrative aspects, and constraints in operating the Central Sector Plan Schemes like Diploma in Agricultural Extension Services for Input Dealers (DAESI), Skill Training of Rural Youth (STRY), further also in the conduct of the Post Graduate Diploma in Agricultural Extension Management (PGDAEM). A structured questionnaire was administered and data collected through a mailed survey from about 31 SAMETI Directors across the country. Weighted averages were calculated to know where a particular constraint falls on a continuum of 1 to 5 (Strongly Disagree to Strongly Agree). The results of the study implied that there are significant measures which may be taken to improve the condition of SAMETIs to make them more vibrant and serve the farmers with vigour and passion.

Keywords: SAMETI, Agricultural training institutes, Extension Training Institutes.

Introduction

The State Agricultural Management and Extension Training Institute (SAMETI) is a State level institution which is autonomous, with greater flexibility in structure and functioning and responsible for organizing need based training programs for the project implementation

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functionaries of different line departments as well as the farming community. This is achieved through linkages with other technical and management institutions in the state to support desired training input. 'SAMETI' functions with the technical guidance of the National Institute of Agricultural Extension Management (MANAGE) (http://www.sameti.org/default1_2whissameti.htm). These institutions play a vital role in training the middle level, grass root level extension functionaries and farmers according to the geographical setup, soils and other agro-climatic conditions prevailing in the concerned regions. SAMETIs also actively implement the Central Sector Plan Schemes (CSPS) like Diploma in Agricultural Extension Services for Input Dealers (DAESI), Skill Training of Rural Youth (STRY) scheme, and also implement the Post Graduate Diploma in Agricultural Extension Management (PGDAEM) program and conduct research. Hence, SAMETIs are one of the apex bodies at the state level, looking after the agriculture related training programs, and other agriculture related work assigned by the state government.

The public extension system, represented by State departments of Agriculture and allied disciplines of the concerned state, is one of the major information sources for farmers. With ever-changing technological innovations, the dynamics of world agriculture and agricultural extension systems are changing from mere dissemination of knowledge to diversification, commercialization, sustainability and efficiency through which the successful shift from production-led agriculture to revenue-led agriculture may be achieved. To increase the revenue from different farming systems, farmers need the right information at the right time about production technology, weather and climate, market information, etc., from various sources, majorly from the public extension system. Extension functionaries of the public extension system need to be strengthened and updated with these spheres of knowledge and skills to help the farmers increase their revenues, here comes the importance of capacity building of extension functionaries.

In order to carry out different kinds of works, SAMETIs need to be equipped with adequate infrastructure facilities, adequate number of faculty and other administrative support staff, transport facilities for field visits, finance, etc. for the conduct of training. An adequate and efficient workforce ensures the quality of work. In every organization, physical resources, financial resources and human resources play a vital role in the survival, growth and development of the organization. Physical resources like Buildings, Furniture,

Computer systems, LCD, etc.; financial resources like getting timely budget, Grant-in-Aid etc; and finally above all, the most important is human resources like faculty members, administrative staff, etc. are essential for SAMETIs.

In this backdrop, the present study was carried out to elicit the constraints faced by SAMETIs and to find solutions to the constraints manifested by different SAMETIs.

Materials and Methods

A total of 32 SAMETIs were established in different states and Union Territories at different time intervals and function as apex agricultural management and extension training institutes at the state level. In this backdrop, a structured schedule was administered to all the SAMETIs spread across the country. Since the data are to be collected from Directors of SAMETIs, purposive sampling technique was employed to collect the data through the mailed survey method. Thirty-one SAMETIs responded to the survey. The SAMETIs from the following States and Union Territories participated in the survey (Table 1).

Table 1. Participation of SAMETIs Across the Country

S.No SAMETIs of the States/ UTs	S.No SAMETIs of the States/ UTs
1 Andhra Pradesh	17 Manipur
2 Arunachal Pradesh	18 Meghalaya
3 Assam	19 Mizoram
4 Bihar	20 Nagaland
5 Chhattisgarh	21 Odisha
6 Goa	22 Puducherry
7 Gujarat	23 Punjab
8 Haryana	24 Rajasthan
9 Himachal Pradesh	25 Sikkim
10 Jammu	26 Tamil Nadu
11 Jharkhand	27 Telangana
12 Karnataka (North)	28 Tripura
13 Karnataka (South)	29 Uttarakhand
14 Kerala	30 Uttar Pradesh
15 Madhya Pradesh	31 West Bengal
16 Maharashtra	

Questions were prepared on a 5 point continuum (1- Strongly Disagree to 5- Strongly Agree). Likert scale weighted average method was employed to know the value of each statement to identify where a particular statement falls on the 5 point continuum. The formula for weighted average is given below:

$$\text{Weighted Mean} = \frac{\sum_{i=1}^n (x_i \times w_i)}{\sum_{i=1}^n w_i}$$

n = Number of terms to be averaged

w_i = Weights applied to x values

X_i = Data values to be averaged.

Results and Discussion

The Infrastructural facilities like training halls, group rooms, furniture like tables and chairs, transportation facilities, electricity supply, lodging and boarding facilities, projectors, computers with internet facility and a library for trainees are very important in order to perform the day to day training activities in a smooth manner. The availability of infrastructure facilities with the SAMETIs is shown in Table 2.

