



‘EVALUATION AND IMPACT ASSESSMENT’ OF “DIPLOMA IN AGRICULTURAL EXTENSION SERVICES FOR INPUT DEALERS (DAESI)” PROGRAMME

YEAR 2013

(This document is Evaluation and Impact Assessment Report of DAESI programme conducted from 2004-05 to 2008-09 in the States of Andhra Pradesh, Tamil Nadu and Maharashtra by MANAGE, Rajendranagar, Hyderabad.)

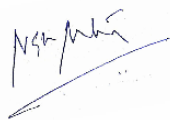
Preface

[Evaluation and Impact Assessment of DAESI programme]

This Evaluation report attempts to bring together observations and analytical information on the impact of DAESI Programme, which is a unique extension intervention from National Institute of Agricultural Extension Management (MANAGE). The DAESI programme conducted from 2004-05 to 2008-09 left a positive impact on agri-input Dealers and farmers of Andhra Pradesh, Tamil Nadu and Maharashtra in many respects. DAESI Programme is a powerful vehicle for agricultural technology transfer with the involvement of channel partners of the private sector in support of agricultural extension system. MANAGE has strengthened the agricultural extension through the agri-input Dealers by effective implementation of DAESI programme. Even though the direct participants for DAESI programme are agri-input Dealers, the targeted co-beneficiaries are the farmers. The findings of the study would help to further strengthen and upscale the DAESI programme.

This evaluation study was taken up by Ingrain Technologies, an exclusive consulting organization in agriculture and agribusiness.

Yours sincerely,



PVGK Murthy

Director – Ingrain Technologies

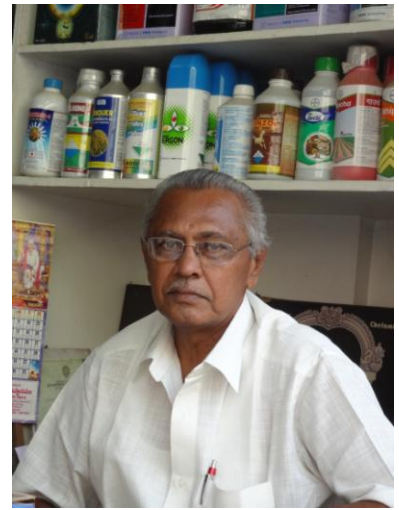


DAESI programme improved the access of extension advice to the farmers and it made the trained agri-input Dealers more knowledgeable and skilful so as to conduct their business efficiently and to provide effective extension services to the farmers, who seek agricultural advice from them. Overall, DAESI programme has effectively addressed the issue of last mile connectivity in the agricultural extension system.

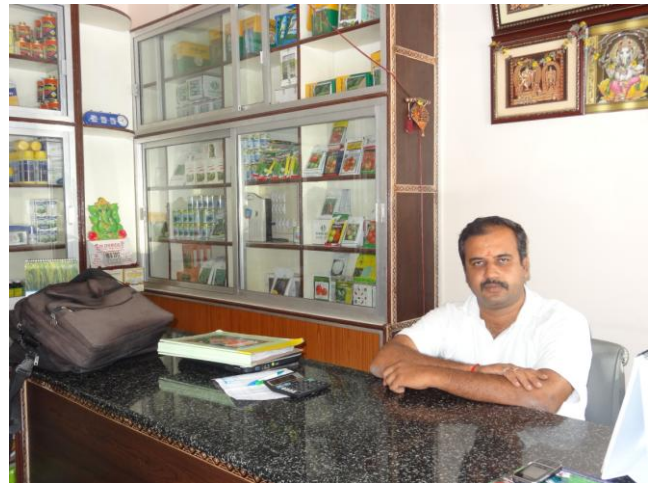
Abbreviations and acronyms

A.P.	Andhra Pradesh
ACABC	Agri Clinics and Agri Business Centers
ADA	Assistant Director of Agriculture
ATMA	Agricultural Technology Management Agency
AV	Audio Visual
DAESI	Diploma in Agricultural Extension Services for Input Dealers
DDA	Deputy Director of Agriculture
E.C.	Essential Commodities
F.C.O.	Fertilizer Control Order
INM	Integrated Nutrient Management
IPM	Integrated Pest Management
JDA	Joint Director of Agriculture
km	kilometer
KVK	Krishi Vignana Kendra
MANAGE	National Institute of Agricultural Extension Management
PACS	Primary Agricultural Cooperative Society
P.P.	Plant Protection
RKVY	Rashtriya Krishi Vikas Yojana
SAMETI	State Agricultural Management & Extension Training Institute
SAU	State Agricultural University
T.N.A.U.	Tamil Nadu Agricultural University
WTO	World Trade Organization





Empowering agri-input dealers...



Executive Summary

A unique intervention by MANAGE, “Diploma in Agricultural Extension Services for Input Dealers (DAESI)” programme aims to strengthen the last mile connectivity in agricultural extension by empowering the agri-input Dealers by imparting agricultural technology. The aspects of knowledge and skill acquisition by Dealers, change in their beliefs, behavior in conducting business and in providing extension services were considered, while evaluating the outcomes and impact of this programme. The evaluation information was collected in post-programme phase through questionnaires. The evaluation covered the dimensions of process of conducting DAESI, the outcomes and impact of DAESI on the farming community.

This evaluation study reports the assessment of DAESI Programme from 2004-05 to 2008-09 in the aspects of methodology followed, structure, course content, cost norms, venues, infrastructure, resource persons, study material, evaluation procedures, publicity, facilitators, partner institutions and impact on the agri-input Dealers and farmers. MANAGE designed a teaching methodology that combines the required theoretical concepts and practical aspects of agriculture and agribusiness. The participants of DAESI Programme represented wholesalers, retailers and employees of agri-input organizations. Feedback from participants indicated that the programme has been very effective. The topics pertaining to regulatory issues during sale of agri-inputs were highly appreciated by the DAESI trained Dealers and officials of Agricultural Department. The overall content of the DAESI Programme was found to be domain-specific and tailor made to suit the locality specific requirements of the Dealers and farmers. The course content was found to be highly relevant and easy to assimilate and met the expectations of the participants. It was observed that the lectures were delivered effectively by the resource persons. The DAESI trained agri-input Dealers acknowledged the improvement in relationship with their old and new customer farmers and also with co-Dealers.

The key finding is that the impact of DAESI has been very strong especially at agri-input dealer level, as DAESI empowered the dealer’s role characterized by a wide and rich set of competencies and skills.

The existing norms in identification of facilitators, partner institutions, fixing the venue for conducting the programme, organizing infrastructure for conducting the DAESI programme, evaluation procedures of DAESI candidates are found to be satisfactory and matching the purpose.

The course content is generally adequate and addition of topics like new plant protection chemicals is sought in the theory part. In the practical part, it was sought that the practical classes should be increased to the extent possible.

The study revealed that DAESI Programme helped in enhancement of the income levels of the trained Dealers. The raise in their individual productivity and earning capacity were attributed to DAESI Programme. The increase in business income because of increased customer base of majority of the Dealers is 11% to 25%. The DAESI trained Dealers are generally found to be resourceful in providing crop related advice to the farmers and are accepted as source of crop related recommendations by the farmers. The Dealers gained the reputation in their respective markets as “guides” to farmers. Nearly 60% of the farmers expressed that they are satisfied with the advices given by the DAESI trained input Dealers. Majority of the input Dealers, who did not attend DAESI, expressed that, they believe that DAESI will improve knowledge and skills related to their profession.

DAESI programme is highly useful for “retail agri-input Dealers” as they are in direct contact with the farmers. DAESI has contributed in strengthening the agricultural extension system by way of creating a pool of para-extension workers. The evaluation study acknowledges the significant contribution of MANAGE in creating the channel for transfer of agricultural technology to the farmers through DAESI. The course has also helped a majority of the trained Dealers in their personal development as it is useful for them in their daily life and in business communication.

It was found that the existing publicity for DAESI is inadequate and the need for concerted efforts to enhance the publicity is identified. Measures to enhance publicity are recommended that include advertisements in agriculture related magazines, radio and TV channels, sensitizing farmers to approach DAESI qualified Dealers for their agricultural advice, providing separate status for DAESI trained agri-input Dealers and utilizing their extension service through activities of State Departments of Agriculture etc., Another key recommendation given by the stakeholders was to explore possibility to make “DAESI” qualification as mandatory to run agri-input business.

A revision in cost norms from time to time is also recommended keeping the increase in prices and general inflation in view. In conclusion, DAESI programme has effectively fulfilled the objectives of its mandate during introduction and implementation and MANAGE should develop strategies for up-scaling the programme at this juncture.

In order to up scale the DAESI programme to various States in India, the key process suggested is developing concrete partnerships with State Departments of Agriculture and agri-input companies. Strategic partnerships with these organizations are crucial for ensuring the enrolment of participants and harnessing the manifold spread of agricultural extension activity.



**'EVALUATION AND IMPACT ASSESSMENT' OF "DIPLOMA IN AGRICULTURAL EXTENSION
SERVICES FOR INPUT DEALERS (DAESI)" PROGRAMME**



#12-13-414/12, Street No.1, Tarnaka,
Secunderabad- 500 017

CONTENTS

S.No.	Chapter	Page No.
1	INTRODUCTION	11
2	SCOPE, OBJECTIVES AND METHODOLOGY OF EVALUATION	19
3	EVALUATION FINDINGS	29
4	SUCCESS STORIES OF DAESI PROGRAMME	71

Annexure

S.No.	Title	Page No.
1	Module-wise coverage of theory and practical classes in DAESI	85
2	Organizational background of MANAGE	94
3	The background of DAESI	102
4	Photographs	104
5	Details of TOR (given by MANAGE)	167
6	Questionnaires	169

1.INTRODUCTION



1. INTRODUCTION

1.1. The Background and context of DAESI:

Diploma in Agricultural Extension Services for Input Dealers(DAESI) programme was designed by MANAGE and commenced during 2003 to improve the lives of the farming community by creating the last mile connectivity to the farmers with the technically empowered agri-input dealer. The DAESI trained agri-input Dealers are expected to support the crop production through advising farmers on good agricultural practices, scientific crop protection and crop nutrition, soil and water management etc. DAESI aims to help in capacity building of agri-input Dealers to enhance the efficient handling of agri-inputs and agricultural extension. Similarly DAESI aims at orientation on location specific crop production technologies and imparting knowledge about the laws governing regulation of agricultural Inputs. The mission of DAESI programme reflects the holistic idea of transforming the agri-input Dealer into a para-extension worker to strengthen the agricultural extension system. The agri-input Dealers form the essential link to the farmers and have the potential to disseminate the agricultural technologies effectively in their respective geographical areas. DAESI programme leverages the last mile connectivity of agri-input Dealers to farmers for enhancing the efficiency of agricultural extension mechanism. The objective of the DAESI programme is that the Dealers should be equipped to take up the extension activity for providing correct, timely and adequate crop related advisory to the farmers. This way the existing inadequacies in the agricultural extension can be addressed to some extent by the trained agri-input Dealers, to create a robust agricultural extension mechanism.

After analyzing the challenges of training the target group of agri-input Dealers, the DAESI programme is being organized on a semi-distance education mode to suit the context. Classes are being conducted in each week on Sunday (market holiday) for 48 weeks, which comprises 40 theory classes where class room interactions held with technical experts and 8 field visits to various Agricultural & allied Research stations and farmers fields so as to acquaint with the field problems. DAESI programme is covering about 36 credit hours. In practical classes, Dealers identify the causal organism (Insect, disease and nutritional disorder) based on symptoms. Study material is being supplied as prepared by resource persons and multi- media instructional devices used to teach by the experts.

DAESI programme has a two pronged approach covering

1. Equipping the agri-input Dealers with technical (crop related knowledge) and extension skills
2. Equipping the agri-input Dealers with business related knowledge and skills

1.2. Module-wise coverage of theory and practical sessions

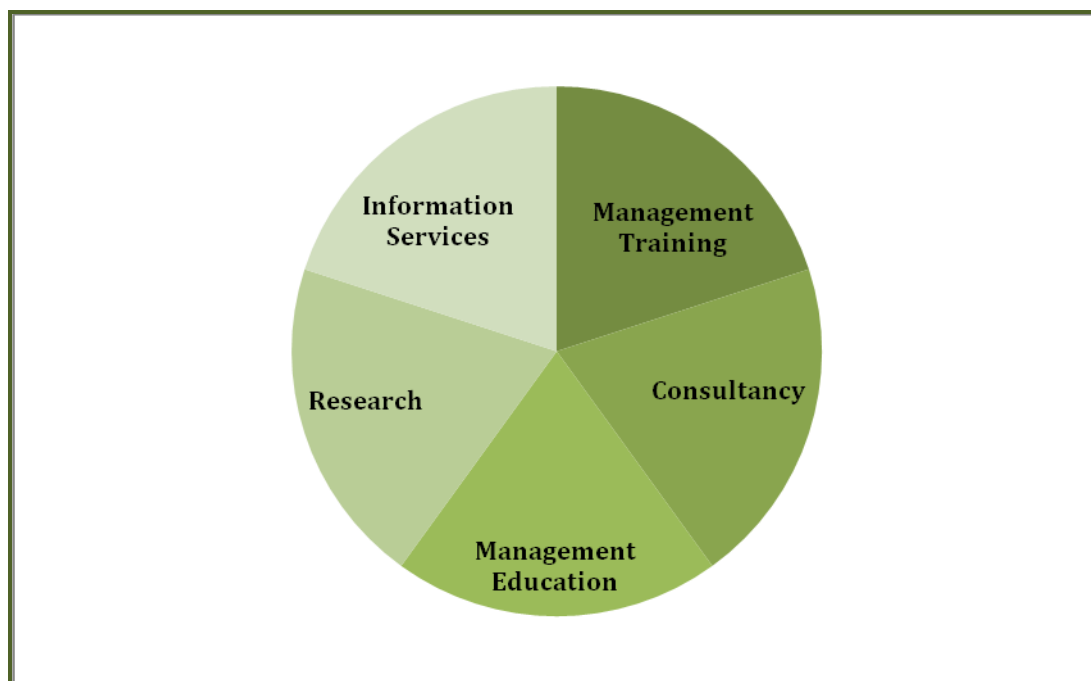
1. Role of Weather in Agriculture
2. Gaps in Production – Schemes to overcome them
3. Soils
4. Rainfed farming
5. Integrated Nutrient Management (INM)
6. Integrated Pest Management (IPM)
7. Crop Production Technology of individual crops
8. Farm Mechanization
9. Water Management
10. Extension Management
11. Law
12. General Topics

1.3. Organizational background of MANAGE

MANAGE was established in 1987, as the National Centre for Management of Agricultural Extension at Hyderabad, by the Ministry of Agriculture, Government of India as an autonomous Institute, from which its acronym 'MANAGE' is derived. In recognition of its importance and expansion of activities all over the country, its status was elevated to that of a National Institute in 1992 and re-christened to its present name i.e., National Institute of Agricultural Extension Management. MANAGE is the Indian response to challenges of agricultural extension in a rapidly growing and diverse agriculture sector. The policies of liberalization and globalization of the economy and the level of agricultural technology becoming more sophisticated and complex, called for major initiatives towards reorientation and modernization of the agricultural extension system. Effective ways of managing the extension system needed to be evolved and extension organizations enabled to transform the existing set up through professional guidance and training of critical manpower. MANAGE is the response to this imperative need.

a. Professional Services

MANAGE offers its services in the following five streams viz.,



b. Education

MANAGE is providing courses of Post Graduate Diploma in Management(AgrI-Business Management), Post Graduate Diploma in Agricultural Extension (PGDAEM) and DAESI.

c. The mandate of MANAGE vests the institute with the responsibility to work in the following directions:

- Developing linkages between prominent state, regional, national and international institutions concerned with agricultural extension management
- Gaining insight into agricultural extension management systems and policies
- Forging collaborative linkages with national and international institutions for sharing faculty resource
- Developing and promoting application of modern management tools for improving the effectiveness of agricultural extension organizations
- Organizing need based training for senior and middle level agricultural extension functionaries
- Conducting problem oriented studies on agricultural extension management
- Serving as an international documentation center for collecting, storing, processing and disseminating information on subjects related to agricultural management

d. Training

Training is an integral part of the Institute's mandate. As part of the training activity, MANAGE conducts a series of training programmes, workshops, seminars and study visits, on key theme areas for public sector Extension functionaries working in development departments such as Agriculture, Horticulture, Fisheries, Animal Husbandry and Veterinary etc. in various states as well as in the private sector is an integral part of the Institute's mandate. The attempt is not merely to provide conceptual understanding on a given theme but also to provide necessary skills in operational aspects. MANAGE imparts knowledge and skills for effective performance by the extension functionaries. The programmes are designed keeping in view the changes in the environment to prepare the extension functionaries to cope up with these and for effective implementation of various programmes. Training needs of the functionaries are also taken into account while designing training programmes. MANAGE also organizes training programmes,

which are specifically designed to suit customer requirements, which are sponsored by various organizations.

Focus areas of training include Agricultural Extension Management, Agri Business Management, Natural Resource Management, Mass Media and Communication and Information Technology in Agricultural Extension.

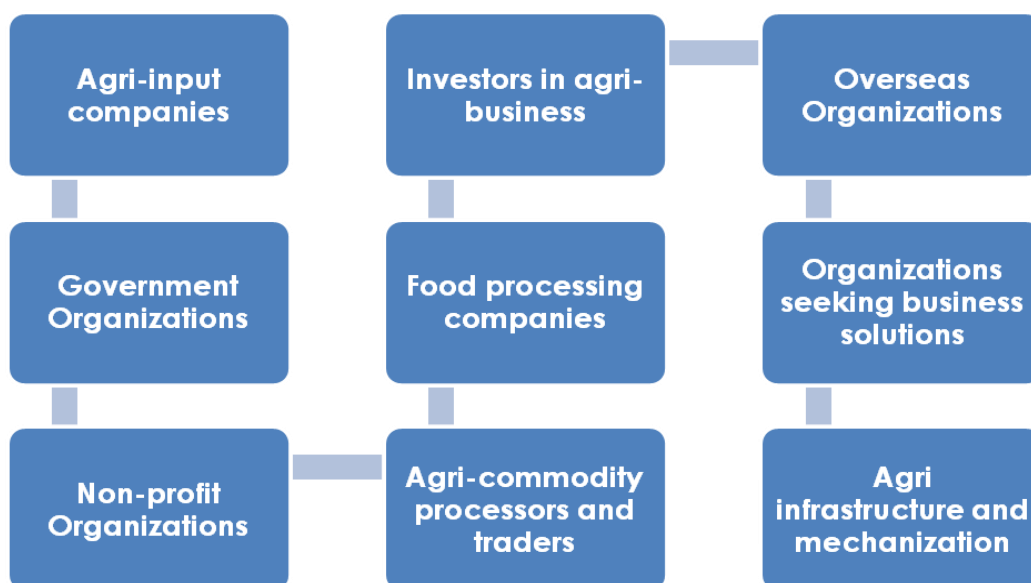
e. Schemes

- *Extension Reforms*
- *Agri-clinics and Agribusiness Centers*
- *Mass Media Support to Agril Extension*
- *Kisan Call Center (KCC)*

1.4. Organizational background of Ingrain Technologies

Ingrain Technologies is a progressive consulting firm operating in generic and niche areas of Agriculture and Agri Business. Consulting, Projects, Agri-Advisory Services, Farm Development, Man power Consulting and Rural Development are Ingrain's areas of operation. The other important areas of operation are Marketing Research and Analytics which are being offered to a range of businesses. Ingrain is one stop resource for a spectrum of consulting services. Ingrain facilitates effective solutions to the clientele with the help of knowledge base and hands on experience across a range of activities like strategizing, processes, services and implementation. Ingrain follows a holistic approach in addressing the issues and facilitates co-creation of value by leveraging knowledge, skill set and experience and offers contemporary, holistic and economic solutions to issues in Agri- Business and Rural Development. It works with organizations to provide services related to strategy, implementation and evaluation across agricultural sector.

Ingrain's clientele are from the following groups



Spectrum of services

Business & Strategy

- Marketing Research
- Strategy & Business development plans
- Feasibility studies
- Solutions in agribusiness and rural development

Implementation

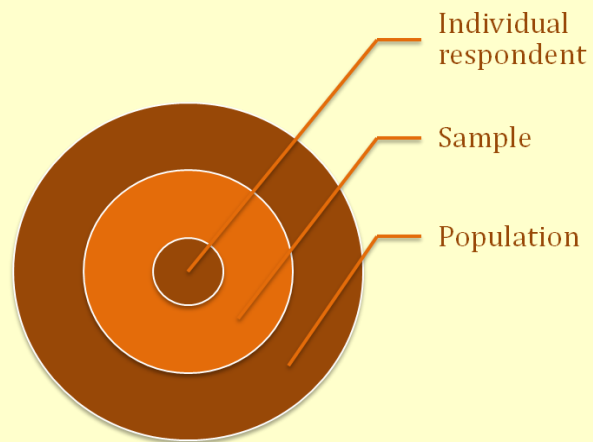
- Studies related with climate change and agriculture
- Mechanization interventions in Agriculture
- Preparation and implementation of projects

Natural Resources Management and Training

- Studies related to Natural Resources Management
- Rural Development & Capacity building
- Impact analysis and evaluation studies



2.SCOPE, OBJECTIVES AND METHODOLOGY OF THE EVALUATON STUDY

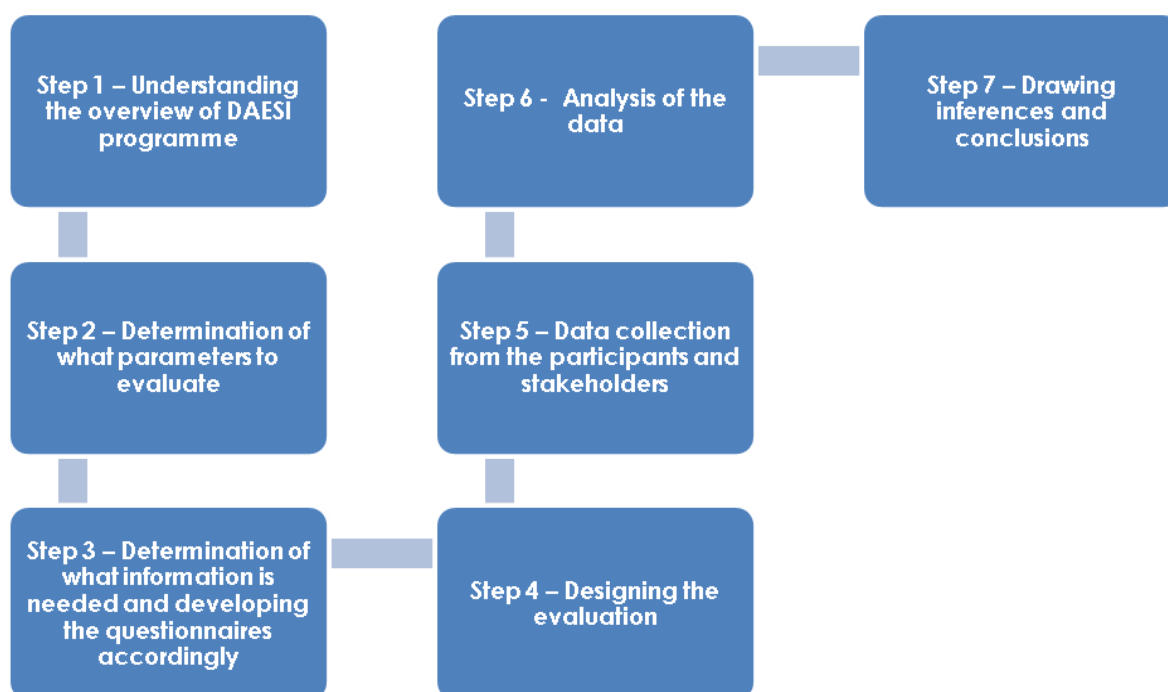


2. SCOPE, OBJECTIVES AND METHODOLOGY OF THE EVALUATION STUDY

The evaluation study aims to assess the changes in knowledge, skill and attitudes of agri-input Dealers and the impact of DAESI programme on Dealers and farmers. The *cause and effect rationale* was applied to understand and measure the changes that can be attributed to DAESI programme. To evaluate the impact of DAESI programme, the 'before- and-after' method was adopted. The evaluation information was collected in post-programme phase through questionnaires. The information regarding the satisfaction levels of the candidates with DAESI programme, knowledge and skill acquisition, behavioural application, improvement in post – programme period and improvement in the agri -input business was collected and analyzed.

