TABLE OF CONTENTS

LIST OF TABLES:

LIST OF FIGURES:

ABBREVIATION

ACABC	:	Agri Clinics and Agri Business Centre
ATMA	:	Agricultural Technology Management Agencies
ATEC	:	Agro-Technical Extension Center
ASSP	:	Agricultural support services project
CATEC	:	Country Agro-Technical Extension Center
DOAC	:	Department of Agriculture and Cooperation
DAC	:	The Department of Agriculture
DPR	:	Detailed Project Report
DOE	:	Department of Extension
FI	:	Financial Institution
GDP	:	Gross Domestic Product
ICAR	:	Indian Council for Agriculture Research
KVK	:	Krishi Vigyan Kendra
KCC	:	Kisan Call Center
MANAGE	:	National Institute of Agricultural Extension Management
NGO	:	Non Government Organization
NATP	:	National Agricultural Technology Project
NABARD	:	National Bank for Agriculture and Rural Development
NI	:	Nodal Institute
PhD	:	Doctor of Philosophy
RBI	:	Reserve Bank of India
RRB	:	Regional Rural Bank
SC/ST	:	Schedule Cast and Schedule Tribe
SAMETIs	:	The State Agricultural Management Training and Extension Training Institutes
SAU	:	State Agriculture University
SFAC	:	Small Farmers Agri-Business Consortium
T&V	:	Training and Visit
TA/DA	:	Traveling allowance and Daily Allowance
TATES	:	Township Agro-Technical Extension Station

EXECUTIVE SUMMARY

In India, rapid agricultural growth continues to be the key to poverty alleviation and overall economic development. In the years to come, the increase in agricultural production will mainly come from the growth in productivity which will invite intervention of agricultural extension activities in providing farmers information, training and support for adopting improved production technologies.

In order to strengthen the extension services further and at the same time tap the potential of the unemployed graduates and provide them with employment opportunities by making them entrepreneurs, the scheme of Agri-clinics and Agri–business Centers was launched on 9th April, 2002.

Since the inception of the scheme there have been several amendments, thus giving way to the need for a concurrent and end of the plan evaluation. For conducting the evaluation study, it was suggested that an independent agency should be hired and through bidding system of selection Global AgriSystems Pvt. Ltd. was selected for conducting the scheme evaluation study.

The study was conducted across five zones namely North, South, East, West and North East. With the help of proportionate sampling methodology following States were short listed for the purpose of conducting primary survey:

Sample State

South Zone	North Zone	East Zone	West Zone	North East Zone
Karnataka	Madhya Pradesh	Orissa	Maharashtra	Manipur
Tamil Nadu	Uttar Pradesh	Bihar	Gujarat	Assam
Andhra Pradesh	Rajasthan			

The following sample was selected to facilitate the study:

Target Sample

Target Section	No of Sample
Nodal Institutes	10
Successful Ventures (Agripreneur)	250
Non Successful Ventures (Agri Graduates)	100
Farmers (10 farmers per successful venture)	2500
Input Suppliers	30
Government Officials	12

The survey conducted within the sample size gave us an insight of the implementation of the scheme at different levels and the following key observations were made.

Key Observations:

1. The scheme has been implemented in 23 states across the country and ventures have been established in 35 categories related to agriculture and allied sector. It was observed that various states have different success rates in implementing the scheme. States in the Northern and Southern region have very encouraging record, while states of North Eastern region have shown poor performance in terms of setting up of ventures.

2. Some project categories have more popularity as compared to others. Projects like ACABC, dairy, vermicomposting and crop production are amongst the most popular projects. The popularity of the Agriclinics projects is mainly because of low investment and low risk. Since it is an advisory service accompanied by input supply, the revenues are readily generated without any gestation period. Regional analysis shows that ACABC has been taken up mostly in the North region accounting for 34% of the total ACABC in the sample size.

3. It has been observed that some innovative projects like eco tourism, agri journalism, agri insurance and Seri culture and so on have also been set up under the scheme. However, mainly due to less awareness amongst the trainees about the new opportunities available and reluctance on part of bankers to fund innovative projects their numbers have been negligible. The detailing has been annexed in Annexure IV

4. On an overall perspective, South and North zone have faired better in establishing ventures and North East have not been able to implement the scheme as successfully, largely because of the lack of bank funding in the region.

5. During discussions with the agripreneurs it was observed that the key factors for their success have been the marketability of their projects, the fact that they provide single window solutions to the farmers, maintaining of good relations with the farmers, quality assurance and reliable information to the farmers.

6. Similarly the nodal institutes voiced that the reason for their success was primarily the practical training that they impart to the students, the fact that they invite industry experts for delivering lectures in their institutes and liaisoning with banks that makes processing of loans easier.

7. Every year around 15000 graduates pass out from the agriculture universities and colleges. Out of these graduates around 23% undertake the training every year.

8. The scheme has created dual impact in terms of generating employment in the country. Direct impact has been created by the scheme by providing self employment to the agri graduates through the set up. These ventures in turn have generated employment for others.

   - Out of approximately 75000 agri graduates (15000 per year) qualified from various SAUs & colleges during the period of implementation of the scheme (2002-2003 to 2006-2007); the scheme has been able to provide employment to 4152 graduates. It accounts for 6% of the total unemployed agri graduates. This indicates that the scheme requires more aggressive sensitization and removal of possible hindrances to bring more graduates to take benefit of the scheme.

   - In addition to the agripreneurs, employment has also been created by the ventures set up under the scheme. The sample size of 250 ventures indicates that 1535 persons have directly or indirectly been provided employment under various categories. Based on this average total employment created by 4152 ventures would be in the range of more than 25000.

Status & Impact of Projects Promoted Under Scheme

1. The extension services undertaken by the agripreneurs in the sample size of 250 ACABC have been able to cover 7539 villages and serve 1, 43,432 farmers. On an average the each ACABC has been able to serve 30 villages per clinic and 19 farmers per village.

2. The agripreneurs and farmers were interviewed on the benefits derived from the service. The farmers found that the most important benefit they derived was increased productivity and in turn increase in their income. The agripreneurs were of the view that the most frequent service which they provided was imparting of technical knowledge. This concludes that the extension service provided by the agripreneur is having the desired impact on the farmers both in terms of the increased productivity and income.

3. On an average Rs.8 lacs have been invested per unit. On extrapolating the findings on the total established ventures, it was found that 4152 ventures have made total investment of more than Rs. 30,000 lacs. This includes both capital intensive as well as low investment projects. This suggests considerable potential for promoting this scheme.

4. The ventures started, under the scheme comprises of 70% self finance and 30% loan from the banks (apart from self finance). This has a clear indication that banks have not

been adequately sensitized towards this scheme. They seek collateral security for the loan amount which in most cases is not possible for unemployed agri graduate and thus discourages agripreneurs from taking up the venture.

5. There is an urgent need to sensitize bankers for facilitating loans for projects under the scheme as also guide the entrepreneur in preparing their project proposal as per the requirement of the banks. Many proposals get rejected as they fail to meet the banks appraisal norms.

6. Respondents have availed loan under various heads, 54% for term loan and 38% applied for working capital loan and the rest 8% comprised of margin money loan and any other loan which was required for the setting up of the ventures.

7. The bank wise survey of credit flow to the ACABC projects shows that the nationalized banks accounted for the major share of loan disbursement to the agripreneurs followed by co-operative banks and RRBs.

8. It is also noted that in several ventures the projected revenue levels are not achieved. These could also be attributed to insufficient guidance to the entrepreneurs in implementing their projects. This was particularly noticed in projects set up in North Eastern region, where awareness about such projects is limited with nodal institutes.

9. Non starters response have been taken into consideration to understand the reason for their not starting the venture and it was observed that 25% of the trainees are graduates who go for further studies and they drop their plans to take up the ventures and 22% of the trained agri graduates go for an alternate job. Respondents have also attributed lack of finance, lack of bank support, non marketability of their project concept and inadequate training as reasons for not starting the venture.

10. MANAGE as an implementing institute has made efforts to promote the scheme. However, owing to reasons relating to the performance of Nodal Institutes, the targets for training having not been fully met and the low turnover of established enterprises, efforts have not generated the desired results. Therefore, there is a need to revise the process of selecting the nodal institutes and undertake annual review of their performance so that those NIs which are consistent in performance should only be continued to be engaged for training and hand holding process.

11. The nodal institutes selected have not been able to achieve the training targets set for each financial year. Rather, during monitoring of these institutes, MANAGE has to delete

some nodal institutes from the list. MANAGE had 56 nodal institutes conducting the training earlier which has now been slashed down to 41 institutes.

12. Even the performance of the existing nodal institutes has not been consistent across the country. Some NIs have performed better than others.

13. By using the present method of inviting applications, the nodal institutes have been able to attract sufficient candidates. However the selection procedure has not been stringent enough to identify the correct candidate. While the failure ratio cannot be fully eliminated but can definitely be minimized.

14. The training modules have been comprehensive but lack the desired exposure to practical aspects.

15. In the hand holding phase of the process, the NI have been able to guide the trainees but could not provide close and personalized services resulting in getting loans sanctioned to only 30% of the ventures. Moreover, the agripreneurs covered in the survey mentioned that there is a need to have proper expertise for preparation of project reports.

16. The funds provided for the purpose of training, includes food and lodging charges. These have increased over a period of time, and therefore funds received by NI are not sufficient.

17. In case of handholding, presently an amount of the Rs. 5000 is provided. From the feedbacks and responses from the NIs it is analyzed that this amount allocation is not sufficient for the entire handholding process which usually continues for one year.

18. More than 50% of the Input companies are not aware of the scheme. For them the agripreneur is like any other client who comes to purchase the inputs. So they do not provide any special incentive to an agripreneur.

19. It is also observed that in most states, particularly the ACABCs have been able to add value and strengthen the State Governments extension efforts. The ACABCs equipped with new/ advanced knowledge have better trouble shooting abilities, as well as some ventures involved with input supplies have improved the access of farmers to better inputs.

20. The total number of ACABC is highest in the State of Maharashtra which is true in the case of private extension services. Performance of the scheme has been good and further it can be improved by means of providing more substantial support.

21. The scheme has the greatest impact in the Southern zone where maximum loans have been disbursed; maximum employment has been generated and maximum number of ACABCs have been established.

RECOMMENDATIONS:

Based on the critical evaluation of the data received from primary and secondary information specific recommendations have been made to help in effective implementation of the scheme and further enhance the effectiveness of the scheme.

Scheme Continuation

The scheme has been successfully implemented in 25 states across the country and has acted as a backbone of the state extension services. Further it has generated employment for 4152 graduates, post graduates and doctorates, in turn these employed agri graduates have created further 25000 jobs across segments. Thus benefiting more than 1 lakh farmers in more than 7000 villages across the country, this clearly shows the kind of impact this scheme has had on the rural India. In the light of the aforesaid facts it is recommended to continue with the scheme.

Recommendation for MANAGE

- Selection Mechanism for Nodal Institute

1. The performance of selected Nodal Institutions (NIs) has not been consistently satisfactory and on review of the performance, MANAGE has been de-listing some of the non performing NIs. Although this process eliminates the non-performing institutions in due course, yet during the intervening time some of the trainees getting trained at these institutions will suffer due to the inefficiency of these institutes. This indicates the necessity of development of objective criteria for the selection. An assessment sheet detailing the criteria and weightage of various parameters has been designed and has been annexed in Annexure V and is recommended for use to help in identifying suitable nodal institutes.

2. After initial scrutiny, an expert committee of MANAGE should visit the shortlisted institutes for verification of the available resources (manpower/physical) through

interaction with the management of the Institutes. This would help in identifying an association of dedicated Institutes for this programme.

❖ Monitoring Mechanism for Nodal Institutes

1. Feed back from the participants in the training programmes conducted, about the expertise, infrastructure, etc available with the NIs should also form the basis for evaluation of performance of the scheme.

2. A detailed summary should be submitted by the nodal institutes clearly mentioning the project status of each trainee and the problems faced by them in starting the ventures. This will make MANAGE aware of the issues and MANAGE can intervene if required.

Recommendations for Nodal Institutes

❖ Selection of Trainees

1. In order to reduce the rate of unsuccessful trainees, at the first stage itself a comprehensive selection procedure should be designed to shortlist the Trainees for interview. To facilitate this, initial screening of the applications received for the programme is recommended, to short list the candidates with aptitude/interest in agribusiness, who are likely to actually benefit from the scheme. Such a screening should also help in deleting names that appear to be interested, solely because they are unemployed at the moment, or wish to just do a training programme to add value to their CV. An assessment sheet for the trainees in this regard has been designed and has been annexed to Annexure VI and is recommended for use.

2. The non refundable amount received from the applicants is parked with MANAGE, which should be utilized for the purpose of scheme publicity, funding of guest faculty from the industry and so on.

❖ Training Module

1. Keeping in mind the changing dynamics of the business, it is recommended to increase the practical exposure and enrichment of coverage of the curriculum in terms of project specific knowledge, funding and financial viability aspects and preparation of bankable detailed project reports.

2. NI is recommended to identify areas and available expertise so that trainees are able to get comprehensive knowledge of the projects they would be setting up after the training. This will also help in attracting trainees from outside the State / catchment areas, for certain project areas, for which expertise is not available with other nodal institutes.

3. A majority of the respondents feel that a two month training period is not adequate to guide them in planning their enterprise under the scheme and it was suggested that a longer period of about three months will allow for additional time for practical exposure, as well preparation of project reports.

4. Exposure of candidates to industry experiences is very limited in the training programme. This also results in their preparing unrealistic and unviable projects. It is recommended that the guest faculty at the training may include industry experts and bank personnel for better guidance.

5. Responses from some of the non-starters have shown that they fail to set up their venture, as the project proposals prepared by them with the assistance of NIs do not find favour with the banks and in some cases NIs do not provide sufficient exposure in the selected field. Therefore, it is recommended that while inviting applications, the NI should advertise the project areas for which they have expertise and in-house or off campus facilities for practical training and larger exposure.

❖ Hand holding

1. Hand holding by NI's needs to be strengthened by ensuring that relevant experts are deputed to work with, and support the agripreneurs in the preparation of project reports, negotiation of bank loans and support during initial period of business development. The candidates should be suitably guided about the business areas for which there is sufficient potential in the region.

2. The N.I.'s should provide the expertise available with them to the banks in their appraisal of the projects submitted to the banks for financial assistance, wherever necessary.

3. The process of project report preparation should be interactive and participatory for all concerned. Involving the bank officials as faculty in the training programme will be a good guide for the candidates in planning their enterprise based on the viability of the different sector projects as experienced by the banks.

Recommendationsfor Banks

- Funding of Projects

1. One of the main problems in getting bank loan is the arrangement of collateral security, since the projects are to be set up by unemployed graduates who are not able to arrange these collaterals. In order to overcome this problem, it is suggested that banks may be sensitized to extend loan against the assets to be created in the project, which could be mortgaged with the banks.

2. As the loans are being secured to support agriculture based activities, it is recommended that the Government may consider making policy change to qualify these loans as priority sector funding at par with agriculture loans, which will encourage banks to extend loans to these ventures.

3. The Government of India has already introduced capital and interest subsidies during FY 2006-07 under this scheme, this will make these ventures financially viable. The banks should be made aware of these programmes so that they may take this into account while assessing the viability of the project proposed for funding.

Recommendations for Agripreneurs and Farmers

1. Formation of farmers association: Farmers associations should be formed which will lead to collective farming, in turn the revenues generated will be higher as the expenses per farm would be less. This will encourage them to pay for the advisory services to the Agripreneures thus increasing their incomes as well.

2. Cost and Profit sharing model: On consolidation of the farms a cost and profit sharing model can be adopted where farmers and extension workers can jointly share the cost and profits. In this manner more and more extension workers will be encouraged to work diligently.

3. Training of the agripreneur: Completion of the training is not enough, the nodal institutes can conduct training sessions under the guidance of MANAGE where the agripreneurs can enroll and upgrade their existing knowledge and learn about new technology and agriculture practices. This can be done on fee basis. This value addition can help the extension workers provide better consultancy to the farmers.

State Government Extension Services

The implementing agency (MANAGE) should coordinate with the state agriculture /horticulture departments and inform them about the ventures established in their states. This will help the State Governments to network with the venture, particularly agriclinics and input supplies, for involving them in their own extension programmes. Such involvement which is likely to be mutually beneficial will help address a key objective of the scheme. A suitable mechanism can then be developed to assess the results of such association.

1 INTRODUCTION

1.1 Inception of the Scheme

Agriculture in India is means of livelihood to almost two thirds of the work force in the country. About 75 percent of the population is dependent directly or indirectly on this sector. It has always been India's most important economic sector accounting for 25 percent of the gross domestic product (GDP). Today agriculture is not only seen as means of solving food problems within the country, but also as a foreign exchange earner. This objective demands high productivity, at the lowest possible price and of international quality.

In order to accomplish the above mentioned aspirations, agriculture extension services will need strengthening by providing farmers, information, training and support for adopting improved production technologies. Since Independence, extension services have kept pace with the changing times. However, an analysis of the demand for extension workers indicated that the agriculture extension was suffering from inadequate quality and quantity of manpower. Quantitatively farmer to extension worker ratio worked out to be 1000:1. It meant for every 1000 farmers there was 1 extension worker.

This led to a situation where, it was extremely difficult for extension worker to provide quality extension services to large number of targeted farmers. As a result, quality time of extension worker available to each farmer was minimum and inadequate. Besides, around only 20% of extension workers were qualified agriculture graduates, rest of the extension workers found it difficult explaining complex issues like that of WTO to the farmers.

So far as extension approach is concerned, it was production oriented support with inputs and infrastructure rather than demand driven through cost competition, quality and market reach. As a result, large extension gaps were observed in transfer of technology process. Hence, providing value added extension services to farmers through additional qualified manpower and adequate infrastructure was urgent need of the hour.

On the other hand study of the manpower available that could be channelised for strengthening the extension services revealed that every year state agriculture universities are producing about 15,000 agriculture graduates and nearly half of the graduates from agriculture sciences go for higher studies in Indian Universities and abroad (ICAR). Only about 2000 graduates get jobs in public and private sector leaving the rest unemployed.

In order to strengthen the extension services provided to the farmers and at the same time tap the potential of these unemployed graduates and provide them with employment

opportunities by making them entrepreneurs, the Union Finance Minister had announced in the Budget speech on February 28, 2001 for the year 2001 – 02, a scheme for setting-up 'Agri-Clinics and Agri-Business Centre' by agriculture graduates with the support of National Bank for Agriculture and Rural Development (NABARD).

The scheme of 'Agri-clinics and Agri –business Centers' was launched on 9th April, 2002 to strengthen the transfer of technology and extension services and also provide self – employment opportunities to technically trained persons.

The programme was designed to help develop opportunities for private extension, in order to lower the burden on public funding, to offer a wider range of advice in specialist areas than is possible through public extension, and to develop challenging job opportunities for agricultural graduates. A copy of the scheme has been annexed in Annexure I

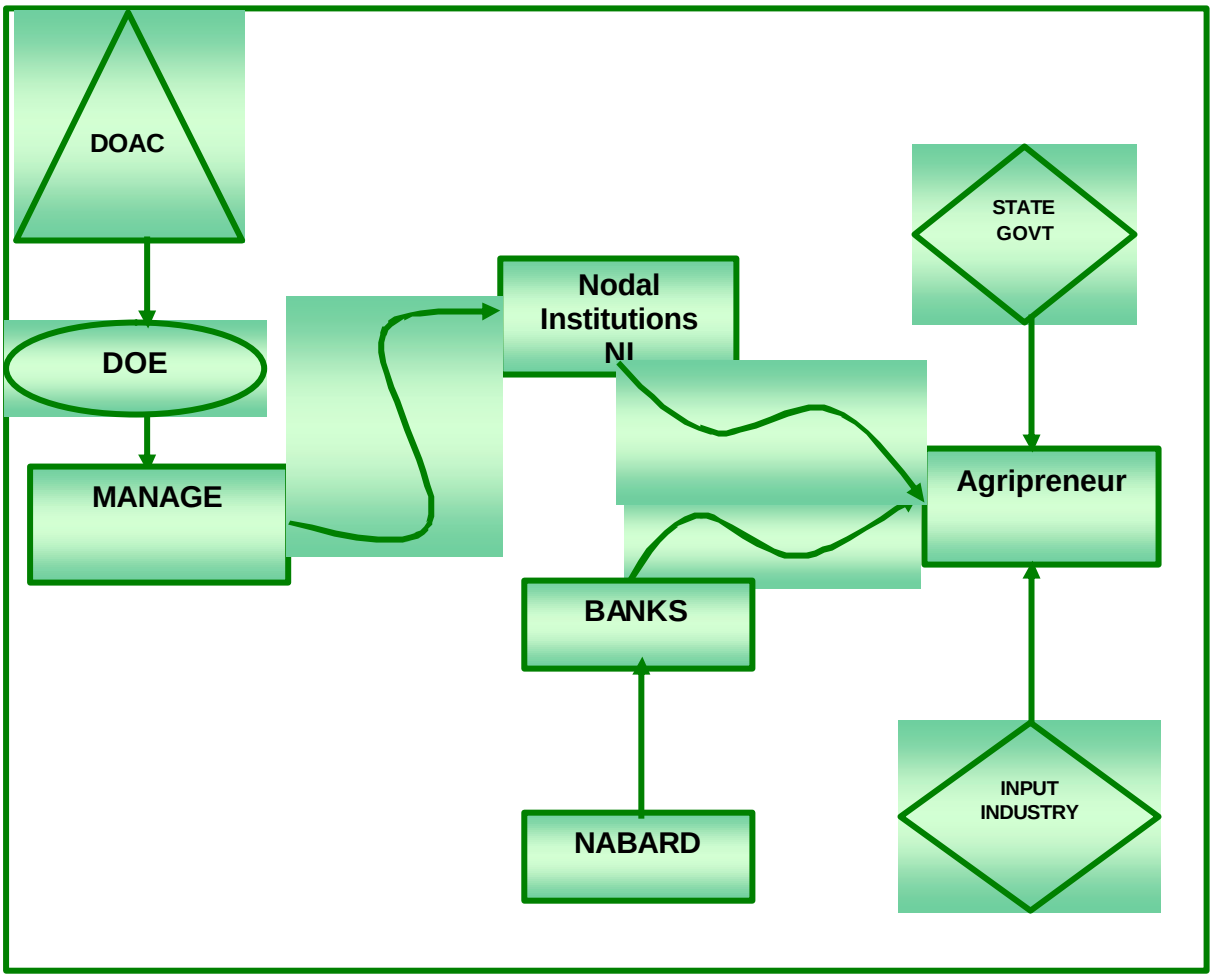
1.2 Objective of the Scheme

- To supplement the efforts of Government extension system
- To make available supplementary sources of input supply and services to needy farmers
- To provide gainful employment to agriculture graduates in new emerging areas in agricultural sector.

