

## **Institutional Innovations and Development of Markets for Agricultural Services : A Case of Agri Clinic and Agri Business Centers (AC & ABC) Scheme in India**

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### **Abstract**

In India, the increase in agricultural production can be possible mainly from the growth in productivity which in turn depends on institutional innovations and development of markets for agricultural services for small and marginal farmers. This paper has evaluated the AC & ABC Scheme in providing effective extension services to farmers and linking them to markets and analysed the status of entrepreneurship development. To study the views of the farmers on benefits accruing from these units, five farmers per agripreneur were contacted and their benefits accruing from the sample units were elicited.

The field observations indicate that the training imparted to them was very useful especially on preparing project reports, documentation procedure and other economic aspects of running an enterprise. Supplying of agricultural inputs along with it providing consultancy services inputs is found to be major activity. The agripreneurs were able to attract farmers due to good quality inputs, expert advice to farmers regarding proper use of inputs and free consultancy services. Apart from providing employment to agriculture graduates, the ventures set up by them have helped in providing gainful employment to several people. With the intervention of extension services of agripreneurs cropping patterns and incomes of the farmers are improved.

Though, the objective of technology transfer has been met to some extent, yet there is a need to involve private extension staff in the entire production, processing, transporting and marketing chain as 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

**Keywords:** agriclinics, agribusiness, entrepreneurship, extension, consultancy, marketing chain

### **Introduction**

The National Agriculture Policy of 2000 has enunciated a growth rate of four per cent per annum in agriculture sector. It has grown at the rate of 3.3 percent as per the Approach Paper to Twelfth Five Year Plan. Supply of land being inelastic, the increase in agricultural production can be possible only by enhancement in the productivity of the crops cultivated. The growth in productivity can be achieved

through agricultural extension activities in the form of provision of services such as information, training and support for adopting improved production technologies. In order to strengthen the extension services provided to the farmers, there are several interventions initiated by the government. One such initiative is a Central Sector Scheme "Agriclinics and Agribusiness" which was launched on 9th April, 2002. The objectives of this scheme are to promote entrepreneurship among unemployed agricultural graduates and to provide extension services to the farmers

#### **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.

#### **Structure of the Scheme**

The scheme is operated by different entities that perform their individual task to operate the scheme in a successful manner.

**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. Agriclinics are envisaged to provide expert services and advice to farmers on cropping practices, technology dissemination, crop protection from pest and diseases, market trends and prices of various crops in the markets and also clinical services for animal health etc., which would enhance productivity of crops and animals. Agribusiness centers are envisaged to provide inputs such as farm equipments on hire, seeds, fertilizers and other services. The scheme is being implemented since ten years and it is high time now to analyse the status of agribusiness development under the scheme and also its benefits to the farming community.

Hence, an attempt has been made in this paper to analyse the impact of AC&ABC Scheme with the following specific objectives:

- To examine the status of entrepreneurship development under AC & ABC Scheme
- To analyse the benefits accrued to the Agri-prenuers
- To elicit the views of the farmers on benefits and services accruing from these ventures
- To identify any other issues or aspects relevant for the growth of entrepreneurship development under AC & ABC Scheme

### **Methodology**

The study is based on both primary and secondary data sources. The secondary data was collected from the MANAGE Website on Agri Clinics and Agribusiness Centers Scheme. In order to analyse the status of entrepreneurship development under AC&ABC scheme and also assess the performance of units established under the scheme, Ranga Reddy and Mahbubnagar district of Andhra Pradesh were purposively selected. Out of the 26 activities in which ventures are established, 11agriprenuers covering 11 activities were included in the sample for detailed analysis. The units were categorized into five broad heads on the basis of the activities undertaken. These groups were Agri Business Units (sale of fertilizers, insecticides, pesticides, seeds, etc.), agriclincs which provide consultancy services, tractors, dairy units and nurseries. Further, in order to study the views of the farmers on benefits accruing from these units, 5 farmers per agripreneur were selected at random for obtaining their views on importance, need and benefits accruing from the sample Agri-Prenuers selected for the study. This paper is divided in to three sections. Section 1 explains the status of agriprenuership development at country, region and state level. In Section 2, the benefits accrued to the agriprenuers are presented. Section 3 gives the benefits accrued to farmers from these ventures.

### **Findings**

#### **Status of Entrepreneurship Development**

The region wise status of AC & ABC Scheme revealed that about 30709 candidates are trained during the period 2002-12 at all India level. Of these, maximum number are trained in Western India followed by northern India, southern India, eastern India and Northeastern India. The same pattern can be seen even in the case of number of ventures established under the scheme. At all India level 38 per cent of the trained candidates have established ventures and 41 per cent in southern India (Table 1) which means the remaining 60 per cent of them have not established ventures under the scheme .

The state wise analysis shows that the maximum candidates trained and established agriventures are in the state of Maharastra followed by Uttar Pradesh, Tamil Nadu, Kartanaka, Rajasthan, Andhra Pradesh and Jammu Kashmir. Only in four states such as in Mahatra, UP, Tamil Nadu and Karnataka, the number of ventures established is more than 40 per cent of the candidates trained. In Jammu and Kashmir and West Bengal this ratio has fallen short of 20 per cent (Table 2).