Table 2. Infrastructural facilities in SAMETIs

S.No	Statement	Yes	No
1	Sufficient Number of Training halls are available for smooth conduct of Training Programs	77.42	22.58
2	Group rooms are available for group work during the training	61.29	38.71
3	Open space is available for group work	87.10	12.90
4	Adequate furniture like tables and chairs are available for the participants	87.10	12.90
5	Proper Transport facilities are available with the SAMETI	35.48	64.52
6	Regular Supply of Electricity is available	93.55	6.45
7	Lodging facilities are available in the SAMETI	67.74	32.26
8	Boarding/ food arrangement facilities are available in the SAMETI	74.19	25.81
9	Projector is available for display of films/PPTs	96.77	3.23

10	TV/LCD available	74.19	25.81
11	Sufficient number of computers are available for conduct of training	67.74	32.26
12	Internet connectivity is available	77.42	22.58
13	Library Facility is available with the SAMETI	61.29	38.71

Source: Calculated from Primary data

From the table, it is evident that 96.77 per cent of the SAMETIs possess projector facilities for displaying PowerPoint Presentations and films followed by a regular supply of electricity (93.55%), furniture like tables and chairs, open space for group work (87.10%) each, 77.42 per cent of the SAMETIs are equipped with a sufficient number of training halls and internet facility, 74.19 per cent of SAMETIs are furnished with TV/LCD and boarding/food arrangement facilities while 67.74 per cent have lodging facility. Further, sufficient numbers of computers are available for the conduct of training in 67.74 per cent of SAMETIs, 61.29 per cent of the SAMETIs have group rooms for doing group work during the training and also have library facilities. Finally, only 35.48 per cent of the SAMETIs have proper transportation facilities, which is most important for conducting field visits for the trainees.

To sum up, the infrastructure facilities in SAMETIs are adequate and facilities like transportation, group rooms, hostel facilities, boarding arrangement need to be improved to enable the trainees and resource persons to easily commute to the training centres.

Table 3. Human Resource Constraints

S.No	Statement	SA	A	N	D	SD	Total	WA
1	Lack of sufficient staff is hampering the work	8	10	4	2	7	31	3.32
2	Coordination among the colleagues is weak	0	4	4	14	9	31	2.10
3	Lack of expertise among the employees	1	4	7	10	9	31	2.29
4	Team work among the employees is weak	1	3	2	14	11	31	2.00
5	Lack of cooperation among the employees	0	2	2	17	10	31	1.87
6	Poor work culture is hampering the productivity of the organization	2	5	2	13	9	31	2.29

SA- Strongly Agree, A: Agree, N: Neutral, D: Disagree, SD: Strongly Disagree, WA: Weighted Average

Human resources play a vital role in building any institute. Besides infrastructural facilities and financial resources, Human Resources are very valuable through which reputation, progress and development are measured. In this regard, data were collected on the constraints faced by SAMETIs in terms of manpower, as shown in Table 3.

From the above table, it is clear that out of the 31 SAMETIs studied, 18 SAMETIs fall in Strongly Agree to Agree in case of lack of sufficient staff hampering the work, which attracted a weighted average of 3.32 (Neutral to Agree) on a five-point continuum. Further, the statements - Lack of expertise among the employees and Poor work culture is hampering the productivity of the organization attracted 2.29 (disagree to neutral) each. Coordination among the colleagues is weak attracted 2.10 (disagree to neutral), Teamwork among the employees is weak attracted 2.00 (disagree) and finally lack of cooperation among the employees attracted a weighted average of 1.87 on a five-point continuum and falls in strongly disagree to disagree. These low values indicate their disagreement with the statements and show positive opinions.

Yet, the qualitative data received from the SAMETIs indicate that lack of sufficient staff is the major constraint in the SAMETIs. The study revealed that in many of the SAMETIs, the Deputy Director Positions are vacant and in a few of the SAMETIs, Accountant-cum-Clerk and Computer Operator positions are either vacant or on a contractual basis.

Table 4. Financial Constraints

S.No	Statement	SA	A	N	D	SD	Total	WA
1	Delay in getting the sanctioned budget	7	9	4	11	0	31	3.39
2	Delay in getting grants from sponsoring institutes	2	7	8	13	1	31	2.87
3	Delay in getting funds for implementing Central Sector Schemes	4	5	8	9	5	31	2.81
4	Unable to spend the budget allotted within the prescribed period	2	5	7	11	6	31	2.55
5	There are financial constraints to recruit supporting staff	4	8	5	10	4	31	2.94

SA- Strongly Agree, A: Agree, N: Neutral, D: Disagree, SD: Strongly Disagree, WA: Weighted Average

Budget is the primary element for each and every activity to be taken up by the SAMETIs. In order to conduct training, research, implement Central Sector Plan Schemes (CSPS) like DAESI and STRY, implement PGDAEM program and other extension activities, pay salaries of permanent and contractual employees, outsource works, maintenance of vehicles, hostels, furniture etc., need timely budget allocation and release of funds to SAMETI. In this connection, the study elicited the financial constraints faced by SAMETIs presented in Table 4.