1.3 Scheme Structure

The scheme is operated by different entities that perform their individual task to operate the scheme in a successful manner. Below is the diagrammatical explanation of the roles and responsibilities of each entity in the flow of the scheme:

Figure 1 Scheme Structure



DOAC: Directorate of Agriculture and Cooperation provides the fund for this scheme through its extension division DOAC.

MANAGE: MANAGE is the monitoring and overall implementing agency of this scheme. It is responsible for reviewing the performance of the nodal institutes; decide upon the training content, methodology and duration. Be a part of the selection committee for choosing the eligible candidates and set criteria for selection of nodal institutes.

NODAL INSTITUTE (NI): These are institutes selected by MANAGE for conducting the training programmes for selected agriculture graduates and assist them in preparing bankable project. Once the project is over, assist them in sanctioning of loan and successfully setting up of the ventures.

BANKS: Banks could be nationalized/ commercial/ cooperative and regional rural banks who would be the financing institution in the scheme. They are responsible for processing loan proposals and provide loans on approved proposals to the trained agriculture graduates

under the scheme. In addition to providing loan to the agripreneur, they are responsible for implementing announced policy on providing credit to such proposals.

NABARD: NABARD is the nodal institute for banks who is responsible for monitoring credit support to Agri clinics through the above mentioned banks. Apart for this NABARD is also responsible for extending refinance support to the banks under the scheme.

AGRIPRENEUR: Agripreneur are the ultimate beneficiary of the scheme. They are agriculture graduates, post graduates and even doctorates who undertake training under this scheme and provide specialized extension and other services on fee-for-service basis and to supplement the efforts of public extension by providing economically viable enterprises in self employment mode.

INPUT INDUSTRY: Input industry is an allied industry which can provide dealership, input stocking support etc. to the agri-entrepreneurs thereby creating a regular source of income for them.

STATE GOVERNMENT: Their participation comes in the form of providing priority to trained graduates in grant of license for agri-inputs; facilitate involvement of ACABCs in extension services.

1.4 Scheme Operation

1.4.1 Technical

Task I: MANAGE selects and appoints nodal institutes based on pre determined criteria for conducting the trainings and execution and implementation of the scheme.

Task 2: The appointed Nodal Institutes invites applications through local news papers and other modes of communication for the training programme.

Task 3: The application forms are purchased by the eligible candidates at the cost of non-refundable application fee of Rs. 500.

Task 4: The received application is then scrutinized and then the short listed candidates are called for interviews. The scheme is open to Agriculture Graduates/Graduates in subjects allied to agriculture like horticulture, animal husbandry and forestry, dairy, veterinary, poultry farming, pisiculture and other allied activities. Age is no restriction but still trainees above the age of 30 yrs is preferred most.

Task 5: The short listed candidates are interviewed by the screening committee consisting of the following entities:

- Nodal officer of the training Institution- Chairman
- Representative of NABARD- Member
- Representative of Bank- Member
- Representative of MANAGE- Member
- Representative of State Director of Agriculture- Member

Task 6: The screening committee will asses the candidates as to his eligibility, qualification, motivation and commitment to go for agri clinic/ agribusiness ventures. The candidates will be asked to present the details of the venture they intend to take up after completion of the training. This will help in eliciting the vision of the candidate. As far as practicable, the parents of the candidates should also be involved in the screening process.

Task 7: The selected candidates undergo training for 2 months and during the training they prepare a report on the project they want to undertake.

Task 8: After the training is over the project is submitted to bank for evaluation and sanction of loan.

Task 9: Once the loan is sanctioned and the project is approved then execution of the project takes place and till the project is not set up hand holding activities are performed by the nodal institutes up to 1 year.

1.4.2 Financial Assistance

The project can be taken up by Agriculture Graduates either individually or on joint / group basis. The outer ceiling for the cost of project by individual is Rs.10 Lakh and for the project by group is Rs.50 lakh. The group may normally be of 5, of which one could be management graduate with qualification or experience in business development and management

1.4.2.1 Eligible Projects

Selected agripreneur during the training develops a specialized project. An illustrative list of projects is given below:

- Soil, water quality and inputs testing laboratory service centre
- Plant protection service centre (Pest surveillance, diagnostic and control services including Integrated Pest Management)

- Maintenance, repairs and custom hiring of agricultural implements and machinery including micro irrigation systems (sprinkler and drip)
- Agri Service Centre includes at least the above three activities (Group Activity).
- Seed Processing Ventures
- Micro-propagation through Plant Tissue Culture Labs and Hardening Ventures
- Setting up of Vermiculture Ventures, production of bio-fertilizers, bio-pesticides, bio-control agents.
- Setting up of Apiaries (bee-keeping) and honey & bee products' processing Ventures
- Provision of Extension Consultancy Services
- Facilitation and Agency of Agriculture Insurance Services
- Hatcheries and production of fish finger-lings for aquaculture
- Provision of livestock health cover, setting up veterinary dispensaries & services including frozen semen banks and liquid nitrogen supply
- Setting up of Information Technology Kiosks in rural areas for access to various agriculture related portals
- Feed Processing and testing Ventures
- Value Addition Centers
- Setting up of Cool Chain from the farm level onwards (Group Activity)
- Post harvest management centers for sorting, grading, standardization storage and packing
- Setting up of Metallic/Non Metallic storage structure and rural godowns
- Retail marketing outlets for processed agri-products
- Rural marketing dealerships of farm inputs and outputs

1.5 Study Objective and Terms of Reference

The objective of the evaluation study was to understand the impact of the scheme on the beneficiary, and evaluate if the scheme has been able to serve the purpose of supplementing the existing extension services and providing employment to the agri graduates. It was undertaken to evaluate the primary data on qualitative and quantitative parameters and draw conclusion thereon. Further, make recommendations on the improvement of the scheme and related aspects.

The broad scope of the work of the study is as follows:

- To assess the effectiveness of roles played by different entities including MANAGE, SFAC (former Implementing Agency), NABARD and others
- To interview 10 Nodal Institutions chosen on the basis of performance @ 2 per zone and assess reasons for their performance or for non performance

- To interview 250 successful Agri Graduates or agripreneur chosen on statistical parameters to assess the viability of their ventures
- Interview 10 farmers per Agripreneur for their views on benefits and services accruing from these Ventures and assess the impact of the scheme
- To interview 100 trained agricultural graduates who did not set up ventures in spite of the training
- By means of interviews and discussions with other entities assess the extent to which the Scheme has been able to achieve its objectives
- To conduct inter region comparison and analyze regional variations in performance and implementation of the Scheme.
- By means of the cost benefit analysis if the Scheme is achieving its objectives.
- Make recommendations to make implementation of the Scheme more cost effective in better meeting the objectives and impact of the Scheme.
- Suggest indicators to assess its cost-benefit in future.

The Directorate of Extension (DOE) awarded the study to Global AgriSystems Pvt Ltd to evaluate the impact of the scheme as per objectives mentioned on 19.6.2007.

1.6 Limitations of the Study

While conducting the study limitations encountered have been listed below:

- Data Base: The initial data base received for conducting the survey included temporary address such as hostel room numbers of the beneficiaries, and trainees were not available for the survey as they had left after the training.

  Reaching out to the address given in the final database was very challenging as the address only consisted of the district name, tehsil name and the name of the candidate and it used to take quite some time to reach them. This kind of data base deficiency has led to multiple visits wherever prior contact on telephone was not possible and people had shifted from the address given in the data base, thus delaying the completion of the project. Issues regarding the contact details were encountered during the survey. The telephone numbers (particularly the landline had changed), mobile numbers too had changed.
- Nodal Institutes: Apart from the 10 Nodal institutes where personal visit was made 31 other institutes were contacted via mails and by sending them the questionnaire. Responses from 19 nodal institutes were received; rest did not participate in the survey. Therefore, 29 institutes out of total 41 participated in the survey.

- State Government Agencies: Government agencies were contacted for their response on the scheme. Out of 12 Government agencies only 5 responded.
- Hesitation on part of agripreneurs to provide data.

The above constraints had impact on the time lines of the completion of the project. However from the details available, comprehensive inferences have been drawn and recommendations have been made accordingly.

2 METHODOLOGY FOLLOWED TO MEET THE REQUIREMENTS OF THE ASSIGNMENT

In order to evaluate the scheme and asses its impact, a sample was drawn and study was based on the sample size.

2.1 Sample Coverage

The sample size used to obtain the relevant information for achieving the objective is based on the following sample size.

- Nodal Institutes – Out of the total 41 nodal institutes, 2 per zone (10 across 5 zones) was personally visited. In order to get wider response from nodal institutes, questionnaires were sent to all the institutes featuring in the list provided by MANAGE, out of them 19 nodal institutes responded. So in all 29 Nodal Institutes out of total 41 institutes have responded.
- Successful Ventures (Agripreneurs) - Out of the total 4152 Agripreneurs, 250 Agripreneurs were surveyed across 5 zones accounting for 6% of the total universe
- Non Successful Ventures (Trained) - Out of 9044 non starters, 100 non starters were interviewed across 5 zones amounting to 1% of the universe
- Farmers- 10 farmers per successful venture totaling to 2500 farmers across the 5 zones

In addition to the above mentioned sample size, in order to assess the effectiveness of role performed by different entities, following interviews were conducted:

- Government officials- 12 State Government Officials were contacted but only 5 responded
- Input Dealer- 30 Input dealers were contacted during the primary survey
- Banks
- NABARD
- MANAGE
- SFAC

To meet the requirements of the assignment, the consultants undertook the following tasks as their methodological approach.

Task 1: Briefing Meeting of the Team Members with the Directorate of Extension Officials

On being awarded the contract, members from the consulting team had briefing meeting with officials from the Directorate of Extension.

- To introduce members of consulting team to the representatives of the Ministry
- Discuss the proposed methodology
- Discuss data requirement for the report

Task 2: Collection & Analysis of Secondary Information

After the finalization of the methodology, the consultants began the task of collecting secondary information on the scheme. The nature of information sought to be collected included:

- Scheme related information available through secondary sources
- Names and complete correspondence details of the trainees
- Addresses of the Nodal Institutes (NIs)
- Published information on privatization in India and other countries

The nature of information collected above enabled the consultants to develop a robust fieldwork schedule and meet one of the key requirements of the assignment – namely, to have statistically relevant samples chosen for the purpose of the field study. It must however be mentioned that due to discrepancies in the database provided, the consultants faced many problems and lot of time was wasted to find correct data of the trainees.

Task 3: Developing Questionnaire Formats for Recording Primary Information from the Field Surveys

The task of developing questionnaire was undertaken by the consultants for collecting primary information from the field surveys.

The first drafts of these questionnaires were shown and approved by MANAGE. The suggestions provided by MANAGE on the questionnaire schedules were incorporated and a final draft of the schedules was prepared.

Task 4: Preparation and submission of Inception report and field plan

An inception report was prepared to structure the study. It was a comprehensive detailing of the team members, sample description, questionnaires and action plan. It was submitted to the Ministry for approval.

Task 5: Presentation and Approval of the Inception Report

Presentation was made for inception report by the team before the evaluation committee chaired by the Additional Commissioner. The approach and project plan was discussed along with the data base discrepancies.

During the presentation consultants discussed with the evaluation committee the issue of quality of data base received for conducting the survey. The meeting was concluded with approval of the inception report by the evaluation team along with suggestions on questionnaire.

Task 6: Training of the Team Members

Once the sampling plan and questionnaires were finalized a training session of the field staff was held to sensitize them towards the scheme and the objective of the study. The session included a comprehensive discussion on the questionnaires and the components of the scheme.

Task 7 : Pilot Testing the Questionnaire Schedules in Bhopal

The consultants piloted test the final copy of the questionnaires in the city of Bhopal. A preliminary feedback was received from the field team on the responses of the respondents.

Task 8 : Primary Data Collection Exercise

After the pilot testing, the fieldwork for the assignment commenced. During the fieldwork, face-to-face interviews were held with NIs, agripreneurs and non starters, farmers, state extension departments, NABARD and MANAGE. The field teams also physically visited the NIs. Responses provided by the respondents and the observations of the field investigation teams were recorded in the questionnaires.

In addition, to the sample size of 10 nodal institute's consultants sent out questionnaires to all the institutes for their response. Out of 41 nodal institutes 29 nodal institutes responded.

Task 9 : Data Entry, Analysis of Primary and Secondary Data and Report Writing

The information gathered by means of questionnaires from the field was entered into computers and analyzed using the statistical software application package, SPSS, and other quantitative and qualitative analytical tools and techniques. Thereafter, the task of report writing began. This report and its annexes are the outcome of the exercise.

Task 10: Preparation and Submission of the Interim report

Based on the interim findings of the field team a status report of the survey was prepared and submitted to the Ministry for approval.

The consultants also made a presentation before the evaluation committee formed by the Ministry of Agriculture. During the meeting the interim report was discussed and further suggestions were made on the report.

Task 11: Submission of Draft Report

On receiving of the final findings a draft report was prepared. The draft report was completed and submitted to the client.

It should be noted that at each stage presentations were made before the evaluation committee and only after their approval and inputs, next stage of study was started.

2.2 Data Requirement

The study was based on the feedback received from the target respondents. Thus specific information was sought from different categories of respondents.

- **Agripreneur-** Responses have been invited from the Agripreneur who are successfully running their own agriclinics and agribusiness centers after the completion of the training. The information required from this category of respondents is as follows:

  1. **Training Details:** Data required from agripreneur pertained to the training programmes, their duration, quality of trainers and the course content, level of satisfaction from the training programme, shortcomings arising therein and suggestions to overcome these shortcomings.
  2. **Project Details:** Details regarding the kind of project undertaken by the agripreneur and the present status of the project. Viability of the project and financial position of the project were also collected.
  3. **Handholding Details**: Information was taken on the handholding support provided by the Nodal Institute. The process and the funds available. Suggestions were sought on the improvement and whether there was a need for increase in the handholding amount.
  4. **The extension activities undertaken by the Agripreneurs:** To evaluate the implementation of the scheme, agripreneurs were asked about the extension activities undertaken by them and monthly revenue generated by providing extension activities.

5. **Financial assistance:** Financial assistance being a very important part of the scheme, both in terms of funds being released for the training and the loan availed by the agripreneur for their project. Agripreneurs were asked about the loan availed by them, the time taken for release of the first installment and the problems faced by them during the whole process.
6. **Suggestions for improvement**: The Agripreneur were asked to suggest how the scheme could be improved further so that the potential of the scheme could be fully realized.
7. **Impact of the scheme:** To study the impact and the success of the scheme, agripreneurs were asked about the number of farmers they have been able to reach in last three years and the employment opportunities generated by the project- either permanent or temporary.

❖ **Nodal Institutes-** To evaluate the implementation and success of the scheme, nodal institutes role was evaluated for which following information were collected.

- ✓ **Detail on Trainees** – Data was required on the student appearing for the training both in terms of educational background and male/female ratio. Data was also extracted for number of dropouts and those who could not complete their training.
- ✓ **Details on Training**-Information was collected for number of training sessions, frequency, course content, quality of faculty members and their experiences.
- ✓ **Financial Assistant**- Data was required on flow of funds from the DOAC to the nodal institutes. The process and the feed back for improvement.
- ✓ **Hand Holding**- Details were collected on hand holding process and the effectiveness of the activity.

❖ **Non Starters-** Responses were asked from 100 trainees who did not set up ventures in spite of undertaking the training programme.

- ✓ **Training sessions**- Data required from agripreneur was details on the training programme, its duration and the quality of trainers and the course content. Their level of satisfaction from the training programme. They were interviewed regarding the shortcomings in the training programme and the suggestions to overcome these shortcomings.
- ✓ **Reason for not starting up the project** - The non starters were interviewed on reasons for not starting the agri venture and hindrance they encountered for approval of the project and other related issues like funding, lack of advice and their own problems.

- ✓ **Suggestions-**The non starters were asked to suggest how the scheme could be improved further for increasing the percentage of starters amongst graduates who would undertake training and eventually start their business.

❖ **Farmers-**Responses were collected from farmers serviced by agriclinics and agribusiness centers to evaluate the success and benefits of the scheme.

- ✓ **Kind of extension services**-Information from farmers were collected about the kind of extension services availed by them and the charges paid for those service.
- ✓ **Benefits**-The farmers were asked about the various ways, in which the Agri business centers have been beneficial to them, satisfaction on a five point scale after availing the services of the agriclinics and agribusiness centers and also the measures for the improvement of agri business centers in their respective area.

2.3 Study Design

Sampling methodology used for the purpose of survey is based on identified statistical tools. As per the data made available, a total of 4152 (as on 31.3.2007) ventures have been established under the scheme. However, detailed information was available only for 3554 ventures. The sample of 250 ventures for the study has accordingly been drawn from this universe and extrapolated over the total number of ventures (4152).

2.3.1 Nodal Institutes- Structured Sampling

The nodal institutes were short listed on the basis of the number of trained graduates and success rate registered by the institute. There have been cases where no success story has been registered and in some cases although the number of trainees is less but the percentage of successful candidates is very high. These factors have been used for structuring the sample. Structured sampling is a method in which selection of sample is made from the population, based on critical parameters.

2.3.2 Successful Ventures- Proportionate Sampling

The successful ventures were chosen on statistical parameters. The method of proportionate sampling was adopted to select a State wise sample. A total of twelve States have been short listed out of the whole universe. Only those States were selected in the final sample whose contribution in the success story was more than 2% of the total population. An effort has been made to include in the study as many subject areas for establishment of entrepreneurial projects as possible. The sample of the study has been illustrated below:

Table 1 Sample Size Distribution

S.No	Name of the State	Sample
1	Maharashtra	49
2	Uttar Pradesh	44
3	Karnataka	40
4	Rajasthan	31
5	Bihar	24
6	Andhra Pradesh	13
7	Tamil Nadu	11
8	Gujarat	9
9	Madhya Pradesh	9
10	Orissa	4
11	Assam	8
12	Manipur	8
	TOTAL	**250**

Although Assam and Manipur could not qualify for the proportionate sample of 2%, they were included for zonal representation.

2.3.3 Unsuccessful Ventures - Random Sampling

The sampling methodology followed for the purpose of selection of 100 unsuccessful ventures was based on the data base provided. The sample size has been decided on the basis of random sampling.

2.3.4 Farmers - Random Sampling

Farmers were selected randomly amongst those who are associated with an individual agripreneur.

2.3.5 Snow Balling

Since problems were encountered in the data base provided, snowballing sampling method was used in case where the respondents were not available. Snowball sampling relies on referrals from initial subjects to generate additional subjects.

2.4 Data Collection

The primary data was collected by means of questionnaire-based field surveys conducted on a sample identified as above.

To study the effectiveness of the roles played by different organizations and the extent to which the scheme has been able to achieve its objectives, detailed discussions were held with:

- Directorate of Extension, Department of Agriculture & Co operation, Government of India

- MANAGE
- SFAC
- NABARD
- Other Banks

The secondary data was collected from departments and official websites of Directorate of Extension, Ministry of Agriculture, MANAGE, NABARD and other organizations associated with the management of the scheme. Besides all published information- books and journals related to the scheme with these organizations were studied.

3 EFFECTIVENESS OF ROLE PERFORMED BY DIFFERENT ENTITIES

The National Development Council envisaged an overall growth rate of 10 percent during the 11th Five Year Plan. To achieve the target, agriculture has to gear up to attain a growth rate of 4.1 per cent. The projections can be only achieved by increased production that must come from improved resource efficiency and increase in yield in the form of new technologies and better farming practices. The group has observed that the available technologies have not been adopted effectively and efficiently and even wherever adopted there were notable unevenness and distortions.

Therefore, the implementation of Agriclinics and Agribusinesses are expected to play an important role in achieving these objectives. In order to make these enterprises deliver desired results, various entities associated with the scheme will have to play a significant role in the empowerment of the agripreneurs. The consultants have studied and analyzed the role and performance of each entity in the light of the following parameters.

3.1 Manage

MANAGE an autonomous body under the Ministry of Agriculture (MOA) has been appointed as the implementing agency of this scheme. As the implementing agency MANAGE broadly performs the following activity:

1. Selection of Nodal Institutes
2. Preparation of Training modules
3. Monitoring the performance of the NI
4. Managing and releasing of funds

The parameters on which the performance of MANAGE has been assessed is based on its roles and responsibilities.

3.1.1 Procedure for Selecting Nodal institutes

When the performance of MANAGE was earmarked against the parameter of their selection procedure for nodal institutes it was observed that the NIs selected on the basis of the present selection criteria have not been able to show impressive results.

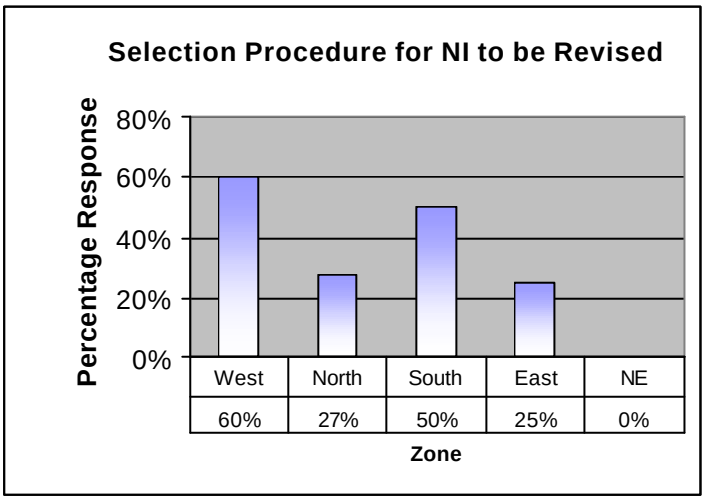
The nodal institutes selected within the present framework have shown dismal performance in terms of generating substantial agripreneurs. Selections of non competent nodal institutes have also led in further elimination of these institutes at the later stage. During the survey certain observations collected enabled us to decide on the performance of different categories of NIs. The criteria for basing our conclusions are the proportion of trainees setting up and successfully running the agriventure:

Table 2 Category wise performance of Nodal Institutes

NODAL INSTITUTES	PROPORTION OF SUCCESFUL VETURES
PRIVATE ORGANIZATION	**50%**
NGO	**42%**
TRUST	**32%**
INSTITUTES	**32%**
UNIVERSITY	**25%**

From the above table it can be inferred that the private organizations who have volunteered to run the scheme have faired the best amongst all the other categories by registering a success ratio of 50%, followed by NGOs who have been able to show a success ratio of 42%. The Government universities have not been able to show the desired performance. There is a need of sensitizing Government institutions for aggressively implementing the scheme. This suggests that the institutions selected under the present selection system have not generated desired results.