The evaluation encompasses the dimensions of *process* of conducting DAESI programme, the *outcomes* (direct and immediate effects) and *impact* of DAESI programme (indirect and long term effects) on the trained agri-input dealers farming community. While evaluating the outcomes, the aspects of acquiring knowledge and skill levels of input dealers, behavior in conducting business and providing extension services to the farmers, change in attitudes(values and beliefs) were considered with due focus. "*Rating method*" was also followed to assess the outcomes.

Process of the Evaluation Study:



Scope and methodology:

The evaluation of “DAESI” programme was taken up in the States of Andhra Pradesh, Maharashtra and Tamil Nadu where the programme was implemented from 2004-05 to 2008-09. DAESI certified input Dealers with minimum of three years experience were selected as respondents.

Geographical distribution:



Sample Size of agri -input dealers:

The sample size – minimum 10% of the DAESI input Dealers and four farmers per input dealer were selected for collecting data through pre-tested questionnaires. Sample size in Maharashtra was 16 trained input Dealers and in Tamil Nadu, 10 each from all the three batches. The total sample size of input Dealers was 182. To have a good representation of sample, the respondents from the Dealer's group were drawn proportionally in all the batches and districts.

Details of agri-input dealers with minimum three years of experience

DAESI		Andhra Pradesh		
S.no.	Year	Programmes	No. of Candidates	Sample size
1	2004 – 05	2	46	5
2	2005 -06	4	127	13
3	2006 -07	6	205	21
4	2007 -08	12	523	52
5	2008 – 09	12	462	46
	Total	36	1363	136
		Tamil Nadu		
S.no.	Year	Programmes	No. of Candidates	Sample size
1	2004 – 05	1	16	10
2	2005 -06	---	---	---
3	2006 -07	1	24	10
4	2007 -08	1	23	10
5	2008 – 09	---	---	---
	Total	3	63	30
		Maharashtra		
S.no.	Year	Programmes	No. of Candidates	Sample size
1	2004 – 05	---	---	---
2	2005 -06	---	---	---
3	2006 -07	---	---	---
4	2007 -08	1	16	16
5	2008 – 09	---	---	---
	Total	1	16	16
Grand total		40	1442	182

Sample size of farmers:

Minimum four farmers per input dealer were taken for the total sample size of input Dealers. Hence the total sample size of the farmers is minimum 728(544 from A.P., 120 from Tamil Nadu and 64 from Maharashtra). To have a wider representation of sample, the farmers were selected proportionally from big, medium and small category of farmers and also proportionately from all the districts on random basis

Geographical distribution of sample size					
Andhra Pradesh					
S.No.	Name of the District	No. of Batches	Total No. of Candidates	Sample size of Dealers	Sample size of Farmers
1	Ranga Reddy	4	122	12	48
2	East Godavari	2	79	8	32
3	Nizamabad	2	81	8	32
4	Kurnool	1	34	3	15
5	Adilabad	3	120	12	60
6	Warangal	2	76	8	40
7	Krishna	7	285	29	145
8	West Godavari	5	177	18	72
9	Prakasam	3	115	12	48
10	Guntur	4	163	16	80
11	Karimnagar	2	62	6	24
12	Nellore	1	40	4	20
	A.P. Total	36	1363	136	616
Maharashtra and Tamil Nadu					
1	Maharashtra(Pune District)	1	16	16	64
2	Tamil Nadu (Coimbatore, Erode, Salem & Namakkal Districts)	3	63	30	120
	Grand total	40	1442	182	800

Sample size of non-DAESI trained dealers:

In order to understand the perception of non- DAESI trained Dealers about DAESI programme,a total of 30 input dealers, who have not undergone DAESI were selected randomly and their perceptions about DAESI and reasons for not joining the programme were captured documented. The agri- input Dealers in this group know about DAESI but did not join the DAESI programme.

Sample distribution of non-DAESI trained Dealers

Andhra Pradesh		
S.No.	Name of the District	No. of Non-DAESI trained Dealers
1	Ranga Reddy	2
2	East Godavari	2
3	Nizamabad	2
4	Kurnool	2
5	Adilabad	2
6	Warangal	2
7	Krishna	4
8	West Godavari	2
9	Prakasam	2
10	Guntur	2
11	Karimnagar	2
12	Nellore	1
	A.P. Total	25
Maharashtra and Tamil Nadu		
1	Maharashtra(Pune District)	2
2	Tamil Nadu (Coimbatore, Erode, Salem & Namakkal)	3
	Gross total	30

Sample size of stakeholders:

The perceptions of ten representatives of agri-business companies, ten ATMA Officials, ten DAESI facilitators were also captured and documented. The selection of the stakeholders was done on random basis from various districts in the three States of A.P., Maharashtra and Tamil Nadu.

The following table represents the number of stakeholders contacted

Facilitators		
S.no.	Facilitator	Place
1	Mr. M.Mahendra Daibar	Pune
2	Mr. J.Krishna Reddy	Nizamabad
3	Dr. K.A.Ponnuswamy	Coimbatore
4	Mr. KV.Krishna Murthy	Vijayawada
5	Mr. V.Bhaskar Rao	Palakollu
6	Mr. M.Ram Mohan Rao	Ongole
7	Mr. V.Sudeer Reddy	Warangal
8	Mr. D.Papi Reddy	Guntur
9	Mr. Chandra Sekhar Reddy	Hyderabad
10	Mr. P.Koteswara Rao	Pamaru
Representation from Agri-Input Organizations		
S.no.	Organization	No. of Representatives
1	Dhanuka Agritech	2
2	NFCL	2
3	Rallis India	1
4	Syngenta India	2
5	International Panacea	1
6	Meghamani Organics	1
7	Novozymes BioAg	1

Officials from Department of Agriculture		
S.no.	Designation	District
1	Deputy Director - Agriculture Department	Guntur
2	Assistant Director - Agriculture Department	Ongole
3	Assistant Director - Agriculture Department	Coimbatore
4	Deputy Director - Agriculture Department	Krishna
5	Deputy Director - Agriculture Department	Nellore
6	Assistant Director - Agriculture Department	East Godavari
7	Assistant Director - Agriculture Department	Guntur
8	Agriculture Officer - Agriculture Department	Pune
9	Assistant Director - Agriculture Department	West Godavari
10	Agriculture Officer- Agriculture Department	Prakasam

Total sample details:

S.no.	Members/Stakeholders covered	Minimum no. of Respondents
1	Agri-input Dealers trained in DAESI programme	182
2	Non- DAESI trained Agri-input Dealers	30
3	Farmers	728
4	Officials of Agricultural Department	10
5	Officials of Agri-input companies	10
6	DAESI Facilitators	10

The following aspects were covered in the evaluation study of DAESI Programme to take up comprehensive evaluation.

- Recommendation of appropriate publicity and promotion strategy for DAESI
- Suggesting measures for promotion of DAESI
- Analyzing present cost norms and to suggesting the cost norms considering the present context
- Understanding the present approach in identification of facilitators, partner institutions and to suggest appropriate ways
- Analyzing present venues, Infrastructure, Resource persons, Course content, Study material, Methodology, Evaluation procedures and suggesting ways and means to strengthen the same
- Evaluation of DAESI programme in terms of Impact on knowledge of input Dealers, Impact on extension services provided by input Dealers to farmers, coverage and to suggesting measures to enrich the same
- Studying the significance of DAESI as a tool for reduction of legal problems at input Dealers' level and DAESI impact on the income level of input Dealers
- Understanding perception of farmers on DAESI, acceptance of DAESI certified input Dealers as extension source, impact of DAESI at farmers' level in terms of knowledge, adoption, rational use of inputs, cropping pattern, enhancement in production, productivity and profitability
- Studying the involvement of DAESI Dealers in ATMA activities

The TOR given by MANAGE (annexure V) were adhered while conducting the evaluation study. The questionnaires were prepared keeping the above aspects in view to collect the responses from stakeholders. Specific questionnaires for each of the stakeholder groups were developed and were sent for approval from MANAGE. The pre-approved questionnaires were organized for pre-test (pilot of the survey) by the qualified Data collectors in presence of the Team Leader from Ingrain Technologies to capture the issues before finalizing the survey questionnaires. After the pre-test (pilot of the survey), the issues were captured, necessary modifications were done in the questionnaires and final approval was taken from MANAGE for execution of the questionnaires.

Data collection was designed so as to match the parameters under study with reference to the TOR issued by MANAGE. Even the stakeholder survey was conducted and setting out the causal links between each stage of the evaluation was taken up. Interviews were intended to elicit the information from the respondents.(questionnaires attached in annexure VII).The qualified and experienced data collectors have visited the places of farmers and Dealers in person and collected the required information through executing the approved questionnaires. Consultants from Ingrain Technologies have collected the data from Facilitators, representatives of agri-input companies and Officials of Agriculture Department. The data thus collected was compiled and analyzed using appropriate statistical tools to infer various aspects of the evaluation study.

Six success stories were captured after making critical observation of the qualitative changes in the trained input dealers.

3.EVALUATION FINDINGS



3. EVALUATION FINDINGS

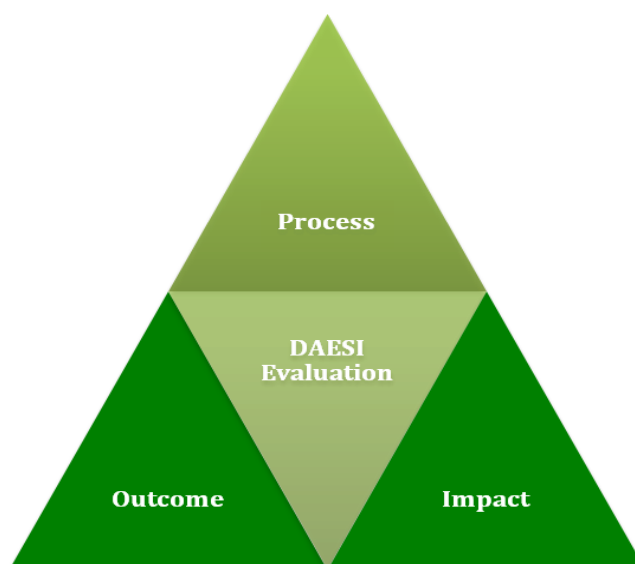
MANAGE has meticulously designed, implemented DAESI programme and successfully upgraded the technical skills and confidence levels of the trained agri-input Dealers. The important learning in case of agri-input Dealers include plant protection, plant nutrition, soil and water management, inventory management, statutory compliance, business management and agricultural technology transfer. After being empowered with knowledge and skills, the DAESI trained Dealers are found to be instrumental in providing the agri advisory to their customer farmers. DAESI has benefited farmers through dissemination of agricultural technology. In the process, the DAESI trained Dealers also gained goodwill among the farmers. For the Evaluation of DAESI, the 'Attainment of Objectives Model' has been adopted and the success of DAESI programme has been evaluated by measuring the outcomes against the laid out objectives.

Objectives of DAESI programme:

1. *To orient on location specific crop production technologies of broad-based agriculture and specific package of practices related to field problems.*
2. *To build capacity of Input Dealers in efficient handling of Inputs*
3. *To impart knowledge about the laws governing regulation of agricultural Inputs*
4. *To make Input Dealers an effective source of farm information at the village level (one stop shop) for the farmers / farm women*

3.1. The 3 Dimensions of Evaluation

The DAESI programme was assessed with reference to the "3 dimensions of evaluation" i.e. *process, outcome and impact*. **Process evaluation** of DAESI programme was intended to describe and assess programme design and implementation. The **process evaluation** describes the interventions, to which the outcomes of DAESI may be attributed. The **Outcome evaluation** represents the immediate or direct effects of the DAESI programme on the participants. The **Impact evaluation** part considered the longer-term effects, which are beyond the immediate results which can be attributed to DAESI.

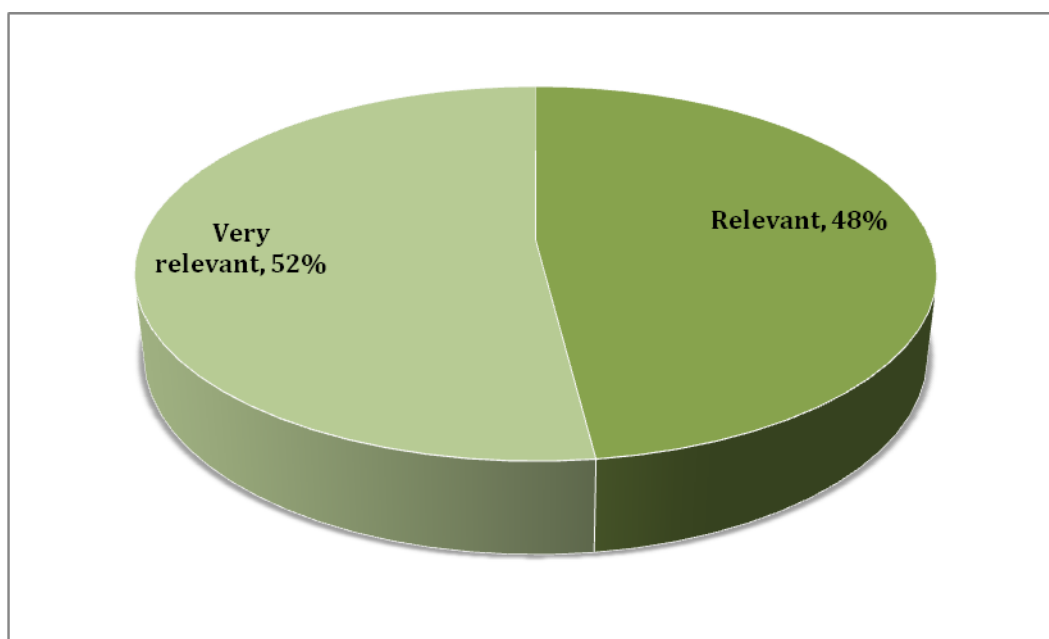


Dimension 1 - Process evaluation (designing and implementation of the DAESI programme):

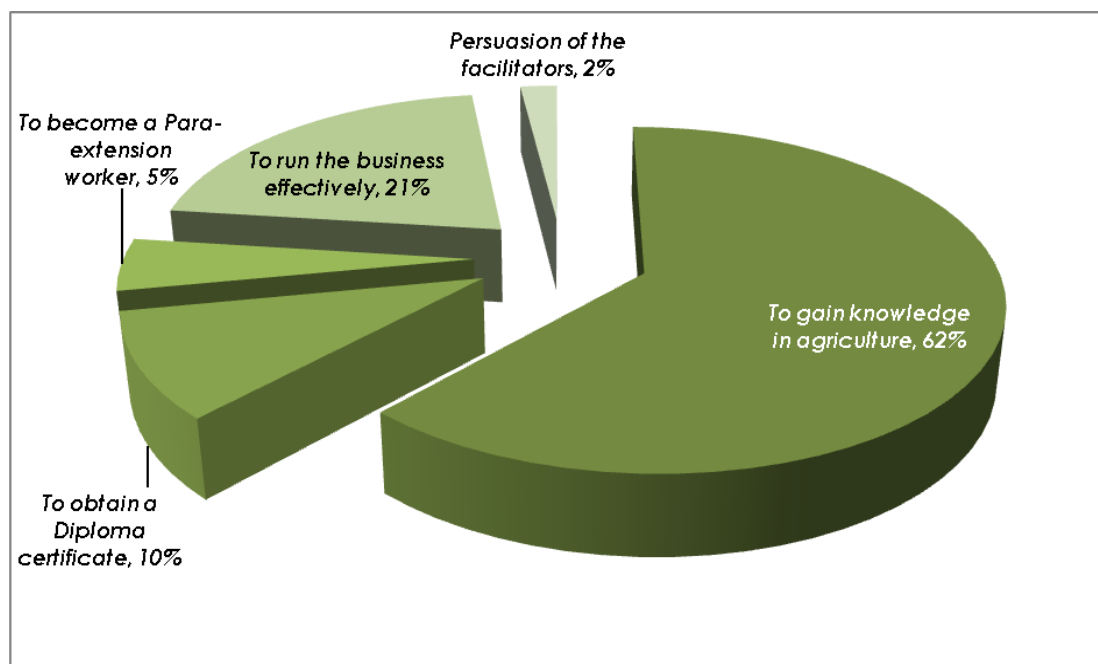
1. Relevance of DAESI programme

DAESI programme, which covers science and management of crops and agri- input business was designed exclusively for the agri-input dealers, keeping their pragmatic requirements in view. It was well appreciated by the agri-input dealers who are satisfied with the relevance of the exclusive programme created for their profession for the first time. DAESI programme has served the purpose of connecting dealers to the academic intervention to upgrade their skills and knowledge. Indirectly, the relevance of DAESI to the dealers' context has helped in strengthening the last mile connectivity for technology transfer to the farmers as the dealers are the most sought after contact persons for the farmers.

Perception of the agri-input Dealers about relevance of DAESI to their profession



As DAESI has been relevant to agri-input dealers in many aspects, there are multiple reasons for them to join DAESI programme. The response from the agri-input Dealers group regarding their purpose of joining DAESI programmes was given in the following diagram



2. Approach in identification of facilitators, partner institutions

MANAGE is selecting the Facilitators/District Coordinators according to the laid out norms. The study reflected that the existing criteria for selection of Facilitators/District Coordinators for DAESI programme are matching the purpose and found to be satisfactory. 100% of facilitators expressed that the existing norms in this regard are pragmatic and the same can be continued.

3. Venue related aspects

The venues of DAESI programme were observed in various districts. The existing norms of MANAGE have taken consideration of creating a congenial classroom ambience for effective learning. The existing norms of choosing the venue were found to be pragmatic and meeting the purpose of providing venues which are accessible, acceptable and known places for learning.

The following suggestions were given by the Facilitators about the venue

1. The venue should have air-conditioning facility keeping in view of hot climate to facilitate learning under congenial conditions
2. Organizing DAESI classes in the academic institutions such as Agriculture Research Institutes, Agricultural Universities, SAMETIs, KVKs, FTC (wherever available) may help in simulating classroom condition and sense of belongingness to academics to the candidates pursuing DAESI.

4. Resource Persons

Well experienced, meritorious Officials from Department of Agriculture/Horticulture and teaching faculty from the agricultural universities, KVKs and Research centres with proven skills in teaching and classroom handling were selected as resource persons for DAESI. The Resource persons belong to the respective local areas and they are local experts of the crop technology and other relevant aspects. They delivered lectures that were rich in content in the respective regional language (mother tongue) which was easy to understand for the input -dealers. The crop related expertise of the resource persons was well appreciated by the input dealers. All the Facilitators expressed that they have got adequate resource persons to handle the sessions. The existing norms of choosing the Resource Persons are found to be pragmatic and meeting the purpose. The

participants expressed unequivocally that Resource Persons selected were instrumental in effective transfer of knowledge.

The response from the agri-input Dealers group regarding the quality of the Resource persons in the DAESI programme is given in the following table

S.no.	Rating- quality of the resource persons	Response in Percentage
1	Excellent	39%
2	Good	55%
3	Satisfactory	6%

Suggestion for improvement:

Along with Experts from the Agricultural universities and state department of agriculture, the experienced and innovative farmers, Experts from agri-input companies, established agri - entrepreneurs who were trained under ACABC and selected trained DAESI input dealers may be invited as resource persons.

5. Infrastructure

The infrastructure at the venues of DAESI programme was observed in various districts. The DAESI Facilitators organized a LCD Projector, a over head projector, black board/ chalk, white board/markers, charts/poster and CD Player and Sound system in the venues. Audio visuals were used efficiently to facilitate assimilation of the content by the input Dealers. About 95% of the input dealers expressed that the infrastructure at the venue was satisfactory and meeting the purpose of effective learning. The Facilitators also expressed that the existing infrastructure is adequate and modification of the existing norms is not required.

6. Course content and methodology

The content in the DAESI programme was created with a view to provide technical knowledge and skills about the overall aspects of agriculture and agribusiness with special focus on local crops in the respective Districts. At least 30% of the content of the syllabus was location specific. The content was comprehensive, holistic and prepared in simple language. Many of the participants of DAESI expressed that the content, though comprehensive, was made in ready to assimilate format for the benefit of the input dealers. 50% of the Facilitators expressed that the flexibility given to Facilitators in preparation of study material is the strength of the DAESI programme, which helps in customizing the programme to suit the location specific crop contexts. The Facilitators and agri-input Dealers expressed that the location specific content is the one of the major advantages of DAESI programme.