From the table, it can be observed that 16 out of 31 (3.39 on 5 point continuum) SAMETIs opined that delay in getting the sanctioned budget is one of the major constraints in performing the mandated SAMETI activities and also implementing the Central Sector Plan Schemes. Financial constraints affect the recruitment of manpower which hampers the work. As shown in Table 4, this constraint attracted the weighted average of 2.94 (disagree to neutral), followed by delay in grants from sponsoring institutes with 2.87 (disagree to neutral), delay in getting funds for implementing the Central Sector Plan Schemes with 2.81 (disagree to neutral) and finally, unable to spend the budget allotted within the prescribed period with a weighted average of 2.55 (disagree to neutral). Although a majority of the constraints discussed above fall between disagree to neutral and almost near to neutral, there is a need to look into and address these constraints as the financial constraints have a cascading effect on fulfilling the gaps in physical facilities and recruitment of personnel.

Table 5. Administrative Constraints

S.No	Statement	SA	A	N	D	SD	Total	WA
1	Executive Council is meeting at regular intervals	6	10	7	7	1	31	3.42
2	General Council is meeting at regular intervals	4	8	11	6	2	31	3.19
3	Delay in construction works, if any	0	7	14	7	3	31	2.81
4	Delay in decision making	0	5	5	15	6	31	2.29
5	Delay in getting promotions	4	4	14	5	4	31	2.97
6	Subordinates are not given equal opportunity to share their views	0	4	5	13	9	31	2.13

7	Lack of support from line departments	0	9	4	12	6	31	2.52
8	Frequent transfers of staff	3	5	8	10	5	31	2.71
9	Lack of motivation and encouragement from superiors	1	2	6	13	9	31	2.13
10	Too much reporting work	0	10	9	10	2	31	2.87

SA- Strongly Agree, A: Agree, N: Neutral, D: Disagree, SD: Strongly Disagree, WA: Weighted Average

Administration is one of the important wings in any organization where recruitment, promotions, transfers and other crucial decisions are taken. In SAMETIs, as per the administrative setup, General and Executive Council meetings need to be conducted at regular intervals to take decisions on policy matters, management and administrative matters, respectively. In this regard, a majority of SAMETIs opined that Executive and General Council meetings are held regularly, which had a weighted average of 3.42 and 3.19 respectively. Delay in getting promotions attracted near to neutral (2.97) opinion. The remaining statements like Too much reporting work attracted 2.87 (disagree to neutral), Delay in construction works attracted 2.81, Frequent transfers of staff with 2.71 fell in disagree to neutral continuum. The Lack of support from line departments (2.52) attracted disagree to neutral, and finally, Subordinates are not given equal opportunity to share their views and Lack of motivation and encouragement from superiors have got a weighted average of 2.13 each and fell in disagree to neutral. These weighted average values, which are less than 3.00 indicate that these constraints may not affect the regular work in the SAMETIs.

To sum up, conducting General and Executive Council meetings at regular intervals needs to be given high importance as a review of the work done by SAMETIs and directions from the Council are necessary for future activities of SAMETIs. Other constraints like delay in promotions, frequent transfers, lack of motivation and encouragement from superiors etc. may decrease the morale of the staff, hence, the concerned authorities need to take steps to address the administrative constraints faced by SAMETIs.

Constraints in Implementing Central Sector Plan Schemes: DAESI

Agri-Input Dealers in the country are a prime source of farm information to the farming community, besides the supply of inputs and credit. However, a majority of these dealers do not have formal agricultural education. In order to build their technical competency in

agriculture and to facilitate them to serve the farmers better and to act as para-extension professionals, MANAGE launched a self-financed one-year "Diploma in Agricultural Extension Services for Input Dealers (DAESI) Program" during the year 2003. Due to the positive impact of the program, the Ministry of Agriculture & Farmers' Welfare, Government of India decided to implement this program for Input dealers in all the States of the country. The technical information is delivered through contact classes by agricultural experts and practitioners at the district level on Sundays or Market holidays for 48 days including field visits spread over a year.

SAMETIs play a vital role in the implementation of DAESI in the concerned states through Nodal Training Institutes. MANAGE, SAMETI and the concerned Nodal Training Institute (NTI) carry out different sets of functions for conducting the DAESI course for the input dealers. There must be close coordination between all the stakeholders to make the program successful by training all the existing and prospective input dealers across the country. In this regard, the research team elicited different kinds of constraints faced by SAMETIs in the implementation of the scheme across the states. From Table 6, we can know that the major constraints are, Delay in getting proposals from the KVKs/SAUs/ATMA to implement the scheme (3.27, neutral to agree), Problem in selection of facilitators (3.23, neutral to agree), Delay in getting Provisional Utilization Certificate from NTIs (3.20), Delay in getting the relevant documents from NTIs to forward to MANAGE for processing the certificates, Problem in mobilizing the candidates for the program (3.13 each, neutral to agree), Inadequate supporting staff for updating data into MIS, Problem in appointing facilitators (3.03 each, neutral to agree) and Inadequate infrastructure facilities for monitoring (3.00, neutral). The constraints with weighted average value of 3.00 and more only are discussed here as they fall in neutral, agree and strongly agree category.