Figure 2 Responses for Revising the Selection Procedure of the Nodal Institutes



Further responses were taken on the selection procedure from the nodal institutes. Opinion of the nodal institutes regarding the present selection procedure showed zonal differences. While in West Zone 60% of the respondents agreed that the present procedure requires revision the figures in North was 27%, South was 50% and East was 25%. The main point mentioned was relating to the fact that the criteria emphasized only on the basic nature of activities and did not have any rating on the parameters necessary for running these programs such as training infrastructure and facilities, evaluation of the capabilities of the faculty in terms of advising on project document preparation, commercial guidance and rapport with the funding institutions etc, realistic estimate of deployment of faculty exclusively for the program(sparing faculty exclusively for the program) and past experience of

conducting entrepreneurial program. It was also observed that from time to time MANAGE has to eliminate the non performing institutes if their success rate falls below 35% for more than 6 months.

Based on the above findings the performance of MANAGE on the aforesaid parameter is said to be average. Thus, arising need for the revision of the present selection criteria. A stringent procedure will enable MANAGE to eliminate the institutes in the first phase itself rather than eliminating them later. It will also enable MANAGE to appoint only those institutes which show diligence towards implementing the scheme which in turn will improve the success rate of the agriventure leading to more efficient utilization of resources.

3.1.2 Preparation of Training Module

The course content designed by MANAGE is a comprehensive course structure covering all the probable aspects of management skills. The course content is designed to have 60% time allocated for building theoretical understanding and 40% for hand on experience. The major headings of the course have been listed below:

- Personality enhancement and motivation
- Deliberation on potential agri-business activities.
- Business and financial management skills,
- Improving communication & writing skills,
- Market research and survey
- Experience sharing by successful entrepreneurs and exposure visit
- Enterprise planning & DPR formulation
- Computer & internet knowledge
- Handholding support

Although the theoretical module is considered to be comprehensive there is a need to increase further exposure of practical training.

Table 3 Responses on Deficiency in Training Programme

Region	Less practical exposure during the training %	No marketing related inputs during training %
South	50	42
North East	100	-
East	33	17
West	46	8
North	33	50
Overall	**47**	**28**

As per the survey there has been less exposure towards practical training. All the respondents from North East felt that the practical knowledge imparted during the training was not adequate and more exposure should be on practical training. This feedback was even supported by rest of the zones, where 50% in South, 33% in East, 46% in West and 33% in North was of the same opinion. On an average over all 47% of the respondents wanted more of practical training.

Marketing related inputs; including, the dynamics of target market and general marketing tools required for commercial success; have been considered as an important aspect in the training module. Out of the total respondents 28% were of the opinion that market related information should also be part of the curriculum, which in turn can be used to prepare a quality DPR and viability of the venture.

The present module is comprehensive in terms of theoretical knowledge pertaining to managerial and book keeping knowledge and general management of the business.

3.1.3 Monitoring System

The selected NIs are regularly monitored by MANAGE. If any institute fails to meet the following evaluation criteria. It is removed from the list of nodal institutes.

- If the success rate is declining continuously and has reached less than 35% which was decided upon based on the national success average of 32.5%
- If the training institute does not meet the 35% criteria for continuous 6 months then their name would be deleted.

However this monitoring system does not take into account other aspects of the training like the number of projects that are withheld by banks. Nor there is any set mechanism to identify the reason for non success of the nodal institute which could be eliminated and the existing institutes can produce desired results. The existing monitoring system needs to include the above mentioned aspects.

3.1.4 Fund Disbursement

Starting 2001-2002, a total of Rs. 2981.84 lacs funds have been released till date (2007-2008). In the first year, mainly due to less awareness about the scheme and getting the systems in place the scheme was introduced in AP, Bihar, Haryana, Karnataka, Kerala, Maharashtra, Orissa, Tamil Nadu and Uttranchal with token releases, Year 2 (2002-2003) saw the scheme taking off in almost all the states. Maximum (28%) of the total funds

released was during 2004-2005 when the benefits of the scheme were fully realized. In subsequent years the releases have stabilized.

Table 4 State Wise and Year Wise Fund Allocation under ACABC Scheme (Rs in Lacs)

State	01-02	02-03	03-04	04-05	05-06	06-07	07-08	Total
Andhra Pradesh	3.00	56.75	11.25	29.71	14.95	17.73	11.76	145.15
Assam	0.00	5.00	3.50	3.00	0.00	2.81	13.72	28.03
Bihar	2.00	45.45	14.45	108.84	63.45	74.80	85.40	394.39
Chattisgarh	0.00	0.00	0.00	20.95	0.65	3.43	0.00	25.03
Delhi	0.00	0.00	3.50	0.00	0.00	0.00	0.00	3.50
Gujarat	0.00	44.00	9.95	35.12	2.55	0.00	2.55	94.17
Haryana	1.00	9.95	3.50	9.23	0.00	2.64	3.36	29.68
Himachal Pradesh	0.00	4.00	3.50	0.00	0.00	15.87	13.77	37.14
J&K	0.00	6.00	3.50	19.38	9.70	4.87	33.41	76.86
Jarkhand	0.00	20.65	4.50	12.46	0.10	2.21	0.31	40.23
Karnataka	1.00	66.20	15.00	76.43	72.55	46.14	30.25	307.57
Kerala	1.00	10.00	4.50	18.73	0.00	0.00	0.00	34.23
Manipur	0.00	5.00	3.50	9.65	2.66	4.87	13.83	39.51
Madhya Pradesh	0.00	25.20	14.90	42.38	9.11	3.00	0.00	94.59
Maharashtra	3.00	70.50	19.20	128.17	79.98	84.07	68.14	453.06
Orissa	2.00	42.50	6.40	33.69	0.00	0.00	0.00	84.59
Punjab	0.00	20.00	0.00	11.68	0.00	2.72	7.43	41.83
Rajasthan	0.00	59.40	24.65	96.32	56.93	45.80	21.72	304.82
Tamil Nadu	2.00	33.70	10.50	23.25	25.17	27.93	24.34	146.89
Uttar Pradesh	1.00	45.00	19.45	114.96	112.84	114.00	84.21	491.46
Uttaranchal	1.00	9.40	3.50	14.27	0.00	4.25	0.00	32.42
West Bengal	0.00	11.30	10.20	24.93	5.87	13.50	0.00	65.80
Mizoram, Nagaland	0.00	0.00	0.00	0.00	0.00	0.00	10.89	10.89
Total	**17.00**	**590.00**	**189.45**	**833.15**	**456.51**	**470.64**	**425.09**	**2981.84**

Among the states, UP and Maharashtra are the two leading ones accounting for nearly one third of the total funds released. The North-Eastern states at the moment have received less than 3 % of the funds. The take off for the scheme in some of the agriculturally active states like Punjab and Haryana and the hill of HP, Uttranchal and J&K rich in horticulture, has been much below expectations. This calls for extensive promotional efforts for the scheme in these states.

Further, the funds provided to the NIs cover besides the training costs, the expenses on food and lodging also for the trainees. Majority of NIs feel that with additional costs towards field training and industry exposure and general escalation, the funds provided are not adequate. This affects at times the quality of training being provided.

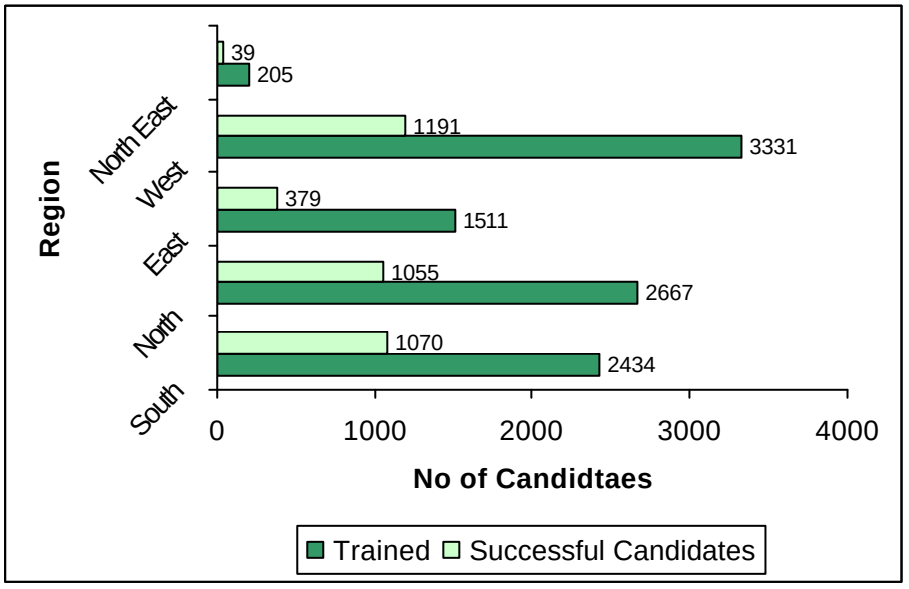
3.2 Nodal Institutes

Nodal Institute plays the most important and critical role in the success or failure of the scheme. They are the mentors, the trainers and the guide for the agripreneur who take up this training in order to start a venture of their own. The role of nodal institutes starts from the selection procedure till the time a venture is set up, while their contribution is maximum in making this scheme a success. Thus their efforts have an impact on the performance of the scheme. Therefore, the performance of the nodal institutes has been evaluated on the following parameters.

3.2.1 Success Rate

The most important parameter is success rate of the nodal institutes which in turn determines their performance. The nodal institute has been evaluated on the basis of their performance not only with respect to the number of trained individuals they have been able to produce but also the number of success agriventure set up under each institute. As per the available data the following observation was made:

Figure 3: Rate of Success



The data thus collected indicates that the percentage of successful candidates is higher in the south zone (44%) followed by north (40%) and west (36%). The east and north east region have not shown significant success rate. On the basis of the above data it can be inferred that the nodal institutes have not been able to generate the desired results as the ratio of trained candidates to the established candidates is very low. Thus ways have to be found out to increase this ratio.

3.2.2 Parameter for Selection of Candidates

Out of the 29 respondents, 23 are of the opinion that the existing procedure is good enough to select a candidate. However 6 respondents felt that some more criteria should be introduced to improve the screening procedure.

It is pertinent to mention here that the present selection criteria have not yielded the desired results since the performances of the institutes have been erratic. This is mainly due to the fact that the time gap between the date of application and final selection is long and some keen candidates get jobs or enrolled for higher studies. Some of the candidates even apply for this training as stop gap arrangement between their graduation and their next career step and do not have serious intention of setting up an agriventure.

An extensive discussion before selection will help in the identification of serious candidates. The consultants have prepared a format for the evaluation of the candidates which may help overcome this situation to a great extent. Selection of candidates with some background or orientation towards entrepreneurship is likely to help achieve the targets of training, as well as, lead to the projects translating into ventures established.

3.2.3 Promotion of Scheme

In order for any scheme to implement it is important that the target audience must know about the scheme. Invitations are sent out inviting applications for the training sessions. Different institutes have adopted different mode for inviting applications. Multiple routes have been used by the NIs to invite applications and this has resulted in large number of agripreneurs passing out every year. Responses available suggest that news papers are the most popular method of advertising applications for trainings, as the newspapers have faster reach and penetration than any other form of publicity. Television, Agriculture Universities, Radio and Personal/direct contact are regarded as other most popular mode of publicity.

While Nodal Institutes have rated newspapers as the widely used mode of publicity the responses of the trainees summarized (Table 5) indicates information received from friends to be another popular mode:

Table 5 Knowledge about the Scheme

Respondent	Friends	Institute	Newspaper	Heard from someone	Others	Total
Entrepreneurs	34.4	5.6	39.6	2.4	18	100
Non Starters	40	14	38	0	8	100

The applications are received along with a non refundable amount of Rs 500 which is submitted to MANAGE. As informed this amount is kept with MANAGE as Government funds and not used for any further purpose.

Nodal institutes have made significant efforts to generate awareness amongst the potential candidates about the scheme and its benefits.

3.2.4 Trainee Profile

The qualification of the trainees and their background are other significant parameters to evaluate the performance of the scheme. The kind of candidates enrolled for the training will impact their attitude and seriousness towards this scheme. During the study it was observed that trainees are mostly graduates who have come from the agricultural universities. Their population is more because they are recent pass outs and are unemployed. So they take up the training and at the end they either start something of their own or join a job.

During the study it was observed that the successful venture was mostly set up by those who are post graduates as they are regarded more serious towards the program than their graduate counterparts. There is a category of trainees who come with previous work experience. Their motivation to join the scheme is to acquire professional orientation and thereafter take up a new venture or join back the job market. However, their number is less than that for graduates.

3.2.5 Trainers Profile

At present there are no consistent guidelines in this regards, different institutes have different combination of trainers. There should be consistent guidelines for the trainers who visit the NI. Some of the institutes enroll PHD and industry experts while others go for professionals in the field. The course guidelines should also mention the minimum educational and professional experience required for the trainers to be engaged in the programme. As inviting industry professionals as guest faculty at times is not feasible due to limitations of funds available, the quality of training suffers.

3.2.6 Handholding Activities

The handholding process starts after completion of training by the candidates which is intended to facilitate the trainees to get exposure, confidence and support to start their enterprise. It also aims at providing support to them to submit their bankable projects and get bank loan. Expenses like traveling of trainers to project sites, lodging, boarding of trainees when they visit training centers for consultation, traveling expenses to meet bankers and other authorities, consultation with experts are incurred from budget provided under hand holding.

Table 6 Type of Handholding support (Percentage)

Particulars	South	North East	East	West	North	Overall
Help in Project Report Preparation	92	56	68	81	95	81
Facilitating Project Reports Submission	92	50	64	79	94	80
Facilitating Project Financing	89	56	61	79	94	79
Introducing the trainee to respective departments and Banks	47	56	57	81	92	68
Support in setting up the project	44	56	57	79	89	67
Others	8	25	39	21	8	15

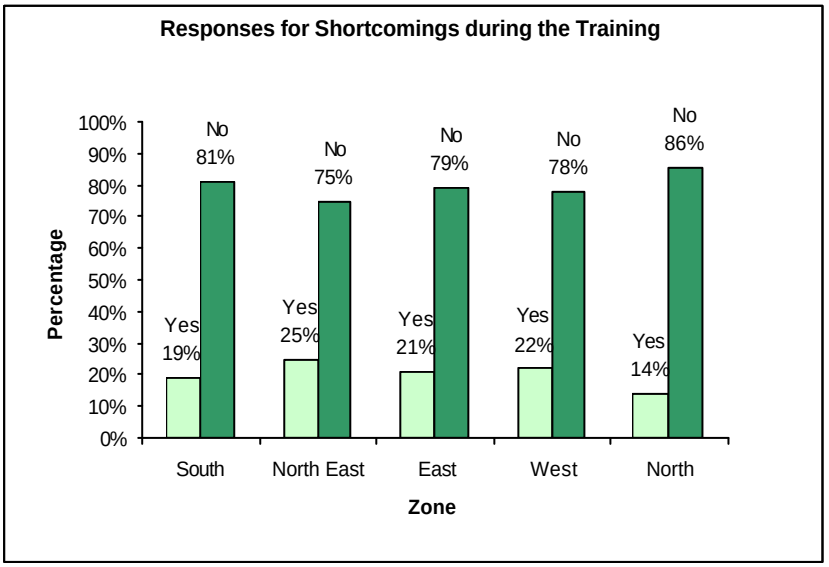
However, overall there is a level of satisfaction with the handholding activity except in North East, where the support is less than desired.

In case of East, West and North the respondents have given a feed back that the nodal institutes play a major role in preparation and submission of the project report. Rest of the activities performed by the nodal institutes is not taken up so aggressively. An overall ranking of activities indicate that nodal institute's primary handholding support to the trainees is preparation and submission of the detailed project report.

3.2.7 Shortcoming of the training

Training sessions are orientation program that conditions the candidates to take up a venture after completion of the session. The program is designed in such a manner so as to groom the managerial skills of the trainee and help them obtain loan. By and large, the modules are exhaustive; however, responses were taken from the agripreneur if there is any shortcoming they faced. Graphical representation of the responses has been given below:

Figure 4 Short Comings during the Trainees



The inferences derived from the graphical representation of the responses from the respondents indicate that less than 20% of the total respondents believe that there are certain shortcomings in the training programme. While majority believe that the training programme is good enough to give them a platform to start their venture. On zonal analysis it is observed that North East zone has the largest number of unsatisfied agripreneur who feel that there are shortcomings in the existing training programme. While the satisfaction levels are highest in the North zone with 86% of the respondent satisfied with the training programme.

Although only 20% candidates are not satisfied with the training, yet input from unsatisfied trainees can be very helpful in fine tuning the existing training program and therefore it has further been analyzed.

Table 7 Short comings of the Training (Percentage)

Regions	Lengthy Time Period between training and project start up	Fixed Number of trainings	Less practical exposure	No marketing related inputs	Others
South			50	42	25
North East	100	50	100		
East	17	17	33	17	33
West			46	8	46
North	17		33	50	8
Overall	**15**	**6**	**47**	**28**	**26**

The following observations can be inferred from the above table:

- **Time taken between applying for the training and actual start of the training program is too long:** All of the respondent from North East concurred that the duration from the time of filing the application till the start of the session is quite long this was followed by East and North where 17% of the respondent was of the same opinion. Over 15% was of the opinion that time taken for processing the application is quite long. This wastes the time available with the agri graduate. Since they are unemployed this wait can also divert them to take up some other job rather than go for an agriventure.

- **Only fixed number of training as per pre fixed schedule is given**: Agripreneur also faced difficulties in terms of number of sessions held in a year and the limitation of the number of trainees per batch. This problem was faced by the trainees in North East and East, where 50% and 7% of the respondent respectively admitted that they faced such a problem in the training sessions.

- **Less practical exposure during the training**: All the zones are facing problem in this regard. 100% of the respondents from North East felt that the practical knowledge imparted during the training is not adequate and more emphasis should be on practical training. This feedback was even supported by rest of the zones, and on an average over all 47% of the respondents wanted more of practical training.

- **No marketing related inputs during training**: Market related inputs have been considered as an important aspect in the training module. Out of the total respondents 28% were of the opinion that market related information should also be part of the curriculum, which in turn can be used to prepare a quality DPR.

3.3 NABARD

3.3.1 Monitoring of the banks

NABARD is the nodal institute for banks. Its primary objective is to provide refinancing to the banks and circulate financial guideline pertaining to the scheme for implementation. NABARD has circulated comprehensive guidelines to the banks, however, on analyzing the project funding situation under the scheme, it is noted that the banks go by their own project appraisal norms without giving any preferential treatment to the projects under the scheme. It has also been found in the primary survey that the banks insist on collateral security, which becomes one of the constraints for starting the agriventure.

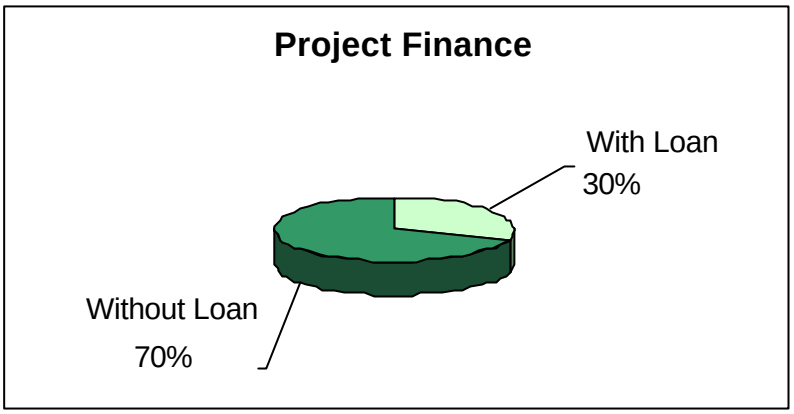
It may be appreciated that NABARD cannot interact with each branch yet a system can be evolved wherein the nodal institutions in collaboration with the regional representative of NABARD may take up specific cases with the concerned banks for according priority to the trained graduates for considering their applications for funding the projects.

3.4 Banks

3.4.1 Project Funding

The projects have been funded either entirely through own funds or through term loans in addition to the margin money contribution by the agripreneur.

Figure 5 Project Financing Pattern



As is seen only 30 percent of the ventures set up could avail the bank loan. It was the confidence of agripreneurs in the financial viability of their proposed enterprise that they decided to invest into the projects from own funds. If the banks come forward to provide the loans requested, it will meet the stated objectives of the scheme and more and more trained agri graduates will be able to benefit from the programme.

Table 8 Zonal Analysis of Means of Finance

Zone	Loan	Self
South	62%	38%
North	10%	90%
East	10%	90%
West	33%	67%
North East	25%	75%
Total	**30%**	**70%**

Analysis of the zonal variations in the disbursal of the loans (Table 8) indicates that it was only in the Southern region that 62% of the ventures set up could avail the finance through FIs (Financial Institutions). All other regions fared poorly, with North and East having only 10% of the projects financed through bank loans. In North East, only 25% of the projects could secure bank loan. The agripreneurs were of the opinion that banks take a very poor view of these ventures and thus the agripreneurs have been discouraged from starting such ventures, wherever they cannot obtain bank funding.

Complex nature of land holding / ownership pattern in some states further complicates the funding in terms of providing collateral. Even NIs in the North East region are feeling discouraged about continuing the training programme because of this lack of co-operation of the banks in providing financial assistance to the trained graduates.

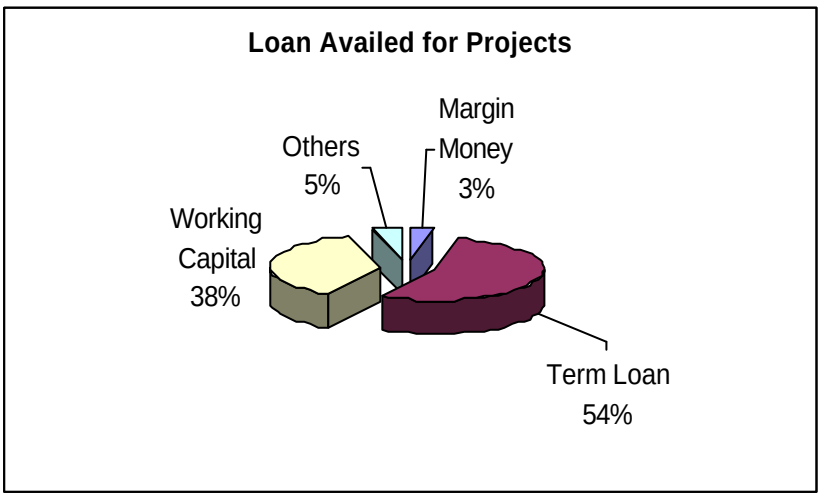
Therefore there is an urgent need to sensitize bankers for facilitating loans in the region. Even in the remaining regions promotion of the scheme within the banking community has to be aggressively taken up.