The perception of agri-input Dealers regarding the content of the course is

S.no.	Rating- content of the course	Response in Percentage
1	Easy to assimilate	85%
2	Not so difficult	15%

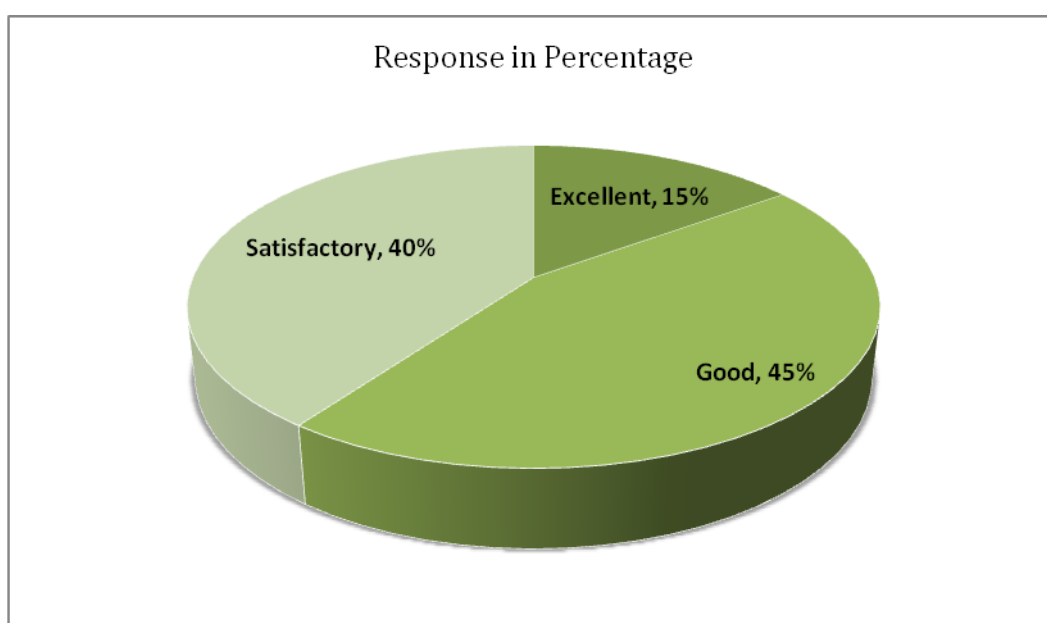
DAESI programme has both theory and practical components. Theoretical part was delivered through lecture method by the resource persons and practical sessions were also undertaken to provide the pragmatic insights of the course contents. Majority of the input Dealers expressed that the method of delivery of lectures was appropriate and suited to their requirement in the DAESI programme.

The perception of agri-input Dealers regarding the method of delivery of lectures is shown in the following pie chart



The course content was found to be adequate for all the respondents from the agri -input Dealers in general. However, 45% of the Dealers and 20% of the Facilitators have expressed that, DAESI course should be enriched by adding the topic of “New crop protection molecules”. 80% of the Facilitators expressed that the theory part of the course content is adequate.

Majority of the input Dealers expressed that the field visits were timely, appropriate and provided practical insights of the crop technologies and other subjects that were dealt in the programme. The perception of agri-input Dealers regarding the quality of field visits in the DAESI programme is shown in the following pie diagram.



From the respondents, 60% of the Facilitators expressed that the course content in the practicals part is adequate. Remaining 40% of the Facilitators expressed that the number of field visits should be increased. Among the input Dealers, 32% expressed that the practical classes can be increased in the DAESI programme.

The following modifications in the course content may help to strengthen the course further.

1. More emphasis may be given to the micro irrigation systems such as Drip and sprinkler irrigation and Farm mechanization.
2. Exposing the input dealers to new generation molecules in plant protection chemicals may help in updating the technical knowledge of input dealers
3. Some of the classes may be organized in the field or in the Research stations which are nearer to the classroom/venue of the programme so as to increase the number of practical sessions without incurring additional expenditure for practical sessions/ field visit

7. Study material

While developing the study material, the facilitators identified the major issues and field problems of the district faced by the farmers. The study material aims to solve the identified problems and was prepared by collecting the location specific technical material from the experts, compiling them and translating into local language. In the study material thus prepared and distributed to the trainees, at least 30 % of the content of the syllabus was location specific. The study material was distributed on the day of topic covered, if not it was done in the next week. The responsibility of preparation and distribution of study (technical) material is with the respective Facilitators of DAESI.

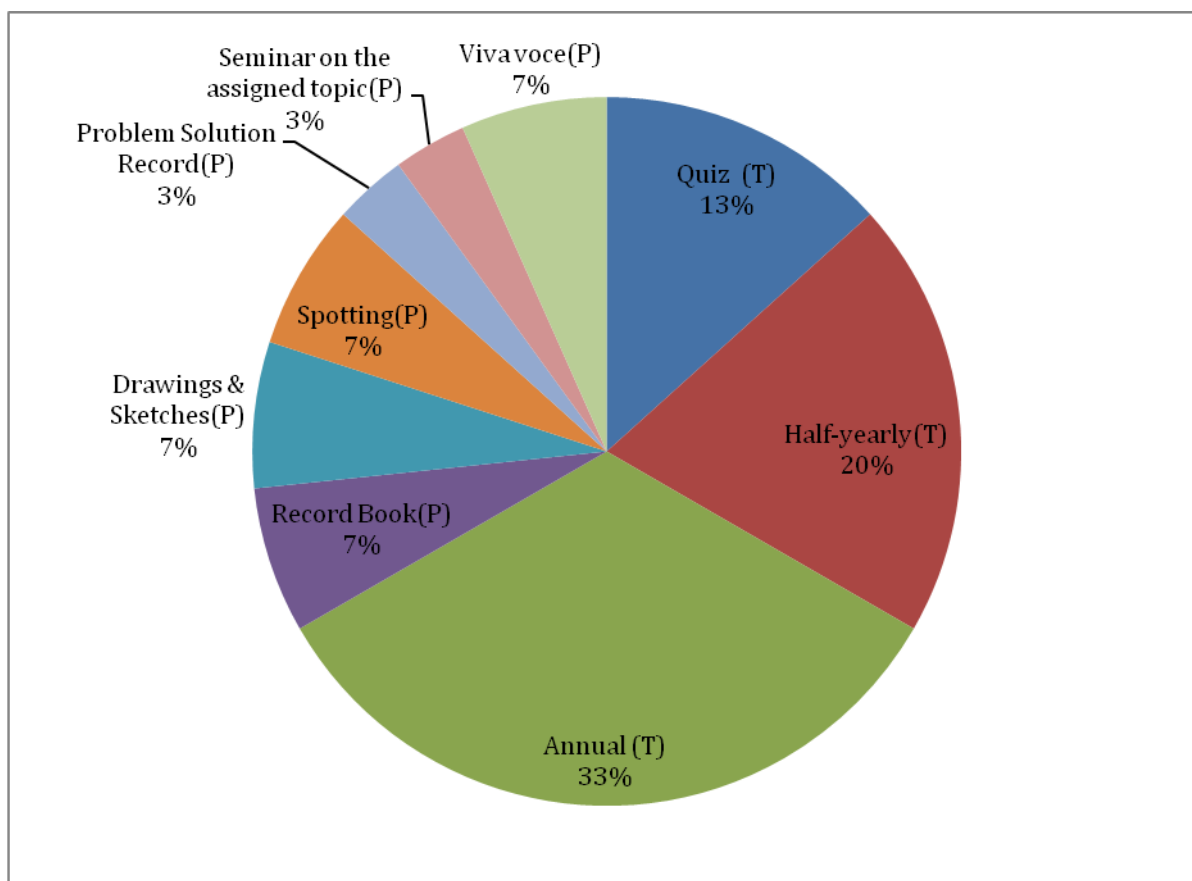
The study material is found to be adequate in content, coverage and depth of the technical matter. The local issues were adequately covered and the content matches the learning needs of the input Dealers. The study material is comprehensive in content, presentation and simplicity of language and ease in reading and understanding. The current norms of preparation and supply of study material are holistic and should be continued without any modification. About 50% of the Facilitators expressed that the flexibility given to Facilitators in preparation of study material is aiding in tailor making of the programme to suit the location specific crop contexts and it proved

to be the strength of the DAESI programme, All the Facilitators and 92% of agri-input dealers expressed that the location specific content is one of the major advantages of DAESI programme.

9. Evaluation procedures

Evaluation of the agri-input dealers in DAESI programme was done at periodical intervals through maintenance of records, assignments and examinations. The qualification criteria are 80% of attendance and score 40% of marks. The total marks were 150 Marks (theory 100+practical 50) and the same may be converted to 100 Marks for percentile. The existing method of evaluation has been instrumental in continuous monitoring of the learning by agri-input dealers. It was found that the records were well maintained and question papers were well answered by the agri-input dealers in general. The seminars were well appreciated by trained agri-input dealers as they have been imparted communication skills.

Pie diagram showing the weightage of various exams in DAESI evaluation for agri-input dealers



T - Theory
P - Practical

All the facilitators and 89% of the input Dealers expressed that the evaluation process is satisfactory. However, an expert from Agricultural/Horticultural University or KVK may be ensured at the time of examinations to strengthen the evaluation.

10. Cost norms of DAESI programme

It was also observed that a recent revision of cost norms was taken up by MANAGE to meet the requirements considering the general hike in prices. It is suggested that the cost norms may be revised from time to time, at least once in 2-3 years, considering the inflation and price rise as being done by MANAGE recently.

DAESI programme is a technical support given to agri-input dealers to increase their knowledge and skills in agriculture and agri-input business. Overall, the responses of the facilitators and trained agri-input dealers reflect that the DAESI programme was effectively implemented and made the agri-input Dealers more knowledgeable, so as to provide better crop advisory to farmers. The overall effectiveness in implementation of DAESI programme was attributed to the content, quality of the resource persons, method of delivery of theory and practical classes, infrastructure, venue, schedules and overall learning experience.

Dimension 2 - Outcome evaluation of DAESI programme

It was observed that the DAESI programme has generated various benefits to the trained agri-input dealers in their professional and personal life. The immediate tangible and intangible effects of DAESI programme were captured as outcomes. The agri-input Dealers expressed the following immediate result of DAESI programme.

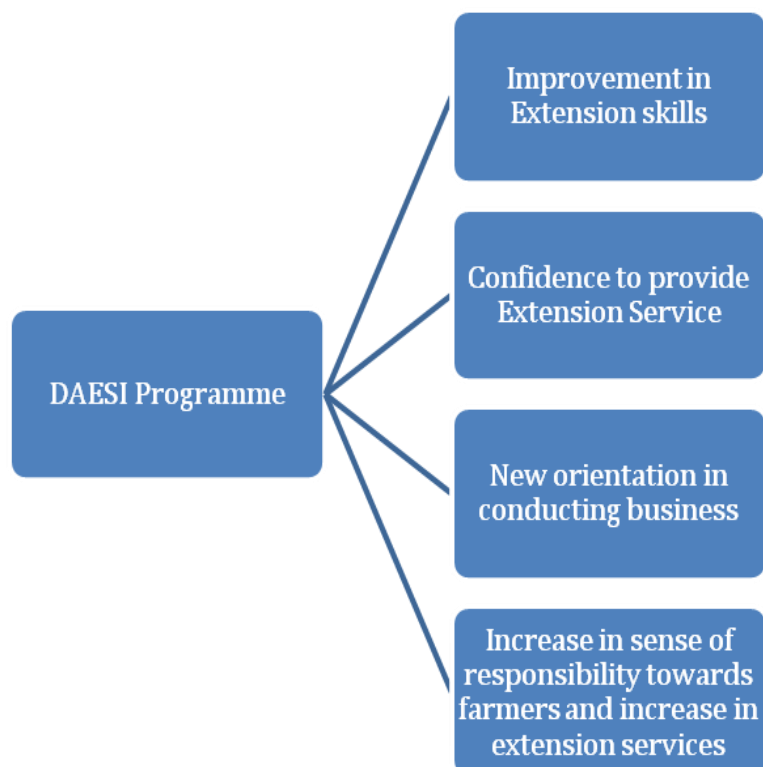
1. Feedback of the participants:

All the respondents from the agri-input dealer group have given positive opinion and acknowledged that DAESI has contributed to increase in their knowledge of crops, agronomic practices, compliance aspects of agri-input business and their personal development. Majority of the DAESI trained dealers (99%) expressed their willingness to recommend DAESI for their co-dealers and 48% of the DAESI trained dealers have already recommended DAESI programme to

their colleagues in subsequent batches. As MANAGE has initiated refresher course of DAESI, 86% of the DAESI trained Dealers expressed their willingness to attend the refresher course at MANAGE, if it is conducted in non business season. The duration of DAESI course is found to be adequate and acceptable to 94% of the respondents from input Dealers group. Agri-input dealers also expressed that DAESI has facilitated new and meaningful relations with the facilitators beyond the duration of the course. Among the respondents of input dealer group, 39% expressed that they are in contact with their DAESI Facilitator for updating technical information.

2. Intangible outcomes related to learning from DAESI programme

DAESI trained Dealers have attributed the positive change in their approach and behavior in conducting business in post programme phase to DAESI. The following diagram depicts the important intangible benefits of the programme. Agri-input dealers also acknowledged the fact that with the increase in knowledge, skill and confidence levels in providing extension services to farmers, they have changed their business orientation from only *selling agri-inputs to agri-input sale along with extension service*. This approach was well appreciated by farmers and resulted in increase of customer base and increase in business value for majority of the input dealers.



The behavioural change in the agri-input dealers while conducting their business in post – programme phase included providing extension services to the farmers and providing correct recommendations in crop technology.

Increase in confidence levels of participants to provide extension services

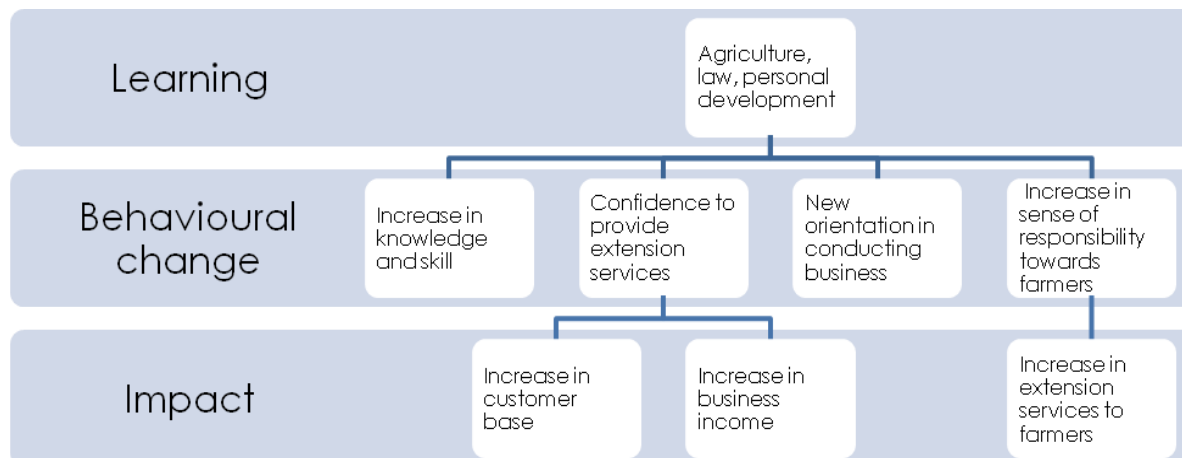
The respondents from agri-input Dealer group have expressed that DAESI was instrumental in increase in confidence level to provide agricultural extension services to farmers. The ratings given regarding increase in confidence level after completion of DAESI compared to pre DAESI years are

S.no	Rating- increase of confidence in providing extension services to farmers	Response in Percentage
1	Very high	4%
2	High	73%
3	Moderate	23%

1. Majority (98%) of the respondents from agri-input Dealers expressed that their relation with their existing customers (farmer) has improved and has become more meaningful from the professional perspective in post DAESI years, because of the technical advice they have provided to farmers. Similarly, 96% of the agri-input Dealers expressed that they could establish meaningful relation with new customers (farmers) because of appreciation of their advice based on the knowledge gained in DAESI programme.
2. 70% of the respondents from agri-input companies expressed that the confidence level of the agri-input dealer in providing extension support to farmers has been improved from “moderate” to “high” after completing DAESI programme

Dimension 3 - Impact of DAESI programme:

The impact evaluation was done by way of observing beyond the immediate results of the programme. The effects of DAESI programme in long term were also assessed. While mapping the impact of DAESI, three types of situations were identified, which have different implications as shown in the following diagram



1. DAESI as a supplementing effort to the existing agricultural extension system:

The DAESI programme is found to be highly acceptable and relevant to the profession of agri-input dealers. The overall perception of respondents for DAESI programme is that, it has enriched them in knowledge and skills in agriculture, agri-input business and also in personal development. The scope of providing extension services to farmers is high through the DAESI trained agri-input Dealers. The crop advisory needs of the farmers can be effectively addressed through the DAESI trained agri-input Dealers to a significant extent. The trained Dealers are serving as para-extension workers while doing their business. The above observations confirm the achievement of the objective of DAESI *“to orient on location specific crop production technologies of broad-based agriculture and specific package of practices related to field problems.”*

In the respondents from officials of Agriculture Department, 90% expressed that the DAESI trained agri-input Dealers are actively participating in providing extension services to their customers (farmers)

2. DAESI as a tool for reduction of legal problems at input Dealers' level

DAESI programme has covered the module pertaining to law such as the topics of Basics of Law, National Seed Policy, Seed and Seed Production, Seed Law Enforcement, Insecticide Act, Fertilizer Control Order, Other related Acts - E.C. Act, Consumer Protection Act etc. Practical sessions in the module include visit to a seed testing laboratory, visit to FCO Laboratory and visit to PTL. The module's objective is to teach the participants about rules and regulations that need to be adhered while running the agri-input shop.

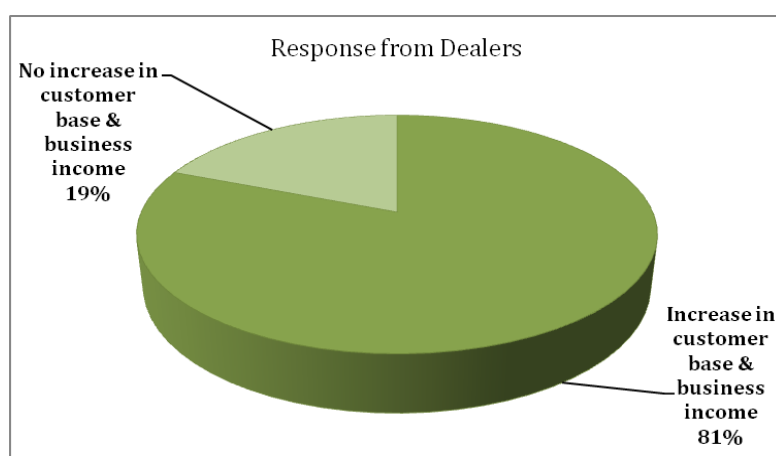
It was acknowledged that the design part of DAESI programme has recognized the importance of reducing legal problems and created a module to help the agri-input Dealers to comply with the laid out norms during the sale of agri-inputs Majority (95%) of the respondents from agri-input dealer group expressed that their efficiency in following the regulatory issues during sale of agri-inputs has been increased after DAESI programme. Similarly 94% of the agri-input dealers expressed that they are able to manage stocks by following storage norms after completion of DAESI programme.

Because of the training and orientation given in the DAESI programme, the reduction in legal problems faced by the input dealers is another important attribute to DAESI programme. Among the respondents from agri-input dealer group, 45% expressed that there is reduction in legal problems compared to previous years before DAESI. Similarly, the all respondents from Dealers group expressed that their confidence level has increased while discussing the issues related to statutory compliance with Officers from the Agriculture Department compared to pre-DAESI years. Even the aspect of increase in compliance in the agri-input business by DAESI trained dealers was endorsed by the officials of Department of Agriculture. Among the respondents from Department of Agriculture, 70% expressed that the contribution of DAESI in ensuring regulatory compliance has been "very high" in case of DAESI trained Dealers compared to their pre DAESI years. All the respondents from agri-input companies also expressed that DAESI has contributed to increase in efficiency in following regulatory issues, reduction of legal problems in the business of trained Dealers. The representatives of the agri-input companies also acknowledged the increase in confidence level of trained Dealers while dealing with statutory compliances because of DAESI.

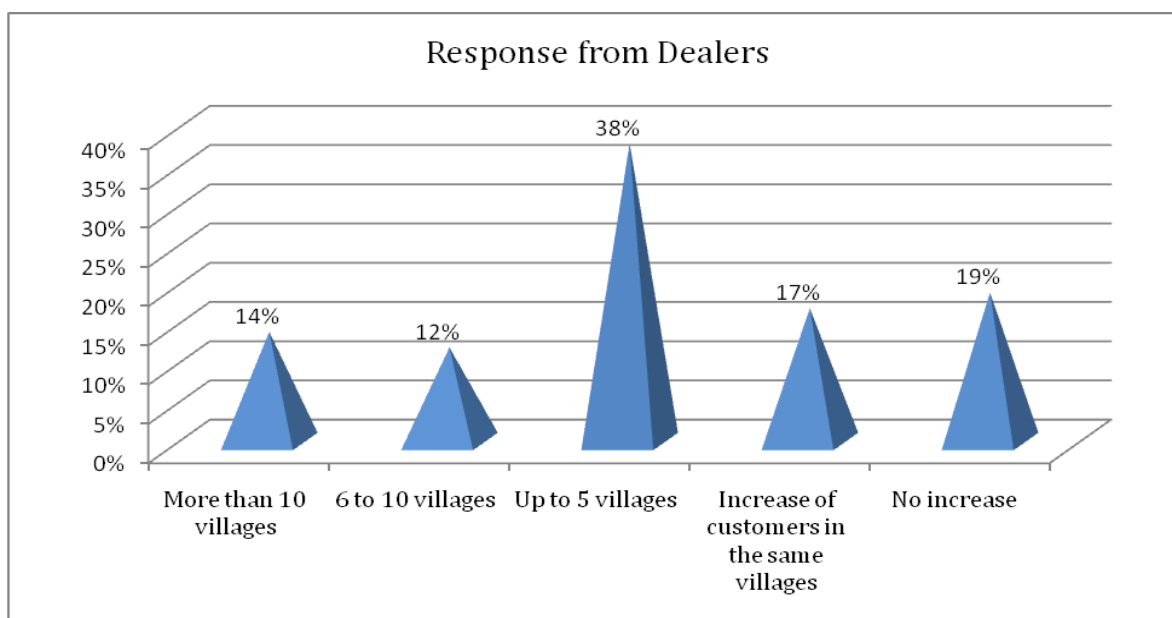
The above observations confirm the achievement of DAESI's objectives *"to impart knowledge about the laws governing regulation of agricultural Inputs"* and *"to build capacity of Input Dealers in efficient handling of Inputs"*.

3. DAESI's impact on the income level of input Dealers

It was observed that DAESI programme has contributed to enhance the customer base of retail agri-input Dealers because of the extension services provided to farmers. Growth in customer base was witnessed by 81% of the DAESI trained dealers in post DAESI years.



The reported pattern of increase in customer base is shown in the following chart.



The increase in customer base also resulted in enhancement of the business income for the DAESI trained agri-input dealers. From the respondents of trained input Dealers, 81% expressed that DAESI has contributed to enhancement of their business income and the pattern of enhancement that can be attributed to DAESI is given in the following table

Increase in business income	Response from Dealers
Up to 10% increase	22%
11% - 25%	55%
26% - 50%	3%
More than 50%	1%
No increase	19%

About 19% of the respondents from the DAESI trained dealers did not report any enhancement in income. They have expressed that even though DAESI has contributed to knowledge and skills in agricultural extension that could not result in contribution to business income because of the following constraints

- *Increase in number of agri-input Dealers in their village and stiff competition*
- *Credit driven agri-input business*
- *Reluctance of tenant farmers towards taking crop advisory from the Dealers*
- *Weather vagaries, prolonged dry spells*

4. The perception of farmers on DAESI and acceptance of DAESI certified input dealers as extension source

The DAESI trained Dealers are generally found to be resourceful in providing crop related advice to the farmers and are accepted as source of authentic recommendations. The DAESI trained Dealers have gained the reputation in their respective markets as “guides” to farmers. The farmers expressed that their DAESI trained Dealers can either provide solutions directly on plant protection or plant nutrition related aspects or can also provide agricultural advice through other sources. As it was understood that the agri-input markets are driven by credit to a significant extent, the purchasing behavior of farmers is linked to availability of credit at the agri-input

dealer's end. Hence, in case of DAESI trained Dealers, all the farmers who seek advice may not buy the inputs from his or her outlet because of credit linked purchase behavior of the farmers. However, it was also observed that irrespective of occurrence of sales, the advice of the DAESI trained input Dealers was considered as valuable by farmers prior to taking a decision with regard to usage of plant protection chemicals, Fertilizers and plant nutrition related products.