Table 6. Constraints in Implementing CSPS Schemes -(DAESI)

S.No	Statement	SA	A	N	D	SD	WA
1	Problem in Selection of Facilitators	5	4	13	8	1	3.23
2	Problem in appointing Facilitators	3	3	16	7	2	3.03
3	Problem in mobilizing the candidates for the program	5	4	10	11	1	3.13
4	Difficulty in monitoring several batches by SAMETI	1	4	15	8	3	2.83

5	Problem in getting Resource Persons	1	1	12	13	4	2.50
6	No dedicated Staff for implementing/ monitoring the Scheme	3	3	11	9	4	2.73
7	Scheme work is overlapping with the other regular works of SAMETI	1	4	14	9	3	2.80
8	Difficulty in conducting the exams in involvement of SAMETI	0	5	8	15	3	2.57
9	ATMA being the implementing agency, lack of support from ATMA officials	1	3	11	11	5	2.57
10	Identifying suitable/ reliable NTIs	2	2	17	8	2	2.90
11	Inadequate infrastructure facilities for monitoring	1	8	12	8	1	3.00
12	Inadequate supporting staff for updating data into MIS	4	4	12	9	1	3.03
13	Inadequate orientation about DAESI guidelines to SAMETI staff	0	6	10	12	3	2.70
14	Inadequate orientation about DAESI guidelines to Facilitator	1	4	14	8	3	2.73
15	Inadequate knowledge about operational procedures among the concerned staff	2	2	13	11	3	2.73
16	Delay in receipt of Funds from MANAGE	2	1	12	12	4	2.60
17	Delay in release of Funds to NTIs	0	1	14	13	3	2.50
18	Delay in getting monitoring charges from NTIs	0	0	17	10	4	2.50
19	Inadequate monitoring charges for SAMETI for monitoring the program	0	7	13	8	3	2.87
20	Delay in Getting Provisional Utilization Certificate from NTIs	1	7	19	2	2	3.20
21	Difficulty in uploading data into DAESI portal.	0	7	13	8	2	2.83
22	Delay in getting proposals from the KVKs/ SAUs/ATMA to implement the scheme	3	8	13	5	2	3.27
23	Delay in getting approvals from MANAGE to start the program	0	2	14	13	2	2.60

24	Monitoring from MANAGE staff time to time	7	3	16	4	1	3.47
25	Satisfied with the timely guidance /advice given by MANAGE staff	7	10	9	4	0	3.67
26	Delay in getting the relevant documents from NTIs to forward to MANAGE for processing the certificates	2	8	13	6	1	3.13
27	Delay in getting certificates from MANAGE	1	6	14	7	3	2.93
28	Comfortable in operating DAESI portal	3	7	16	5	0	3.37
29	Delay in resolving the issues of DAESI portal from MANAGE	0	3	15	11	2	2.70

SA- Strongly Agree, A: Agree, N: Neutral, D: Disagree, SD: Strongly Disagree, WA: Weighted Average

To conclude, it can be observed that there are a sizeable number of constraints being faced by SAMETIs and NTIs since implementing the scheme requires effective coordination among the implementing agencies, regular interactions, guidance from MANAGE and SAMETI to the NTIs, etc. that may effectively improve the implementation process. SAMETIs also opined that they were satisfied with the timely guidance/advice given by MANAGE staff (3.67- neutral to agree), monitoring from the MANAGE staff from time to time (3.47, neutral to agree continuum) and comfortable in operating the DAESI portal (3.37, neutral to agree continuum).

Constraints in Implementing STRY

The Ministry of Agriculture & Farmers Welfare, Govt. of India, in compliance with the National Policy on Skill Development & Entrepreneurship 2015, has taken the initiative to implement the Skill Development Component, namely Skill Training of Rural Youth (STRY) under the Sub-Mission on Agricultural Extension (SAME) of the National Mission on Agricultural Extension & Technology (NMAET) during 2015-16.

STRY aims at imparting skill-based training to rural youth on agri-based vocational areas in agriculture & allied areas to promote employment in rural areas and for the creation of skilled manpower to perform farm and non-farm operations. Rural youth of the age group of 18 years and above with minimum qualification up to 5th standard passed (not mandatory) are considered for skill training. The Govt. of India has identified about 50

skilling areas spanning Agriculture, Horticulture, Animal Husbandry, Dairy and Fisheries. MANAGE, Ministry of Agriculture & Farmers Welfare at the national level coordinate this activity through SAMETIs at the State level. The training activities are implemented through SAMETIs at the State level and coordinated through ATMA at the District level. The training to rural youth is imparted through Krishi Vigyan Kendras, Nehru Yuva Kendras, Farmer Training Centers and/or any other identified training institutions at the State / District level.

The STRY scheme is implemented by SAMETI in the concerned states, and funded by the Ministry of Agriculture & Farmers' Welfare, Government of India through MANAGE. Table 7 shows different constraints faced by SAMETIs in the implementation of STRY scheme. The major constraints are Inadequate supporting staff for updating data into MIS (3.33, neutral to agree), Delay in getting the progress report from training institutes along with feedback in the prescribed formats after completion of the program (3.29, neutral to agree), Delay in getting Provisional Utilization Certificate from training institutes (3.21, neutral to agree), no dedicated staff for implementing/monitoring the scheme (3.04, neutral to agree), and Delay in updating the information on STRY portal in MANAGE website by training institutes soon after completion of the program (3.17, neutral to agree),

To sum up, adequate supporting staff and guidelines for training institutes for timely submission of the requisite documents may be developed for SAMETIs for smooth implementation of STRY scheme.