In Karnataka out of the 40 respondents that were covered, loans had been disbursed to 31 and the rest had self financed the project. This can be correlated with the interest shown by the bankers, as the application processing time is also less in Karnataka and mostly nationalized banks are involved in loan sanctioning. In Manipur, Orissa and Madhya Pradesh, for the respondents covered, no loans were available and all the projects had been financed by the agripreneurs themselves.

This suggests that in these States the banks have not been co-operative and hence the agripreneur had to self finance the project. Due to these reasons the number of projects set up in these States has been low especially in Manipur and Madhya Pradesh. In Tamil Nadu and Assam, 50% of the projects have been self financed and 50% had been financed through banks.

3.4.2 Types of loan

Figure 6 Type of loan availed for Projects



In most of the projects the kind of loan applied was term loan followed by working capital. Out of the total number of projects which applied for loan 54% of them applied for term loan and 38% for working capital loan and the rest 8% comprised of Margin money loan and any other loan which was required for the setting up of the Ventures.

Table 9 Loan details (Average)

State	No. of Projects	Amount Applied in Lac	Amount Sanctioned in Lac	% age loan sanctioned
Karnataka	31	10.3	9.8	95.1
Tamil Nadu	6	5.7	5	87.7
Andhra Pradesh	3	55.5	53.83	97.0
Gujarat	2	34.5	31	89.9
Maharashtra	17	13.72	11.87	86.5
Manipur	0	0	0	0.0
Assam	4	10.6	1.64	15.5
Orissa	0	0	0	0.0
Bihar	3	4.66	1.6	34.3
Rajasthan	3	4.71	4.03	85.6
Madhya Pradesh	0	0	0	0.0
Uttar Pradesh	5	3.8	3	78.9

The cumulative amount of loan applied and sanctioned is maximum (97%) in Andhra Pradesh. This is the amount applied for three projects which suggests that these are all high value projects. This can also be correlated with the fact that all the loans have been applied for in nationalized banks which further suggests that nationalized banks are more pro active in sanctioning the loans and provide the loans easily. Also trainees are quite aware of these banks due to their easy accessibility and spread. The percentage of loan sanctioned is the second highest for the State of Karnataka (95 %) where the loan amount of Rs 9.8 lac (average) was sanctioned. This suggests that all these projects were low value projects. Here also the maximum loans have been disbursed by nationalized banks which again confirm the popularity of nationalized banks among the agripreneurs and the banks' familiarity with the scheme.

The least percentage of loans was sanctioned in Assam where only 15.5 % of the amount applied has been sanctioned. The loan was applied for 4 projects and the amount applied was Rs10.6 lac out of which only Rs1.64 lac was sanctioned. This suggests that the projects do not pass the scrutiny of appraisal by the banks and hence loans are not provided. There is a need to properly guide the agripreneurs about the preparation of a bankable project report during the handholding process.

3.4.3 Processing Time

Figure 7 Time Taken to Sanction the Loan

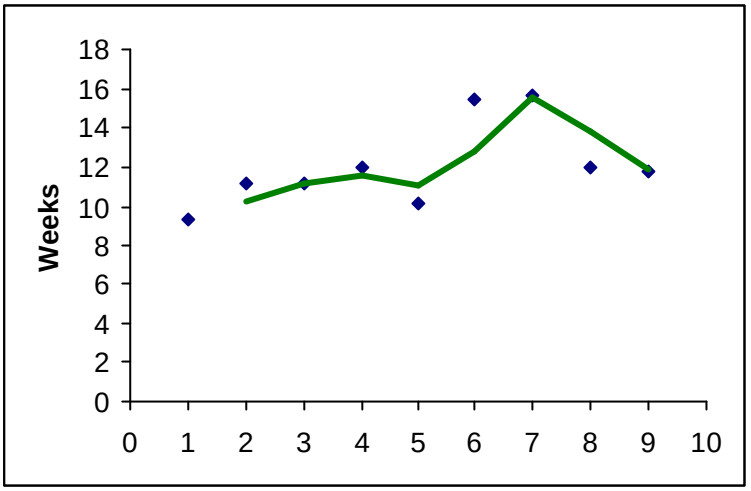


Table 10 Time taken by banks to sanction the Loan

State	Time Taken in Sanction of Loan in Weeks
Karnataka	9.4
Tamil Nadu	11.2
Andhra Pradesh	11.17
Gujarat	12
Maharashtra	10.17
Assam	15.5
Bihar	15.7
Rajasthan	12
Uttar Pradesh	11.8

The table and graphical representation suggests that there are no standard guidelines with respect to disbursal of loans amongst the banks. The disbursal of loan may take as much as 15 weeks or as less as 9 weeks. On representing the data on the trend line it was inferred that on an average banks take 11 weeks. The duration for disbursement of loan is quite high; it hampers progress of the project. Processing time should be further reduced to enable the agripreneur to start off the project at the earliest.

3.4.4 Sanctioning of Loan

It may be noted from the findings of the survey mentioned above that the banks apply their normal appraisal parameters for the applications received for term loan and working capital without giving any preference to the projects under the scheme. Since a lot of effort goes into training the candidates who are technocrats in the first place, the banks should give

concessional treatment for appraising these projects particularly with reference to the collateral security in form of property and other fixed assets.

NABARD may incorporate a clause in the guidelines that the banks may consider assets to be created as security. It will also be helpful if lending to agripreneurs is considered at par with priority sector lending under banking norms.

3.4.5 Participation of Different Banks

Bank wise survey of credit flow to the ACABC projects show that the nationalized banks accounted for the major share of loan disbursement to the agripreneurs followed by co-operative banks and RRBs.

Table 11 Source of Loan (Percentage)

State	National banks	Cooperative banks	RRB	Others
Karnataka	87.1	-	6.5	6.5
Maharashtra	82.4	23.5	-	-
Tamil Nadu	83.3	-	-	16.7
Assam	75.0	-	-	25.0
Rajasthan	33.3	-	66.7	-
Andhra Pradesh	100.0	-	-	-
Gujarat	100.0	-	-	-
Bihar	100.0	-	-	-
Uttar Pradesh	100.0	-	-	-

** Karnataka – ING Vysya, Private Bank -Name Not given*
Tamil Nadu – KVIC
Assam – State Institute Rural Development

As per the figures available, it is evident that maximum number of loans to the agripreneurs has been provided by the nationalized banks. On an average out of all financing institutions around 82.4% loan is provided by nationalized banks. This may be due to the fact that the nationalized banks are easily accessible and have branches all over the country. The loan facility is also readily available and they are more aware of the scheme than their counterparts.

Agri Business & Agri Finance (Ahmedabad)

Pooja R Banker an agri graduate from EDII Ahmedabad started an enterprise offering services of agri business and agri finance. ***The project cost of this venture was Rs. 1 crore and it was funded through sponsorship from a corporate house.***

Today the Agripreneur is earning Rs 20000 per month covering 5000 farmers across 9 villages and has been able to employ 6 people.

Consultancy Service for Landscape (Ahmedabad)

Maurvi N Vasavada was very keen in establishing a venture in providing consultancy services for landscape and required a capital of Rs. 40000 however he was not able to get the funds from any bank as they did not co operate with him.

So he started the venture from his own funds and today he is earning Rs. 4000 per month serving 150 farmers and 1 village.

Farm Service & Extension (Allahabad)

Ashok Kumar a trained agri graduate from Allahabad Agriculture Institute had set up the enterprise in 2007 for providing Agri consultancy and equipment on hiring basis to the farmers.

With the support of State Bank of India, Jaunpur the Agripreneur was able to establish his enterprise with a total investment of Rs. 4, 75,000.

Today he is earning an average income of Rs. 6500 per month covering 800 farmers in 90 villages and employing 1 person.
This forms a representative of those Agripreneur who have availed the bank loan to start their venture.

RRBs have been setup primarily to provide credit to small and marginal farmers, agricultural labourers, artisans and small entrepreneurs so as to develop productive activities in the rural areas. But the data available indicates that their contribution has not been very encouraging. This might be due to lack of awareness about the scheme both among the agripreneurs and the RRBs. Only 4% of the loans have been provided by RRBs. Similarly co-operative banks have provided only 2.7% of the total loan disbursement.

At the same time there is also a need to create awareness among the agripreneurs about RRBs and co-operative banks. The RRBs and Co-operative Banks also need to be sensitized about the scheme and its importance. One of the ways to achieve this is to identify few banks in any given area and then agripreneurs be informed about facilities available at these banks. During the hand holding process the Nodal Institutes should organize meeting of the agripreneurs and the bank officials to generate the interest and make them aware of the scheme.

3.4.6 Loan Interest Rates

Table 12 Rate of Interest (Average Percentage)

State	Term Loan	Working Capital Loan
Karnataka	11.8	12.3
Tamil Nadu	0	0
Andhra Pradesh	14.0	13.0
Gujarat	11.5	12.0
Maharashtra	12.9	10.6
Assam	10.1	0
Bihar	11.3	14.8
Rajasthan	12.6	12.0
Uttar Pradesh	0	10.1

The table12 indicates that the average rate of interest for term loan and working capital was 10.1% to 14.0% and 10.1% to 13.0% respectively. It was maximum (14 % and 13 % respectively) for the State of Andhra Pradesh where the maximum percentage of loans has been sanctioned. The rate of interest lowest for the State of Assam where the percentage of loan sanctioned is also least.

On releasing of the loan amount the bank officials have been visiting the site for physical verification of the projects. This was done for more than 85% of the projects for whom the loans were sanctioned.

3.4.7 Problems faced during project financing

It is clear from table 13 that the major problem faced by the agripreneurs while setting up a project is the lengthy and cumbersome procedures which they have to go through for loan application and processing. The formalities and paper work involved in the process are quite complicated and agripreneurs find it quite discouraging.

Table 13 Problem Analysis Zone Wise (in Percentage)

Particulars	South	West	North East	East	North	Total
Financial Institutions/ Facilitating Agencies are not cooperative	6.7	33.3	16.7	8.3	0.0	14.3
Lengthy & cumbersome procedures	40.0	16.7	16.7	25.0	0.0	23.8
Amount of Loan/ subsidy is not adequate	6.7	33.3	20.0	25.0	0.0	19.0
Rate of Interest is too high	20.0	16.7	6.7	16.7	0.0	12.7
Terms & conditions for grant of Loan/ subsidy is not enterprise friendly	20.0	0.0	16.7	25.0	0.0	17.5
Type of projects qualifying for grant of loan/ subsidy are very limited & do not cover the entire range of agriculture extensions services	6.7	0.0	20.0	0.0	0.0	11.1
Others	0.0	0.0	3.3	0.0	0.0	1.6

In the Southern and Eastern States this is the biggest hurdle faced by the entrepreneurs while in the West, agripreneurs are of the view that the amount of loan/ subsidy is inadequate.

Also agripreneurs in Western region feel that the financial institutions and facilitating agencies are not cooperative. In the North Eastern regions, the entrepreneurs are of the view that the amount of loan / subsidy are not adequate and also the type of projects qualifying for grant of loan / subsidy are very limited and do not cover the entire range of agricultural extension services. In the Eastern States agripreneurs find the loan / subsidy amount to be inadequate and also that the terms and conditions for grant of loan / subsidy is not enterprise friendly.

This indicates that during the training, trainees should be informed not only about loans but also about benefits provided by the government in terms of subsidy wherever applicable. This will reduce the loan burden of the agripreneurs and encourage banks in funding these ventures.

3.5 Extension Agencies of State Governments

The primary survey also included interaction with the State Extension officials mainly from Agriculture Department. This was intended mainly to assess the extent to which the agriclinics have strengthened the government efforts in agricultural extension. There was very limited response as only five states out of twelve contacted by the Consultants responded in this regard. The officers contacted generally didn't have much details about the agriclinics set up in their state and their locations. It is, therefore, concluded that the State

agencies have not taken any interest either in promoting the scheme or taking advantage of the agriclinics for extending the reach of extension network.

On the basis of the limited response received from the five States the following findings emerge.

3.5.1 Support to the Farmers

According to the Extension officials of Maharashtra, the productivity of the crops have increased by 20% in the catchment area of the agriclinics and farmers have gained in terms of income and better quality of the produce, similarly in Andhra Pradesh productivity has increased by 30% and in Rajasthan by 10%. The extension services provided by agripreneurs have empowered the farmers to adopt advanced technologies, know how and practices. One of the reasons mentioned for increase in productivity is constant monitoring and advice to the farmers during the crop raising period.

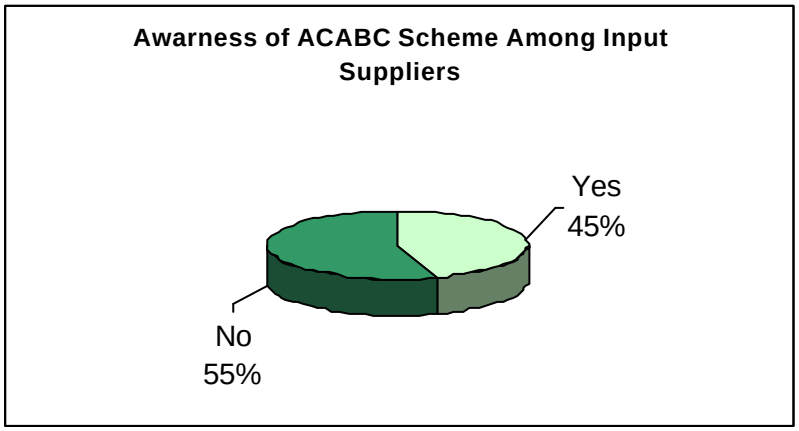
3.6 Input Suppliers

3.6.1 Scheme Awareness

Input suppliers are regarded as one of the entities within the scheme. Although they are not a part of the scheme directly, yet they could form symbiotic relationship with agriclinics. The input companies will take advantage of educated and trained agripreneurs for distribution and scientific usage of agri inputs in cost effective and environment friendly manner. The agriclinics on the other hand will increase their incomes by selling agri inputs and establishing more intense relationship with their clients i.e. the farmers of the catchment area.

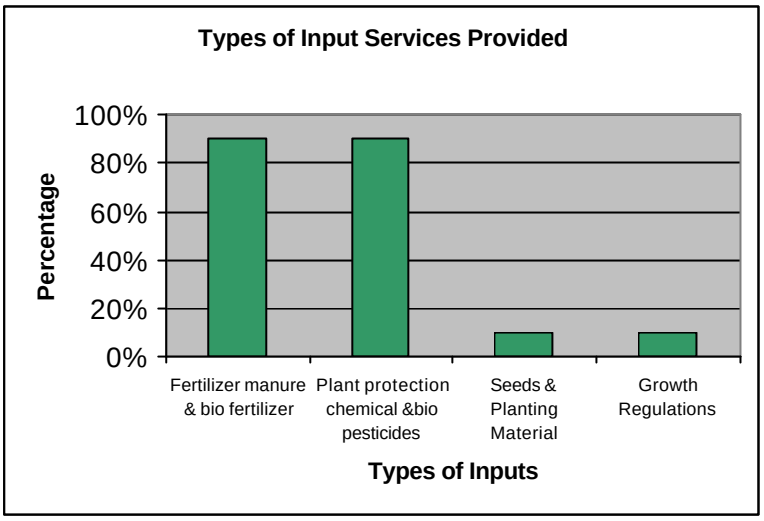
Below is the graphical representation of the awareness of the scheme amongst the input suppliers:

Figure 8 Awareness of ACABC Scheme amongst Input Suppliers



Although input suppliers are considered as one of the support system to the success of the scheme, the data does not show much of awareness amongst the input suppliers.

Figure 9 Types of Input Services Provided



At the ground level, it was found that most of the agriclinics are interacting with the distributors of agri inputs and are treated like one of the dealers by the distributor. More than half of these distributors did not have any knowledge about the scheme and were not able to appreciate the fact that the agriclinics have been set up by qualified technocrats and therefore will help both the input companies and farmers.

It is important that the manufacturers and marketing companies may be sensitized about this initiative and they could take advantage of this initiative of Government of India in various ways such as engaging them in setting up demonstration farms for product efficacy, scientific usage by the farmers and distribution and sale of their products. MANAGE should interact with major manufacturers of agri inputs to make them aware about the scheme and establish mutually beneficial relationship with agriclinics.

3.7 Agripreneurs

3.7.1 Employment Generation

Employment generation is one of the key objectives of the scheme. The scheme was launched to provide employment to agri graduates who pass out every year from the agriculture universities throughout the country. From 45 agriculture universities, every year around 15000 candidates are reported to pass out. Out of these 15000 candidates, only around 2000 candidates (MOA) are absorbed in the service sector rest of them remain unemployed or under utilized.

Table 14 Progress of Agri-Clinics and Agri-Business Centers Scheme

S. No.	Year	No of Agri graduates	No. of Candidates to be trained	No. trained	No. of Agri-ventures established
1	2002-03	15000	3245	3058	416
2	2003-04	15000	3400	1110	457
3	2004-05	15000	3500	2977	783
4	2005-06	15000	3500	2902	1415
5	2006-07	15000	4000	3149	1081
	TOTAL	75000	17645	13196	4152

From the above table, it is seen that the scheme targeted to train about one fourth of the total number of agri graduates during the period 2002-2007. The scheme could achieve nearly 75% of this target. It is heartening to note that nearly one third of the graduates trained have started their venture.

The last year of the Tenth Plan (2006-2007) had the largest number of graduates trained, but the ventures established were only 34%. In the year (2005-2006), nearly half of the graduates trained established their venture. Thus, showing a fluctuating trend in the first years, where there has been a rise in the first four years and then a sudden drop between 2005-2006 and 2006-2007.

Table 15 Employment Generation

Ventures	250	4152
Total	1535	25493
Direct	1369	22736
Indirect	166	2757
Male	1117	18551
Female	418	6942
General	836	13884
SCST	699	11609

Apart from providing employment to graduates, the ventures set up by them has helped in providing gainful employment, both direct and indirect, to several people, depending on the nature of enterprise. On an average more than six persons were employed under each enterprise with 90% receiving direct employment. This would lead to an employment generation of more than 25000 persons for the 4152 enterprises set up with assistance from the scheme. Based on the data collected, it was noted that nearly 75 percent of the employed were male and the rest 25 percent female. If we also take into account the employment generated for family members as labour at the farm level for production and post harvest management, which usually goes unreported, as they are generally not paid, the employment rate would be higher.

3.7.2 Extension Services

The success of the scheme in helping setting up of the enterprises or improving the reach of extension services to farmers can be judged from the fact that all the ventures started under the scheme, whether before 2005 or later have continued and there has been no closure.

A few projects did experience delay in start up, largely due to reduced or inadequate access to funds. However, the trained graduates being keen to make a success of their enterprise, recognizing the economic viability of their proposed venture invested their own funds. In many cases, the banks/FIs, expedited loan sanction once they observed the initial success of the enterprise set up and the technical competence/ confidence of the entrepreneur. As the project progressed, the entrepreneurs were able to recover their own investments or pay back the loans they had secured.

3.7.2.1 Extension Coverage

Table 16 Extension Coverage

State	Total Number of Villages Covered	Total Number of Farmers Covered	Farmers Covered Per Village	Total Number of Sampled Ventures	Villages per Enterprise
Andhra Pradesh	483	8370	17	13	37
Assam	10	300	30	8	1
Bihar	620	13870	22	24	26
Gujarat	298	22400	75	9	33
Karnataka	2662	12792	5	40	67
Madhya Pradesh	680	8000	12	9	76
Maharashtra	1243	58975	47	49	25
Manipur	13	220	17	8	2
Orissa	70	915	13	4	18
Rajasthan	847	4775	6	31	27
Tamil Nadu	220	4380	20	11	20
Uttar Pradesh	393	8435	21	44	9

One of the major objectives of the scheme has been to improve the reach of the agriculture extension system to the farmers. The scheme is expected to add to the public agricultural extension systems in place, as it is reportedly not able to match the requirements of the sector.

Discussions with the ventures established revealed that on an average, each venture is servicing about 30 villages. While in states like Karnataka and MP the reach is around 70 villages, in UP and the North Eastern states the reach is much lower (< 10 villages) with 4152 ventures successfully established, the scheme has already reached nearly 1.25 lakh

villages. The low rate of penetration in North Eastern states is largely ascribed to poor availability of funds.

Information was also gathered as to the reach of the scheme to the farmers. Each venture provided data on the number of farmers being benefited through the technology inputs both physical (seeds, fertilizers, implements etc.) and technical knowledge (agriculture extension). It was observed that on an average about 19 farmers per village was reached and benefited directly or indirectly. While in the states like Gujarat and Maharashtra the number of farmers benefited per village was high to the extent of 75 and 47 respectively while other states have faired well in the farmers reach except for Karnataka and Rajasthan where the penetration has not been extensive.

3.7.3 Benefits to Farmers

Going further in evaluating the impact of the extension services two dimensional perspective was taken on the satisfaction levels of the farmers as well as the Agripreneur and the findings are elaborated below:

Table 17 Benefits: As per Agripreneurs (Percentage)

State	Improved Cropping Pattern	Cropping Intensity	Income Enhancement	Improved Production Technology	Productivity Enhancement	Employment generation	Assistance in Marketing
Karnataka	17.5	22.5	40.0	47.5	40.0	17.5	0.0
Tamil Nadu	27.3	9.1	45.5	54.5	36.4	36.4	0.0
Andhra Pradesh	7.7	23.1	46.2	53.8	30.8	30.8	0.0
Gujarat	0.0	11.1	11.1	77.8	66.7	0.0	11.1
Maharashtra	0.0	0.0	32.7	51.0	49.0	16.3	2.0
Manipur	12.5	12.5	50.0	50.0	25.0	50.0	50.0
Assam	12.5	0.0	0.0	0.0	0.0	25.0	0.0
Orissa	0.0	0.0	25.0	75.0	25.0	0.0	0.0
Bihar	25.0	25.0	37.5	20.8	16.7	33.3	12.5
Madhya Pradesh	66.7	33.3	22.2	33.3	33.3	0.0	0.0
Rajasthan	0.0	29.0	51.6	58.1	51.6	3.2	0.0
Uttar Pradesh	25.0	27.3	70.5	31.8	25.0	9.1	4.5
Overall	14.4	18.0	42.8	44.4	36.4	16.8	4.4

As per agripreneurs response, major benefit to the farmers availing the services of agriclinics centers is the increased awareness among farmers on scientific ways of farming. The agriclinics centers have been successful in imparting knowledge to the farmers on the new

and scientific methods of farming, thus leading to an increase in the production per hectare and the cropping intensity. The overall scenario reflects that around 43% of the agripreneurs have responded that their advice has resulted in income enhancement of the farmers and this has resulted from their timely advice and transfer of technology.