The major issues of farmers that are being addressed by DAESI are

- Non- availability of timely diagnosis of pest and diseases
- Timely and accurate advisory on usage of crop protection, and usage of fertilizers and soil management
- Lack of access to the agri-advisory

Farmers have expressed that the DAESI trained agri-input Dealers are their accepted source of agriculture related information and 62% of the respondents from farmers group confirmed the same. Farmers also seek advice of the DAESI trained agri-input Dealers when they need to *purchase plant protection chemicals* and this aspect has been confirmed by 70% of the respondents from farmers group. Similarly, 48% of the farmers expressed that they seek advice of the DAESI trained agri-input Dealers when they need to *purchase fertilizers or soil enrichment products*.

The respondents from farmers group are confident that DAESI trained dealer can diagnose their field problems and this aspect was endorsed by 60% of the respondents. It was also found that the trained input dealers have disseminated information about rational use of agri-inputs and 22% of the farmers acknowledged that they have followed and benefited from the DAESI trained dealer's advice. About 5% of the farmers expressed that they are happy with the biological product related crop advisory they have been receiving from their DAESI trained dealers

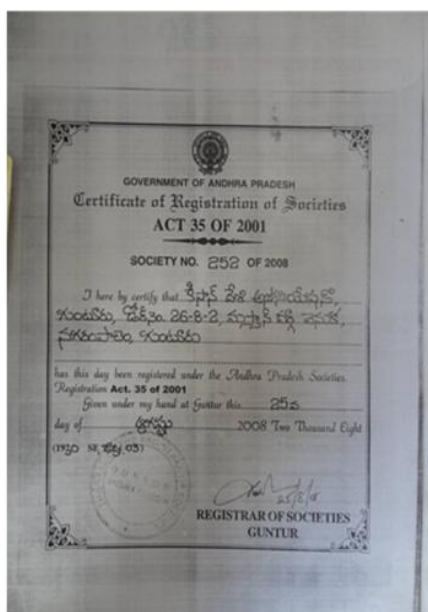
Usage of plant protection chemicals and fertilizers are the two important areas which need constant advice from the agri-input Dealers and 62% of the farmers expressed that they are satisfied with the advices given by the DAESI trained input Dealers. However, the farmers expressed that the profitability and productivity of their farms cannot be directly correlated with the advice of the input dealer alone keeping in view of the other influencing factors like price fluctuations in agri-commodities markets, availability of irrigation in time, weather vagaries, hike

in cost of agricultural labour, availability of agricultural labour in time, high cost of land lease , non-availability of power etc.,

Involvement of DAESI Dealers in ATMA activities

Involvement of DAESI trained Dealers in ATMA related activities is found to be limited because of the lack of clear mandate in from the State Governments. Among the respondents from the DAESI trained Dealers, 5% expressed that DAESI trained dealers should be treated as exclusive sources of agricultural extension, so that their services can be utilized in agricultural extension activities by the Agricultural Department. For example, the DAESI trained Dealers in Guntur District have formed an association of certified agri-input Dealers with title ***“Kisan DAESI Association”***. This association was registered in 2008 and currently running under the leadership of Sri V.V.Nagi Reddy. The association seeks active response from the Agriculture Department to provide the extension services to farming community in collaboration with ATMA.

Registration certificate of Kisan DAESI Association

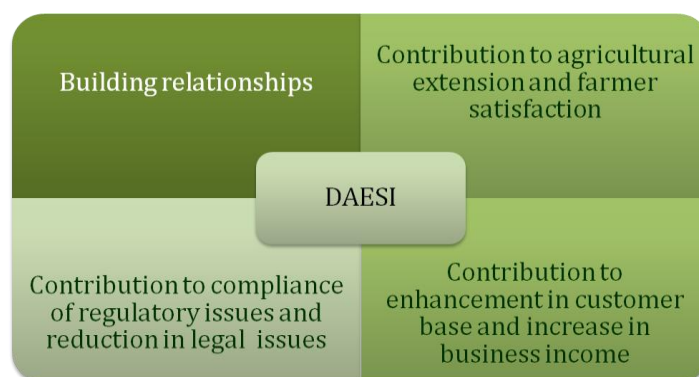


Sri V.Nagi Reddy, President, Kisan DAESI Association at Guntur (A.P.)



DAESI programme - Indicators of success

The evaluation study has revealed that DAESI has contributed to farmers and agri-input dealers in several aspects. The following diagram indicates the indicators of success in case of DAESI programme.



The direct and indirect benefits to farmers and dealers were captured in the following table as indicators of success of DAESI programme.

I	Building relationships	Response of 'Yes' in %
1	DAESI has contributed to Improvement of relations (DAESI trained agri-input Dealers) with	
A	<i>Existing customers</i>	98%
B	<i>New customers</i>	96%
2	Willingness of DAESI trained input dealer to recommend DAESI to other Dealers (DAESI trained agri-input Dealers)	99%
3	Percentage of non-DAESI trained agri-input Dealers who are willing to join DAESI	50%

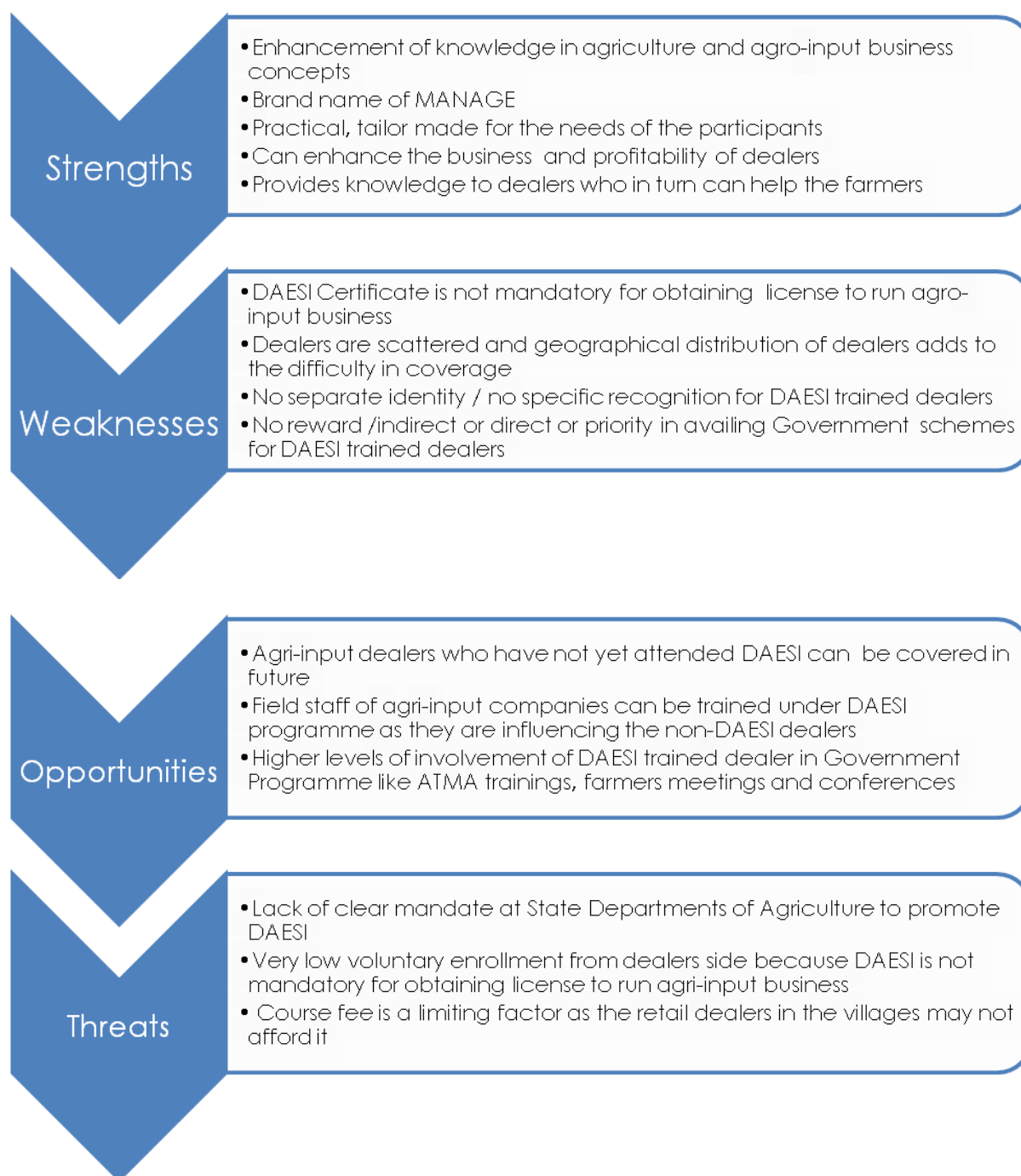
II	Contribution to agricultural extension and farmer satisfaction	Response of 'Yes' in %
1	DAESI has contributed to the increase confidence level in providing extension service to farmers(DAESI trained agri- input Dealers)	100%
2	DAESI has contributed to satisfaction of the farmers through right advice from The DAESI trained input Dealers (response from farmers)	62%
3	DAESI trained input Dealers are actively providing extension service to farmers (Officials of Agriculture Department)	90%

III	Contribution to compliance of regulatory issues and reduction in legal issues	Response of 'Yes' in %
1	DAESI has contributed to efficiency in following regulatory issues during sale of agri-inputs(DAESI trained agri-input Dealers)	95%
2	DAESI has contributed to efficiency in following regulatory issues during sale of agri-inputs(Officials of Agriculture Department)	100%
3	DAESI has contributed to efficiency in following regulatory issues during sale of agri-inputs(Officials of agri-input companies)	100%
4	DAESI has contributed to reduction in legal problems in the business (DAESI trained agri-input Dealers)	45%
5	DAESI has contributed to reduction in legal problems in the business (Officials of Agriculture Department)	70%
6	DAESI has contributed to reduction in legal problems in the business (Officials of agri-input companies)	100%

IV	Contribution to enhancement in customer base and increase in Income (DAESI trained agri-input dealers)	Response of 'Yes' in %
1	DAESI has contributed to increase in customer base	81%
2	DAESI has contributed to the enhancement of business income	81%

1.2. SWOT Analysis of DAESI programme

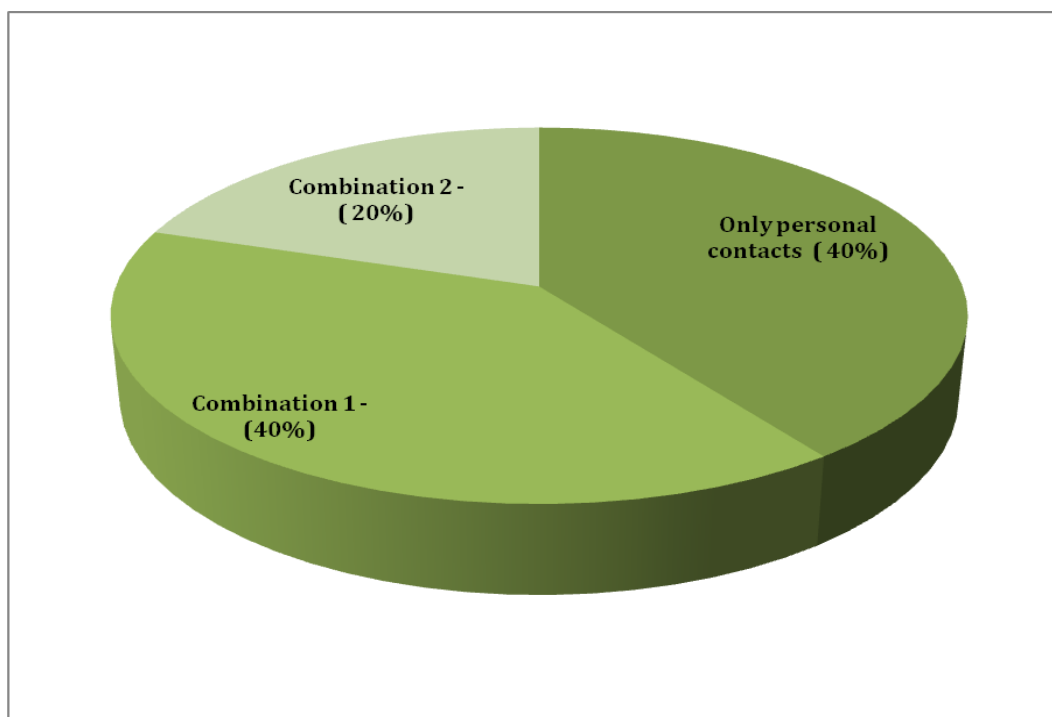
The strengths, weaknesses, opportunities and threats for DAESI programme were enquired, analyzed and documented in the evaluation study. The points were given in SWOT analysis by facilitators, officials of agriculture Department and Managers from the agri-input companies are given in the following chart.



1.3. Publicity and promotion strategy for DAESI

The Facilitators of the DAESI programme expressed that the current publicity and promotion strategy should be reviewed to provide thrust on publicity for the DAESI programme to gain higher visibility and acceptance among various stakeholders. 100% of the Facilitators expressed that the only means of publicity measure was the oral publicity given by them in various dealer meetings and meetings of Agriculture Department. Advertisement for DAESI was given only in “Agri one” in Pune District of Maharashtra

All the Facilitators also expressed that the most challenging aspect of DAESI programme is enrollment. According to the facilitators the means of enrolment are given in the following pie diagram.



Combination 1	Personal contacts+ Agri. Department +Trained Dealers
Combination 2	Personal contacts+ Agri. Department +Trained Dealers+ Voluntary enrolment

The following measures are suggested by the Facilitators to popularize DAESI

- DAESI qualification should be made compulsory for obtaining and renewal of license to do agri-input business
- Organizing DAESI classes in Agriculture Research Institutes, universities or KVKs as a practice can help in simulating classroom condition to the candidates pursuing DAESI and it gives the sense of belongingness to academics
- Publishing advertisements in agriculture related publications (Annadata, Padipantalu etc.) magazines and broadcasting in radio and TV channels
- An indication from Central Government to State Governments stating that some qualification is required to become dealer can help
- Promotion of DAESI with the support of Department of Agriculture may be explored
- Subsidy in fees
- The option of providing eligibility to ACABC course of MANAGE to DAESI trained candidates may be looked into by MANAGE

Implementation of measures which provide feel good factors to the candidates were also suggested which include the following aspects

1. Visit to MANAGE campus at Hyderabad and orientation class at MANAGE will boost spirit of the candidates pursuing DAESI
2. Organizing caps and T-shirts with DAESI & MANAGE logos to boost the sense of belongingness and deepening the identification of self with the DAESI course
3. Distribution of literature and publications from the universities in DAESI programme

Source of information about DAESI:

- Officials of Agriculture Department - 90% expressed that they know about DAESI through their colleagues in the department
- Agri-input companies - 80% expressed that they know DAESI through Dealers of agri-inputs and 20% know through colleagues or members of the industry. 90% of the respondents from agri-input companies expressed that the current publicity for DAESI is inadequate

Possible scope for strengthening DAESI trained agri-input Dealer group in future:

MANAGE may encourage formation of “DAESI CLUB” for trained agri-input Dealers as a post DAESI activity.

Significant portion of the respondents from input dealers (55%) have suggested measures for popularizing DAESI programme and remaining 45% did not suggest any measures. The measures suggested which are given below

S.no.	Suggestions to popularize DAESI programme	Order of importance
1	Should make DAESI programme compulsory for obtaining and renewal of license to run agri-input shop	1
2	DAESI trained Dealers should be recognized and their services may be utilized in extension activities	2
3	Needs refresher courses and follow up on regular basis(once in an year)	3
4	Field assistants of the agri-input companies can be trained	4
5	Farmers should be made aware about DAESI through advertisements	5
6	DAESI trained Dealers should be given eligibility for ACABC of MANAGE	6

7	Advertisements in agri- journals	7
8	DAESI programme should be conducted at mandal/taluk level	8
9	Visit to MANAGE is a may enhance the credibility of the programme	9
10	Reducing the fees/giving subsidy in fees	10
11	Special classes from distinguished persons	11

Suggestions to popularize DAESI from representatives of agri-input companies:

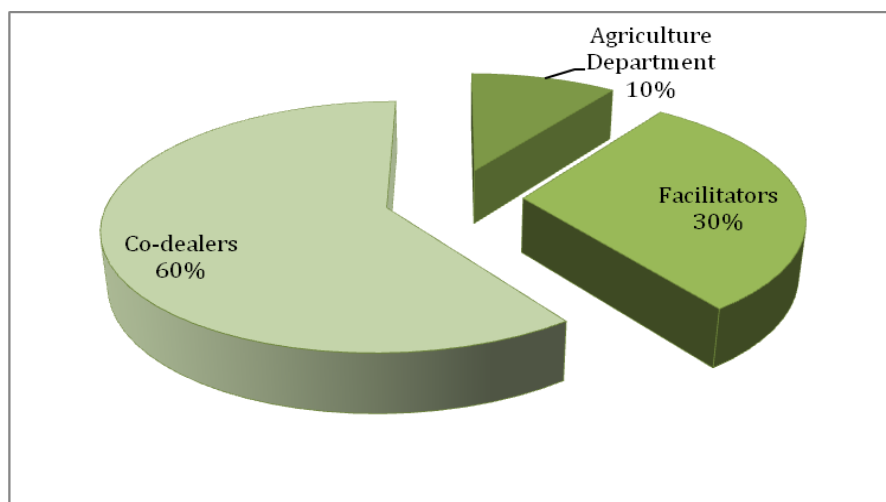
S.no.	Suggestions to popularize DAESI programme	Response in percentage
1	Should make DAESI programme compulsory for obtaining and renewal of license to run agri-input shop	50%
2	Advertisements in agri- journals	20%
3	Farmers should be made aware about DAESI trained Dealers through advertisements on DAESI	10%
4	Needs refresher courses and follow up on regular basis(once in an year)	20%

Suggestions to popularize DAESI by Officials of Agriculture Department:

- A mechanism should be created in which DAESI trained Dealers can work with Agriculture Department on constant basis. Involvement of DAESI trained dealers in agricultural training programmes like seed village programmes, INM, IPM etc. and other programmes in Farmers Training Centers can be encouraged
- Dealers cannot spare their time in peak season for attending classes of DAESI and this consideration should reflect in scheduling of classes
- DAESI course should be made compulsory for those who wants to take up the profession of agri-input sales

1.4. The perception of non- DAESI trained Dealers about the DAESI programme

The evaluation study has covered the non- DAESI trained Dealers to understand and analyze the constraints in taking up the DAESI programme. The source of information regarding DAESI programme for Dealers who did not join the programme is shown in the following pie diagram



The respondents of input Dealers, who did not attend DAESI, 70% expressed that DAESI will improve knowledge and skills related to their profession. They have also expressed the following points about the DAESI trained dealers

Parameter	Rating		
	Very Good	Good	Moderate
Gain in knowledge in agricultural aspects	10%	55%	35%
Improvement in business skills	–	33%	35%

In the study, 50% of the respondents expressed that even though they want to join the DAESI course, they were unable to pursue because they are the sole operators of their business and could not take time to attend DAESI course because of business related issues. The following reasons were given by the agri-input Dealers for not joining DAESI programme

Reason for not joining DAESI	Response in percentage
DAESI is not yet mandatory for running the agri-input business	40%
Financial reasons	10%
Because of being sole operators of their business and could not take time to attend DAESI	50%

1.5. Index to assess the impact of DAESI trained Dealers

In order to assess the impact of the DAESI programme, its ultimate impact by contributing the following sequence of aspects to the farmers by the DAESI trained dealers was considered.

A: Farmer's awareness about DAESI and resourcefulness of DAESI trained dealer

K: Farmer's knowledge

A: Farmer's adoption of technology or practices

P: Changes in farmer's crop productivity

A comprehensive index was developed comprising of the awareness levels of the farmers on different aspects of crop cultivation and management derived from DAESI trained dealers, Knowledge levels of the farmers gained from the DAESI trained dealers, adoption levels & improvement of crop yields in terms of productivity enhancement which ultimately reflects on the improvement in the income levels as a final outcome of the advisory services of the DAESI trained dealers. A comprehensive questionnaire was developed keeping in view of the AKAP components and items were finalized after thorough discussion with the extension specialists from MANAGE, Dealers and other stakeholders in the study. After thorough discussions and analysis, some items were omitted and a final structured questionnaire was formulated and subjected to farmers in the study in the sampled area.

$$\text{Index} = \frac{(\text{Sum of Actual Score of the farmer in Awareness, Knowledge, Adoption \& Productivity})}{(\text{Sum of Maximum Score of the farmers in Awareness, Knowledge, Adoption \& Productivity})} \times 100$$

Scores under the items i.e. Awareness, Knowledge, Adoption & Productivity were summed up to get the total score for impact of DAESI trained dealers. Then the respondents were grouped into three categories based on score range obtained by class interval method.

S. No	Category	Score Range
1	Low impact of DAESI Trained Dealers	10-23
2	Medium impact of DAESI Trained Dealers	24-36
3	High impact of DAESI Trained Dealers	37-49

S. No	Category	No of Farmers	%
1	Low impact of DAESI Trained Dealers	328	41
2	Medium impact of DAESI Trained Dealers	408	51
3	High impact of DAESI Trained Dealers	64	8
TOTAL		800	100

1. Awareness:

1143-total

Yes-800-(70 %) No-343-(30 %)

1) Do you know that your Dealer attended a course called DAESI?

1) Yes

2) No

A comprehensive structured questionnaire was developed to assess the awareness levels of farmers on the DAESI trained dealer's advisory services about various crop management methods. A score of '1' is assigned to the response 'YES' and '0' to 'NO'

Distribution of the farmers based on the awareness levels of the following items

S.No	Parameter	N=800(sample size)			
		YES	%	NO	%
1	Are you aware of the Correct usage of the Seed rate	496	62	304	38
2	Are you aware of using Appropriate cropping pattern suitable to the particular locations	560	70	240	30
3	Are you aware of Correct usage of the nutrient supplements like fertilisers	624	78	176	22
4	Are you aware of correct diagnosis of the pests & diseases as advised by DAESI trained dealer	480	60	320	40

5	Are you aware of using Appropriate usage of plant protection chemicals	656	82	144	18
6	Are you aware of the timely application of the plant protection chemicals	624	78	176	22
7	Are you aware of method of application /spraying of the chemicals	600	75	200	25
8	Are you aware of the timely harvesting of the crops	480	60	320	40
9	Are you aware of the various Government subsidy schemes from DAESI trained dealers	416	52	384	48
10	Are you aware of the various post harvest techniques from DAESI trained dealers	488	61	312	39

The farmers were categorized based on scores obtained under the items of Awareness about the DAESI trained Dealer's advisory services on different aspects of Crop management by class interval method.