**Table 1 : Region wise Number of Agriclincs and Agribusiness Centres Established in India from 2002-2012**

Region	No. of Candidates Trained	Share in All India Total (%)	No. of Ventures Established	Share in All India Total	Ratio@
<i>Northern India</i>	9172	29.9	3439	29.8	37.5
<i>South India</i>	6600	21.5	2727	23.6	41.3
<i>Eastern India</i>	4323	14.1	1295	11.2	30.0
<i>Northeastern India</i>	992	3.2	277	2.4	27.9
<i>Western India</i>	9622	31.3	3807	33.0	39.6
<i>All India Total</i>	30709	100.0	11545	100	37.6

**Source:** MANAGE, Hyderabad

@ Ratio of number of ventures established to number of candidates trained

The ratio of number of projects sanctioned to total number of ventures established varies from state to state. However, this ratio is found to be very low in almost all states. The maximum number of ventures are financed in Assam followed by Himachal Pradesh and Karnataka (Table 2). It is clear from the table below that a large number ventures shown under the scheme are not financed by banks as these ventures probably might have established with the help of owned capital or borrowed capital either from formal or from informal sources.

**Table 2 : State wise Number of Agriclincs and Agribusiness Centres Established in India from 2002-12**

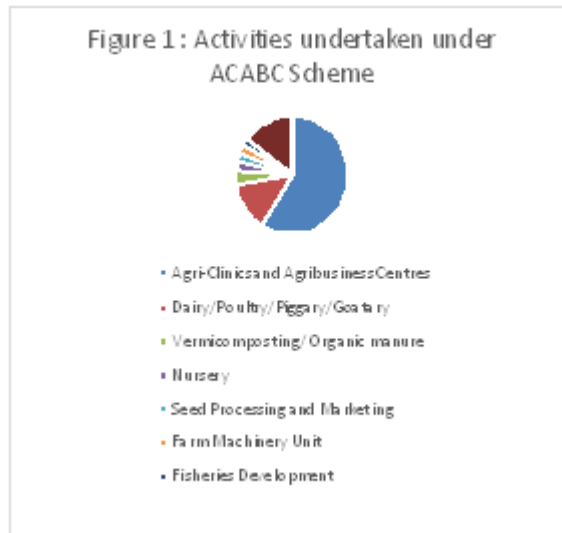
State	No. of Candidates Trained	No. of Ventures Established	Ratio@	No. of Projects sanctioned by Banks	Ratio@@
<i>Maharashtra</i>	6274	2654	42.3	237	8.9
<i>Uttar Pradesh</i>	5718	2585	45.2	214	8.3
<i>Tamil Nadu</i>	2686	1202	44.8	177	14.7
<i>Karnataka</i>	2454	981	40.0	221	22.5
<i>Bihar</i>	2378	899	37.8	98	10.9
<i>Rajasthan</i>	2372	834	35.2	63	7.6
<i>Andhra Pradesh</i>	1205	454	37.7	57	12.6
<i>Jammu Kashmir</i>	1162	146	12.6	3	2.1
<i>Gujarat</i>	969	319	32.9	42	13.2
<i>Madhya Pradesh</i>	809	263	32.5	17	6.5
<i>Orissa</i>	504	104	20.6	7	6.7
<i>Jharkand</i>	495	114	23.0	6	5.3
<i>Haryana</i>	417	142	34.1	19	13.4
<i>Punjab</i>	395	130	32.9	4	3.1
<i>Assam</i>	430	146	34.0	70	47.9
<i>Himachal Pradesh</i>	387	107	27.6	36	33.6
<i>Manipur</i>	354	110	31.1	6	5.5
<i>West Bengal</i>	326	50	15.3	6	12.0

**Source:** MANAGE, Hyderabad

@ Ratio of number of ventures established to number of candidates trained

@@ Ratio of number of projects sanctioned by banks to number of ventures established

There are 32 cafeteria of activities under which agriprenuers can establish their ventures at all India level. However, the cafeteria of activities varies from state to state. Of these 32 activities, major number of units are established under agriclincs and agribusiness centres which means supplying agricultural inputs and providing consultancy services. These activities are followed by dairy/poultry/piggery/goatary, vermicomposting, nursery, seed processing, farm machinery units and others (Figure 1).



### Benefits Accrued to Agripreneurs

All the sample agripreneurs possessed B.Sc. (Agri) degree from a recognized university. Two of the agripreneurs also possessed post graduate degree in agriculture. Majority of the sample agripreneurs belong to OC (6) and OBC (5) category. Five of the entrepreneurs are farmers having agricultural land ranging from 5-20 acres. The 10 sample agripreneurs selected for the study have undergone two months training from Nodal training Institute called "Participatory Rural Development Initiatives (PRDIS)", an Ngo based at Hyderabad.

**Suitability of the Training Imparted:** The sample agripreneurs felt that the training imparted to them was very useful. They indicated that the training addressed the following issues:

1. The training helped them to understand the economic aspects of business practically and these were not part of the course curriculum in their graduation..
2. The two months training helped them to become aware of various procedures related to bank finance like preparing project reports, documentation procedure, various concepts like primary security, collateral security etc.