Table 18 Benefits: As per Farmers (Percentage)

State	Increased Productivity	Improved Production Knowledge	Optimum usage of farm inputs	Plant Protection	Single Window Advisory	Availability of farm Implements	Assistance in Marketing
Andhra Pradesh	72	7	72	66	51	0	8
Assam	78	13	66	63	38	0	0
Bihar	83	12	70	76	41	0	0
Gujarat	31	2	94	7	61	1	11
Karnataka	36	6	31	30	20	1	1
Maharashtra	82	14	71	72	39	0	1
Manipur	66	10	70	48	48	0	8
Madhya Pradesh	94	32	79	57	37	0	2
Orissa	65	10	63	38	48	0	5
Rajasthan	79	11	69	67	41	0	2
Tamilnadu	89	3	72	94	65	3	0
Uttar Pradesh	83	13	71	75	39	0	1
Overall	**72**	**11**	**65**	**62**	**39**	**0**	**2**

Table 18 depicts that amongst the benefits received by farmers, the major benefit is increased agricultural production per hectare. About 72 % of the farmer respondents are of the view that there has been an increase in the productivity of their crops. Primary data suggests that the other significant benefits farmers have been able to reap include improved knowledge on safeguarding the crops from pests and provision of the necessary information at one place. The objective of technology transfer has been met to some extent but still there is a need to involve private extension staff in the entire production, processing, transporting and marketing chain. The farmers have received very little support in improving the marketing of their produce which needs to be enhanced by providing better market information to the farmers. Only 11% of the farmers throughout the country had access to information on marketing of the produce. There has been varied response from farmers to the services made available through these ventures. The satisfaction levels of the farmers derived from the above services has been summarized below:

Table 19 Satisfaction Level Farmers (Percentage)

Particulars	Dissatisfied	Fairly Satisfied	Satisfied	Very Satisfied	Highly Satisfied
Improvement on produce	7	17	13	34	14
Timely availability of necessary inputs	4	14	23	34	9
Improvement in knowledge	6	9	18	42	9
Marketing Support	36	6	11	18	
Price Charged	1	4	16	30	25

Amongst the farmers 34% have expressed satisfaction over the produce improvement, 34% on timely availability of necessary inputs and 42% on improvement of knowledge and the service charges. Within the respondent group 36% of the farmers are dissatisfied with the marketing support and around 18% of the farmers have shown dissatisfaction in other areas.

The access to knowledge and inputs, both have considerably increased which has directly led to an increased productivity and hence increased income, though the farmers are not satisfied with the kind of marketing support provided by these centers.

3.7.4 Financial Parameters

3.7.4.1 Investments

Table 20 illustrates investments made in projects under the scheme in the sampled states.

Table 20 Statewise Investments

States	Number of Ventures Sampled	Investment in Sampled Ventures (Rs in Lacs)	Average Investment Per Venture (Rs in Lacs)
Karnataka	40	987	25
Maharashtra	49	366	7
Bihar	24	199	8
Rajasthan	31	156	5
UP	44	116	3
AP	13	97	7
Gujarat	9	92	10
Assam	8	56	7
MP	9	33	4
Manipur	8	16	2
Orissa	4	6	2
Tamil Nadu	11	NR*	-

***NR= No response**

On an average Rs.8 lacs have been invested per venture in the sampled 250 ventures. Based on this analysis it is estimated that more than Rs. 30,000 lacs have been invested into agriventures under the scheme. Investments in Karnataka have been highest amounting to Rs 987 lacs. While it is worth noting that the investment of Rs. 987 lacs in 40 units has been able to serve only 5 farmers per village. This indicates the poor penetration in terms of farmers per village.

3.7.4.2 Revenue Generation

Businesses are established with the idea of generating revenues and making a living out of it. Revenue streams determine the performance of the business. Whether the business has been able to generate enough funds to sustain and on the other hand pay off the loans. This analysis may also be used by the bankers to understand the revenue trend and in turn will encourage them to disburse more funds for the projects under the scheme. The following table depicts the revenue generated over a period of time by projects under the scheme.

Table 21 Average Revenue Generation by Agripreneur

Amount (Rs in Lacs)

States	2005-06
UP	3
MP	1
Rajasthan	7
AP	36
Karnataka	47
Assam	12
Bihar	3
Orissa	9
Gujarat	5
Maharashtra	7

Based on the responses available for the revenue generated during the financial year 2005-2006 it can be inferred that the average revenue in some states have been desirable and some states are still lacking behind. In Assam the number of respondent who could furnish the financials was only one therefore the average revenue is Rs 12 lac per annum.

South and Western zone have been able to generate quite a significant amount of revenue. This revenue has been generated from ACABC which is predominant in these regions. The Northern and Eastern States have given an average performance, inspite of UP having one of the highest number of projects it has shown a very average performance.

An overview in the revenue steam gives an idea that West and South India has performed well, North East has not been able to show any results and needs attention.

4 VIABILITY OF DIFFERENT VENTURES

4.1 Project Area Wise Venture Establishment

ACABCs accounted for the majority of ventures set up across different regions. Such ventures covered 76.4% of the total ventures established. The distribution of these ventures across the regions indicates that Northern region accounted for maximum (34%) followed by Western region (26%). Areas which followed ACABCs, in terms of popularity were vermicomposting, dairy, direct/ retail markets. The detailed summary of state wise projects has been illustrated below:

Table 22 State wise Services Provided

	Project Area	Bih	Kar	TN	AP	Guj	Mah	Mani	Assam	Oris	Raj	MP	UP	Total
1	Agri - Clinics & Agribusiness Centre	13	35	4	12	8	42	5	4	3	17	6	42	191
2	Dairy/ Poultry/ Piggery/ Goat etc		2	1	1		3	2			4		1	14
3	Vermicomposting	4		2							5			11
4	Direct Mkt./ Retail Mkt.	1	1	1							2	3		8
5	Crop Production		2					1		1				4
6	Seed Processing and Agri Business	3												3
7	Nursery			2							1			3
8	Veterinary Clinics					1			1					2
9	Cultivation of Medicinal Plants			1			1							2
10	Tissue Culture Unit						2							2
11	Fisheries Development	1												1
12	Value Addition						1							1
13	Crop Protection Centre								1					1
14	Soil Testing Laboratory	1												1
15	Horticulture Clinic	1												1
16	Organic Production/ Food Chain										1			1
17	Mushroom Cultivation								1					1
18	Apiary										1			1
19	Production & Marketing of Bio-Control Agents												1	1
20	Others								1*					1
	Total	24	40	11	13	9	49	8	7	4	31	9	44	250

It was also noted that certain important project areas, like setting up of nurseries (including tissue culture and seed processing units) necessary for improving the farmers' access to quality planting material, the basic input in any agri production projects, accounted for only about 3% of the total ventures established. While the nurseries were setup in North and South, all the tissue culture units were in West and the seed processing units in the Eastern region. Very few takes were there for another important area of soil-testing lab which in an aid in the agri-advisory services. Other innovative area like landscaping and nursery, agro eco tourism agriculture journalism and so on does not feature in the sample.

4.2 Project wise Financial Viability

Table 23 Financial Viability of the Different projects

Projects	No of Projects	Rotation Factor	Average Investment	Average Revenue	Average Expenditure	Profit Margin	Return On Investment
ACABC	90	1.17	7.95	9.27	5.68	39%	45%
Bee Keeping	1	1.17	6.00	7.00	3.60	49%	57%
Dairy Farming	4	0.39	13.96	5.38	2.76	49%	19%
Grape Processing	1	0.77	13.00	10.00	6.00	40%	31%
Horticulture Consultancy Plantation	1	1.67	1.50	2.50	0.96	62%	103%
Nursery	1	2.00	1.00	2.00	0.96	52%	104%
Poultry Farming	2	1.26	4.78	6.00	3.12	48%	60%
Retail Inputs	2	3.77	1.75	6.60	5.40	18%	69%
Tissue Culture	2	0.64	31.25	20.00	13.80	31%	20%
Veterinary Clinic	1	0.94	3.20	3.00	1.56	48%	45%
Vermicomposting	7	1.03	3.00	3.07	2.02	34%	35%

On the basis of responses received from 112 respondents the viability of various projects undertaken within the scheme has been evaluated.

- Rotation Factor: rotation factor is an indicator which suggests the number of times the initial investment is recovered from the revenue within a year. During the study it was observed that most of the projects have a rotation factor between 1 to 3 times. That means the projects are able to recover the initial investments thrice In a year. However like dairy farming, grape processing, tissue culture and Vetenary clinics which have a rotation factor of less than 1 means that the revenue generated in these projects are not enough to recover the investment in one year.

- Average Investment: average investment per project has been worked out to be Rs. 8 lacs. On analyzing the average investment of each project area it was inferred that tissue culture being highly capital intensive project requires an average investment of Rs. 31 lacs. The least project cost is nursery and horticulture consultancy. Project cost of nursery does not include the cost of land, which forms a major investment in the project. Apart from them agriclinics and bee keeping are two low investment project areas.

- Average Revenue: average gross income is the finanicial indicator which reflects the average revenue earned by a project. The above figures suggest that projects on tissue culture and grape processing are two ventures that have a good turnover. This could be mainly due to the nature of the ventures. As their per unit selling cost is higher than projects.

- Average Expenditure: the average expenditure among the projects are maximum in tissue culture. Reason being the fact that the project requires skilled manpower and other supporting facilities like laboratory and equipment. The other projects show desirable expenditure depending on their operational needs.

- Profit Margin Ratio: The ratio shows the relation between net income earned by the project and the revenue generated. A project with higher ratio is regarded as a more viable project as it is able to generate higher profits for the project. In light of the interpretation the above figures suggest that retail input project give a profit margin of 18% as it is mainly a trading units running tight margins. Other projects generate profit margin of 30% to 50% depending on the nature of the projects. In case of Horticulture consultancy the profit margins go upto more than 60% because of the fact that being a service related venture the operational costs are low and since it is a specialized area the technical expertise fetch good revenues.

- Return on Investment: returns which individual; projects earn on initial investment has been considered as one of the parameters for assessing the viability of different projects. It was inferred from the available data that projects like vermicomposting, tissue culture, dairy farming, poultry farming and grape processing are capital intensive projects therefore their return on investment is on the lower side. On the other hand service related projects attract less initial investments which in turen gives higher return on investment.

5 ACHIEVEMENT OF THE OBJECTIVES OF THE SCHEME

The scheme was launched with certain objectives and through the implementation of the scheme these objectives was aspired to be fulfilled. Through primary and secondary data attempt was made to assess the extent to which objective of the scheme has been achieved.

5.1 Objective 1: To supplement extension activity carried out by Government Agency

One of the most important objectives of the scheme is to support the existing extension activities of the state governments. During the study it was observed that the scheme has benefited the overall extension service provided by the government agencies.

Although there are no records or any documentation regarding the extent to which the scheme has benefited the government agencies. However during the discussions with the officials information received suggests that in Maharashtra farmer's productivity of the crops have increased and farmers have gained around 20% in terms of income, in Andhra Pradesh 30% and Rajasthan 10%. Further there has been technology empowerment up to 40%.

Their technical knowledge has increased to the extent of 20% and more farmers are getting involved and proactive in the process of adopting better technology. State government officials have responded in a positive manner where they agree that the performance of these units have been good and with constant monitoring and advice farmers have benefited.

In the light of the above information received it can be said that the objective of supporting the government agencies in strengthening the extension activities has been achieved.

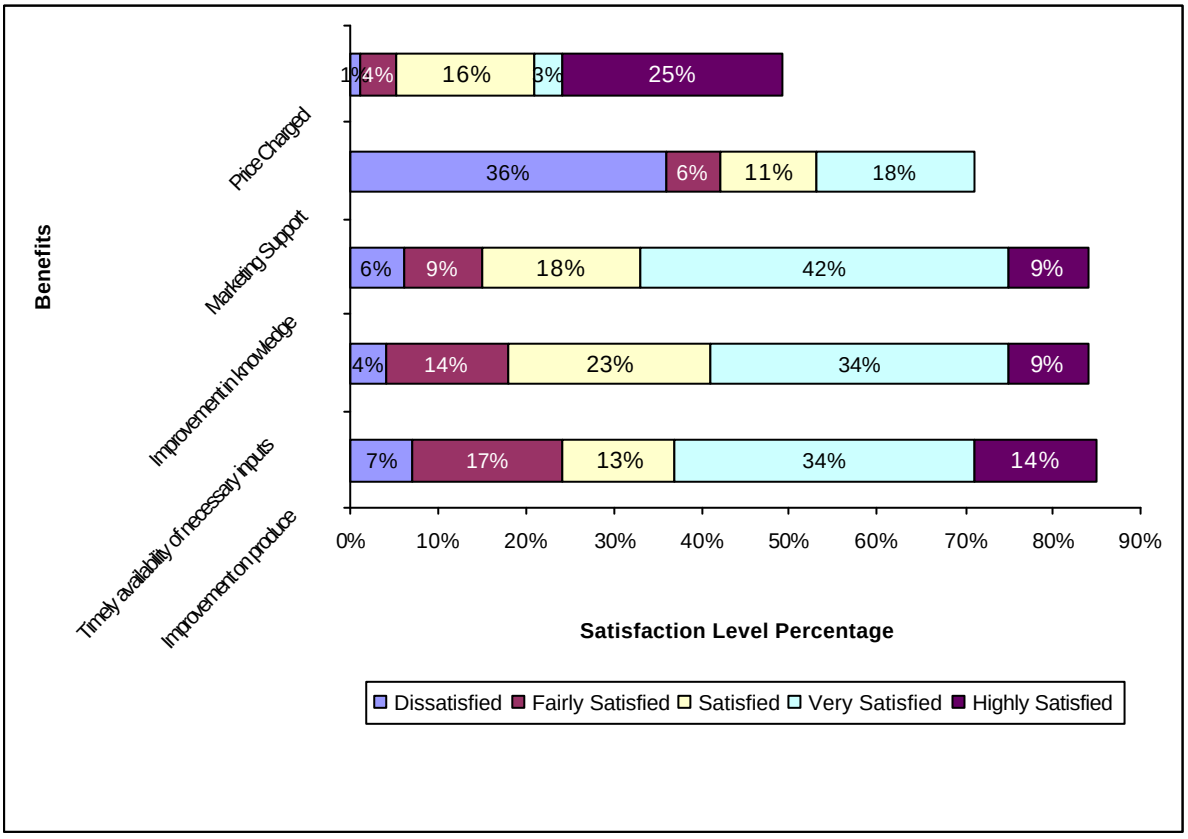
5.2 Objective 2: To make available supplementary sources of input supply and services to needy farmers

The second objective of the scheme was to provide the farmers not only with technical knowledge and know-how but also the good quality seed and farm implements and correct guidance.

During the discussions with the agripreneurs it was inferred that benefits differed across different states. In Karnataka, Tamil Nadu, Andhra Pradesh, Gujarat, Maharashtra, Manipur, Orissa, Bihar and Rajasthan the responded agreed that because of their services the most significant benefit that farmers got was that of improved cropping pattern which led to income enhancements.

Responses from the farmers suggest that amongst the benefits received by farmers, the major benefit is increased agricultural production per hectare. About 72 % of the farmer respondents are of the view that there has been an increase in the productivity of their crops. Primary data suggests that the other significant benefits farmers have been able to reap include improved knowledge on safeguarding the crops from pests and provision of the necessary information at one place. The objective of technology transfer has been met to some extent but still there is a need to involve private extension staff in the entire production, processing, transporting and marketing chain. The farmers have received very little support in improving the marketing of their produce which needs to be enhanced by providing better market information to the farmers. Only 11% of the farmers throughout the country had access to information on marketing of the produce. There has been varied response from farmers to the services made available through these ventures.

Figure 10 Satisfaction Level of the Farmers



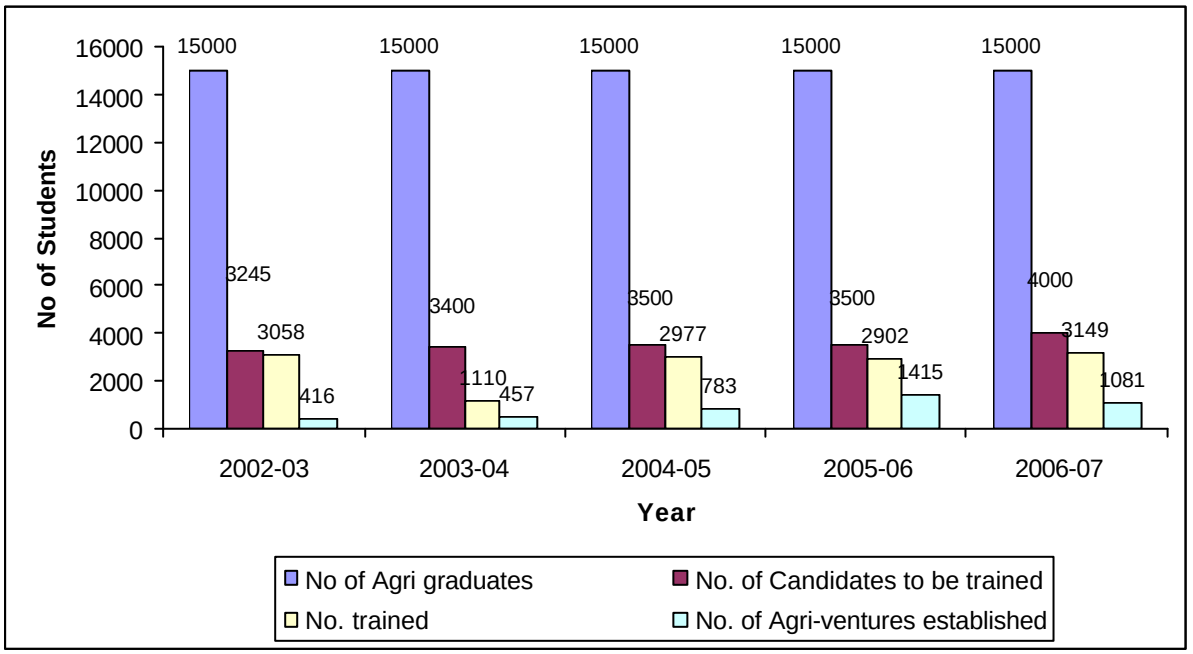
Amongst the farmers 34% have expressed satisfaction over the produce improvement and timely availability of necessary inputs and 42% on improvement of knowledge and the service charges. Within the respondent group 36% of the farmers are dissatisfied with the marketing support and around 18% of the farmers have shown dissatisfaction in other areas.

The access to knowledge and inputs, both have considerably increased which has directly led to an increased productivity and hence increased income, though the farmers are not satisfied with the kind of marketing support provided by these centers. Overall the farmers have expressed that they have benefited from the scheme thus the basic objective has been achieved however the coverage area remains limited. There is a need to increase the number of agripreneurs and agri ventures.

5.3 Objective 3: To provide gainful employment to agriculture graduates in new emerging areas

Employment generation is one of the key objectives of the scheme. The scheme was launched to provide employment to agri graduates who pass out every year from the agriculture universities throughout the country. From 45 agriculture universities every year around 15000 candidates are reported to pass out. Out of which around 2000 (MOA) only are absorbed in the service sector rest of them remain unemployed or under utilized.

Figure 11 Employment Generated Among Graduates through the Scheme



From the above figure, it is seen that the scheme targeted to train about 23% of the total number of agri graduates during the period 2002-2007. The scheme could achieve nearly 75% of this target. It is worth noting that nearly 30% of the graduates trained have started their venture.

During the fiscal year 2006-2007 witnessed the largest number of graduates trained about 20% of the graduates passing out in the year was trained under the scheme, but the

ventures established were only 34%. In the year (2005-2006) nearly half of the graduates trained established their venture. Thus showing a fluctuating trend in the first years, where there has been a rise in the first four years and then a sudden drop between 2005-2006 and 2006-2007.