S. No	Category	Score Range
1.	Low Awareness levels	0-3
2.	Medium Awareness levels	4-6
3.	High Awareness levels	7-10

The farmers were classified into the following:

S. No	Category	No. of Farmers	%
1	Low Awareness levels	184	23
2	Medium Awareness levels	392	49
3	High Awareness levels	224	28
TOTAL		800	100

2. Knowledge:

A comprehensive structured questionnaire was developed based on the various knowledge items focusing on the DAESI trained dealers advisory services on various crop management methods. A score of '1' is assigned to the response 'YES' and '0' to 'NO'.

Distribution of the farmers based on the awareness levels of the following items:

S.No	Parameter	Known	%	Not Known	%
1	Correct usage of the Seed rate	560	70	304	30
2	Appropriate cropping pattern suitable to the particular locations	512	64	288	36
3	Correct usage of the nutrient supplements like fertilisers	544	68	256	32
4	Correct diagnosis of the pests & diseases as advised by DAESI trained dealer	520	65	280	35
5	Appropriate usage of plant protection chemicals	632	79	168	21
6	Timely application of the plant protection chemicals	576	72	224	28
7	Method of application /spraying of the chemicals	488	61	312	39
8	Timely harvesting of the crops	592	74	208	26
9	Government subsidy schemes from DAESI trained dealers	464	58	336	42
10	Post harvest techniques from DAESI trained dealers	544	68	256	32

The farmers were categorized based on scores obtained under the items of Knowledge gained from DAESI trained Dealer's advisory services on different aspects of Crop management by class interval method.

S. No	Category	Score Range
1.	Low Knowledge levels	0-3
2.	Medium Knowledge levels	4-6
3.	High Knowledge levels	7-10

Based on the above the farmers were categorized into the following:

S. No	Category	No	%
1	Low Knowledge levels	224	28
2	Medium Knowledge levels	464	58
3	High Knowledge levels	112	14
TOTAL		800	100

The survey results enunciate that the farmers got benefitted from the DAESI dealers and majority of the farmers (58 %) were under medium knowledge levels followed by low (28%) and high knowledge levels (14 %). The results clearly demonstrate that there has been improvement in the extension system through DAESI approaches and farmers have been keen focus initiatives in the development process leading to their empowerment. Earlier disjointed extension system has taken the shape of integrated system. The farmers' response was found to be quite encouraging. There has been considerable improvement in the adoption of new technologies and farm practices by all the categories of the farmers and the time lag in adoption has considerably reduced from 4-5 years to 1-2 years.

3. Adoption levels based on the Services of DAESI Trained Dealers:

A comprehensive structured questionnaire was developed based on the various adoptions of advisory services on various crop management methods given by DAESI trained dealers. A score of '3' is assigned to the response 'Adopted', '2' for 'Partially Adopted' and '1' to 'Not Adopted' responses.

Distribution of the farmers based on the adoption levels of the following items:

S.No	Parameter	Adopted	%	Partially Adopted	%	Not Adopted	%
1	Correct usage of the Seed rate	208	26	368	46	224	28
2	Appropriate cropping pattern suitable to the particular locations	336	42	288	36	176	22
3	Correct usage of the nutrient supplements like fertilisers	248	31	408	51	144	18
4	Appropriate usage of plant protection chemicals	224	28	360	45	216	27
5	Timely application of the plant protection chemicals	224	28	320	40	256	32
6	Method of application /spraying of the chemicals	168	21	488	61	144	18
7	Timely harvesting of the crops	208	26	464	58	128	16
8	Post-harvest techniques from DAESI trained dealers	264	33	256	32	280	35

The farmers were categorized based on scores obtained under the items of Adoption from DAESI trained Dealer's advisory services on different aspects of Crop management by class interval method.

S. No.	Category	Score Range
1	Low Adoption levels	8-13
2	Medium Adoption levels	14-19
3	High Adoption levels	20-24

Based on the actual score range, the distribution of farmers and classified into following:

S. No	Category	No	%
1	Low Adoption levels	160	20
2	Medium Adoption levels	488	61
3	High Adoption levels	152	19
TOTAL		800	100

With respect to the above results shows that, the DAESI programme of the Dealers has a very good impact on the farmer's adoption levels to greater extent. Majority (61%), of the farmers has medium adoption levels followed by low adoption levels (20%) and high adoption levels (19%). Better agriculture practices were adopted by the farmers such as adoption of IPM and INM measures, appropriate plant protection chemicals at correct dosages were used with the advice of DAESI trained dealers.

4. Increased Productivity Levels:

In the present study, the final outcome of the impact of the DAESI trained leaders is conceptualized as the increase in the productivity levels due to the advocacy of Dealers on various crop management parameters.

1. Did you observe any increase in productivity of your crops because of timely and accurate crop protection advice by your trained DAESI dealer?

1) Yes 2) No

*-A score of '1' is assigned to the response 'YES' and '0' to 'NO'

Here maximum score for the respondent is 1 and minimum score would be 0.

2. If Yes (for Q.1 above) what is the increase in productivity levels?

a) Up to 10% b) 10% to 20% c) 21% to 30% d) above 30%

*- A score of '4' is assigned to the response 'above 30%'; '3' for '21% to 30%', '2' for '10% to 20%' and '1' to 'Up to 10%'

In this case, maximum score attainable is 4 and minimum score is 1. If the total score of the 2 questions is taken, the maximum score is 5 and minimum score is 1, if the respondent observes any change in productivity levels. The farmers were categorized based on scores obtained under

increase in production levels due to DAESI trained Dealer's advisory services on different aspects of Crop management by class interval method.

S. No	Category	Score Range
1	Low Increase in Productivity levels	1-2
2	Medium Increase in Productivity levels	3-4
3	High Increase in Productivity levels	5

The results clearly revealed that around 67 % of the farmers have witnessed the medium increase in the productivity levels due to the DAESI dealer's advisory services, followed by 27 % of the sampled farmers have confirmed that they got medium level benefit and around 6% have got high increase in the productivity levels.

S. No	Category	No. of Farmers	%
1	Low Increase in Productivity levels	536	67
2	Medium Increase in Productivity levels	216	27
3	High Increase in Productivity levels	48	6
TOTAL		800	100

Conclusion - overall performance and achievement of DAESI programme:

The channel partners in the agri-input business were effectively empowered through DAESI programme to support farmers in agricultural extension. The farmers are the important beneficiaries from DAESI, as they could receive timely and specific crop related recommendations from the DAESI trained Dealers. The design and implementation of DAESI programme is consistent with the specific requirements of the agri-input Dealers and the farmers. The last mile connectivity, which is the identified gap in the agricultural extension, is also being addressed. The programme is also coherent with the stated objectives and achieved the same.

The services of the private entity of agri-input channel members have been effectively utilized for agricultural extension by empowering the agri-input dealers with DAESI training. In the process MANAGE has effectively involved the other extension functionaries like SAMETIs, KVKs, Agricultural Universities, Department of Agricultural and Horticulture etc., and leveraged on their strengths. In addition to this, attention was given to local crops and the medium of the course has been organized in the mother tongue. DAESI training has enhanced the reputation of the dealers in post- DAESI training period among the farmers and Officials of Agriculture Department

The programme generated satisfaction, imparted knowledge, skills and oriented the participants towards effective way of conducting business. The behavioural application in post DAESI training brought measurable improvement in business of the Dealers.

3.7. Recommendations

1. *Publicity and promotion strategy for DAESI:*

- Publicity may be made through Newspaper, Radio, TV and other Agricultural related magazines to create awareness about DAESI programme for improving enrolment of input dealers
- Kisan Call Center (KCC) may encourage the farmers to get the technical advice from the trained input dealers
- MANAGE's successful implementation of DAESI can be promoted to the next level of excellence by way of increasing the involvement of private and other public sector participation such as State Agricultural Universities (SAUs), Public Sector Cooperatives, Nodal Training Institute of ACABC Scheme, NGOs, etc. The private sector can sponsor input dealers and their field level personnel who are dealing with distribution and marketing of inputs
- The operational definition of Agri-input Dealer can be stated in the light of emergence of organized agri-input retail outlets in multiple locations by the input manufacturers and also institutions dealing with agri - input distribution like Primary Agricultural Cooperative Societies (PACS). People who are involved in agri-input sale/ distribution in association with Government, Cooperatives, Agri-business Companies may be made eligible under DAESI apart from Licensed input dealers
- The possibility of financial assistance from various Government schemes towards course fee to reduce the financial burden of input dealers and to encourage more number of input dealers to join DAESI programme may be explored. Cost sharing pattern of Orissa and Jharkhand states (i.e., Rs.15,000/- per input dealer from RKVY and balance amount of Rs.5,000/- by Input dealer towards course fee of Rs.20,000/-) may be followed by other states.
- Government may also think of providing knowledge subsidy by reimbursing the fee paid by the input dealers at the time of successful completion of DAESI Programme.
- SAMETIs may be involved in promotion of DAESI programme. Under innovative activity of ATMA DAESI may be promoted.

- State department of Agriculture may be actively involved in promotion of DAESI Programme. State department may nominate a nodal officer for DAESI programme, address a letter by the Commissioner of Agriculture to all the Joint Directors of Agriculture at District level for encouraging the input dealers to join the DAESI programme, review the progress of enrollment of input dealers, etc.
- DAESI trained Dealers may be involved by ATMA in extension activities for better utilization of their services and delivery of technical advisories to the farmers. Government may also think of creating a specific provision under Cafeteria of activities of Extension Reforms similar to the provision created for the agripreneurs.
- DAESI and other technical qualifications in agriculture may be made as mandatory for issuing and renewal of licence for agri-input business to ensure the quality of farm information dissemination and supply of inputs to the farmers as per the requirement of crops.
- The eligibility criteria of ACABC scheme may be extended to the DAESI trained input dealers to encourage further expansion of his/her entrepreneurship in agriculture and allied sectors and to create value added services required to the farmers and accelerate rural employment in farm and non-farm sectors.

2. Cost norms:

Cost norms may be revised from time to time considering the inflation and price rise as being done by MANAGE recently.

3. Venues

Organizing DAESI classes in the academic institutions such as Agriculture Research Institutes, Agricultural Universities, SAMETIs, KVKs, FTC (wherever feasible) may help in simulating classroom condition and sense of belongingness to academics to the candidates pursuing DAESI.

4. Resource persons

Along with Experts from the Agricultural universities and state department of agriculture, the experienced and innovative farmers, Experts from agri-input companies, established agri - entrepreneurs who were trained under ACABC and selected trained DAESI input dealers may be invited as resource persons.

5. Course content

The following modifications in the course content may help to strengthen the course further.

- Exposing the input dealers to new generation molecules in plant protection chemicals may help in updating the technical knowledge of input dealers.
- Some of the classes of theory and practicals can be clubbed and may be organized in the field or in the research stations which are nearer to the classroom/venue of the programme so as to increase the number of practical sessions without incurring additional expenditure for practical sessions/ field visit.

Success stories of DAESI



1. CREATING NICHE BUSINESS IN BIOLOGICAL AGRI-INPUTS

Kubera Agri Services is a normal looking agri-input shop in Gosala, a small village at 20 km from Vijayawada in Krishna District, but it has a captive customer base of farmers for IPM and organic agri-inputs. The usage pattern of various agri-inputs in the fields of customer farmers is recorded in the computer at Kubera Agri Services and new recommendations are given accordingly by the owner of the agri-input shop, Mr. Balarama Krishna Prasad.



Mr. Balaram, being a late entrant in agri-input business at the age of 49, did not have good grip on technical aspects of crop cultivation and the knowledge of the agri-inputs. He still wanted to create a niche by operating majorly in biological products. The biological products are less known and not popular among farmers, whose acceptance is also an issue. From the initiation of his business in 2005 till 2007 he was depending on the agri-input company officials to get the product related information. He was keen to develop comprehensive understanding of crop cultivation aspects

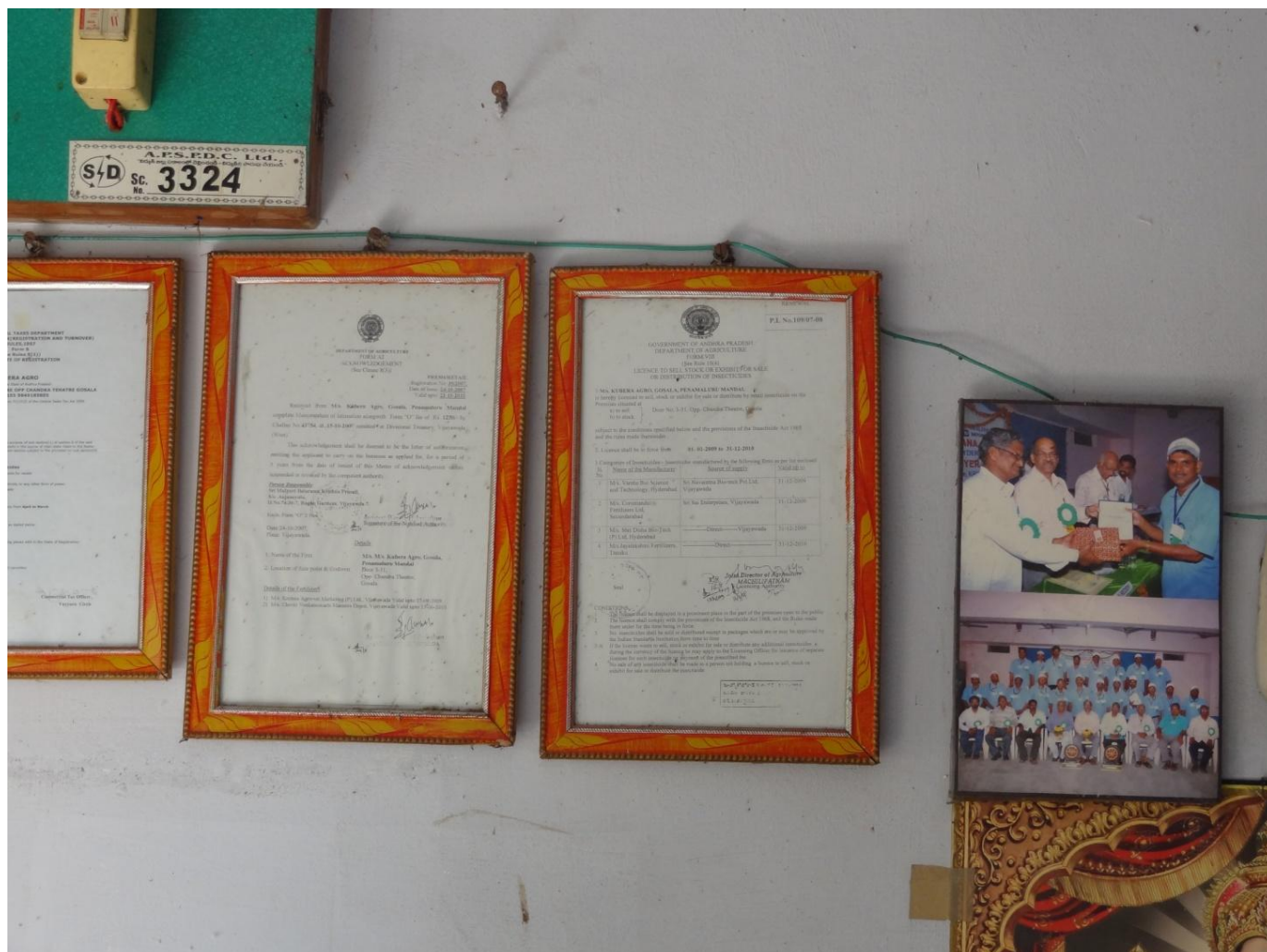
and agri-inputs. He contacted Sri K.V.Krishna Murthy, a Retired Senior Officer from Department of Agriculture at Vijayawada, who advised him to join DAESI programme.

Eager to learn better ways to run his business efficiently, he joined DAESI Programme in 2007 and passed out in 2008. He found DAESI programme very useful. He says *“my understanding about the product composition, mode of operation has increased multifold, and so has my capability to identify the pests, diseases and the plant nutrition related problems in various crops. My confidence level in recommending the products to farmers has increased significantly and I make visits to farmers’ fields on daily basis.”* He deals with farmers who are cultivating paddy, vegetables and sugarcane.

Mr.Balaram attends to field problems of his customer farmers and also new farmers on regular basis and recommends the suitable products for their crops. *“It is difficult to find me in the shop in the morning”*, he quips. He asserted that 15-20 new farmers are joining his customer base every year and none of the farmers left him to go to other dealer’s shop in past 4 years. According to Mr.Balaram, his business has grown by 40% compared to his early years. He explained that sale of biological products needs lot of demonstrations which in turn need sound knowledge in agriculture because the dealer should generate conviction about the efficacy of the product among the farmers.



An active advocate of I.P.M. practices, Mr. Balaram expressed that farmers should be encouraged to take suggestions from only DAESI qualified Dealers, because it would be the right thing for their crops. *"The sale of biological products is difficult because of slow action of the products and we have to compete with the agri-chemicals which show quick result. But my field visits, my suggestions to farmers and knowledge gained through DAESI have helped me in establishing myself in the market"* he said.



Mr. Balaram displays photo of DAESI certificate award presentation in his outlet

2. LEARNING LEADS TO NEW THINKING AND NEW BUSINESS



Sri G. Myil Samy hails from a farming family and has been doing organic farming from past 20 years. He started his business Iswaryam Organics in 1990, selling vermi-compost etc. According to him, till 2005 his turnover was around Rs.10 lakhs per year. Sri G. Myil Samy joined DAESI in 2004 and passed out in 2005. After 2005, he has seen a gradual growth year on year and today he has a shade grown composting unit with manpower of 40 employees, a 2000sq ft processing unit comprising a mixer, pulverizer and a blending unit. His turnover is expected to cross Rs.1 crore by March 2013. Sri Myil Samy joined DAESI with the suggestion from Dr.K.Ponnuswamy from T.N.A.U. and Sri Ayya Samy, a retired Senior Officer from Tamil Nadu Government's Agricultural Department.

He said, he understood that soil health is the one of the most important factors from crop production from DAESI programme and has seen business potential in enhancing soil health. He manufactures and markets organic soil enriching products (certified by IMO) which include VAM(Vesicular Arbuscular Mycorrhizas), vermi- compost and Green Gold in Tamil Nadu. He started exports to Vietnam in the year 2010-11 and at present he wants to export his products to Malaysia and Sri Lanka. He expressed that, even though he had been a practicing farmer from his young age, his understanding of various aspects in agriculture and especially soil management has grown significantly because of DAESI, which also helped him in the business. He said *"I understood that soil has microbes and it is contributing to crop growth only when I went to DAESI programme and it helped me in developing my business"*. His export house is Ishinn Organic Exports Private Limited, located at 170, NSR Road, Saibaba Colony, Coimbatore - 641011.

3. MARKETING OF BIOLOGICAL AGRI-INPUTS - NEW GROWTH DRIVER OF BUSINESS

Sri K. Doraiswami, 58 is a retailer of agri-inputs in Annur, a village near Coimbatore. He has been in agri-input business from past 20 years. He attended DAESI Programme in 2004-05 through T.N.A.U. According to him, he has learnt about various technical aspects in agriculture, especially about INM (Integrated Nutrient Management), IPM (Integrated Pest Management) and soil management. The knowledge gained through DAESI programme has equipped him to handle the biological and organic agri-inputs.



Sri Doraiswamy (right) displays the photo of DAESI certificate award function in his outlet

He says *“sale of biological agri-inputs and organic agri-inputs needs lot of educating effort from the Dealer’s side to make the farmer understand and get him convinced. My DAESI course has helped me to deal with this challenge.”* In 2012-13, Sri Doraiswami’s turnover of biological and organic agri-inputs is approximately Rs. 8 Lakhs from his total customer base of about 500 farmers. He is very optimistic about the future growth of biological products and organic products (bio-fertilizers and bio-pesticides). His knowledge and style of marketing biological products were recognized by the officers of the input companies he is working with. Sri Doraiswami expressed that he would not have entered into marketing of biological if he had not attended DAESI programme and he fondly remembers the encouragement given by Dr.K.Ponnuswamy and Sri Ayya Swami, who organized the DAESI programme.



Sri Doraiswami (left) interacting with the representative of Ingrain Technologies

3. HONING UP SKILLS TO DEAL WITH FARM RELATED PROBLEMS THROUGH DAESI



Sri Ramesh Shambhaji Wayker, 43 is the owner of Prasad Krishi Seva Kendra, a wholesale and retail counter at Narayangaon, Junnar Taluk of Pune District. He is a first generation entrepreneur who started his agri-input shop in the year 2000. A graduate in B.Sc(Physics) and with experience of working in Deepak Fertilizers Limited, Sri Ramesh was doing his agri-input business at normal pace till 2007. He joined DAESI programme in the year in 2006 and passed out in 2007. *"I have gained technical knowledge and the necessary skills to address the field problems of my customer farmers from DAESI"* he affirmed. *"I have seen a gradual growth in my business by about 40% from the year I completed DAESI"* Sri Ramesh added.

Recently he expanded his business into the area of sale of drip irrigation equipment. He also has a tie-up with the local sugar factory, "Sri Vighnan Shakari Shakkar Karkhana" at Shirol, Junnar Taluk

to supply drip irrigation equipment to the farmers under the purview of the sugar factory and is very optimistic about the new business. "I started understanding farm problems in detail and initiated advice to farmers after my DAESI Programme and it helped me" Sri Ramesh said.

वर्षाचा अध्यादेश (जा.आर.) तान माहेन उशार करूनही आवश्यक त्या दुरुस्त्या न करता मागच्या वर्षीसारखाच काढण्यात आला आहे. या योजनेतील जाचक अटीमुळे अंमलबजावणी कशी करायची, या पेचात जिल्हा परिषदेचे कृषी अधिकारी सापडले आहेत. योजनेतर्गत लाभार्थ्यांच्या वार्षिक उत्पन्नाची अट २० हजारांवरून ५० हजारांवर करण्याची मागणी कृषी खात्याने वारंवार करूनही त्याला वाटाण्याच्या अक्षता दाखवण्यात आल्या आहेत.

अनुसूचित जातीच्या शेतकऱ्यांचे उत्पन्न वाढवून त्यांना दारिद्र्यरेषेच्यावर आणण्याच्या उद्देशाने विशेष घटक योजना राबवली जाते. मागच्या वर्षीच्या शासन आदेशानंतर योजनेच्या काही निकषांमध्ये बदल करण्यात आले व त्याप्रमाणे मार्गदर्शक सूचना काढण्यात आल्या. पण नवीन शासन आदेशामध्ये या बदलांची नोंद न घेता जुनाच किता गिरवण्याचा

जशाच्या तशा पाठविण्यात आला आहे. याजनेच्या शासकीय आदेशातील जाचक अटीमुळे लाभार्थी निवडताना अडचणी येत असल्याचा अधिकाऱ्यांचा अनुभव आहे.