Table 7. Constraints in Implementation of STRY

S.No	Statement	SA	A	N	D	SD	WA	SUM
1	Difficulty in monitoring several batches by SAMETI	3	4	5	9	4	2.83	25
2	No dedicated Staff for implementing/monitoring the Scheme	2	9	2	9	3	3.04	25
3	Inadequate supporting staff for updating data into MIS	3	8	5	9	0	3.33	25
4	Inadequate orientation about STRY guidelines to SAMETI staff	0	6	5	11	3	2.67	25

5	Inadequate orientation about STRY guidelines to training institutes	0	6	5	12	2	2.71	25
6	Inadequate knowledge about operational procedures to the concerned staff	0	4	5	12	3	2.42	24
7	Delay in receipt of Funds from MANAGE	2	0	6	13	2	2.33	23
8	Delay in release of Funds to Training Institutes	1	2	2	18	2	2.38	25
9	Delay in Getting Provisional Utilization Certificate from Training institutes	3	6	6	10	0	3.21	25
10	Delay in Compilation of the provisional UC/ Expenditure statement by SAMETI	0	3	6	15	1	2.54	25
11	Delay in sending the compiled provisional UC to MANAGE	0	4	5	15	1	2.58	25
12	Difficulty in uploading data into STRY portal	1	5	6	13	0	2.88	25
13	Delay in getting approvals from MANAGE to start the program	0	1	5	16	3	2.25	25
14	Close monitoring from MANAGE staff time to time	0	15	5	5	0	3.54	25
15	Delay in timely guidance/ advice provided by MANAGE staff	0	0	7	16	2	2.29	25
16	Delay in getting the relevant documents from training institutes for preparation of the certificates	1	2	8	13	1	2.67	25
17	STRY portal for updating information is not user-friendly	0	3	9	11	2	2.63	25
18	Delay in updating the information on STRY portal in MANAGE website by training institutes soon after completion of the program	1	8	7	9	0	3.17	25
19	Delay in resolving the issues of STRY portal from MANAGE	0	1	11	11	2	2.54	25
20	Delay in getting the progress report from training institutes along with feedback in the prescribed formats after completion of the program	2	8	7	8	0	3.29	25

21	Delay in compilation of the progress reports of training from all the training institutes by SAMETI	0	4	7	13	1	2.67	25
22	Delay in preparing the training calendar of STRY in SAMETI due to lack of communication from training institutes	0	9	4	10	2	2.92	25
23	Delay in sending the information on rescheduling of programs to MANAGE	0	3	9	11	2	2.63	25

SA- Strongly Agree, A: Agree, N: Neutral, D: Disagree, SD: Strongly Disagree, WA: Weighted Average

Constraints in Implementing PGDAEM

The extension personnel in the country working at district and block levels in the field of agriculture and allied sectors need to be transformed into a vibrant and useful knowledge force to bring about the desired changes in the agriculture sector. In order to bridge this ever increasing gap in knowledge, MANAGE launched a Post Graduate Diploma Programme in Agricultural Extension Management (PGDAEM) for the agricultural extension functionaries during 2007-08 in distance learning mode. The diploma would create a professional cadre of farm advisors in the country, both in the public and private sector, who eventually would take forward the agenda of agricultural extension.

From Table 8, it can be observed that the constraints faced by SAMETI include insufficient field exposure (3.52, neutral to agree), insufficient amount of institutional charges for State Nodal Institutes (3.41, neutral to agree), problem in bringing more percentage of candidates to attend contact classes (3.37, neutral to agree), insufficient amount of lodging and boarding charges of candidates during contact classes (3.26, neutral to agree), insufficient amount of honorarium for the study centre coordinator (3.19, neutral to agree) and to resource persons during contact sessions (3.15, neutral to agree), insufficient field oriented knowledge (3.04, neutral to agree).

To sum up, as mentioned by SAMETIs, there is need to improve the allocation of funds for institutional charges for state nodal institutes, lodging and boarding charges for candidates, honorarium for the study center coordinator, and resource persons during contact sessions. Insufficient field exposure, problem in bringing more percentage of candidates to attend contact classes and insufficient field oriented knowledge are important constraints identified from the study.

Table 8. Constraints in Implementation of PGDAEM

S.No	Statement	SA	A	N	D	SD	WA
1	Difficulty in delivery of extension services by the officers who have completed the PGDAEM program	3	3	5	12	4	2.59
2	Difficulty in understanding the content of the PGDAEM study material	1	3	4	14	5	2.30
3	Problem in bringing more percentage of candidates to attend contact classes	3	14	2	6	2	3.37
4	Difficulty in organizing contact classes in Physical mode	2	4	6	11	4	2.59
5	Problem in organizing contact classes in Online mode	2	7	6	8	4	2.81
6	Problem in conducting the examination	1	2	4	13	7	2.15
7	Problem in the Result submission	0	0	5	15	7	1.93
8	Insufficient number of contact classes organized	1	3	7	9	7	2.33
9	Difficulty in release of funds (GoI)	3	7	3	8	6	2.74
10	Difficulty in release of State share (budget)	0	7	4	10	6	2.44
11	Problem in study material distribution	0	5	6	13	3	2.48
12	Difficulty to implement PGDAEM program	1	7	2	13	4	2.56
13	Insufficient amount of honorarium to resource persons during contact classes	5	8	4	6	4	3.15
14	Insufficient amount of lodging and boarding charges of candidates during contact classes	4	10	5	5	3	3.26
15	Insufficient amount of Institutional charges for state nodal institute	4	11	5	6	1	3.41
16	Insufficient amount of honorarium for study centre coordinator	4	9	5	6	3	3.19
17	Insufficient field exposure	5	9	9	3	1	3.52
18	Insufficient field oriented knowledge	3	7	6	10	1	3.04
19	Irrelevant to all types of extension personnel	1	2	8	11	5	2.37