Table 24 Employment Generation across various segments

Ventures	250	4152
Total	1535	25493
Direct	1369	22736
Indirect	166	2757
Male	1117	18551
Female	418	6942
General	836	13884
SCST	699	11609

Figure 12 Direct and Indirect Employment by the Agriventure

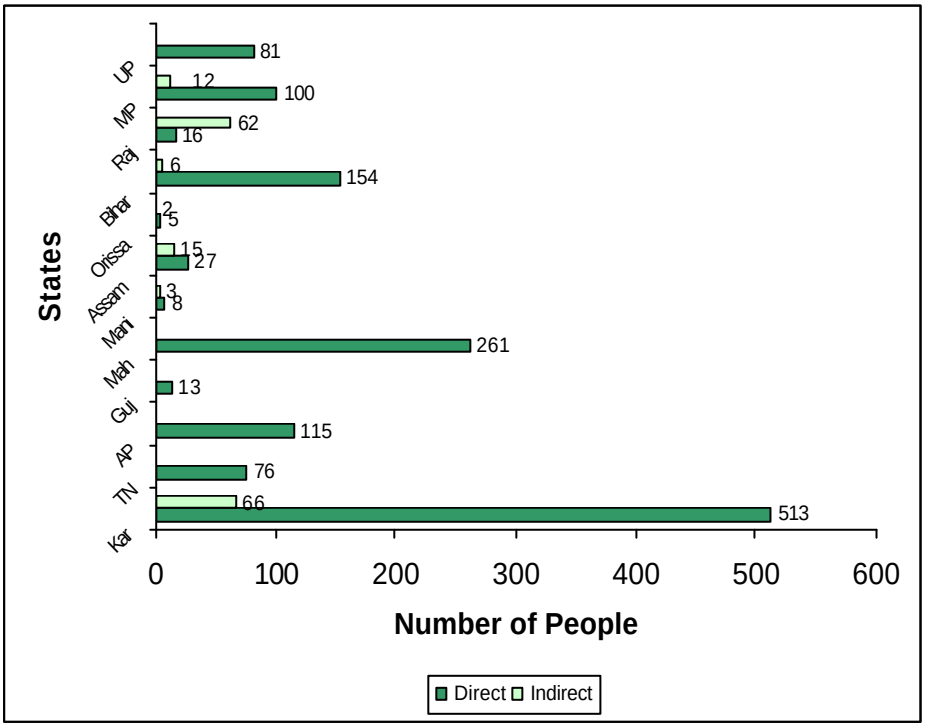


Figure 13 Employment Generated by the Agriventure in Social Categories

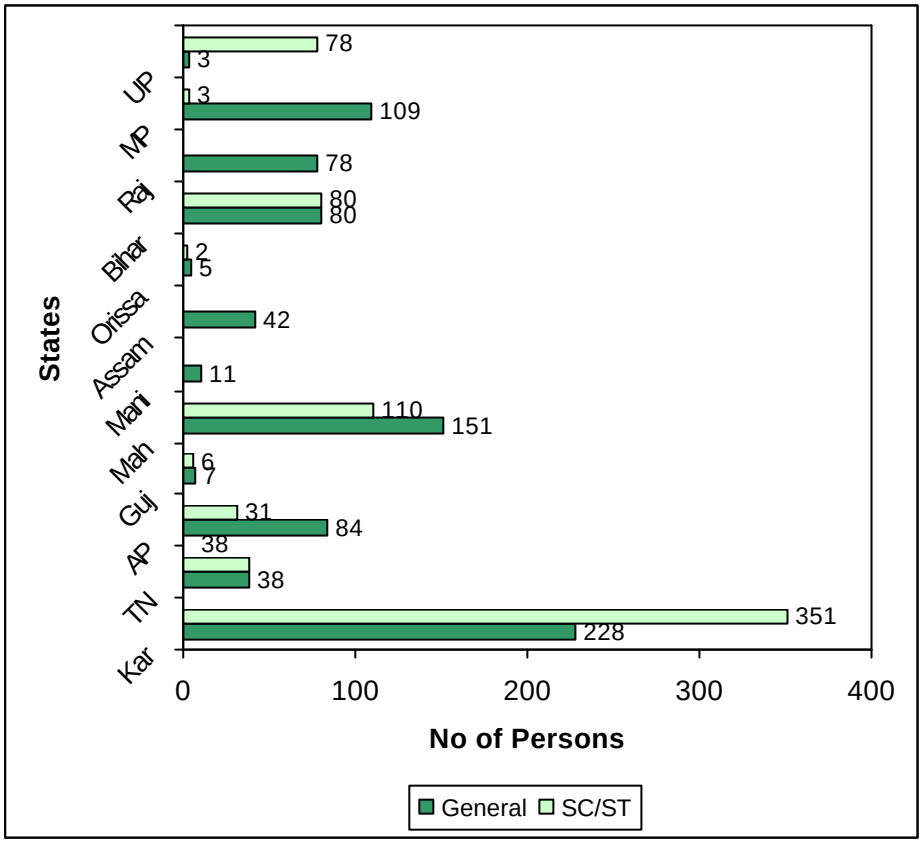


Figure 14 Permanent & Temporary Employment Generated by the Agriventure

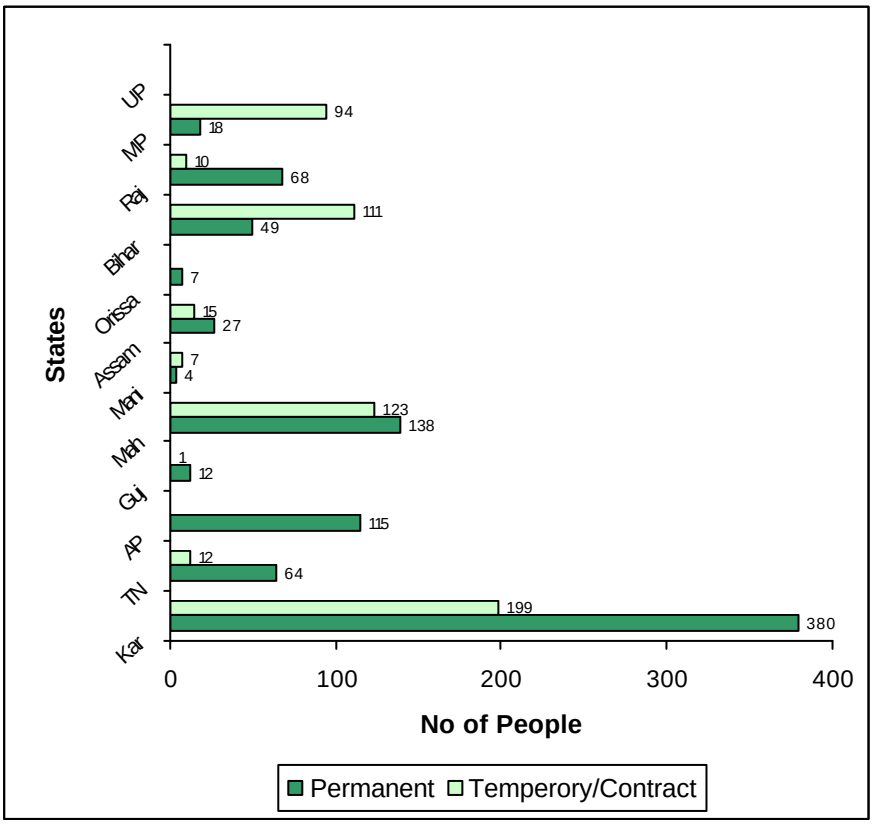
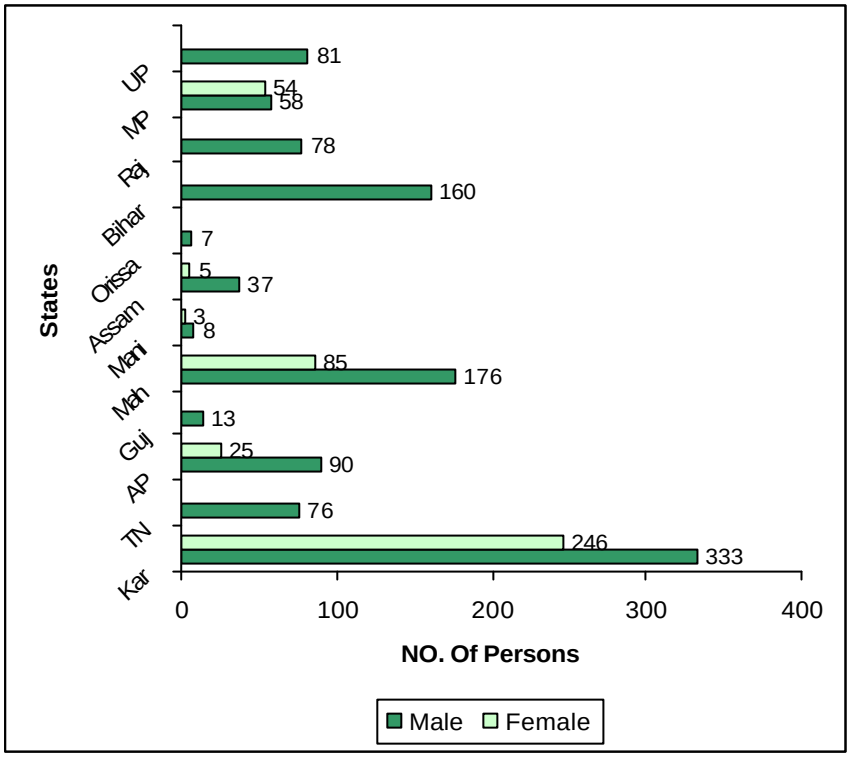


Figure 15 Gender wise Employment Generated by the Agriventure



Although target to provide employment to the graduates have not been achieved 100 percent, however attempt towards employment generation has been impressive. The ripple effect of employment amongst the agri graduates have been felt across different social strata as well as genders. The ventures set up by the agri graduates has helped in providing gainful employment both direct and indirect to several people, depending on the nature of enterprise.

On an average more than six persons were employed under each enterprise with 90% receiving direct employment. This would lead to an employment generation of more than 25000 persons for the 4152 enterprises set up with assistance from the scheme. Based on the data collected it was noted that nearly 75 percent of the employed were male and the rest 25 percent female. If we also take into account the employment generated for family members as labour at the farm level for production and post harvest management, which usually goes unreported, as they are generally not paid, the employment rate would be higher.

The recorded information suggests that the scheme has not only started its journey towards achieving the target of employing agri graduates but in the process generating several employment opportunities across different segments.

6 FACTORS FOR SUCCESSFUL AGRIPRENEURSHIP AND TRAINING INSTITUTES

6.1 Critical factors for successful agripreneur and training institutes

During the course of the study analysis of the critical factors were done to understand the reasons for the success of the established agripreneurs and successful training institutes.

6.1.1 Critical factors for the success of agripreneur

During the course of study on discussions with the agripreneurs the following factors were recognized as critical to their success.

- Marketability of the Project: one of the key factors in the success of the agriventure has been the product or service demand. Certain projects like ACABC, floriculture and Seed production have ready market and can be sold easily. Therefore the selection of project is very important. Those ventures that have been successful have attributed their success to the high demand of their product and services. This was further proven by the data collected during the survey. More than half of the ventures set up are of ACABC and other project areas like horticulture Clinics, veterinary clinics, soil testing labs and crop protection centers are very few in numbers. Thus, focus of a majority of ventures has been on service related activities. Marketing related projects (Direct/Related markets) accounted for only 4.1% of the total number. The scheme also promoted projects in innovative areas like tissue culture, agri journalism, eco-tourism, and agri— insurance and so on, but less than 1% of the projects set up covered these sectors. Depending on the project marketability the popularity of the projects has been assessed.

- One stop shop for the farmers: in case of ACABC the ventures have proved to be a success because they serve as one stop shop for the farmers. Where they are not only able to get free of cost advices regarding production, they also have access to the desired inputs in terms of seeds, fertilizers and so on. This kind of multifaceted function has led to the success of the ventures. 39% of the farmer's respondent that the single window advisory was one of the most important benefits that they derived from ACABC. Thus convenience and single window availability of advisory services one of the success factors for successful ventures.

- Farmer's Relationship: attributing to the success of the agri ventures is the farmer's network built during the course of time. Through timely and quality service the ventures have been able to establish good relations with the farmers thus creating a

network of farmers who keep on increasing with the word of mouth. This also creates loyalty within the farming community and they keep their association with the agripreneur.

- Quality Assurance: these days when duplicate fertilizers and poor quality inputs are readily available in the market, farmers usually fall prey to them and ruin the crops. Services provided by the agripreneurs are genuine and many a times comes with quality assurance. Moreover these entrepreneurs are educated and from agriculture background so they have far better understanding and technical knowledge which many a times farmers do not have. This is one factor which has contributed to the success of agriventure.

- Reliable information: the information and knowledge gained during the training is considered to be valuable and is passed on to the farmers. Availability of reliable information has proved to be one of the factors for the success of the enterprise.

6.1.2 Critical factors for the success of training institute

Training institutes are the building blocks of the scheme. Their performance in turn has an impact on the performance of the agreprenur. There are institutes who have given outstanding performance and have been able to generate encouraging results. The key factors for the success of the training institutes have been listed below.

- Practical training: the successful institutes make efforts to liaison with the relevant companies where they are able to send the agripreneurs for their practical training. This enables the agripreneurs to have exposure of the practical operations of the business they want to undertake in future. This has contributed as one of the key factor for the success of the training institutes.

- Inviting Guest lecturers: one of the key factors for the success of the training institutes is the kind of trainers they involve in imparting the training. Those institutes that invite lecturer from the industry are more popular than their counterparts. The reason being the fact that these trainers impart practical knowledge and share their industry experience, which enable the trainees to prepare quality reports which are readily sanctioned by the banks.

- Liasioning with banks: funding of projects is an important part of the whole scheme. Most of the ventures are not even started because of lack of sufficient funds due to rejection by the banks. Therefore liasioning with banks is an important and a very

critical factor in the success of the training institutes. The successful training institutes have liaison with the local banks in their area that in turn provide input to prepare the project and since these projects contain the inputs of bankers they easily get access to the loan. Thus leading to more disbursal of loans and resulting in establishment of more agri ventures.

The above mention critical factors are responsible for the success of the training institutes and agripreneurs respectively.

7 IMPACT ON EXTENSION SERVICES

The real impact of the scheme was assessed through the extent of extension services provided by the agripreneurs to the farmers. The assessment has been done on the basis of the villages covered and the farmers served. Apart from this, the satisfaction levels of the farmers have also been considered to estimate whether the extension services has benefited the farmers.

7.1 Villages covered

One of the major impacts of the scheme on extension services was to improve the reach of the agriculture extension system to the farmers. The scheme is expected to add to the public agricultural extension systems in place, as it is reportedly not able to match the requirements of the sector.

Table 25 Villages Covered Under the Scheme

State	Total Number of Villages Covered	Total Number of Sampled Ventures	Villages per Enterprise
Andhra Pradesh	483	13	37
Assam	10	8	1
Bihar	620	24	26
Gujarat	298	9	33
Karnataka	2662	40	67
Madhya Pradesh	680	9	76
Maharashtra	1243	49	25
Manipur	13	8	2
Orissa	70	4	18
Rajasthan	847	31	27
Tamil Nadu	220	11	20
Uttar Pradesh	393	44	9

Discussions with the ventures established revealed that on an average, each venture is servicing about 30 villages. While in states like Karnataka and MP the reach is around 70 villages, in UP and the North Eastern states the reach is much lower almost less than 10 villages with 4152 venture successfully established, the scheme has already reached nearly 1.25 lakh villages. The low rate of penetration in North Eastern states is largely ascribed to poor availability of funds.

7.2 Farmers Covered

Farmer survey was conducted to evaluate the number of farmers being covered under the scheme. The following observations were made and accordingly impact of the scheme was assessed.

Table 26 Farmers Covered under the Scheme

State	Total Number of Farmers Covered	Farmers Covered Per Village
Andhra Pradesh	8370	17
Assam	300	30
Bihar	13870	22
Gujarat	22400	75
Karnataka	12792	5
Madhya Pradesh	8000	12
Maharashtra	58975	47
Manipur	220	17
Orissa	915	13
Rajasthan	4775	6
Tamil Nadu	4380	20
Uttar Pradesh	8435	21

Information was also gathered as to the reach of the scheme to the farmers. Each venture provided data on the number of farmers being benefited through the technology inputs both physical (seeds, fertilizers, implements etc.) and technical knowledge (agriculture related information). It was observed that on an average about 19 farmers per village were reached and benefited directly or indirectly. While in the states like Gujarat and Maharashtra the number of farmers benefited per village was high to the extent of 75 and 47 respectively while other states have faired well in the farmers reach except for Karnataka and Rajasthan where the penetration has not been extensive.

7.3 Benefits to the farmers

The scheme was launched with the intention of providing technical support and inputs to the farmers to increase the productivity of their crops and in turn their income. Apart from these two benefits there are several other benefits which the farmers advocated to have received through the extension services in their village. They have been summarized in the following paragraphs.

Table 27 Benefits: As per Agripreneurs (Percentage)

State	Improved Cropping Pattern	Cropping Intensity	Income Enhancement	Improved Production Technology	Productivity Enhancement	Employment generation	Assistance in Marketing
Karnataka	17.5	22.5	40.0	47.5	40.0	17.5	0.0
Tamil Nadu	27.3	9.1	45.5	54.5	36.4	36.4	0.0
Andhra Pradesh	7.7	23.1	46.2	53.8	30.8	30.8	0.0
Gujarat	0.0	11.1	11.1	77.8	66.7	0.0	11.1
Maharashtra	0.0	0.0	32.7	51.0	49.0	16.3	2.0
Manipur	12.5	12.5	50.0	50.0	25.0	50.0	50.0
Assam	12.5	0.0	0.0	0.0	0.0	25.0	0.0
Orissa	0.0	0.0	25.0	75.0	25.0	0.0	0.0
Bihar	25.0	25.0	37.5	20.8	16.7	33.3	12.5
Madhya Pradesh	66.7	33.3	22.2	33.3	33.3	0.0	0.0
Rajasthan	0.0	29.0	51.6	58.1	51.6	3.2	0.0
Uttar Pradesh	25.0	27.3	70.5	31.8	25.0	9.1	4.5
Overall	14.4	18.0	42.8	44.4	36.4	16.8	4.4

As per agripreneurs response, major benefit to the farmers availing the services of agriclinics centers is the increased awareness among farmers on scientific ways of farming. The agriclinics centers have been successful in imparting knowledge to the farmers about the new and scientific methods of farming, thus leading to an increase in the production per hectare and the cropping intensity. The overall scenario reflects that around 43% of the agripreneurs have responded that their advice has resulted in income enhancement of the farmers and this has resulted from their timely advice and transfer of technology.

Table 28 Benefits: As per Farmers (Percentage)

State	Increased Productivity	Improved Production Knowledge	Optimum usage of farm inputs	Plant Protection	Single Window Advisory	Availability of farm Implements	Assistance in Marketing
Andhra Pradesh	72	7	72	66	51	0	8
Assam	78	13	66	63	38	0	0
Bihar	83	12	70	76	41	0	0
Gujarat	31	2	94	7	61	1	11
Karnataka	36	6	31	30	20	1	1
Maharashtra	82	14	71	72	39	0	1
Manipur	66	10	70	48	48	0	8
Madhya Pradesh	94	32	79	57	37	0	2
Orissa	65	10	63	38	48	0	5
Rajasthan	79	11	69	67	41	0	2
Tamilnadu	89	3	72	94	65	3	0
Uttar Pradesh	83	13	71	75	39	0	1
Overall	**72**	**11**	**65**	**62**	**39**	**0**	**2**

Table 28 depicts that amongst the benefits received by farmers, the major benefit is increased agricultural production per hectare. About 72 % of the farmer respondents are of the view that there has been an increase in the productivity of their crops. Primary data suggests that the other significant benefits farmers have been able to reap include improved knowledge on safeguarding the crops from pests and provision of the necessary information at one place. The objective of technology transfer has been met to some extent but still there is a need to involve private extension staff in the entire production, processing, transporting and marketing chain. The farmers have received very little support in improving the marketing of their produce which needs to be enhanced by providing better market information to the farmers. Only 11% of the farmers throughout the country had access to information on marketing of the produce. There has been varied response from farmers to the services made available through these ventures.

7.4 Satisfaction levels

Assessing the benefits was not enough therefore the level of satisfaction which the farmers derived from the services was also important. Therefore responses of the farmers have been taken in this regard.

Table 29 Satisfaction Level Farmers (Percentage)

Particulars	Dissatisfied	Fairly Satisfied	Satisfied	Very Satisfied	Highly Satisfied
Improvement on produce	7	17	13	3	14
Timely availability of necessary inputs	4	14	23	3	9
Improvement in knowledge	6	9	18	4	9
Marketing Support	36	6	11	1	
Price Charged	1	4	16	3	25

Amongst the farmers 34% have expressed satisfaction over the produce improvement, 34% on timely availability of necessary inputs and 42% on improvement of knowledge and the service charges. Within the respondent group 36% of the farmers are dissatisfied with the marketing support and around 18% of the farmers have shown dissatisfaction in other areas.

The access to knowledge and inputs, both have considerably increased which has directly led to an increased productivity and hence increased income, though the farmers are not satisfied with the kind of marketing support provided by these centers.

8 REGIONAL VARIATIONS

In order to asses the performance of the scheme in the respective regions evaluation has been done to asses the regional performance of the scheme.

8.1 Coverage of Extension Services

The level of extension services in each zone has been assessed on the basis of the villages covered and the farmers served. It was observed that within the sample size the regional variation was quite fluctuating.

Table 30 Region wise Farmers and Villages Served

Region	Number of Villages	Number of Farmers
South	3365	25542
North	1920	21210
East	690	14785
West	1541	81375
North East	23	520

The consolidation of information on regional basis revealed that the largest number of villages served was in the Southern region followed by North and West. However in case of farmers served West region exceeded South by serving 81375 farmers. In North East the situation was assessed to be dismal with 520 farmers being served in 23 villages.

8.2 Direct and Indirect Employment Generation

Region wise employment generation was analyzed by means of information collected during the primary survey. Further category wise analysis gave the following results.

Table 31 Region wise Employment Generation

	Direct								Indirect								
	General				SC/ST				General				SC/ST				
	Permanent		Temporary Contract/ Seasonal		Permanent		Temporary Contract/ Seasonal		Permanent		Temporary Contract/ Seasonal		Permanent		Temporary Contract/ Seasonal		TOTAL
	Male	Fema	Male	Fema	Male	Fema	Male	Fema	Male	Fema	Male	Fema	Male	Fema	Male	Female	
SOUTH	167	76	49	20	203	73	46	70	18	4	12	4	0	18	4	6	**770**
WEST	86	33	34	5	14	17	55	30	0	0	0	0	0	0	0	0	**274**
NORTH EAST	31	0	3	1	0	0	0	0	0	0	11	7	0	0	0	0	**53**
EAST	28	0	50	0	25	0	56	0	2	0	5	0	1	0	0	0	**167**
NORTH	21	2	43	50	81	0	0	0	61	2	11	0	0	0	0	0	**271**
TOTAL	**333**	**111**	**179**	**76**	**323**	**90**	**157**	**100**	**81**	**6**	**39**	**11**	**1**	**18**	**4**	**6**	**1535**

Out of the total 250 ventures surveyed it was observed that a total of 1535 employment have been generated across the five zones. Out of them Southern region has been the forerunner by employing around 50% of the total employment generated. Rest of the zones has fared well except for North East where the employment generation has been to the tune of around 3 percent. This impact is the ripple effect of the agri ventures established in the zones. Since the numbers have not been encouraging in the North East in terms of agri ventures established so has their contribution to the employment generation. Further highest number of women workforce that has been employed is in South amounting to 35 percent of the total employment in South. Similarly of the total employment generated in South more than 50 percent belongs to Schedule caste and tribe. Other zones have also fared well in generating employment within different categories.

8.3 Business Turnover and Net Income

Information was also gathered on the turnover and net income generated by the agripreneurs. Out of the 250 respondents surveyed 112 respondents were able to furnish complete financial status of their firm and inferences have been drawn from the available data.

Table 32 Regional Income Variation

(Rs. In Lacs)

Region	Average Turnover	Average Net Income
South	14.60	5.39
North	4.82	2.03
East	3.17	1.25
West	6.73	2.77
North East	12.00	2.76

From the above tabulated data it can be inferred that like other parameters even in this case the turnover has been highest in the Southern region. So is the case of average revenue earnings South zone has over exceeded all other zones by showing an average revenue of Rs 14 lacs and an average net income of Rs 5 lacs. The results in East and North East have been far more discouraging as average net incomes have been least amongst all the zones.