दर वर्षी मार्च-एप्रिलमध्ये उपलब्ध होणारा योजनेचा शासन आदेश या वर्षीसाठी (२००७-०८) मात्र दहा ऑगस्ट रोजी जिल्हा स्तरावर देण्यात आला. तीन महिन्यांच्या प्रतीक्षेनंतर उपलब्ध झालेली चुकीच्या शासन आदेशाची प्रत शासनस्तरावर परत पाठविण्यात आली असून, दुरुस्ती केलेली नवीन प्रत अद्याप मिळालेली नसल्याची माहिती मिळाली.

योजनेच्या शासन आदेशामध्ये पुढील बाबींमध्ये बदल करणे अपेक्षित आहे. अनुसूचित शेतकऱ्यांसाठी देण्यात येणाऱ्या बैलजोडी व रेडे जोडीच्या प्रचलित किमतीच्या १०० टक्के अनुदान देण्यात येते. मात्र, त्यासाठीच्या जास्तीत जास्त अनुदानाच्या १५

आदेशामध्ये करणे आवश्यक आहे. त्याच प्रमाणे १०० टक्के अनुदानावरील बैलगाडीसाठीच्या घटकासाठी कमाल दहा हजार रुपयांच्या मर्यादेचा उल्लेखही करण्यात आलेला नाही. या शिवाय इनवेल बोअरिंगसाठीच्या १०० टक्के अनुदानावरील २० हजार रुपयांची कमाल मर्यादा नवीन शासकीय आदेशात आठ हजार अशी चुकीची छापून आलेली आहे. तसेच पाइपलाइन उभारण्यासाठी शेतकऱ्यांना देण्यात येणाऱ्या १०० टक्के अनुदान- ऐवजी शासकीय आदेशात पूर्वीप्रमाणेच ५० टक्के असे चुकीचे छापून आलेले आहे. येथेही कमाल अनुदान मर्यादेचा उल्लेख करण्यात आलेला नाही.

शासनस्तरावर योजनेच्या शासन आदेशाविषयी असा गलथानपणा दाखवला जात असेल तर अंमलबजावणीविषयी काय स्थिती असेल, असा प्रश्न या निमित्ताने उपस्थित झाला आहे.

'मिटकॉन' आयोजित अभ्यासक्रमाचा समारोप

पुणे : खते, बियाणे विक्रेत्यांसाठी 'मिटकॉन' तर्फे आयोजित केलेल्या पदविका अभ्यासक्रमाचा समारोप नुकताच झाला. या वेळी नॅशनल इन्स्टिट्यूट ऑफ ऑग्रिकल्चर एक्सटेंशन मॅनेजमेंटचे डॉ. चंद्रशेखर रेड्डी, 'अॅग्रोवन'चे संपादक निशिकांत भालेराव, मिटकॉनचे नोडल ऑफिसर महेंद्र धायबर उपस्थित होते.

डॉ. रेड्डींनी कृषी निविष्टा विक्रेते हे शेतकऱ्यांपर्यंत कृषी तंत्रज्ञान पोचविण्याचे

महत्वाचे माध्यम असल्याचे सांगून त्यांनी स्वतः शास्त्रोक्त व कायदेविषयक शिक्षण घेण्याचे महत्त्व विशद केले.

श्री. भालेराव म्हणाले, "शेतीविषयक समस्या योग्य पद्धतीने सोडविण्यासाठी विक्रेत्यांनी कमी खर्चात पीक संरक्षण कसे करता येईल, याचा योग्य सल्ला शेतकऱ्यांना देणे आवश्यक आहे. कृषी विस्तार सेवेच्या योजना प्रभावीपणे राबविण्यासाठी या प्रशिक्षित डीलर्सचे एक उत्तम माध्यम उपलब्ध आहे."



'मिटकॉन' प्रशिक्षणाथींना प्रमाणपत्र देताना निशिकांत भालेराव.

बुद्धिबळातले सुवर्णपदक

विजिने विजयक होती तर प्रतिस्पर्ध्यांकडे

'नवीन तंत्रज्ञानचा अवलंबन करावा'

किमतीवर जकात आकारण्यास विरोध

पुणे : पुणे महापालिकेने जकात आकारली जाणार आहे. त्यामुळे वस्तूच्या

Press coverage by local news paper about DAESI programme

Page 80

4. A NEW AND ENRICHING LEARNING EXPERIENCE

"I never thought I would ever like it. But learning in DAESI programme was enriching experience" says Sri N.Venkata Reddy, 49, owner of Sri Rajya Lakshmi Agencies from Ramachandrapuram, East Godavari District of A.P. "I was reluctant initially and joined on insistence of DAESI facilitators and also because of social obligation. it was all new and enriching experience for me. I was even late to the initial few classes. But once I started learning new things through the DAESI programme, I attended all the classes regularly and got the benefit. I could develop goodwill among farmers through my crop related advices, and it helped my business. I never attended college, but DAESI was a good learning experience for me" Sri Reddy expressed. He does wholesale and retail business of agri-inputs through his outlet. He joined in DAESI in 2008. He is even fondly showcasing his DAESI Certificate and photograph of certificate award function in his agri-input outlet.



Sri N.Venkata Reddy(right) displaying the photograph of DAESI certificate award function in his shop

5. PERSONAL DEVELOPMENT IS AN ADDITIONAL BENEFIT FROM DAESI



Sri Bobbili Venkata Reddy, 39 , the owner of M/s Reddy Fertilizers at Topran, Medak District is a leading agri-input dealer. He is one of the participants of 1st batch of DAESI programme and vividly recollects the topics which were taught, viz. seed law, nutrient management, regulations and laws in sale of agri-inputs and especially zig-zag system of cultivating banana which was shown to him in practical. He attributes his success in business to DAESI programme. He says *“DAESI programme has immensely helped me in upgrading my knowledge and it is worth much more than the fees we paid”*. He also recollects the “NACT” principle that was discussed during the personal development classes(N- need for money, A- ambition, C-character and T- time spent on practicing right things) and says he can never forget this principle. “ we have added two new outlets and our business has grown multifold” he told. Sri Venkata Reddy is a wholesaler and retailer covering about 6 mandals in his business.



Sri B.Venkata Reddy's shop at Toopran

Annexure

Annexure 1

Module-wise Coverage of Theory and Practical Sessions in DAESI

(The entire course is divided in to 12 modules)

Module-I : Role of Weather in Agriculture

Sl. No.	Theory Sessions	Sl. No.	Practical Sessions
1.	Orientation about Agro-ecological situations of the State in general and of the District in particular	1.	Visit to a Agrimet Cell – Instruments to measure various parameters
2.	Effect of weather conditions in agriculture – various parameters – types of forecasts etc.		

Module-II : Gaps in Production – Schemes to overcome them

Sl. No.	Theory Sessions	Sl. No.	Practical Sessions
3.	Agricultural Programmes being implemented in the district.		
4.	Horticultural programmes being implemented in the district.		

Module-III : Soils

Sl. No.	Theory Sessions	Sl. No.	Practical Sessions
5.	Soil Survey and Land use Planning	2.	Visit to Soil Testing Laboratory
6.	Classification of Soils		
7.	Soil sampling, analysis and Interpretation of results		
8.	Management of Problematic soils		

Module-IV: Rainfed farming

Sl. No.	Theory Sessions	Sl. No.	Practical Sessions
9.	Improved techniques and strategies to be adopted in rainfed farming	3	Visit to a Watershed
10.	Watershed Management		
11.	Dryland Horticulture – Farm Forestry – Agro-forestry etc.		

Module-V : Integrated Nutrient Management (INM)

Sl. No.	Theory Sessions	Sl. No.	Practical Sessions
12.	Symptoms of various plant nutrient deficiencies including micro-nutrient deficiencies	4	Visit to Bacterial Culture Production Laboratory
13.	Management of Nutrient in Field Crops and Horticultural Crops	5	Visit to a Farmers' Field where Organic Farming is being practiced.
14.	Importance of Organic Farming in maintaining Soil Health – Use of green manuring, green leaf manuring – compost – FIM – Vermicompost – Cakes etc.	6.	Visit to a Vermi-Compost Production Unit.
15	Bio-fertilizers – Use of Plant Growth regulators in Agriculture and Horticulture		
16.	Chemical Fertilizers		

Module – VI : Integrated Pest Management (IPM)

Sl. No.	Theory Sessions	Sl. No.	Practical Sessions
17	An introduction to Plant Protection – Different Types of Pests - Classification	7	Surveillance – Fixed Plot Survey
18	Classification of Pesticides- Compatibility– Phytotoxicity and residue problems	8	Surveillance – Roving Survey
19	Surveillance – Various methods of Pest Surveillance	9	Identification of (a) Useful and Harmful Insects; (b) Weed flora
20	Identification damages caused by Insects, Pathogens etc.	10	Visit to Biological Control Laboratory
21	Diseases and their management	11	Visit to Ornithology Laboratory
22	I.P.M. Concept		
23	Agro-ecosystem analysis	12	Colouring and labeling of sketches of Insects and their damages – diseases and nutrient deficiencies
24	Rodent Pest Management		
25	Ornithology – Role of Birds in Agriculture		
26	Biological and Botanical Methods of Pest Management		

Module – VII : Crop Production Technology of individual crops

27	Paddy	13	Visit to Medicinal and Aromatic Plants Garden
28	Jowar, Bajra, Maize	14	Visit to Fruit Research Station
29	Redgram	15	Visit to Post-Harvest Technology Laboratory
30	Green gram, Black gram and Bengal gram		
31	Groundnut		
32	Castor		
33	Sesamum, Safflower and Sunflower, soyabean		
34	Commercial crops – Cotton, Chillies, Sugarcane, Turmeric etc		
35	Scope of Horticulture Crops		
36	Mango, Sapota		
37	Guava, Custard Apple, Amla		
38	Kitchen Gardening - Importance of vegetables in human diet – seasonal vegetables.		
39	Tomato, Brinjal		
40	Cole crops		
41	Cucur bits		
42	Grape		
43	Pomogranate		
44	Medicinal and Aromatic Plants		
45	Commercial Floriculture, landscaping , interia gardening including lawn maintenance		
46	Post-Harvest Technology		
47	Weeds – Management of Weeds		

Module – VIII : Farm Mechanization

48	Implements	16	Visit to Implement Shed
49	P.P. Equipment		

Module- IX : Water Management

Sl. No.	Theory Sessions	Sl. No.	Practical Sessions
50	Water Management in various crops	17	Visit to a Farm where micro irrigation is being practiced (drip and sprinklers)
51	Micro Irrigation Systems – Drip, Sprinkler		

Module- X : Extension Management

52	Communication Skills		
53	Negotiation Skills		
54	New Dimensions in Agricultural Extension		
55.	Decoration of Stall in an Agricultural Exhibition / Kisan Mela		

Module – XI : Law

56	Basics of Law	18	Visit to a Seed Testing Laboratory
57	National Seed Policy	19	Visit to F.C.O. Laboratory
58	Seed and Seed Production	20.	Visit to PTL
59	Seed Law Enforcement		
60	Insecticide Act		
61	Fertilizer Control Order		
62	Other related Acts - E.C. Act, Limitation Act, Consumer Protection Act etc.		

Module- XII : General Topics

Sl. No.	Theory Sessions	Sl. No.	Practical Sessions
63.	Rural Credit – Micro Finance		
64	Crop Insurance – Weather Insurance – Rainfall Insurance		
65	Use of I.T. for Extension and Business	21	Practicing basic skills on Computers.
66	WTO - Opportunities and Challenges – Export Orientation of Agriculture / Horticulture		
67	Orientation on Meditation for Mind Control	22	Visit to Vivekananda Institute of Excellence
68.	Issues in Business		

Evaluation method for the candidates in DAESI programme:

The objective of the assignment is to conduct comprehensive evaluation of different aspects of implementation of the programme. The candidates to qualify diploma have to maintain 80% of attendance and score 40% of marks

The course is evaluated for assessing the performance of the participants as detailed hereunder:

A). Records and assignments: The following records and assignments have to be submitted by the candidates as part of evaluation of the work done in practicals.

- Each candidate has to maintain a practical record book for all the practical classes. A record of drawings and sketches of important insect pests & the damage symptoms caused by them is to be maintained as it carries (10 + 10 Marks).
- Each candidate has to give one Seminar on the assigned topic (5 Marks) and submit the relevant literature prepared.
- Problem Solution Record (5 Marks) has to be maintained by each candidate from join of the course to the end of the course. In which the input dealer has to record the problem posed /enquiry made by the farmer during visit to his shop and advise given to him by

the candidate/input dealer. This record will give qualitative change made in by DAESI programme.

B). Evaluation and marks allotted for each exam: The facilitator should announce and communicate the schedule of exam dates along with the marks to all participants in advance. The marks allotted to various exams are given below.

- Six bi-monthly quiz tests of objective in nature are conducted for evaluating class room Performance. Choose best five (20 Marks/Quiz, total is 100 and convert to 20),
- Half-yearly and annual examinations with Questions requiring descriptive answering are conducted. Half yearly examination shall be conducted after completion of 22 classes carries 30 marks.
- Final Examination carry (50 Marks)
- A final practical examination consisting of skill demonstration, spotting, viva-voce are conducted.

The weight ages are allotted are as under:

Theory	Quiz	20 Marks
	Half-yearly	30 Marks
	Annual	50 Marks
	Total	100 Marks
Practical	Record Book	10 Marks
	Drawings & Sketches	10 Marks
	Spotting	10 Marks
	Problem Solution Record	5 Marks
	Seminar on the assigned topic	5 Marks
	Viva voce	10 Marks

C). Exam Paper preparation, Evaluation and Declaration of results: The Question papers are to be prepared and Evaluation has to be done by the Facilitator himself. The practical examination has to be conducted by the external examiner. The candidates to qualify the Diploma have to maintain 80% of attendance and score 40% of the marks. Candidates who do not qualify shall take up half-yearly, annual theory and final practical with the candidates of subsequent batches so as to qualify for award of diploma.

The total marks will be 150 Marks (theory 100+practical 50) and the same may be converted to 100 Marks for percentile. The results will be declared based on the marks obtained by the individual candidates as given below.

Range of Marks	Result
40 – 59	Pass
60 – 79	First Class
80 and Above	First class with distinction

Annexure 2

Organizational background of MANAGE

MANAGE was established in 1987, as the National Centre for Management of Agricultural Extension at Hyderabad, by the Ministry of Agriculture, Government of India as an autonomous Institute, from which its acronym 'MANAGE' is derived. In recognition of its importance and expansion of activities all over the country, its status was elevated to that of a National Institute in 1992 and re-christened to its present name i.e., National Institute of Agricultural Extension Management. MANAGE is the Indian response to challenges of agricultural extension in a rapidly growing and diverse agriculture sector. The policies of liberalization and globalization of the economy and the level of agricultural technology becoming more sophisticated and complex, called for major initiatives towards reorientation and modernization of the agricultural extension system. Effective ways of managing the extension system needed to be evolved and extension organizations enabled to transform the existing set up through professional guidance and training of critical manpower. MANAGE is the response to this imperative need.

a. Professional Services

MANAGE offers its services in the following five streams viz.,

1. Management Training
2. Consultancy
3. Management Education
4. Research
5. Information Services

b. The mandate of MANAGE vests the institute with the responsibility to work in the following directions:

- Developing linkages between prominent state, regional, national and international institutions concerned with agricultural extension management
- Gaining insight into agricultural extension management systems and policies
- Forging collaborative linkages with national and international institutions for sharing faculty resource
- Developing and promoting application of modern management tools for improving the effectiveness of agricultural extension organizations

- Organizing need based training for senior and middle level agricultural extension functionaries
- Conducting problem oriented studies on agricultural extension management
- Serving as an international documentation center for collecting, storing, processing and disseminating information on subjects related to agricultural management

c. Core Values

- User friendliness
- Client-centered process consultancy
- Farmer-focused approach in all our professional services
- Interactive and experiential learning methodology
- Faculty development and networking with facilitators
- Determination to achieve financial self-reliance

d. Training

Training is an integral part of the Institute's mandate. As part of the training activity, MANAGE conducts a series of training programmes, workshops, seminars and study visits, on key theme areas for public sector Extension functionaries working in development departments such as Agriculture, Horticulture, Fisheries, Animal Husbandry and Veterinary etc. in various states as well as in the private sector is an integral part of the Institute's mandate. The attempt is not merely to provide conceptual understanding on a given theme but also to provide necessary skills in operational aspects. MANAGE imparts knowledge and skills for effective performance by the extension functionaries. The programmes are designed keeping in view the changes in the environment to prepare the extension functionaries to cope up with these and for effective implementation of various programmes. Training needs of the functionaries are also taken into account while designing training programmes. MANAGE also organizes training programmes, which are specifically designed to suit customer requirements, which are sponsored by various organizations.

Focus areas of training include Agricultural Extension Management, Agri Business Management, Natural Resource Management, Mass Media and Communication and Information Technology in Agricultural Extension.

e. Uniqueness of MANAGE Training Methodology

MANAGE training programmes are highly interactive, participative, experiential and focus on self-learning for effective functioning as team members and team leaders.

MANAGE faculty has developed a unique strength in conducting training programmes and workshops using the methodology of experiential learning, which focuses on an interactive learning process resulting in better retention of learning from the programme. Other training methods such as lectures, management games, success stories and case studies on a given theme are used with a view to make the discussions practical oriented as per the need of the programme. The focus of the trainer also remains on operational and practical aspects of the themes for effective application of learning by the participants in their work situations. As per the requirement in the programme, field visits are also organized to give first hand exposure to best practices. The latest audio visual aids are used for effective conduct of training programmes.

Training programmes during 1987 – 2012

Year	Number of programmes		Number of participants
	National	International	
1987-88	13		342
1988-89	21	3	478
1989-90	19	4	549
1990-91	20		437
1991-92	45		818
1992-93	59	3	1154
1993-94	80	9	1641
1994-95	94	10	2071
1995-96	71	4	1828
1996-97	78	3	1854
1997-98	72	3	2129
1998-99	71	1	1677
1999-2000	137	2	3402
2000-2001	186	3	4155
2001-2002	204	-	6050
2002-2003	217	-	5756
2003-2004	231	-	6588
2004-2005	94	-	2737
2005-2006	144	-	4730
2006-2007	122	-	2994
2007-2008	137	-	3856
2008-09	223	2	5450
2009-10	173	3	4383
2010-11	156		3633

Focus of MANAGE training has been changing over the years in response to new challenges and requirements. In the initial years programmes focused on Monitoring & Evaluation, MIS, extension cadre management, computer applications, training methodology, supervision and direction of extension systems, AV aids, farming systems development etc.

f. Research

The research activities of the Institute have been specific to current themes that are policy and programme oriented. Research Studies are also based on the request of organizations for undertaking evaluation of various programmes and their impact. Impact and evaluation studies relating to various projects and programmes were also taken up. The Institute specializes in providing consultancy to various organizations on request. The research activities of the Institute generally pertain to topics of contemporary interest. In keeping with its mandate MANAGE conducted several Research and Consultancy studies on various aspects of the functioning of the extension system.

g. Consultancy

Process Consultancy for Enhancing Organizational Effectiveness

MANAGE helps client organizations optimize critical organizational process through an approach to process consultancy. MANAGE initiates Process Consultancy work with identification and analysis of the root causes of the client's problem through a diagnostic workshop. This forms the foundation of the strategy planning process, and calls for skillful facilitation of interaction among different stakeholders for bringing on surface critical factors that lie often hidden and unarticulated. This is followed by the process of helping specific stakeholder groups to acquire the required operative and cooperative skills. MANAGE also enable the client organizations to alter the working styles and to bring about such structural and process changes as may be called for. To bring the Process Consultancy to the point of completion, MANAGE also provides on the job process support to stakeholders individually and/or in groups.

h. Regular Consultancy Activities

MANAGE also provides professional expertise to undertake consultancy studies and other activities on a wide array of subjects and for a variety of client organizations. These include: Creating farmer-friendly extension systems; Optimizing extension management system; Strengthening industry-farmer linkages; Eco-friendly technology systems such as Integrated Pest Management; Farming Situation Based Extension; Farming Systems Analysis for multi-dimensional extension strategy; Participatory watershed management; natural resources management; Building farmers organizations; Facilitating community organization process; Gender issue in agriculture; Agricultural policy formulation; Development information / communication services and products

MANAGE has provided consultancy services to a wide range of organizations – NGO's working at village level, State Governments, international organizations such as the World Bank and FAO, as well as to private agri-business firms.

i. Schemes

As a technical arm of the Directorate of Extension, Department of Agriculture and Cooperation, Ministry of Agriculture, GOI, MANAGE has been involved in implementing schemes of the Ministry . These include:

1. Innovations in Technology dissemination under National Agricultural Technology project (NATP) Agriclincs and Agribusiness Centres Scheme (ACABC). The Agri-clinics and Agri-Business Centres scheme, a Central sector scheme, was launched by the Ministry of Agriculture, Government of India, in association with NABARD during 2002, with the objective of supporting unemployed agricultural graduates to establish Agri-Clinics and Agri-Business Centres in rural areas. This was expected to supplement the efforts of public extension; provide specialized extension services to the needy farmers besides providing self employment opportunities to the unemployed agricultural graduates. The National Institute of Agricultural Extension Management (MANAGE) has been entrusted with the responsibility of coordinating training and handholding of the selected Agricultural graduates under the scheme.
2. Mass Media Support to Agriculture Extension initiative in 2003-04. Kisan Call Centres Scheme launched in 2003-04. Kisan Call Centers were launched by the Department of Agriculture and Cooperation (DAC), Ministry of Agriculture, Govt. of India on January 21, 2004 across the country to leverage the extensive telecom infrastructure in the country to deliver agricultural extension services to the farming community. The purpose of these call centers is to respond to issues raised by farmers instantly in the local language.
3. Support to State Extension programmes for Extension Reforms (2006-07). The centrally sponsored "Support to State Extension Programmes for Extension Reforms" scheme, is an initiative of the Ministry of Agriculture, Govt. of India to revitalize agricultural extension in the states to make the extension system decentralized and demand-driven. The scheme focuses on operationalising agricultural reforms across the country through new institutional arrangements with restructured autonomous bodies at district/block level,

which are flexible, bottom-up, farmer-driven, and promote public-private partnership. The Scheme was modified in 2010-11 and strengthened with a strong manpower, infrastructure and activity. These include provision of specialist and functionary support at different levels; grass root support through a 'Farmer Friend' at the Village level; revision in ATMA Cafeteria to include additional activities; Farmers Advisory Committees at State, District and Block levels comprising a group of farmers to advise and provide inputs to administrative bodies at each level; support to SAMETIs for creating essential infrastructure; delegation of powers etc. In response to a need for training programs for enhancing the skills of district level extension functionaries in operationalization of ATMA and SREPs and to sensitize to the modified guidelines on Extension Reforms, a series of programmes on these aspects were planned and organized.

j. Management Education

1. Post Graduate Programme in Agribusiness Management (PGDMABM). Indian agriculture is in a process of change. There has been a shift in agriculture from subsistence to commercial orientation as a result of the reforms process. A number of opportunities for agribusiness have emerged. The agribusiness sector has vast potential to grow in the years to come, both in the domestic as well as the international arena. In order to achieve this potential and bring about change, one of the critical inputs is competent techno-managerial manpower. It is in response to this need that MANAGE launched a two -year full time, residential Post Graduate Diploma in Agribusiness Management in 1996 on a self financing basis. The programme aims to prepare business leaders and techno-managers for careers in the sectors related to Agriculture, Food, Agri-business, Agri-banking, Retailing and Rural Development. Preparatory activities in connection with launching of the programme began during 1995-96 and the programme was launched in 1996-97 with 24 students.
2. Diploma in Agricultural Extension Services for Input Dealers (DAESI) was launched in 2003-04. MANAGE designed a one-year "Diploma in Agricultural Extension Services for Input Dealers (DAESI)" programme for agri-input dealers. The programme is designed to impart formal agricultural information to the Dealers so as to equip them to offer agriculture advisory to the farmers while marketing the inputs. The mission of the DAESI programme is to transform the input dealers into para-professionals to enable them to serve the farmer better. The programme was also franchised to TNAU. Expanded to Maharashtra and Karnataka.