20	Non-availability of suitable resource persons for the contact classes	0	0	7	13	7	2.00
21	Difficulty in uploading the information in database of MANAGE	1	1	9	10	6	2.30
22	Delay in getting the assignments from the candidates for different courses	2	6	5	9	5	2.67
23	Delay in getting the project work from the candidates for different courses	2	7	5	8	5	2.74
24	Delay in fund release for conduct of contact classes	3	6	6	7	5	2.81
25	Delay in getting the final installment	3	6	5	7	6	2.74
26	Delay in issue of certificates	2	4	5	11	5	2.52
27	Unavailability of dedicated manpower for monitoring PGDAEM	4	5	6	7	5	2.85
28	Inadequate orientation about PGDAEM guidelines for SAMETI staff	2	3	5	12	5	2.44
29	Inadequate knowledge in operating procedures among the concerned staff	2	1	5	14	5	2.30
30	Inadequate support staff for uploading data into MIS portal	2	1	7	12	5	2.37

SA- Strongly Agree, A: Agree, N: Neutral, D: Disagree, SD: Strongly Disagree, WA: Weighted Average

Overall constraints of SAMETIs

The physical infrastructure is the basic facility that every organization should have, to carry out the mandated work. With regard to training institutes, a sufficient number of training halls, space for doing group activities, lodging and boarding facilities, chairs, tables, computers, internet facility, transportation facilities etc. are necessary for smooth conduct of the capacity building activities (Table 2). It can be understood that the infrastructural facilities in SAMETIs require improvement and hence there is a need to invest funds to develop physical infrastructure for the smooth functioning of day to day activities of SAMETIs.

Table 9. Overall Constraints

S.No	Statement	Weighted Average	Continuum (on a 5 point scale)
A.	Human Resources		
1	Lack of sufficient staff is hampering the work	3.32	Neutral to Agree
B.	Financial aspects		
2	Delay in getting the sanctioned budget	3.39	Neutral to Agree
C.	Administration		
3	Delay in getting promotions	2.97	Near to Neutral
D.	Central Sector Plan Schemes		
DAESI			
1	Delay in getting the proposals from KVKs/SAUs/ATMA to implement the scheme	3.27	Neutral to Agree
2	Problem in selection of facilitators	3.23	Neutral to Agree
3	Delay in getting the Provisional Utilization Certificate (PUC) from NTIs	3.20	Neutral to Agree
4	Delay in getting the relevant documents from NTIs to forward to MANAGE for processing the certificates	3.13	Neutral to Agree
5	Problem in mobilizing the candidates for the program	3.13	Neutral to Agree
6	Inadequate supporting staff for updating data into MIS	3.03	Neutral to Agree
7	Problem in appointing facilitators	3.03	Neutral to Agree
8	Inadequate infrastructural facilities for monitoring	3.00	Neutral
STRY			
1	Inadequate supporting staff for updating data into MIS	3.33	Neutral to Agree
2	Delay in getting the progress report from training institutes along with feedback	3.29	Neutral to Agree

	in the prescribed formats after completion of the program		
3	Delay in getting the Provisional Utilization Certificate (PUC) from Training Institutes	3.21	Neutral to Agree
4	Delay in updating the information on STRY portal in MANAGE website by training institutes soon after completion of the program	3.17	Neutral to Agree
5	No dedicated staff for implementing / monitoring the Scheme	3.04	Neutral to Agree
PGDAEM			
1	Insufficient field exposure	3.52	Neutral to Agree
2	Insufficient amount of Institutional charges for state nodal institute	3.41	Neutral to Agree
3	Problem in bringing more percentage of candidates to attend contact classes	3.37	Neutral to Agree
4	Insufficient amount of lodging and boarding charges of candidates during contact classes	3.26	Neutral to Agree
5	Insufficient amount of honorarium for study center coordinator	3.19	Neutral to Agree
6	Insufficient amount of honorarium to Resource persons during contact classes	3.15	Neutral to Agree
7	Insufficient field oriented knowledge	3.04	Neutral to Agree

The constraints which scored a higher weighted average (3 and above) are shown in the above Table 9. The major constraint in the case of human resources is the lack of sufficient staff hampering the work in a majority of SAMETIs. Delay in getting the sanctioned budget is also one of the major constraints due to which SAMETIs are unable to implement the programs in time as per the training calendars. The delay in getting promotions may cause low motivation among the SAMETI employees and that impacts the productivity of the institutes.