8.4 Financial Analysis

Table 33 Region wise Loan Processing Scenario

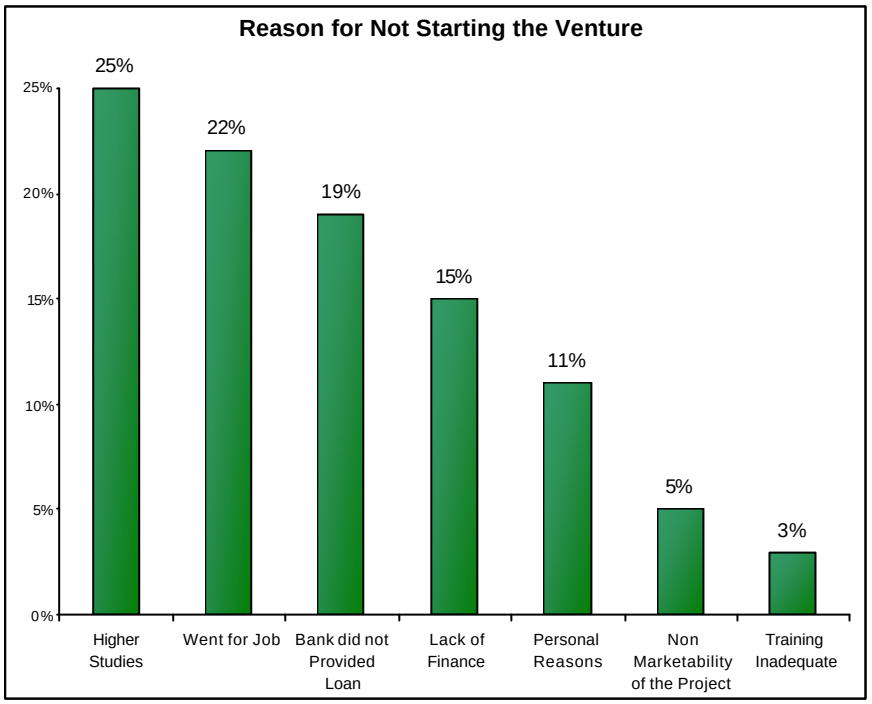
State	No. of Projects Financed	Amount Applied in Lac	Amount Sanctioned in Lac	% age loan sanctioned	Time Taken in Sanction of Loan in Weeks
SOUTH	40	71.5	68.63	96.0	10.6
WEST	19	48.22	42.87	88.9	11.1
N-E	4	10.6	1.64	15.5	7.8
EAST	3	4.66	1.6	34.3	7.85
NORTH	8	8.51	7.03	82.6	7.9
TOTAL	74	143.49	121.77	84.9	

Among the 250 projects surveyed 74 projects have been able to receive financial assistance from banks; rest 176 projects have started their ventures with self financing. Regional analysis of loans availed by the beneficiaries suggests that in South zone the highest number of projects have been able to avail the loan amounting to Rs.68.63 lacs accounting for 96% of the loan applied. In rest of the zones projects that have been sanctioned loans are relatively low like West zone has 19 projects and North 8, the lowest amongst them is East and North East that has 3 and 4 projects respectively. Although percentage wise the amount sanctioned is more than 50% of the applied amount only in case of North East the percentage is low at 15.5%. The data also throw light on the initiative and non cooperation banks show in each region. South and West are two prominent regions where the loan applied and sanctioned are highest. However the processing time is least to the tune of 7 weeks.

8.5 Reasons for not starting

Based on the analysis and discussion during the survey it can be inferred that attracting students towards this programme was not a very difficult task, although targets were not achieved the gap between the actual and target was not very large. However the problem was in converting the trained graduates into agripreneurs. Since the inception of the scheme in 2002 till the year 2007, 13196 (Thirteen Thousand One Hundred and Ninety Six) candidates were trained out of which 4152 (Four Thousand One Hundred and Fifty Two) trainees were able to establish their own ventures which accounted for only 31%. To understand this low conversion rate, reasons for not staring the venture were analyzed.

Table 34 Reason for not starting the venture



Several reasons have been identified by the trainees for not starting the ventures. In fact most of the trainees do not start an agriventure mainly because of their future aspirations and the comfort zone which jobs provide compared to the risk an agri venture is subject to. Around 25% of the respondents did not start the venture because they moved on for higher studies. This reason was obvious as majority of the students undertaking the program are recent graduates and consider the two months training as utilization of time until they get into higher studies.

Similarly 22% of the respondents were employed by public and private sector organizations after completion of the training programme. With corporate venturing in the agri business sector more and more agri graduates, post graduates and PhDs are being attracted towards the lucrative jobs and attractive pay packages. This would take away significant number of qualified graduates who would otherwise have started an agri venture.

Apart from the trained agri graduates being either absorbed by the job market or moving for higher studies other issues that discouraged the trainees to establish their own venture were lack of finance and non co-operation from the banks which accounted for 19% and 15% respectively. Other reasons were inadequacy of training, non marketability of the project and other personal reasons which summed upto 19%. These reasons have formed hurdles in the implementation of the scheme.

The analysis in this chapter suggests that South and West zones have been able to show significant performance compared to other zones.

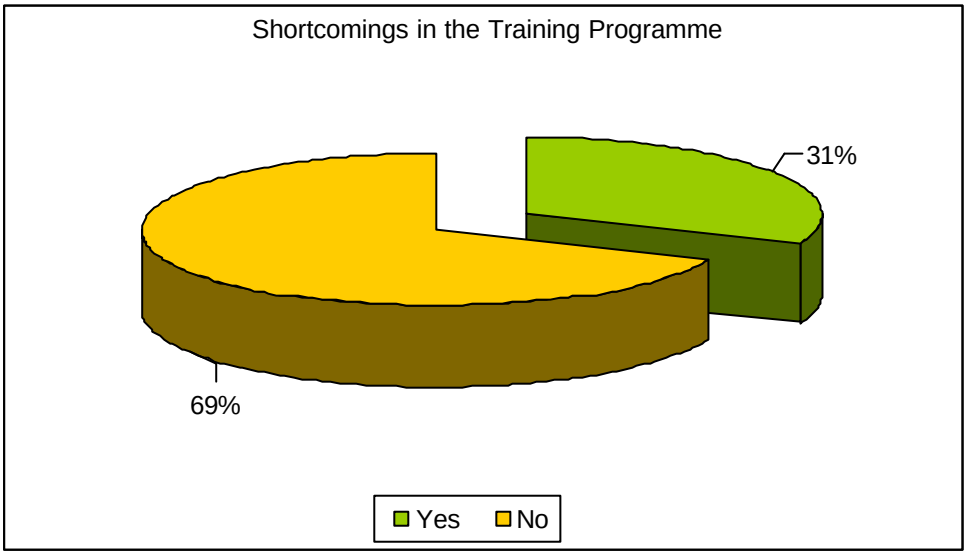
9 ANALYSIS OF THE FINDINGS FROM NON STARTERS

The survey was also conducted amongst those candidates who undertook the training but was not able to set up a venture. There response was primarily taken to understand the reason for not starting the ventures and their perspective towards different components of the scheme.

9.1 Shortcomings of the Training Programme

The respondents provided feedback on their satisfaction levels regarding the training programme.

Figure 16 Shortcomings in the Training Programme



Around 69% of the non starters believe that there was no shortcoming in the training programme and around 31% were of the opinion that there were some shortcomings in the training programme. This conveys that although majority of the respondents are satisfied with the present training program still the responses of the 31% non starters, invites discussions on the kinds of short comings they faced during the training program.

As discussed with the non starters it was found that the main shortcoming of the training was lack of practical exposure. This concern was voiced by 90% of the respondents and the rest of the respondents were of the opinion that market related information was not provided during the training. There were multiple responses where the respondent had listed down more than one lacuna in the training programme. Thus it can be inferred that both starters and non starters are of the view point that practical exposure should be increased in the present curriculum.

9.2 Handholding support and level of satisfaction

Handholding is one of the reasons for projects not being set up. Therefore there was a need to understand the satisfaction levels of the non starters and understand their perspective towards the kind of handholding facility available to them.

Table 35 Rate of support from NI

Particulars	Dissatisfied	Least Satisfied	Okay	Satisfied	Most Satisfied
Help in Project Report Preparation	2	19	12	12	2
Facilitating Project Reports Submission	2	15	14	13	
Facilitating Project Financing	4	17	11	13	
Introducing the trainee to respective departments and Banks	3	16	11	14	
Support in setting up the project	3	17	11	13	
Others	1	9	3	9	

From the responses received 19 nonstarters are least satisfied by the preparation of the Detailed Project Report. Because of this their projects were rejected and they were unable to avail the bank loan for their projects while 15 of them are least satisfied with the submission of their projects. Other problems the nonstarters encountered during their handholding period was the liasioning with the banks and support in establishing the business in terms of availing license and other related issues.

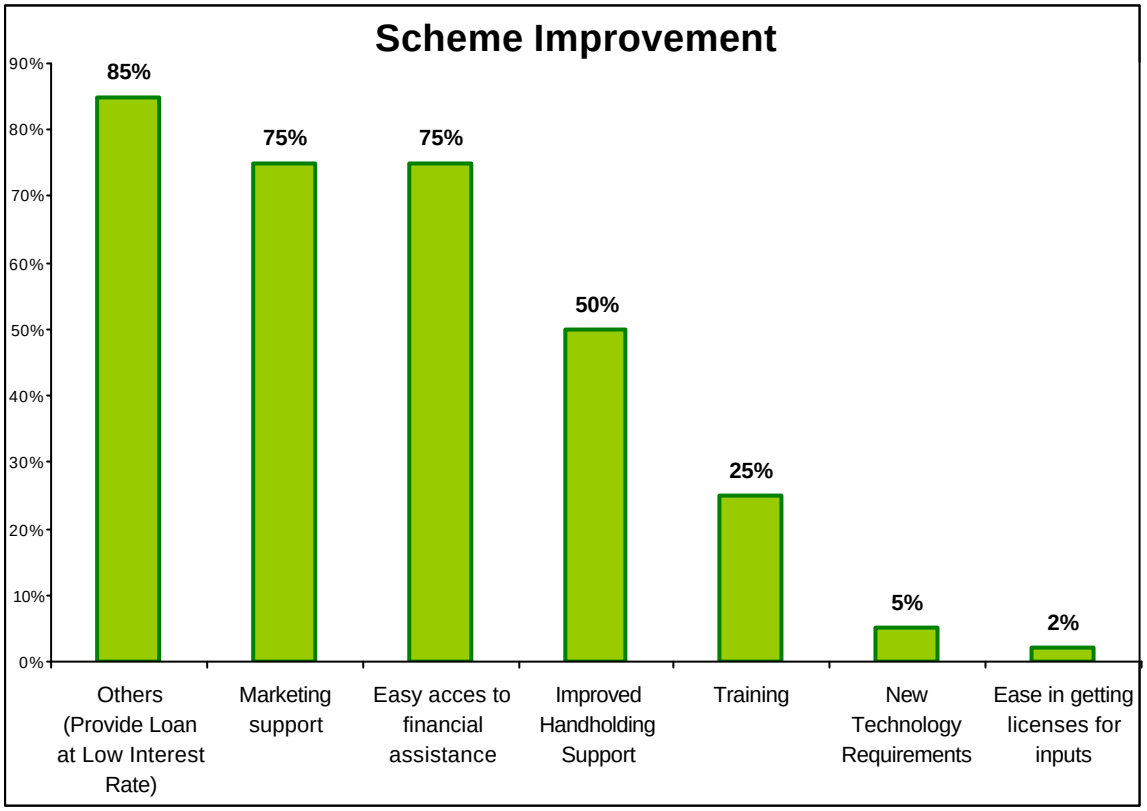
During the training detailed project reports were prepared by the trainees that did not convert into established ventures. These were mainly ACABC projects which accounted for 34%, only agriclinic projects accounted for 18% followed by dairy and Vermi composting which was 14% and 12% respectively. Projects prepared in rest of the area accounted for 8% of the total projects.

At present there are certain non starters if given opportunity would reapply for their projects. This population accounts for 60%. The areas in which they would like to apply for is Agriclinics (28%) followed by dairy farming (20%), ACABC (14%), and Vermi composting (10%). Therefore, it is important to sensitize them and offer them support so that they are encouraged to start their ventures.

9.3 Responses on Scheme Improvement

Responses were gathered on suggestions which the non starters felt would improve the scheme further. Multiple responses were received from the respondents wherein each respondent had more than one suggestion to make.

Figure 17 Responses on scheme improvement



Based on the responses received from the non starters it can be inferred that 85% of the respondents believed that in order to improve the performance of the scheme the rate of interest at which the loans are disbursed should be reduced. This would mean less installment burden on the agreprenur. This was followed by 75% responses suggesting that financial assistance should be easily available and marketing support should be provided for assessing the marketability of the projects to make it viable.

Other suggestion to improve the scheme was to improve the hand holding support, training program, new technology requirement and ease of getting input. According to the non starters if the above mentioned suggestions are incorporated then the scheme performance would increase from present levels.

10 COST BENEFIT ANALYSIS

Cost-benefit analysis of the scheme has been done as under.

10.1 Cost Benefit Analysis of the Scheme

Table 36 Cost Benefit Analysis

Amount (Rs in lacs)

Cost Incurred	
Funds Disbursed (2002-03 to 2006-07)	2,540
Benefits Derived	
No of Successful ventures	4152
Additional Employment Generated	25000
No of Farmers Served	2300000
No of Villages Served	126,000
Total Investment attracted	33,091
Investment per lakh of Subsidy released	13.03
Total Net Income generated	13,842
Employment Investment ratio per crore	88
Investment & Farmers ratio per lakh of investment	70
Villages served per lakh of investment	4

Based on the findings of the study the scheme has been analyzed on the parameters of cost benefit.

Cost Incurred

Since the inception of the scheme in 2002 from 2002-2003 till 2006-2007 an amount of Rs 2540 lac has been released to fund the various activities of the scheme. The amount was utilized for conducting the training and handholding activities. The investment made by the government in the scheme has generated benefits which has initiated the task of accomplishing the objective of the scheme. Mentioned under is the benefit derived out of the investment and the level of objectives reached by this investment.

Benefits and Objectives Achieved

- One of the primary objectives was to supplement the efforts of Government extension system. During the study it was observed that with the investment of Rs. 2540 lacs the scheme was able to generate 4152 ventures that have been able to strengthen the extension services provided under Government extension services. Especially in the case of ACABCs where the agripreneurs are better equipped with latest knowledge to guide and advice the farmers. Thus not only strengthening but also giving a new dimension to the extension services provided by the Government.

- Further 4152 ventures set up under this scheme have been able to serve around 23.00 lacs farmers in around 1.26 lacs villages across the country. Feedback from the farmers to asses whether they are benefiting from the services provided by the agripreneurs indicate that extension services provided by the agripreneur in terms of technical knowledge and farm inputs have increased the productivity of land which in turn has increased farmers' income.

- The scheme was launched for providing gainful employment to agriculture graduates in new emerging areas in agricultural sector. However the scheme has not been able to provide self employment to large number of agri graduates. Since the inception of the scheme till the year 2006-2007 as reported around 75000 agri graduates have passed out of the agriculture universities 13196 graduates have taken training and only 4152 of them have gained employment through the programmes under this scheme.

- The subsidy released has been able to attract around Rs 33091 lacs of investment generating Rs 13 lacs of investment per lakh of subsidy released. This has further generated Rs 13,842 lac of income for the agripreneurs resulting in employment generation of 88 persons in per crore of investment. Benefits in terms of farmers being served by per lac of investment, the scheme has been able to serve 70 farmers and 4 villages per lac of investment.

10.2 Cost Benefit Indicator Model

A model has been developed to help the ministry in evaluating the scheme on cost benefit parameters in future.

Table 37 Cost Benefit Indicator Model

COSTS	Per Unit Cost (Rs)	Ventures	Amount (Rs)
TRAINING			
Food	7500		
Lodging	3000		
Honorarium for Nodal Officer, Coordinator, Etc	2000		
Honorarium TA/DA for resource persons from private sector and other institutes per trainee	3000		
Study Material and Stationary	1500		
Sub Total	**17000**		
HANDHOLDING			
Travel Expense of Trainees to project sites			
Lodging, boarding of trainees			
Traveling Expenses to meet bankers and other authorities			
Consultations with experts			
Sub Total	**5000**		
Grand Total			
BENEFITS			
Funds Received through Application			
Total number of trained student			
Total number of successful student			
Total number of Villages under extension services			
Total number of Farmers Served			
Employment Generation			
Benefits to the Entrepreneur			
Benefits to the Farmers			
Income generated by the entrepreneur			
Farmers Income			

The cost benefit indicator model is designed to evaluate the cost incurred by DOAC and on the scheme and the benefits the scheme has been able to generate through different components. The cost section includes the total cost incurred on the training and handholding activity under the scheme. Where as the benefit section includes the returns which this investment has been able to generate. The benefits are suggested keeping in mind the objective of the scheme. This includes the trained and successful candidates as well as the indirect employment generated because of the implementation of this scheme and the extension services it has been able to generate.

11 INTERNATIONAL MODELS

11.1 International Models for Extension Services

1. Ecuador: In Ecuador the process of extension and share cropping is followed, wherein the farmer provides his land and labor while the extension agent supplies the agricultural inputs and technical advice. The field is treated as demonstration plot and the hired labor and other costs are shared between the farmer and the extension service provider. Similarly the produce is also shared between the farmer and the extension service provider.

2. China: The National Government has set up Agro Technical Extension Centers (ATEC) at the Township level which provides Technical Services and inputs to the farmer or a group of farmers. The Agro Technical Extension Centers are accountable for the poor technical recommendation and non supply of timely inputs as a result of which the pay or bonuses of the contracted extension workers are reduced up to 80% of the shortfall.

   The present status of the extension services is that 5 – 10 % of the extension agent's work with commodity oriented State farms and many non-State extension agents work independently without being officially registered. Individual farmers with experience also provide advice to outsiders for fee while the producer's associations advice other farmers on a paying basis. Research institutes, agricultural colleges and individual scientists and teachers sign contract with rural Ventures or farmers to provide technical support on annual fee. Some research results are being sold in the market so it is required to enforce a patent law to protect proprietary rights to research results. This has lead to a benefit of 20 % of the value of the crop above the agreed target.

   Country level extension agencies were integrated after 1979 into a new Country Agro-Technical Extension Center (CATEC) to develop an improved grass root level extension system. The CATECs were also expected to guide extension activities within the reorganized Township Agro-Technical Extension Station (TATES). The current system is the Agro-Technical Extension Center (ATEC).

   Agro-technical extension center (ATEC) system operates at national, provincial, prefecture, country and township levels. At the end of 2001, there was 371,350 professional, technical, and administrative staff, 500,000 farmer technicians who primarily operate at the village level, and 6.6 million demonstration households.

Funding has been decentralized since 1949 to the corresponding level of Government. After 1979 country level extension rationalized under the CATEC and township extension staff organized under TATES.

(a) Contract or fee based. One approach is where the TATES director signs a technical contract with the village head. The contract calls for the TATES staff to provide specific types of services for farmers in the village, such as information on new production technologies, disease and pest forecasting and protection, marketing information, and better access to high quality production inputs. These contract extension services are provided directly to individual farmers in the village or through a village committee. In return, each farmer is expected to pay the TATES for these services at the end of season. In this case, extension becomes essentially a fee-based service.

(b) Farmer associations and cost sharing. Farmers' associations, especially for high value commodities, have been popular. The Agricultural support services project (ASSP) (funded by the World Bank from 1993-2001) organized studies, study tours and conferences to determine the most effective ways of organizing specialized farm households (SFHs) into Farmer Associations (FAs). By 2001, 13,360 new FAs had been organized at the village and township levels in the 700 townships operating under the project. Their need for advanced technical, marketing, and management information frequently outstrips the capacity of the subject matter specialists (SMSs) at the local CATEC and TATES. FAs contract with university professors or other specialized consultants to provide training and technical advice on specific problems. In these cases, the FAs finance the cost of fees and travel for these consultants from their own funds.

(c) Commercialized agricultural services. CATECs and TATES have commercial input supply shops and agricultural enterprises such as corn processing and rice milling facilities; and demonstration farms that sell seed and nursery products.

3. Netherlands: The farmers pay for advice and technical recommendations from the Agricultural industry and agri business. From 1993 onwards, every year there has been a 5% increase in their contribution to the extension services. In 2003, this share has come to 50 % which consists of 15 % from general tax, 15 % from direct contribution for services and another 20 % from taxes/levies on farm produce.

   The extension service was renamed DLV and became independent of Government funds in 1990. The DLV advisory group now employs 900 people in 25 branches in the Netherlands and abroad. Until 1990 investment in the national agricultural knowledge

system had been a major element of Dutch agriculture for most of the preceding century. From 1996 to 2000 the DLV and LTO, the national farmers' association, were allowed to implement agricultural projects for the Government. A subsidy of 30m Dutch guilders per year is provided by the Government for the implementation of projects according to a plan set up by the Ministry of Agriculture. There has been a shift from 'transfer of technology' type service to 'client oriented' service. The advisor supplies information requested by the client.

All farmers are benefited but those in more remote areas or growing minor crops may not be able to pay for advice. Contracts based on timing, payment, personnel, and plan of activities are signed by the farmer and adviser for every request for advice.

Private organizations compete with each other and there are farmers' organizations and growers organization that create their information services including employing their own advisers or developing Internet sites.

DLV has become independent of Government funding over the past 10 years. DLV now has a large network of advisers and acts as a knowledge management organization. Advisers remain in contact through the DLV using the intranet. Competition with LTO and others has led to an increased focus on quality. One criticism of the current system is that the agricultural knowledge and information system in The Netherlands, which has always been characterized by an openness of information flows and strong linkages between actors, has become less so as a result of the process of privatization and commercialization. Another criticism is that farmers in remote areas, those growing a minor crop, or those who cannot afford to pay for information are not served by the privatized organizations. In the transfer of knowledge and information, topics for which no interest is shown from the side of the clients (such as environmental issues) will disappear from the 'menu', although they may be relevant for society as a whole.

4. United Kingdom: In UK, from 1987 onwards, fee paying consultancies have been set up which provide free of cost extension services to the farmer. There are contracts that include package of actions and visits. As a result of this 4000 public system extension workers are available out of which 200 have gone private (BIAC). The public system extension workers give consultancy to their own group of farmers and charge a fee which is not higher than public agents. While the public agents charge higher because their overhead cost is more. The private extension workers (BIAC) target the small farmers who need most of the advice.

The former public sector agricultural advisory service for England and Wales was successfully privatized in 1997.ADAS can base its services on what potential clients want and are prepared to pay for rather than what Government wants to tell farmers, and it is free to seek business throughout the UK and beyond. Services are provided by around 1300 professional and support staff, covering a wide range of scientific and management disciplines. Services include research and development; business and technical advice in agriculture, horticulture and food processing; laboratory services; environmental impact assessment; marketing and market research; rural planning; risk assessment throughout the food supply chain. The precise nature of the service, and of the information or advice which is provided, is tailored to suit the needs of the individual client. The Agriculture Act of 1986 allowed ADAS to expand its client base beyond primary producers into other land based businesses. Clients now include businesses at all stages of the food supply chain from farmers to caterers and retailers, including major supermarket chains.

Privatization brought many new clients to ADAS, including corporate clients who felt they could deal with a commercial, competitive company with an established reputation but no longer encumbered with being an arm of Government. But ADAS also lost many individual clients, particularly smaller scale farmers who were not used to paying, and were not prepared to pay, for advisory services. As a private company, ADAS relies for its income entirely on fees from its clients.

Five years after the privatization of ADAS, Government has recognized that its need to be involved in communication with farmers has increased rather than diminished. Least there is a much clearer distinction than pre-privatization between demand-led advice that farmers can buy from the private sector, and supply-led advisory initiatives through which Government seeks to influence land management decisions in the direction of its own policies. But a greater Government role in the provision of technical advice is now back on the agenda as one of the options being considered for tackling the perceived negative consequences of fragmentation of services and the slow talk up of technologies. An issue which faces advisory services generally is the potential for using ICTs as a means of communication with and service delivery to farmers. A. recent report by IBM's Local Futures Group warns of a "new underclass of people in rural and remote areas who are being excluded from … online public services by lack of access to technology".