3. Agri Warehousing and Cool Chain Management (AWACCM) programme was launched in 2004-05. The name was changed to Agri Warehousing and Supply Chain Management (AWASCM) in 2006-07 in response to feedback from industry to focus on supply chain management. Continued till 2008 and subsequently the content was merged into PGDMABM
4. The Post Graduate Diploma in Agricultural Extension Management (PGDAEM) programme was launched in 2007-08 on a distance learning mode to enhance techno-managerial competence of agricultural extension functionaries. The demand on the public extension system for dissemination of new technology, called for upgradation of both technical and extension skills of extension functionaries. 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 professionalize public extension service for effective delivery of extension services, MANAGE launched this programme. The programme is sponsored by Department of Agriculture and Cooperation, Ministry of Agriculture, Government of India under Support to State Extension Programs for Extension Reforms Scheme.

Annexure 3

The background of DAESI

The Public Extension Service by itself is not sufficient to make our agricultural sector keep pace with the world agriculture system. Ministry of Agriculture, Government of India emphasized the use of multi agency extension services such as multinational companies, corporate bodies, voluntary organizations, farmers associations and input dealers etc, in transfer of technology. There is large network of about 2.82 lakh Agri-input Dealers in the country, who are an important source of farm information. Nearly 90% of the Agri-Input Dealers operating in our country do not have any formal Agricultural Education. They seldom realize the implication of "Laws" related to handling Agricultural Inputs. They are basically businessmen and know about different market forces. If they are transformed as paraprofessionals by providing required knowledge, they can bring Market Led Extension, a reality and thereby bringing a paradigm shift in Indian Agriculture.

National Institute of Agricultural Extension Management (MANAGE) has designed Diploma in Agricultural Extension Services for Input Dealers (DAESI), a One Year Diploma Course which imparts formal agricultural education to the dealers so that they can couple their business with extension services besides discharging regulatory responsibilities.

Under the programme, the input dealers are oriented towards location specific crop production technologies of broad based agriculture and specific package of practices related to field problems; efficient handling of inputs; laws governing regulations of agricultural inputs and to transform the input dealers into an effective source of farm information at the village level for the farmers/farm women.

DAESI - works to improve the lives of the farming community by creating the last mile connectivity to the farmers with the technically empowered agri-input dealer. The DAESI trained agri-input dealers are expected to support the crop production through advising farmers regarding good agricultural practices, scientific crop protection and crop nutrition, soil and water management etc.

Mission of DAESI programme:

"To transform input dealers into para-professionals and enable them to serve farmers better, thereby strengthening the agricultural extension system."

Objectives of DAESI Programme:

1. *To orient on location specific crop production technologies of broad-based agriculture and specific package of practices related to field problems.*
2. *To build capacity of Input Dealers in efficient handling of Inputs*
3. *To impart knowledge about the laws governing regulation of agricultural Inputs*
4. *To make Input Dealers an effective source of farm information at the village level (one stop shop) for the farmers / farm women*

Methodology for DAESI programme:

The DAESI programme is to organize on a distance education mode. Classes will be conducted in each week on Sunday (market holiday) for 48 weeks which comprises 40 theory where class room interactions held with technical experts and 8 Field visits to various Agricultural & allied research stations and farmers fields so as to acquaint with the field problems. In practical they identify the causal organism (Insect, disease and nutritional disorder) based on symptoms. Study material is supplied as prepared by resource persons and multi- media instructional devices used to teach by the experts

As indicated in the HRD Project Report of Indira Gandhi National Open University (IGNOU), under Distance Education mode, a diploma course requires 32 credit hours and each credit hour is equal to 30 hours of the study time of the participant. DAESI programme is covering about 36 credit hours.

Annexure 4

PHOTOGRAPHS

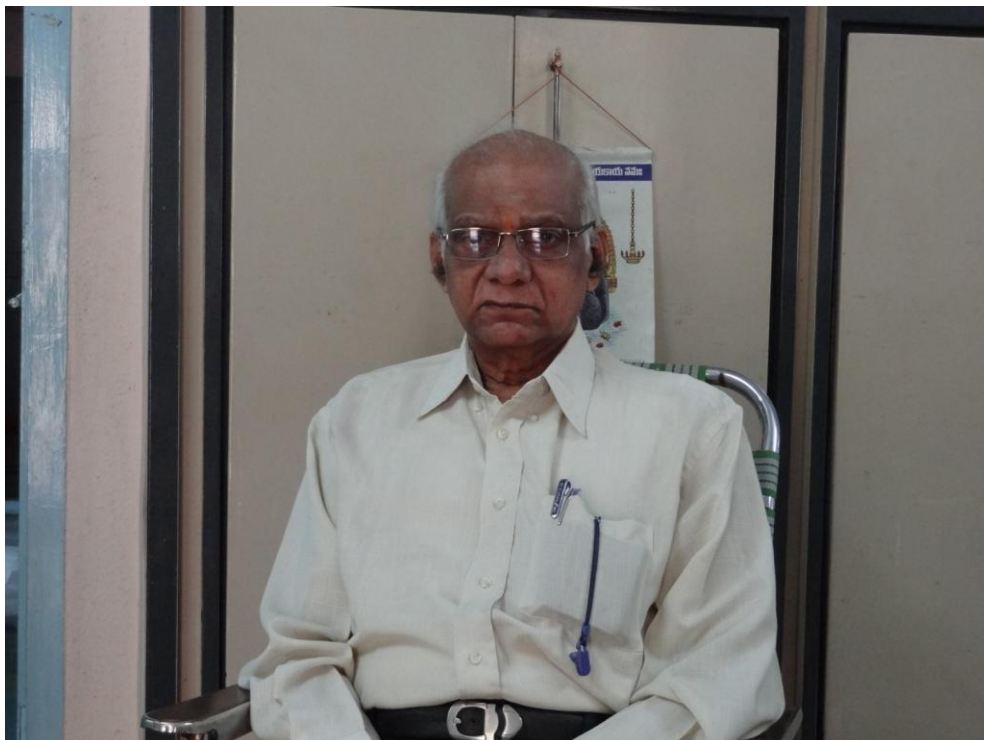
Facilitators of DAESI Programme



Dr.K.Ponnusamy,TNAU,Tamil nadu



Sri Mahendra Daibar; Maharashtra



Sri K.V.Krishna Murthy; Krishna District, Andhra Pradesh



Sri G.Krishna Reddy ; Nellore District, Andhra Pradesh



Sri K.N.Muneswara Rao; Krishna District, Andhra Pradesh



Sri V. Bhaskara Rao, East Godavari District, Andhra Pradesh



Sri V.V. Narasimha Rao; Krishna District, Andhra Pradesh



Sri J.Krishna Reddy ; Nizamabad District, Andhra Pradesh

Photographs of the Dealers and farmers



Interaction with Mr.S.Sridhar(right) at Kothapeta, A.P.



Interaction with farmers in Narayangaon, Maharashtra



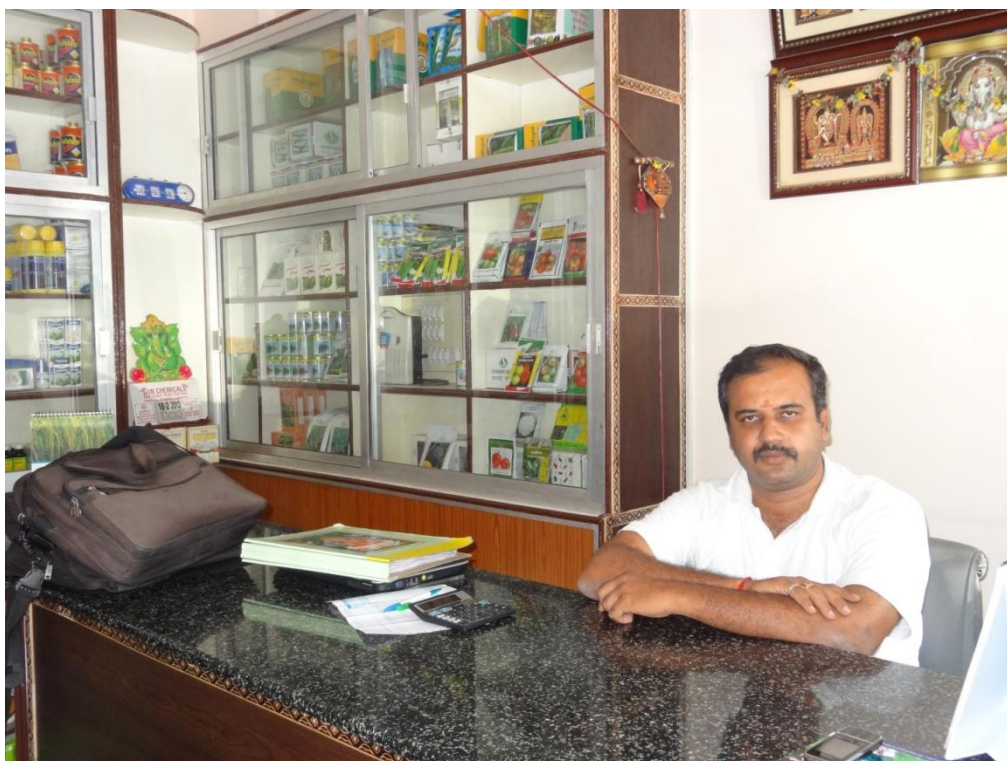
Interaction with Mr.N.Srinivasa Rao at Ryali, A.P.



DAESI trained input dealer Mr.V.V.Nagi Reddy denotes DAESI diploma at his shop's display painting in Guntur



Mr.M.Manikavachagam, Karanpetai; Tamil nadu



Mr.Saravana Kumar,Pollachi; Tamil nadu



Mr.Tirugnana Sambandham ,Udumalpettai; Tamil nadu



Mr.R.Jawahar,Periakottaiperivu,Udumalpettai, Tamil nadu



Mr.S.K.Chandra Sekhar, Coimbatore; Tamil nadu



Mr.Kathrasan, Kovai Trading Company ,Coimbatore;Tamil nadu



Mr.Kathrasan's (above) outlet ,Coimbatore; Tamil nadu



Mr.Mahesh Dattatreya More, Manchar;Maharashtra



Mr.Maruthi Sapon Nighot, Manchar;Maharashtra



Mr.Sudhakar Shankar Thorat , Manchar;Maharashtra



Shop of Mr.Sachin Tukaram Thorat , Manchar;Maharashtra



Mr.Rajkumar Ramachandra Kale , Ghodegaon;Maharashtra



Mr. Yogesh Shimbhaji Bhor , Narayangaon; Maharashtra



Mr. Manoj Bansilal Karnavat, Rajgurunagr; Maharashtra



Shop of Mr.Manoj Bansilal Karnavat,Rajgurunagr; Maharashtra



Mr.Hanumant Zumber Pawar ,Narayangaon; Maharashtra



Mr. Manoj Kale, Ghodegaon ; Maharashtra



Mr. Patrudu, Marketing Officer in Aeries, Vijayawada, A.P



Mr.Ram Mohan, Guntur, A.P



Mr.Pathuri Venkateswara Rao,Guntur Dt., A.P



Mr.KSN Gupta,,Guntur, A.P



Mr.G. Ramesh,Guntur Dt., A.P



Mr.Kanta Rao,Guntur Dt., A.P



Mr.Venkateswara Rao ,Guntur Dt., A.P



Mr.Maddi Srinivas Rao,Guntur Dt., A.P



Mr.Ram Babu Kankipadu,Krishna Dt., A.P



Mr.Satyanarayana,Krishna Dt., A.P



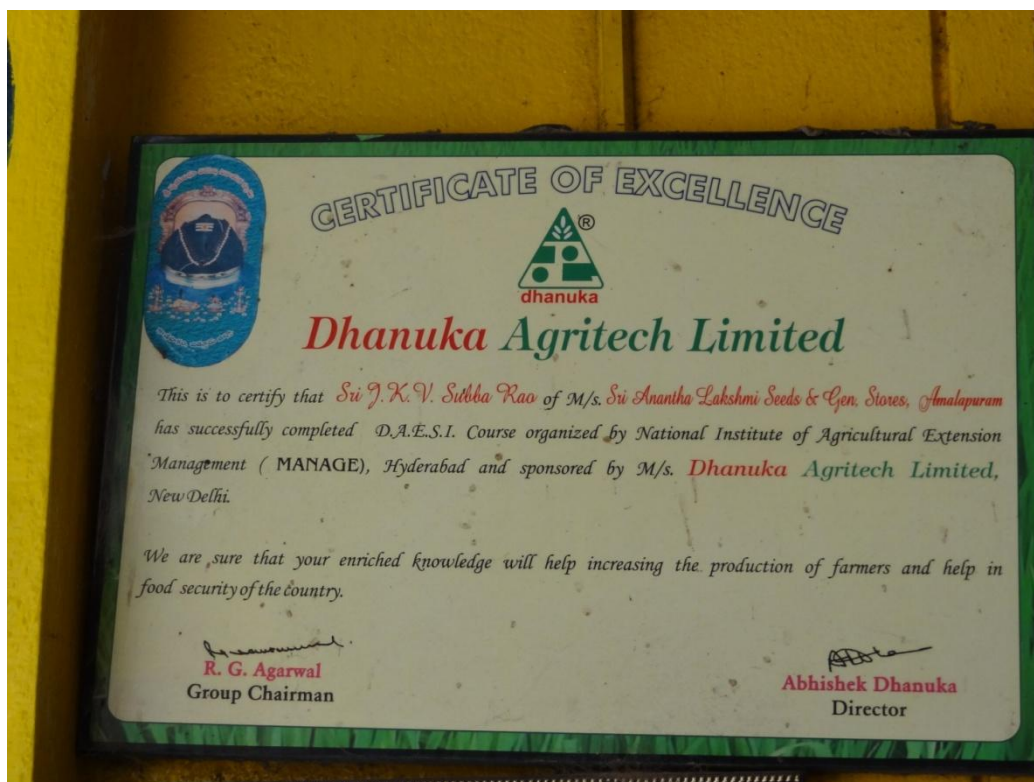
Mr.Suresh Polanki,Krishna Dt., A.P



Mr.A.V.Satyanarayana Raju,East Godavari Dt., A.P



Mr.Ch.V.Gopala Krishna,Amalapuram,East Godavari Dt., A.P



DAESI Certificate being displayed in a dealers shop



Mr.N.Kasi Eswara Reddy,Gollapalem,East Godavari Dt., A.P



Mr.M.Satyanarayana,Lolla,East Godavari Dt., A.P



Mr.G.Sri Ram Kumar,Ambajipeta, East Godavari Dt., A.P



Mr.Suryanarayana Raju, Athreyapuram, East Godavari Dt., A.P



Mr.Ch.V.Gopala Krishna,Amalapuram,East Godavari Dt., A.P



Mr.M.Venkanna Choudary,East Godavari Dt., A.P



Mr.Sharif ,East Godavari Dt., A.P



Interaction with Warangal Farmer(Sri P.Sambi Reddy)



**Interaction with small farmer, Sri Gopal Nighot(left)
of Pune District,Maharashtra**



Interaction with farmer Sri Govind Kale of Pune District, Maharashtra



Mr.Y.V.V.Jaganatha Gupta, West Godavari, A.P



Mr.M.Kumar, West Godavari, A.P



Mr.Batchu Venkateswara Rao, West Godavari, A.P



Mr.Chandra Sekhar Reddy,Adilabad Dt., A.P



Mr.Solanki Seshu Rao, Adilabad Dt., A.P



Mr.K.Rajesh, Adilabad Dt., A.P



Mr.Sravan Kumar. Non DAESI Dealer, Adilabad Dt., A.P



Mr.Gampa Sattiah, Adilabad Dt., A.P



Non DAESI Dealer, Mr.Gangula Ramesh Babu, Adilabad Dt., A.P



Mr.B.Hanumanlu, Nizamabad Dt., A.P



Mr.K.Venkatesam, Medak Dt., A.P



Mr.B.Ramesh(right), Toopran, Medak Dt., A.P



Mr.Rahim-Farmer, Toopran, Medak Dt., A.P



Mr.Ashok Reddy-Farmer, Toopran, Medak Dt., A.P



Mr.Santhosh Kumar shop, Toopran, Medak Dt., A.P



Mr.Santhosh Kumar(right), Toopran, Medak Dt., A.P



Mr.M.Mahesh, Nizamabad Dt., A.P



Mr.Gampa sattiah, Nizamabad Dt., A.P



Mr.V.Venkateswara Rao, Nizamabad Dt., A.P



Mr.Non Daesi P.Srinivas, Nizamabad Dt., A.P



Mr.N.Bhaskar Raju, Nizamabad Dt., A.P



Non DAESI dealer, Mr.G. Anjaiah, Karimnagar Dt., A.P



Mr.J.Rajamouli, Karimnagar Dt., A.P



Mr.Sama Ella Reddy, Karimnagar Dt., A.P



Mr.M.Narayana Reddy, Karimnagar Dt., A.P



Mr.K.Kiran Kumar, Warangal Dt., A.P



Mr.Nimmani Satheesh, Warangal Dt., A.P



Mr.S.Srinivas, Warangal Dt., A.P



Mr.Yadagiri-Farmer, Toopran, Medak Dt., A.P



Mr.T.Venkatesam, Toopran, Medak Dt., A.P



Mr.S.Laxman-Farmer, Toopran, Medak Dt., A.P



Mr.Nagaraj-Non Daesi Dealer, Toopran, Medak Dt., A.P



Farmer, Sri K.Ganesha Rao from Kothapeta village of Prakasam Dt, A.P.

Photographs of Farmers



B.Nageswara Rao, Village Lakshmipuram , Challapalli Mandal, Krishna District ,A.P.



G.Nagaraju, Village Kankipadu , Kankipadu Mandal, Krishna District ,A.P.



P.Rama Krishna Prasad, Village Chandrapuram, Nandigama Mandal, Krishna District ,A.P.



T.Samudralu, Village Ganapeswaram , Nagayalanka Mandal, Krishna District ,A.P.



R.Kotaiah, Village Budampadu , Guntur Mandal, Guntur District ,A.P.



P.Raghava Rao, Village Chowdavaram , Guntur Mandal, Guntur District ,A.P.



M.Praveen Rao, Village Jonnalagadda, Guntur Mandal, Guntur District ,A.P.



K.Surya Prakasha Rao, Village Sajapuram, Nellore Mandal ,Nellore District ,A.P.



T. Prasada Rao, Village Vellanti, Nellore Mandal ,Nellore District ,A.P.



M.Gopal, Village Allipuram, Nellore Mandal, Nellore District, A.P.



A.Babu Rao, Village Edurur, Kurnool Mandal ,Kurnool District ,A.P.



P.Srinivasu, Village Singavaram, Kurnool Mandal ,Kurnool District ,A.P.



K.V.Raghavulu, Village Ambapuram, Nellore Mandal ,Nellore District ,A.P.



M.K.Nagaiah Village Sankarapalli , Sankarapalli Mandal, Rangareddy District ,A.P.



J.Bhaskar Rao, Village Mamidalapadu, Nandyal Mandal ,Kurnool District ,A.P.



D.Brahma Reddy, Village Munagala, Nandyal Mandal ,Kurnool District ,A.P.



K.Subba Reddy, Village Kundagutta, Gudur Mandal ,Nellore District ,A.P.



E.Adi Narayana, Village Akkacheruvu, Podili Mandal ,Prakasam District ,A.P.



B.Chinna Reddy, Village Fathepur , Sankarapalli Mandal, Rangareddy District ,A.P.



C.Venkaiah Naidu, Village Nannurupadu, Addanki Mandal ,Prakasam District ,A.P.



L. Hari Prasada Rao, Village Gajjelakonda, Markapuram Mandal ,Prakasam District ,A.P.



N.Ramkoti Reddy, Village Mekapadu, Kandukauru Mandal ,Prakasam District ,A.P.



V.Ammi Reddy, Village Paluru, Kandukauru Mandal ,Prakasam District ,A.P.



.Rambabu, Village Fakir Pet, Karimnagar Mandal, Karimnagar District ,A.P.



G.Kiran Kumar, Village Talammalla, Luxxettipet Mandal ,Adilabad District ,A.P



R.V.Raji Reddy, Village Dharmavaram, Addanki Mandal ,Prakasam District ,A.P.



K. Subba Reddy, Village Mylavaram, Addanki Mandal ,Prakasam District ,A.P.



B. Anjaneyulu, Village Machavaram, Kandukuru Mandal, Prakasam District, A.P.



V. Venkateswarlu, Village Mahadevapuram, Kandukuru Mandal, Prakasam District, A.P.



V. Viswanatha Reddy, Village Kalavakurru, Addanki Mandal, Prakasam District, A.P.



B.R. Ramana Reddy, Village Bollikonda ,Nekkonda Mandal, Warangal District ,A.P



K. Seshu, Village Macherla, Armoor Mandal, Nizamabad District ,A.P.



B. Rajender, Village Gaggupalli Armoor Mandal, Nizamabad District ,A.P.



M.Nageswara Rao, Village Mallapur , Dharmaram Mandal, Karimnagar District ,A.P.



G.Suresh, Village Malkapur ,Karimnagar Mandal, Karimnagar District ,A.P.



T. Mallikharjuna Rao, Village Chandrugonda, Nekkonda Mandal, Warangal District ,A.P.



K.V.Rajendra, Village Lakshmipur , Karimnagar Mandal, Karimnagar District ,A.P.



L.Kanaka Rao, Village Kothapalii , Karimnagar Mandal, Karimnagar District ,A.P.



N.V.Hanumantha Reddy, Village Pathipaka Mandal, Dharmaram Mandal, Karimnagar District ,A.P.



N.Govardhan Village Chengichrla , Ghatkesar Mandal, Rangareddy District ,A.P.



Kothapalli Surendra Rao , Village Kondakal , Sankarapalli Mandal, Rangareddy District ,A.P.