Further, with regard to the Central Sector Plan Schemes, in DAESI, delay in getting the proposals from KVK/SAUs/ATMA is a major constraint for SAMETIs which attracted

a weighted average of 3.27 on a 5 point continuum, followed by a problem in the selection of facilitator (3.23), delay in getting Provisional Utilization Certificate from NTIs with a weighted average of 3.20, delay in getting the relevant documents from NTIs to forward to MANAGE for processing of certificates (3.13), problem in mobilizing the candidates for the program (3.13), inadequate supporting staff for updating data into MIS (3.03), problem in appointing facilitators (3.03) and inadequate infrastructural facilities for monitoring the program (3.00).

With regard to STRY, the constraints are inadequate supporting staff for uploading data into MIS (3.33) followed by delay in getting the progress report from training institutes along with feedback in the prescribed formats after completion of the program (3.29), delay in getting the Provisional Utilization Certificate (PUC) from Training Institutes (3.21), delay in updating the information on STRY portal on MANAGE website by training institutes soon after completion of the program (3.17) and no dedicated staff for implementing /monitoring the Scheme (3.04) received weighted averages on a 5 point continuum.

Finally, with regard to PGDAEM, the constraints are insufficient field exposure (3.52), insufficient amount of institutional charges for state nodal institute (3.41), problem in bringing more percentage of candidates to attend contact classes (3.37), insufficient amount of lodging and boarding charges of candidates during contact classes (3.26), insufficient amount of honorarium for the study centre coordinator (3.19), insufficient amount of honorarium to resource persons during contact classes (3.15) and insufficient field oriented knowledge, with a weighted average of 3.04, attracted the weighted averages shown in parenthesis on a five-point continuum.

Conclusion

SAMETIs were established as part of the Extension Reforms in the country. At the state level, SAMETIs play an anchor role in training and capacity building of extension functionaries and farmers. Right from the Royal Commission Report in 1927, National Commission on Agriculture 1973, National Commission on Farmers 2006 and Doubling Farmers Income Report 2017, there have been several recommendations to improve the extension systems across the country. A SAMETI at the state level is a major institutional

setup to carry out the extension reforms and disseminate knowledge to the extension functionaries through capacity building activities; in turn, the extension functionaries at the middle and grass root level add value by providing extension advisories to the farming community. Hence, these institutes need to be equipped with all the necessary facilities that are required for achieving the objectives of the Extension Reforms.

The present study revealed some surprising facts regarding the infrastructural facilities in respect of insufficient number of training halls, space for group work etc. Infrastructure facilities are a basic minimum and primary in carrying out the day to day activities of any institute. In a few of the cases, SAMETIs are run in rented buildings while a few are in the premises of the Department of Agriculture of the concerned states. Hence, there is an urgent need to strengthen the SAMETIs in terms of independent housing for academic purposes and hostel facilities, sufficient manpower, physical infrastructure, proper internet connectivity, library facilities etc.

Further, with regard to Human Resources, a majority of the SAMETIs lack sufficient staff especially the Deputy Directors and other supporting staff to carry out regular activities and also to implement the state and central sector schemes like DAESI and STRY and to conduct the PGDAEM program. There is an urgent need to focus on recruitment to fill the vacant positions of Deputy Director and other support staff in SAMETIs across the country. Majorly, the officers are deputed from the line departments as faculty members. A few SAMETIs expressed that officers with vast field experience and genuine interest in training may only be deputed to SAMETIs. Coordination among the Department of Agriculture, line departments and SAMETIs is very important for the development of agriculture as well as for the wellbeing of the farmers. The respective Governments and the State Departments of Agriculture may give due importance and relook into the deputation policies and strengthen SAMETIs by adhering to the minimum tenure of transfers.

Besides, the budget for the SAMETIs and grants from different institutes may be released in time to SAMETIs to meet the expenditure for training programs, CSPS activities, etc. as per the training calendar.

With regard to the Central Sector Plan Schemes (CSPS), and in particular DAESI, in a very few cases, SAMETIs opined that the availability of facilitators and participants are

major constraints in the implementation of DAESI. The State Coordinators from SAMETIs may take necessary steps to overcome these constraints by keeping in touch with NTIs and ATMAs of the state concerned. The majority of the SAMETIs had apprehensions about the amount of honorarium to resource persons and breakfast and lunch during the classes. The guidelines may be revisited and MANAGE may take lead in negotiating with MoA&FW, GoI. There must be effective coordination between NTI, SAMETI and MANAGE in all aspects, right from the selection of the candidates, entering of data into MIS portal, exams and sending the evaluation report to MANAGE to the submission of the provisional utilization certificate to MANAGE, which is most important in the release of certificates and these aspects may be taken care of by SAMETIs. In the case of STRY, more or less similar constraints were expressed by SAMETIs. The duration of the training may be increased to 15 days in order to fully equip the participants with the specified skill in STRY training programs. In the case of PGDAEM, a majority of the SAMETIs expressed concerns about insufficient field exposure, insufficient field oriented knowledge and insufficient cost norms.

A special session for orienting to guidelines of DAESI, STRY and PGDAEM may be arranged for SAMETIs and NTIs by MANAGE and SAMETIs

The primary purpose of establishment of SAMETIs may be kept in mind by the concerned State Governments and Department of Agriculture and line departments of the state. In order to push the extension reforms at a faster pace, SAMETIs need to be equipped with regular staff and frequent deputations and transfers may be restricted. The sanctioned strength may be recruited as and when the posts become vacant.