5. Germany: There is a decentralization of the extension services. The extension agents are certified by German Society of Agriculture. There are 3,323 agents in the public

sector while the Chambers of Agriculture has 2750 agents and 2760 private advisors who are specialized technicians and charge additional payment.

Thuringia is one of 5 States that joined the Federal Republic of Germany in 1989 after the fall of the Berlin Wall. With advice from the West German State of Hesse, an official extension body was established in Thuringia in 1991. Henceforth, extension was publicly financed and delivered through 12 State agricultural offices employing about 80 agricultural advisers.

There are 4,300 farmers cultivating 802,000 ha of arable land in the State. An extension system was implemented in 1991 but it was not until 1996 that requests for production advice began to replace those for legal advice. In late 1997, the State treasury instructed the agricultural administration to cut 120 staff positions (Zopf, 1998). The State agricultural extension system was an easy target. An idea to establish a private extension organization staffed by public advisers failed, as the majority decided to remain civil servants, even though this often meant changing jobs and being assigned quite different tasks and functions.

Private organizations started to be used during the late 1990s through general service contracts aimed at helping the private extension sector develop. Contrary to what was planned, public service advisors largely shunned the potential insecurity of the private sector. Thuringia had to rely on a new pool of both young local professionals and advisors from other regions where private extension was already established. This required giving special attention to their professional development.

DM1.4M was provided to cover advisor personnel costs with 60% coming from a grant from the European Union.

The broad contractual terms for private extension services applied to “support for individual farms in areas of technical, economic and financial, and administrative farm management”. The State continued to provide ‘public good’ services such as farm crisis counseling, environmental issues, promotion of women and families in rural areas, plant protection, and human nutrition in rural areas.

With the introduction of private extension in 1998 the number of farmers seeking advice fell from 80% to 13%. Half of the farms over 500 ha (representing 88% of the total) and only 9.3% of the farms smaller than 500 ha sought advice.

All farmers included but smaller farmers were reluctant to pay charges of DM66 per hour for private advisers that were charged despite the subsidized contacts with the State.

Advisers had to be certified and work exclusively in the State and were limited over a three year period to contracts with a value of DM 130,000 for their services.

50 extension companies exist in the State with 68 certified advisers. One of these companies is owned by the State branch of the farmer association, to which every farmer must belong. This company, however, operates largely independently of the association and on similar terms as other companies. The State ministry continued to maintain a much reduced extension service: 15 positions out of the former 80. In line with the legal requirements Stated in the new extension policy of 1998, this service focused on "public good" services. The advice covered mainly farm crisis counseling, environmental issues, promotion of women and families in rural areas, plant protection, and human nutrition in rural areas.

The new extension programme began in 1998. The cost to the State has reduced from DM5.2 to DM2.5 million per year. The programme has, therefore succeeded in reducing the cost to the State and in developing privately supplied advisory services for those farmers able to pay. The level of competition has been sufficient to establish a system of market based quality control. However, the reduction in the number of farmers, especially small farmers, requesting assistance indicates the programmes limitations. The Thuringia model of contracting out is best seen as a transitional programme, where the private sector is poorly developed. State support gives private extension companies a 3-year period to develop perspectives, to build up working contacts, get acquainted with the specific situation of farms and establish office infrastructure. Without the State reducing the risk of market entry it is unlikely that such a number of private extension companies would have been established.

Since early 2000, Thuringia has been changing its subsidy policy. Instead of task-independent financing of extension agents and companies, public financial support is being channeled directly to the farmers who call on and pay for specific advisory services. Farmers are reimbursed at a later date for a percentage of the extension fees. Hence, extension delivery and finance are much more closely linked, and there is greater accountability to farmers.

The State of Thuringia took up its new functions of regulation and quality control of the private sector by requiring the certification of agricultural advisers, based on their professional qualifications and experience. To be entered on the official register,

advisers must pass an assessment which is carried out by representatives of different agricultural institutions (the Ministry of Agriculture, public research institutions and farmers', horticultural and organic farming associations). The State agricultural administration also invites advisers to attend State-financed training given by the public agricultural research institutions, as well as courses on new rules and regulations for the agricultural sector.

While private companies have taken over two main extension tasks - giving economic and production advice - the State has retained a much reduced extension service (15 of the former 80 posts have been maintained). The remaining State service has focused on its legal obligations under the new extension policy of 1998 regarding those aspects of extension that concern public goods. These include farm crisis counseling, environmental advice, development of women and families in rural areas, and advice on plant protection and human nutrition in rural areas.

6. Chile: The Ministry of Agriculture has set up Agriculture Development Institute (INDAP) which handles subsidized private consulting services. These services are publicly funded and privately executed by private technology transfer firms certified by INDAP. The farmers are not free to select firms but are designated as per INDAP and the farmers can request INDAP if they want to change. These technology transfer firms do not supply inputs but transfer technologies. The farmers are required to contribute 30 % of the cost. For every 48 farmers, there is one extension agent available. The INDAP prepares the terms of reference and selects the firm through competitive bidding. It also supervises and evaluates the performance of these firms. This service covered the whole country and after 1987 developed more of a focus on small farmers and traditional agriculture. For political reasons, many qualified private organizations, such as non- Governmental organizations (NGOs) and small farmers' organizations, were barred from participating in the programme. In 1990, the political constraints that had prevented the participation of qualified private sector organizations were removed, and the system became more diversified in terms of service providers.

   The Government funds 85% to 90% of the programme's total cost. Since 1983 the budget of PTT-AAS has shown an average annual rate of increase of 11%, after adjustment for inflation. It is likely that the current level of funding (US$22 million per year) will be maintained or perhaps even increased in the period 2000-2006. The latest system, called AAS, established in 1997 put more emphasis on co-financing by farmers but recognized this would be difficult for many small farmers. PRODESAL was

established to make additional funds available to municipal Government and the municipal Government uses these resources either to provide the service directly to subcontract private consultant firms or NGOs that will do the field work. Some 20,000 of the 52,000 farmers participating in AAS fall within the PRODESAL modality.

The system started providing only agricultural production advice, and it now is involved in the provision of different types of technical and professional services, including commercial, financial, farm management, post harvest, value adding and legal advice. Under the PTTI (1983-90) services were aimed at and received by 25,000 small farmers. This was extended in 1989 and almost doubled in two years to 47,000. Currently 52,000 farmers participate in the AAS.

For the 20,000 poorest farmers included in the scheme the municipal authority now manages the contract. There is now much more flexibility for all farmers to arrange contracts with service providers that suit their requirements and priorities. INDAP remains responsible for the overall monitoring of service quality through the field level monitoring system.

More diverse range of service providers have been allowed from 1990 onwards. Under the current AAS, farmers' organizations gained a much greater say in deciding which firm should be contracted to provide the advisory services, NGOs suffered a very large reduction in their share of contracts. While private for-profit consultant firms and farmers' organizations retained their share of contracts, municipal Governments became a new and very important actor in the system.

Under the current AAS there is no predefined field work methodology. Local groups and their advisors are free to define their specific goals and how they plan to meet them. The field level monitoring system focuses on results actually achieved.

Extension service was first privatized in 1978. 1978-1983, period of maximum liberalization was considered a failure due to the lack of control over costs, the service being provided and the impact. 1983-1990, despite political restrictions the scheme called PTTI worked because its design, objectives and target populations were coherent with the objectives of agricultural and economic policies. Small farmers had clear and strong incentives to intensify production and raise yields, and the PTT provided the information that allowed them to respond accordingly. 1990-1996, production objectives were complemented by other aims, such as post harvest, value adding, marketing, and access to financial services, farm management, business planning and farmers'

economic organizations. 1997-2000, AAS External impact evaluation in 1998 indicated that PTT (precursor to AAS) had a positive impact on farm incomes where they represented more than 50% of the total household income.

7. Costa Rica: The ministry of agriculture has started extension voucher pilot programme with the help of the private sector. Vouchers are provided to the farmers who can avail the benefits of contract private extension for a period of 7 years. These vouchers are traded and extension services are availed. The vouchers differ on the basis of the type of farmer and the level of technology. Finally graduated farmers depend on private technical assistance.

11.2 Significance in Indian Context

The extension activities adopted in various countries can act as a benchmark for extension services in the Indian context. Worldwide efforts have been made to facilitate transfer of technology and quality farm implements. Benchmarking the international models efforts have been made to suggest certain concepts which could be applicable in the Indian context.

- Formation of farmers association: Farmers across the world are forming associations and consolidating their farms. This has helped them to pool the resources; inputs and cost effectively use the available technology and farm implements. This has further encouraged the farmers to build long term infrastructure and cluster development. This innovative concept has reduced per acre cost of production and increase farm level revenue for the farmers.

- Cost and Profit sharing model: On consolidation of the farms a cost and profit sharing model can be adopted where farmers and extension workers can jointly share the cost and profits. In this manner more and more extension workers will be encouraged to work diligently.

- Training of the agreprenur: Completion of the training is not enough, the nodal institutes can conduct under the guidance of MANAGE training sessions where the agripreneurs can enroll and upgrade their existing knowledge and learn about new technology and agriculture practices. This can be done on fee basis. This value addition can help the extension workers provide better consultancy to the farmers.

12 KEY FINDINGS

On the basis of the analysis of the different categories of respondents the key findings of the scheme have been summarized below:

1. The scheme has been implemented in 23 states across the country and ventures have been established in 35 categories related to agriculture and allied sector. It was observed that various states have different success rates in implementing the scheme. States in the Northern and Southern region have very encouraging record, while states of North Eastern region have shown poor performance in terms of setting up of ventures.

2. Some project categories have more popularity as compared to others. Projects like ACABC, dairy, vermicomposting and crop production are amongst the most popular projects. The popularity of the agriclinic projects is mainly because of low investment and low risk. Since it is an advisory service accompanied by input supply, the revenues are readily generated without any gestation period. Regional analysis shows that ACABC has been taken up mostly in the North region accounting for 34% of the total ACABC in the sample size.

3. It has been observed that some innovative projects like eco tourism, agri journalism, agri insurance and Seri culture and so on have also been set up under the scheme. However, mainly due to less awareness amongst the trainees about the new opportunities available and reluctance on part of bankers to fund innovative projects their numbers have been negligible. The detailing has been annexed in Annexure IV

4. On an overall perspective, South and North zone have faired better in establishing ventures and North East have not been able to implement the scheme as successfully, largely because of the lack of bank funding in the region.

5. During discussions with the agripreneurs it was observed that the key factors for their success have been the marketability of their projects, the fact that they provide single window solutions to the farmers, maintaining of good relations with the farmers, quality assurance and reliable information to the farmers.

6. Similarly the nodal institutes voiced that the reason for their success was primarily the practical training that they impart to the students, the fact that they invite industry

experts for delivering lectures in their institutes and liasioning with banks that makes processing of loans easier.

7. Every year around 15000 graduates pass out from the agriculture universities and colleges. Out of these graduates around 23% undertake the training every year.

8. The scheme has created dual impact in terms of generating employment in the country. Direct impact has been created by the scheme by providing self employment to the agri graduates through the set up. These ventures in turn have generated employment for others.

   - Out of approximately 75000 agri graduates (15000 per year) qualified from various SAUs & colleges during the period of implementation of the scheme (2002-2003 to 2006-2007), the scheme has been able to provide employment to 4152 graduates. It accounts for 6% of the total unemployed agri graduates. This indicates that the scheme requires more aggressive sensitization and removal of possible hindrances to bring more graduates to take benefit of the scheme.

   - In addition to the agripreneurs, employment has also been created by the ventures set up under the scheme. The sample size of 250 ventures indicates that 1535 persons have directly or indirectly been provided employment under various categories. Based on this average total employment created by 4152 ventures would be in the region of more than 25000.

Status & Impact of Projects Promoted Under the Scheme

1. The extension services undertaken by the agripreneurs in the sample size of 250 ventures have been able to cover 7539 villages and serve 143432 farmers. On an average each venture has been able to serve 30 villages per clinic and 19 farmers per village.

2. The agripreneurs and farmers were interviewed on the benefits derived from the service. The farmers found that the most important benefit they derived was increased productivity and in turn increase in their income. The agripreneurs were of the view that the most frequent service which they provided was imparting of technical knowledge. This concludes that the extension service provided by the agripreneur is having the desired impact on the farmers both in terms of the increased productivity and income.

3. On an average Rs.8 lacs have been invested per unit. On extrapolating the findings on the total established ventures, it was found that 4152 ventures have made total investment of more than Rs. 30,000 lacs. This includes both capital intensive as well as low investment projects. This suggests considerable potential for promoting this scheme.

4. The ventures started, under the scheme comprises of 70% self finance and 30% loan from the banks (apart from self finance). This has a clear indication that banks have not been adequately sensitized towards this scheme. They seek collateral security for the loan amount which in most cases is not possible for unemployed agrigraduate and thus discourages agripreneurs from taking up the venture.

5. There is an urgent need to sensitize bankers for facilitating loans for projects under the scheme as also guide the entrepreneur in preparing their project proposal as per the requirement of the banks. Many proposals get rejected as they fail to meet the banks appraisal norms.

6. Respondents have availed loan under various heads, 54% for term loan and 38% applied for working capital loan and the rest 8% comprised of margin money loan and any other loan which was required for the setting up of the ventures.

7. The bank wise survey of credit flow to the ACABC projects shows that the nationalized banks accounted for the major share of loan disbursement to the agripreneurs followed by co-operative banks and RRBs.

8. It is also noted that in several ventures the projected revenue levels are not achieved. These could also be attributed to insufficient guidance to the entrepreneurs in implementing their projects. This was particularly noticed in projects set up in North Eastern region, where awareness about such projects is limited with the nodal institutes.

9. Non starters response have been taken into consideration to understand the reason for not starting the venture and it was observed that 25% of the trainees are graduates who go for further studies and they drop their plans to take up the ventures and 22% of the trained agri graduates go for an alternate job. Respondents have also attributed lack of finance, lack of bank support, non marketability of their project concept and inadequate training as reasons for not starting the venture

10. MANAGE as an implementing institute has made efforts to promote the scheme. However, owing to reasons relating to the performance of Nodal Institutes, the targets for training having not been fully met and the low turnover of established enterprises, efforts have not generated desired results. Therefore, there is a need to revise the process of selecting the nodal institutes and undertake annual review of their performance so that those NIs which are consistent in performance should only be continued to be engaged for training and hand holding process.

11. The nodal institutes selected have not been able to achieve the training targets set for each financial year. Rather, during monitoring of these institutes, MANAGE has to delete some nodal institutes from the list. MANAGE had 56 nodal institutes conducting the training earlier which has now been slashed down to 41 institutes.

12. Even the performance of the existing nodal institutes has not been consistent across the country. Some NIs have performed better than others.

13. By using the present method of inviting applications, the nodal institutes have been able to attract sufficient candidates. However the selection procedure has not been stringent enough to identify the correct candidate. While the failure ratio cannot be fully eliminated but can definitely be minimized.

14. The training modules have been comprehensive but lack the desired exposure to practical aspects.

15. In the hand holding phase of the process, the NI have been able to guide the trainees but could not provide close and personalized services resulting in getting loans sanctioned to only 30% of the ventures. Moreover, the agripreneurs covered in the survey mentioned that there is a need to have proper expertise for preparation of project reports.

16. The funds provided for the purpose of training, includes food and lodging charges. These have increased over a period of time, and therefore funds received by NI are not sufficient.

17. In case of handholding, presently an amount of the Rs. 5000 is provided. From the feedbacks and responses from the NIs it is analyzed that this amount allocation is not sufficient for the entire handholding process which usually continues for one year.

18. More than 50% of the Input companies are not aware of the scheme. For them the agripreneur is like any other client who comes to purchase the inputs. So they do not provide any special incentive to an agripreneure.

19. It is also observed that in most states, particularly the ACABCs have been able to add value and strengthen the State Governments extension efforts. The ACABCs equipped with new/ advanced knowledge have better trouble shooting abilities, as well as some ventures involved with input supplies; have improved the access of farmers to better inputs.

20. The total number of ACABC is highest in the State of Maharashtra which is true in the case of private extension services. Performance of the scheme has been good and further it can be improved by means of providing more substantial support.

21. The scheme has the greatest impact in the Southern zone where maximum loans have been disbursed; maximum employment has been generated and maximum number of ACABCs have been established

13 RECOMMENDATIONS

Based on the critical evaluation of the data received from primary and secondary information recommendations have been made to help in effective implementation of the scheme and further enhance the effectiveness of the scheme.

13.1 Scheme Continuation

The scheme has been successfully implemented in 25 states across the country and has acted as a backbone of the state extension services. Further it has generated employment for 4152 graduates, post graduates and doctorates, in turn these employed agri graduates have created further 25000 jobs across segments. Thus benefiting more than 1 lakh farmers in more than 7000 villages across the country, this clearly shows the kind of impact this scheme has had on the rural India. In the light of the aforesaid facts it is recommended to continue with the scheme.

13.2 Recommendation for MANAGE

Selection Mechanism for Nodal Institute

1. The performance of selected Nodal Institutions (NIs) has not been consistently satisfactory and on review of the performance, MANAGE has been de-listing some of the non performing NIs. Although this process eliminates the non-performing institutions in due course, yet during the intervening time some of the trainees getting trained at these institutions will suffer due to the inefficiency of these institutes. This indicates the necessity of development of objective criteria for the selection. An assessment sheet detailing the criteria and weightage of various parameters has been designed and has been annexed in Annexure V and is recommended for use to help in identifying suitable nodal institutes.

2. After initial scrutiny, an expert committee of MANAGE should visit the shortlisted institutes for verification of the available resources (manpower/physical) through interaction with the management of the Institutes. This would help in identifying an association of dedicated Institutes in this programme.

Monitoring Mechanism for Nodal Institutes

3. Feed back from the participants in the training programmes conducted, about the expertise, infrastructure, etc available with the NIs should also form the basis for evaluation of performance of the scheme.

4. A detailed summary should be submitted by the nodal institutes clearly mentioning the project status of each trainee and the problems faced by them in starting the ventures. This will make MANAGE aware of the issues and MANAGE can intervene if required.

13.3 Recommendations for Nodal Institutes

Selection of Trainees

1. In order to reduce the rate of unsuccessful trainees, at the first stage itself a comprehensive selection procedure should be designed to shortlist the Trainees for interview. To facilitate this, initial screening of the applications received for the programme is recommended, to short list the candidates with aptitude/interest in agribusiness, who are likely to actually benefit from the scheme. Such a screening should also help in deleting names that appear to be interested, solely because they are unemployed at the moment, or wish to just do a training programme to add value to their CV. An assessment sheet for the trainees in this regard has been designed and has been annexed to Annexure VI and is recommended for use.

2. The non refundable amount received from the applicants is parked with MANAGE, which should be utilized for the purpose of scheme publicity, funding of guest faculty from the industry and so on.

Training Module

3. Keeping in mind the changing dynamics of the business, it is recommended to increase the practical exposure and enrichment of coverage of the curriculum in terms of project specific knowledge, funding and financial viability aspects and preparation of bankable detailed project reports.

4. NI is recommended to identify areas and available expertise so that trainees are able to get comprehensive knowledge of the projects they would be setting up after the training. This will also help in attracting trainees from outside the State / catchment areas, for certain project areas, for which expertise is not available with other nodal institutes.

5. A majority of the respondents feel that a two month training period is not adequate to guide them in planning their enterprise under the scheme and it was suggested that a longer period of about three months will allow for additional time for practical exposure, as well preparation of project reports.

6. Exposure of candidates to industry experiences is very limited in the training programme. This also results in their preparing unrealistic and unviable projects. It is recommended that the guest faculty at the training may include industry experts and bank personnel for better guidance.

7. Responses from some of the non-starters have shown that they fail to set up their venture, as the project proposals prepared by them with the assistance of NIs do not find favour with the banks and in some cases NIs do not provide sufficient exposure in the selected field. Therefore, it is recommended that while inviting applications, the NI should advertise the project areas for which they have expertise and in-house or off campus facilities for practical training and larger exposure.

Hand holding

8. Hand holding by NI's needs to be strengthened by ensuring that relevant experts are deputed to work with, and support the agripreneurs in the preparation of project reports, negotiation of bank loans and support during initial period of business development. The candidates should be suitably guided about the business areas for which there is sufficient potential in the region.

9. The N.I.'s should provide the expertise available with them to the banks in their appraisal of the projects submitted to the banks for financial assistance, wherever necessary.

10. The process of project report preparation should be interactive and participatory for all concerned. Involving the bank officials as faculty in the training programme will be a good guide for the candidates in planning their enterprise based on the viability of the different sector projects as experienced by the banks.

13.4 Recommendation for Banks

Funding of Projects

1. One of the main problems in getting bank loan is the arrangement of collateral security, since the projects are to be set up by unemployed graduates who are not able to arrange these collaterals. In order to overcome this problem, it is suggested that banks may be sensitized to extend loan against the assets to be created in the project, which could be mortgaged with the banks.

2. As the loans are being secured to support agriculture based activities, it is recommended that the Government may consider making policy change to qualify

these loans as priority sector funding at par with agriculture loans, which will encourage banks to extend loans to these ventures.

3. The Government of India has already introduced capital and interest subsidies during FY 2006-07 under this scheme, this will make these ventures financially viable. The banks should be made aware of these programmes so that they may take this into account while assessing the viability of the project proposed for funding.

13.5 Recommendations for Agripreneurs and Farmers

1. Formation of farmers association: Farmers associations should be formed which will lead to collective farming, in turn the revenues generated will be higher as the expenses per farm would be less. This will encourage them to pay for the advisory services to the Agripreneures thus increasing their incomes as well.
2. Cost and Profit sharing model: On consolidation of the farms, a cost and profit sharing model can be adopted where farmers and extension workers can jointly share the cost and profits. In this manner more and more extension workers will be encouraged to work diligently.
3. Training of the agripreneur: Completion of the training is not enough, the nodal institutes can conduct training sessions under the guidance of MANAGE where the agripreneurs can enroll and upgrade their existing knowledge and learn about new technology and agriculture practices. This can be done on fee basis. This value addition can help the extension workers provide better consultancy to the farmers.

13.6 State Government Extension Services

1. The implementing agency (MANAGE) should coordinate with the state agriculture /horticulture departments and inform them about the ventures established in their states. This will help the State Governments to network with the venture, particular agriclinics and input supplies, for involving them in their own extension programmes. Such involvement which is likely to be mutually beneficial will help address a key objective of the scheme. A suitable mechanism can then be developed to assess the results of such association.