J.Chandra Reddy, Village Cherlabutkur , Karimnagar Mandal, Karimnagar District ,A.P.



V.V.Samba Siva Rao, Village Gavaravaram, Eluru Mandal, West Godavari District ,A.P.



R.V.K.Parasuramaiah, Village Palakurru , Eluru Mandal, West Godavari District ,A.P.



K.V.Raghavaiah, Village Gorantla , Guntur Mandal, Guntur District ,A.P.



K.C.Purushottama Rao, Village Ankireddy Palem , Guntur Mandal, Guntur District ,A.P.



K. Rajasekhara Rao, Village Ardhavaram , Ganapavaram Mandal, West Godavari District ,A.P.



R.Surya Rao, Village Chinnaramachadrapuram , Ganapavaram Mandal, West Godavari District
,A.P.



K.N. Satti Reddy, Lolla village, Atreyapuram Mandal; East Godavari ,A.P.



K. Satti Reddy, Lolla village, Atreyapuram Mandal; East Godavari ,A.P.



A.C. Rakesh Kumar, Chiratapudi village, Ambajipeta Mandal; East Godavari ,A.P.

Annexure 5

Details of TOR (given by MANAGE)

Terms of Reference (TOR) for Evaluation and Impact Assessment' of "Diploma in Agricultural Extension Services for Input Dealers" (given by MANAGE)

1. The evaluation shall cover Andhra Pradesh, Maharashtra and Tamil nadu where the programme has been implemented
2. DAESI certified input dealers with minimum of three years experience shall be covered as respondents
3. The Agency shall adhere to the objectives, scope, tasks, outputs, completion schedule and various other terms and conditions as laid down below in this Agreement, besides as given in Section - 5 of tender document/form for rendering the Services.
 - i. Adopt 'Before' and 'After' Method
 - ii. Sample size in Maharashtra - 16 trained input dealers and 10 each from all the three batches in Tamil nadu. Hence the total sample size will be increased to 182 instead of 144 input dealers.
 - iii. Four farmers per input dealer of total sample size of input dealers, to have a wider sample of end receiver.
 - iv. Index has to be developed to assess the impact of trained dealers.**
 - v. Five case studies shall be included to capture the qualitative changes by the trained input dealers.
 - vi. To have a good representation of sample, it should be drawn proportionally from big, medium and small category of farmers and also proportionately in all the batches and districts.
 - vii. Documenting the perception about DAESI and reasons for not joining the programme from thirty input dealers who have not undergone DAESI programme.
 - viii. Have consultation with ten representatives of agri-business companies, ten ATMA Officials, ten DAESI facilitators
4. Sample size: Minimum 10% of the DAESI input dealers and two farmers per input dealer. Details of the input dealers with minimum three years of experience are as follows;
5. To recommend appropriate publicity and promotion strategy for DAESI

6. To suggest measures to involve State Governments, Agri-Business Companies, Universities and other Developmental programmes like RKVY, Extension Reforms in promotion of DAESI
7. To analyze present cost norms critically and to suggest cost norms considering the present context
8. To understand the present approach in identification of facilitators, partner institutions and to suggest appropriate ways
9. To analyze present venues, Infrastructure, Resource persons, Course content, Study material, Methodology, Evaluation procedures and to suggest ways and means to strengthen the same
10. To evaluate DAESI programme in terms of Impact on knowledge of input dealers, Impact on extension services provided by input dealers to farmers, coverage and to suggest measures to enrich the same
11. DAESI as a tool for reduction of legal problems at input dealers' level
12. DAESI impact on the income level of input dealers
13. To understand perception of farmers on DAESI, acceptance of DAESI certified input dealers as extension source, impact of DAESI at farmers' level in terms of knowledge, adoption, rational use of inputs, cropping pattern, enhancement in production, productivity and profitability
14. Involvement of DAESI dealers in ATMA activities and
15. Any other issue relating impact of DAESI at farmers' level

Annexure 6

Questionnaires for DAESI Evaluation

QUESTIONNAIRE FOR DAESI DEALERS (FORMAT 1)

1	Name		7	Experience as input Dealers (in years)	
2	Shop's name		8	Age (years)	
3	Village/Town		9	Sex	M/F
4	District		10	Academic qualification	
5	Contact No.		11	Coverage: No. Of villages	
6	State		12	Coverage: No. Of farmers	
13. Status: Retailer/Wholesaler/Wholesaler & Retailer/Employee					

1. Please rank the factors that motivated you to join in DAESI as 1, 2, 3, 4 and 5.(Ex. Main factor as 1)

S.no.	Factor	Ranking
1	To gain knowledge in agriculture	
2	To obtain a Diploma certificate	
3	To become a para-extension worker to help farmers	
4	To run business efficiently	
5	Other –Specify	

2) How do you feel about the relevance of classroom sessions of DAESI programme in your day to day activities?

1) Very relevant 2) Relevant 3) Not relevant

3) How do you rate the quality of Resource persons who handled classes in DAESI?

1) Excellent 2) Good 3) Satisfactory 4) Poor quality

4) How do you feel about understanding level of course content of DAESI?

1) Very difficult 2) Difficult 3) Not so difficult 4) Easy

5) How do you feel about method of delivery of lectures in DAESI?

1) Excellent 2) Good 3) Satisfactory 4) Not satisfactory

6) How do you feel about the quality of information shown in field visits/ practical sessions of DAESI?

1) Excellent 2) Good 3) Satisfactory 4) Not satisfactory

7) Please express your views on the following topics of DAESI in enhancing your technical knowledge

S.no	Topic	Theory Sessions			Practical Sessions		
		High	Moderate	Low	High	Moderate	Low
1	Agro-ecology and weather conditions (Agro-ecological situations of the State in general and of the District in particular , Effect of weather conditions in agriculture – various parameters – types of forecasts etc.)						
2	Crop Production Technologies of various crops						
3	Integrated nutrient management (Symptoms of various plant nutrient deficiencies including micro-nutrient deficiencies, Management of Nutrient in Field Crops and Horticultural Crops , Importance of Organic Farming , in maintaining Soil Health – Use of green manuring, green leaf manuring – compost – FIM – Vermicompost – Cakes etc. Bio-fertilizers – Use of Plant Growth regulators in Agriculture and Horticulture, Chemical Fertilizers)						

4	Plant protection: (An introduction to Plant Protection – Different Types of Pests – Classification, Classification of Pesticides- Compatibility– Phytotoxicity and residue problems, Surveillance – Various methods of Pest Surveillance, Identification damages caused by Insects, Pathogens etc. , Diseases and their management)						
5	Soil management (Soil Survey and Land use Planning Classification of Soils , Soil sampling, analysis and Interpretation of results, Management of Problematic soils)						
6	I.P.M. Concept (Agro-ecosystem analysis, Rodent Pest Management , Ornithology – Role of Birds in Agriculture , Biological and Botanical Methods of Pest Management)						
7	Government programmes and schemes in agriculture and Horticultural being implemented in the district.						
8	Rainfed farming (Improved techniques and strategies to be adopted in rainfed farming, Watershed Management, Dryland Horticulture – Farm Forestry – Agro-forestry etc.)						
9	Water management (Water Management in various crops , Micro Irrigation Systems – Drip, Sprinkler)						
10	Extension Management						

	(Communication Skills , Negotiation Skills, New Dimensions in Agricultural Extension, Decoration of Stall in an Agricultural Exhibition / Kisan Mela)						
11	Law and policy (Basics of Law , National Seed Policy, Seed and Seed Production , Seed Law Enforcement , Insecticide Act , Fertilizer Control Order , Other related Acts - E.C. Act, Limitation Act, Consumer Protection Act etc.)						
12	Crop insurance-Weather Insurance						
13	Rural Credit -Micro finance						
14	Use of IT in Extension and Business						
15	WTO –Opportunities and Challenges- Export orientation of Agriculture/Horticulture						
16	Individual Development (Orientation on Meditation for mind control, Business Development on Ethical Foundation , Globalization, liberalization and privatization,National integration)						
17	Farm mechanization (Implements, P.P. Equipment)						

8) a) Besides the topics in Q.no.7, what are the other topics you propose to include in DAESI syllabus?

S.no.	Theory Sessions	Practical Sessions
1		
2		
3		
4		

8. b) With reference to Q.no.7, what topics you propose to be deleted in DAESI syllabus?

S.no.	Theory Sessions	Practical Sessions
1		
2		
3		
4		

9) How do you feel about fees of DAESI?

1) Affordable 2) Not affordable 3) Justifiable

10) How do you feel about duration (40+8 week days) of DAESI?

1) Adequate 2) Too long 3) Too short

11) Has DAESI contributed to improve your relationships with the following people/groups?

S.no.	Group/people	Yes	No
1	Existing customers		
2	New customers		
3	Co Dealers (known)		
4	Co Dealers (New)		
5	Input company officials (known)		
6	Input company officials (new)		
7	Officials of Agriculture Department(known)		
8	Officials of Agriculture Department(new)		

12). Has DAESI contributed to increase your efficiency in business in the following areas?

S.no.	Parameter	Yes	No
1	In following regulatory issues during sale of agri inputs		
2	Management of stocks by following storage norms		
3	Following ethical values in sale of agri inputs		
4	Reduction in legal problems in your business		

13) a) Did DAESI help you in increasing the customer base?

1) Yes 2) No

13 b) If Yes, to what extent?

1) More than 10 villages 2) 6 to 10 villages 3) up to 5 villages

14) Approximately how many new farmers were added to your customer base due to appropriate advice given based on knowledge acquired in DAESI?

- 1) Up to 25 2) 26 – 50 3) 51 -100 4) More than 100

15) What is your confidence level improved in providing Agricultural Extension service to farmers after completion of DAESI compared to the level confidence before DAESI?

- 1) Very high 2) High 3) Moderate 4) No change

16) a) Can you please comment on the contribution of DAESI towards enhancement of your business income?

- 1) Yes 2) No

16) b) If Yes, please indicate the percentage of increase in income

- 1) Up to 10% 2) 11% -25% 3) 26% - 50% 4) More than 50%

17) Kindly indicate your level of participation in any of the following extension activities

S.no.	Parameter	BEFORE DAESI	AFTER DAESI
1	Agriculture related advisory to farmers (frequency/crop season)		
2	Participation in Commodity Interest Groups /Rythumitra etc., (frequency/crop season)		
3	Participation in activities of ATMA (frequency/crop season)		
4	Any other –please specify		

18) Please rank the topics in the order of preference on which farmers seek advice from you

S.no.	Area of guidance	Ranking
1	Crop production practices	
2	New agricultural inputs	
A	Seeds	
B	Fertilizers	
C	Plant protection chemicals	
4	Soil testing and soil management	
5	Mechanization in agriculture	
6	Government schemes related to farming and subsidies	
7	Harvest and post harvest information	
8	Price information about agricultural commodities	
9	Others (Specify)	

19) Please mention the level of recognition/reputation you got after qualifying DAESI, with the following stakeholders.

S.no.	Parameter	Improved	Not improved
1	Co -dealers/Distributors		
2	Company officials of Agribusiness companies		
3	Farmers		
4	Officials of Agriculture Department		

20) Did DAESI qualification help in enhancing credibility with the banks for obtaining new credit/ enhancement of old credit?

1) Yes 2) No

21 a) Will you recommend DAESI programme to your co-dealers?

1) Yes 2) No

21 b) If Yes, how many people you have recommended DAESI till date?

22).What is your suggestions to popularize DAESI?

1.

2.

3.

23) Do you have contact with your DAESI Facilitator for updating technical information after completion of DAESI programme?

1) Yes 2) No

24) Do you have contact with your Resource Persons of DAESI for updating your knowledge?

1) Yes 2) No

25) Do you make visits to Research Stations /Labs for updating your knowledge?

1) Yes 2) No

26a) Do you subscribe any agriculture related publications/Magazines?

1) Yes 2) No

26.b). If Yes, please mention the names of the publications/Magazines?

1.

2.

3.

27a).Do you require any refresher programme of DAESI?

1) Yes 2) No

27 b) If Yes, what should be the ideal duration of the programme?

- 1) 3-4 days 2) 5-7 days 3) more than 7 days

28 a) Are you a member of any association/group formed by certified input dealers?

- 1) Yes 2) No

28 b) If Yes, please mention the name and activities of the association

Name:

Activities 1)

2)

29 a) Do you watch/listen mass media(TV/Radio etc.) programmes related to Agriculture?

- 1) Yes 2) No

29 b) If Yes, what is the level of understanding about the programmes after undergoing DAESI?

- 1) High 2) Medium 3) Low

30) Are you maintaining problem-solution record for advice given to farmers?

- 1) Yes 2) No

31 a) Are you getting feedback from the farmers on the advice given by you?

- 1) Yes 2) No

32 b) If Yes, how do you assess their satisfaction about your advice?

- 1) Repeated visit to your shop seeking advice
- 2) Satisfied farmers bringing his fellow farmers to get advice from you
- 3) Others, if any

QUESTIONNAIRE FOR NON-DAESI DEALERS (FORMAT 2)

1	Name		7	Experience (in years)	
2	Shop's name		8	Age (years)	
3	Village/Town		9	Sex	M/F
4	District		10	Academic qualification	
5	State:		11	Coverage: No. Of villages	
6	Contact No.		12	Coverage: No. Of farmers	
13. Status: Retailer/Wholesaler/Wholesaler & Retailer/Employee					

1) a. Do you know about DAESI Programme?

1) Yes 2) No

1) b. If Yes, what is the source of information?

1) Co – Dealer 2) Facilitator 3) Officers of Agriculture Department
4) From officers of Agri-input companies 5) Any other - Specify

2) Did anybody persuade you for joining DAESI?

1) Yes 2) No

3.a). Did you ever try to join in DAESI?

2) Yes 2) No

3.b) If No, why you didn't join DAESI?

1.
2.

4) Do you think that DAESI will contribute to improve your knowledge and skill in your profession?

1) Yes 2) No

5) Do you think that you are missing a valuable learning by not joining DAESI?

1) Yes 2) No

6) What is the level of perceived value of DAESI among Agri-input dealers?

1) Very high 2) High 3) Moderate 4) Low

7) What is your perception about your co-dealers who have attended DAESI ?

S.no.	Parameter	Very good	Good	Moderate	No change
1	Gain in knowledge in Agricultural aspects				
2	Improvement of business skills				
3	Transformation as a para-extension worker				
4	Improvement in networking skills				
5	Other –specify				

8) Would you like to work as a para- agricultural extension worker at your level to provide advice to the farmers?

1) Yes 2) No

9) Please rank the following motives of dealers behind joining DAESI in the order of importance?

S.no.	Factor	Ranking
1	To gain knowledge in agriculture	
2	To obtain a Diploma certificate	
3	To become a para-extension worker to help farmers	
4	To run business efficiently	

10) Do you think that your business and customer base is affected due to DAESI programme taken up by your competitor/ co-dealer?

1) Yes 2) No

QUESTIONNAIRE FOR FARMERS (FORMAT 3)

1	Name of the farmer				
2	Dealer(s) Name(s)				
3	Shop(s) name(s)				
4	Association with the Dealers(no. of years)				
5	Village/Town				
6	District & State				
7	Contact No.				
8	Crops grown				
9	Academic qualification				
10	Area of farm land (Total Acres)	Irrigated area		Dry land	
11	Age				

1) Do you know that your Dealer attended a course called DAESI?

1) Yes 2) No

If the answer for question number 1 is No, no further questions will be asked and the interview will be closed.

2) How do you know about DAESI programme?

S.no.	Source of Information
1	From the Dealer
2	From other farmer
3	From officers of Agriculture Department
4	Others –newspaper etc.,

3) In which of the following aspects do you receive advice from the dealer after his DAESI programme?

S.no.	Type of advice
1	Usage of agri-inputs
2	Agronomic practices
3	Plant protection
4	Mechanization
5	Government schemes in agriculture and information on subsidies
6	Harvesting and post harvest care
7	Any other –Specify

4) What was the level of satisfaction on the advice given by the dealer who passed DAESI?

1) Highly satisfied 2) Moderately satisfied 3) Not satisfied

5) What is the level of benefit you have received in the following areas, through the advice given by your Dealer which you can attribute to DAESI?

S.no.	Parameter	High	Medium	Low
1	Gaining knowledge in crop production practices			
2	adoption of Good agricultural practices			
3	Rational use of agri –inputs			
4	Adoption of suitable cropping pattern			
5	Increase in farm production			
6	Increase in productivity of crops			
7	Increase in profitability from farming			

6) Can your DAESI trained dealer diagnose/ assess your field problem?

1) Yes 2) No

7) Can your DAESI trained dealer provide appropriate solution to the field problem?

1) Yes 2) No

8 a.) Do you think that your input dealer has enhanced his knowledge in agriculture related aspects after undergoing DAESI programme?

1) Yes 2) No

9.a.) Do you accept the certified DAESI dealer as source of agricultural information?

- 1) Yes 2) No

10) To what extent, the information /advice received from your DAESI certified dealer is implemented in your field?

- 1) Not adopted 2) Less than 25% 3) 26% - 50% 4) 51% -75% 5) 76 -100%

QUESTIONNAIRE FOR DAESI FACILITATORS (FORMAT- 4.1)

1. Name of the Facilitator:
2. Village/Town:
3. Educational qualifications:
4. Years of work experience:
5. Years of work experience in agricultural extension services:
6. No. of batches of DAESI programme conducted till 2009:
7. Age:
8. District:
9. State:

1) You could enrol candidates/input dealers for DAESI with the help of

- | | |
|---|----------------------------|
| 1) Officials of Agriculture Department | 2) DAESI certified dealers |
| 3) Personal contact | 4) All the three sources |
| 5) Voluntary enrolment by input dealers | |

2 a) Do you give publicity about DAESI?

- 1) Yes 2) No

2 b) If Yes, what are the sources of publicity?

- 1.
- 2.
- 3.

3 a) Do you get adequate resource persons to handle sessions?

- 1) Yes 2) No

3 b) If No, in what disciplines, are you finding difficulty in getting resource persons?

- 1.
- 2.
- 3.

4 a) Is the present proportion of theory & field visits are adequate in DAESI?

- 1) Yes 2) No

4 b) If No, on what should be the ideals proportion?

- 1) _____ Theory classes 2) _____ Field visits

5 a) Is the existing cost norms adequate to organize the DAESI programme?

1) Yes 2) No

5 b) If No, on what sub-heads it requires change and how much?

S.no.	Sub-head	Current	To be revised to
1			
2			
3			
4			
5			
6			
7			

6 a) Do you think that the existing set up (venue, infrastructure etc.,)of DAESI should be changed ?

1) Yes 2) No

6 b) If Yes, please comment for the following aspects

S.no.	Set -up/aspects of DAESI	
A	Venue	
	Current Issues	Measures for improvement
1		
2		
3		
B	Infrastructure	
	Current Issues	Measures for improvement
1		
2		
3		

C	Resource persons	
	Current Issues	Measures for improvement
1		
2		
3		
D	Course content	
	Current Issues	Measures for improvement
1		
2		
3		
E	Study material	
	Current Issues	Measures for improvement
1		
2		
F	Methodology	
	Current Issues	Measures for improvement
1		
2		
G	Evaluation procedure	
	Current Issues	Measures for improvement
1		
2		

7 a) What is the current approach in identification of facilitators?

- 1.
- 2.
- 3.

7 b) What are your suggestions to improve the approach in identification of facilitators?

- 1.
- 2.
- 3.

8 a) What is the current approach in identification of partner institutions?

- 1.
- 2.
- 3.

8 b) What are your suggestions to improve the approach in identification of partner institutions?

- 1.
- 2.
- 3.

9) What are the strengths of DAESI?

- 1.
- 2.
- 3.

10) What are the weaknesses/limitations of DAESI?

- 1.
- 2.
- 3.

11) What are the opportunities of DAESI?

- 1.
- 2.
- 3.

12) What are the threats for DAESI?

- 1.
- 2.
- 3.

13 a) Do you think that the existing promotion/publicity is adequate for DAESI?

- 1) Yes 2) No

13 b) If No, what measures do you suggest to popularize DAESI?

- 1.
- 2.
- 3.

14) Which is most difficult challenge in conducting DAESI programme?

a)

1. **Name of the Official:**
2. **Name of the organization:**
3. **Designation:**
4. **Educational qualification:**
5. **Work experience (no. of years)**
6. **Village/Town:**
7. **District:**
8. **State:**

1) How do you know about DAESI?

- 1) Through Dealers 2) Agriculture Department
3) Colleague/ members from the industry 4) Newspapers /websites/publications 5) Any other -Specify

2) Please comment on the aspect of increase in the business volume among DAESI trained dealers of your organization?

- 1) Very high 2) High 3) Moderate 4) No change

3). Has DAESI contributed to increase in the efficiency of your dealers' business in the following areas?

S.no.	Parameter	Yes	No
1	In following regulatory issues during sale of agri- inputs		
2	Following ethical values in sale of agri- inputs		
3	Reduction in legal problems in your business		

4) Please comment on the level of contribution of DAESI, to enhance your dealers' relationships with your organization

- 1) Very high 2) High 3) Moderate 4) No change

5) What kind of preference do you give to DAESI trained dealers to give dealership opportunity, in case you want to expand the dealer network for your products?

- 1) Very high 2) High 3) Moderate 4) No preference

6) Please comment on the following aspects regarding DAESI trained dealers

S.no.	Parameter	BEFORE DAESI			AFTER DAESI		
		High	Moderate	Low	High	Moderate	Low
1	Participation in the extension activities organized by your organization						
2	Confidence factor of the organization						
3	Business potential with the dealer						
4	Any other –specify						

7) What are the strengths of DAESI?

- 1.
- 2.
- 3.

8) What are the weaknesses/limitations of DAESI?

- 1.
- 2.
- 3.

9) What are the opportunities of DAESI?

- 1.
- 2.
- 3.

10) What are the threats for DAESI?

- 1.
- 2.
- 3.

11 a) Do you think that the existing promotion/publicity is adequate for DAESI?

- 1) Yes 2) No

11 b) If No, what measures do you suggest to popularize DAESI?

- 1.
- 2.
- 3.

QUESTIONNAIRE - OFFICIALS IN DEPARTMENT OF AGRICULTURE (FORMAT 4.3)

1. Name of the Official:
2. Department:
3. Designation:
4. Educational qualifications:
5. Years of work experience:
6. Years of work experience in agricultural extension services:
7. District:
8. State:

1) How do you know about DAESI?

- 1) Through Dealers
Department
- 2) Colleague/ members from Agriculture
- 3) Members from the industry
other -Specify
- 4) Newspapers /websites/publications
- 5) Any

2) Please comment on the participation of DAESI trained dealers in your area in the activity of agricultural extension.

- 1) Very active
- 2) Active
- 3) Moderately active
- 4) Not active

3) Please comment on DAESI's contribution to DAESI trained dealers in the following aspects?

S.no.	Parameter	Very high	High	Moderate	Low
1	In following regulatory issues during sale of agri- inputs				
2	Following ethical values in sale of agri- inputs				
3	Reduction in legal problems in your business				
4	Participation in the extension activities organized by your department				