SAMETIs that were established to push the reforms through capacity building of extension functionaries busied themselves with repeating regular and routine training programmes, compromising the very spirit and purpose (<https://agricoop.gov.in/sites/default/files/DFI%20Volume%2011.pdf>). The autonomy of the SAMETIs is ought to be respected by the Department of Agriculture and other line departments.

To conclude, there is a pressing need to improve the infrastructural conditions of SAMETIs across the country. Institutions, in order to be consistently vibrant, must always carry out improvements to serve the mandate. SAMETI at the state level and ATMA at the district level are the two wheels of the same cart taking farmers in the direction of growth and

development through the mandated activities. There are apprehensions from a few of the SAMETIs with regard to the cooperation from ATMA. Hence, SAMETI and ATMA should act hand in hand in all the activities where coordination and cooperation are required. Finally, the respective state Government may sanction sufficient resources in terms of infrastructure, human resources, financial and other necessary resources to make the SAMETIs more vivacious.

Recommendations

Based on the study, keeping in view the role of SAMETIs in achieving the extension reforms, the following recommendations are proposed:

1. Lack of physical infrastructure adversely affects the effectiveness of the training programs. Hence, every SAMETI may be equipped with proper and independent buildings to carry out the work. Other infrastructural facilities like training halls, group rooms, sufficient number of chairs, tables; computers with internet connection, library facilities and most importantly transportation facilities may be improved for Faculty and as well as for the participants.
2. In a few SAMETIs, lodging and boarding facilities are not available and in some cases, SAMETIs depend on private facilities on rental basis which creates insecurity in the minds of participants. For longer duration training programs, the participants need to stay on the campus. Hence, proper lodging and boarding facilities may be provided in every SAMETI.
3. Wherever possible, a separate women's/girls' hostel may be constructed and the fund may be sanctioned by the respective governments in this regard.
4. Library facility may be arranged and separate fund may be allotted to SAMETIs for purchase of relevant books of interest. A Library is a part of the training methodology, where the participants refer to relevant books for preparation of the PPTs, in writing assignments and reports during the training programs. One post of librarian may be sanctioned for every SAMETI.
5. The possibility of installation of solar power may be examined and one time fund may be given to SAMETIs to shift into the production of non-conventional energy for institutional purposes.

6. Proper transportation facilities like a bus, mini-van for exposure visits of participants and conveyance for movement of the Director may be sanctioned.
7. Positions may be filled as per the sanctioned posts. In a majority of the SAMETIs, Deputy Director positions are vacant and in a few of the SAMETIs, there is no regular Director available. All the positions may be filled at the earliest for smooth functioning of the institute.
8. Deputations from the Department of Agriculture and other line departments may be based on the candidates' interest in the training function and field experience.
9. The deputed officers may be retained for at least 3 years of tenure and frequent transfers may be avoided.
10. The positions of Accountant-cum-Clerk, Computer Operator may also be filled on a regular basis in order to keep the human resource position of SAMETIs strong.
11. Funds may be provided to recruit sweepers, peon, electrician, hostel manager and driver on a contractual basis.
12. The sanctioned budget may be released in time directly to SAMETI.
13. The Executive and General Council meetings may be conducted at regular intervals to take necessary decisions and guide SAMETIs accordingly.
14. The promotion policy may be revisited.
15. SAMETI may submit the required documents in time so that MANAGE may timely release the funds for the Central Sector Plan Schemes.
16. With regard to DAESI, the State Coordinator for DAESI may take necessary steps in selection of reliable NTIs and MANAGE may guide the SAMETI staff in the process and procedures for screening and selection of NTIs.
17. The Director, SAMETI may assign responsibility to each Deputy Director to look after the scheme related activities. Dedicated staff ensure continuity of timely activities. The Director, SAMETI may liaise with the Department of Agriculture for recruitment of staff so that the scheme related work may not overlap with the regular work.

18. Proper orientation may be given to SAMETI officials with respect to DAESI, STRY and PGDAEM guidelines. MANAGE Consultant may take lead in the activity.
19. Timelines for every DAESI activity may be fixed by MANAGE officials with regard to approval of batches, funds, timely reports from SAMETI/NTI, exam schedule and release of certificates. There may be a deadline for approval of batches, so that all batches may start in a systematic way. The Principal Coordinator, DAESI may take the lead to release the DAESI calendar every financial year and accordingly, activities may be carried out by the consultants.
20. Assessment of performance of NTIs may be taken up by MANAGE/SAMETI and the NTIs which do not submit the relevant documents in time and cause delay in dispatch of certificates from MANAGE may be avoided to continue as NTIs.
21. Institutional charges, working lunch to participants, honorarium to resource persons may be enhanced as per the financial provision. MANAGE may take lead in this regard to liaison with the Ministry of Agriculture & Farmers Welfare, Government of India.
22. Issues regarding DAESI portal may be resolved by MANAGE Consultant in coordination with the NTIs. There is a demand from a few SAMETIs regarding the edit option. Keeping in view the security of data, the option of editing MIS data may rest with MANAGE.
23. The number of training days may be increased from 6 to 10 in STRY.
24. In the case of PGDAEM, bi-lingual study material may be prepared and timely dispatch of materials is also highly recommended.
25. Timelines may be prepared for the conduct of PGDAEM well in advance and the timelines may be strictly followed by MANAGE.
26. Cost norms may be revised based on the availability of the funds for PGDAEM in certain aspects.

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