3. The training helped them to interact with various agencies, fellow entrepreneurs and especially with the bankers

Quite a significant number of villages such as 1635 are being covered by the sample entrepreneurs. Total number of villages covered are 1635. On an average it comes to 168 villages per agriprenuer with a range of 5 to 400 villages. Though total farmers covered per village is only 16 a significant number of farmers are covered which means their services are geographical spreaded. Input supply coupled with consultancy services is found out to be important activities of these ventures (Table 3).

**Table 3: Business Profile of Sample Agripreneurs**

	<b>Number of Agripreneurs</b>
<i>Total Sample Agripreneurs</i>	11
<i>Total No.of Villages covered</i>	1635
<i>No.of Villages Covered per Agriprenuer</i>	148
<i>Total Farmers Covered by Sample Agripreneurs</i>	26050
<i>Farmers Covered Per Agripreneurs</i>	2368
<i>Farmers Covered per Village</i>	16
<i>Inputs Supply</i>	7
<i>Dairy</i>	1
<i>Farm Machinery Suppliers</i>	2
<i>Nursery Suppliers</i>	2
<i>Consultancy Services</i>	8

**Source:** Survey

A total of eight units had been financed by Bank of Baroda, Andhra Bank, Bank of India and CanaraBank to undertake sale/supply of inputs like seeds, fertilisers, power sprayers, power dusters, knapsack sprayers, etc. These banks have provided loans ranging from Rs. 5.00 lakh to Rs. 72.00 lakh at the rate of interest ranging from 12 per cent to 14 per cent. Their annual turnover ranged from Rs.12 lakh to Rs. 100 lakh with an average profit margin of around 10 per cent. Despite facing stiff competition from other similar units attract farmers due to good quality inputs, providing advice to the farmers regarding proper use of inputs especially fertilisers and pesticides and free consultancy services (which included repeated visits to the farmers' fields (table 4).

**Table 4 : Amount of Investment Made by Sample Agripreneurs and Sources of Funds**

<b>Amount of Investment (Rs)</b>	<b>Number of Agripreneurs</b>
<i>More than 50 lakhs</i>	3
<i>Between 25-50 lakhs</i>	2
<i>Between 15-25 lakhs</i>	2
<i>Less than 15 lakhs</i>	4
<i>Bank</i>	8
<i>Middle Men</i>	0
<i>Owned</i>	3

**Source:** Survey

The fixed amount that should be investment is highest in case of nurseries followed by input supplies whereas the reverse is true in case of operational expenses. After deducting all the expenses, the net income per agriprenuer is highest in the case of undertaking all activities due to the operation of economies of scale and least in case of dairy and farm machinery. The agriprenuers who are not only employed but also provided employment to four members on an average per enterprise (Table 5).

**Table 5: Enterprise Wise Net Income Earned and Employment Generated by Agriprenuers**

S. No	Enterprise	No. of Agriprenuers	Investment Per Agriprenuer (Rs in Lakhs)		Net income per Agriprenuer	Average Employment
			Fixed	Operational		
1	<i>Inputs Supply</i>	6	28	17.7	3.67	12
2	<i>Dairy</i>	1	10	2.5	2	4
3	<i>farm machinery</i>	2	10	3.5	2.5	3.5
4	<i>Inputs supply, Farm Machinery, paid consultancy</i>	1	0.75	1.75	8	11
5	<i>Nurseries</i>	1	32	15	5	8

Source: Survey

**Benefits Accrued to the Farmers from Agriprenuers:**

Majority of sample farmers were having small land holdings. About 69 per cent of them were young farmers (between the age of 26 and 45 years). The level of education in the study area was quite high as 69 per cent sample farmers had studied upto matriculation. The general awareness about the latest practices concerning agriculture and other related activities was quite appreciable. Most of the farmers belonged to lower strata in the social hierarchy, *albeit* not in economic terms (Table 6).

**Table 6 : Socioeconomic Profile of the Sample Farmers**

Characteristic	Category	Number of Farmers	Percentage
<i>Land Holding Size</i>	<i>Marginal (&lt;1 ha)</i>	6	10.9
	<i>Small (1-2 ha)</i>	29	52.7
	<i>Medium (2-8 ha)</i>	8	14.5
	<i>Large (&gt;8 ha)</i>	12	21.8
<i>Age</i>	<i>Less than 25</i>	2	3.6
	<i>Between 25-45</i>	38	69.1
	<i>More than 45</i>	15	27.3
<i>Education</i>	<i>Illiterate</i>	5	9.1
	<i>upto 10<sup>th</sup></i>	38	69.1
	<i>more than 10<sup>th</sup></i>	12	21.8

Source: Survey

When we analysed the shifts in cropping patterns we observed that about 55 per cent of the farmers have changed their crop pattern due to availability of services of agri clinics and agribusiness centers. Of these 63 per cent of the farmers belong to the age group of 25 to 45 and having the education up to 10<sup>th</sup> class. Majority of these farmers are having small sized holdings. The farmers with illiteracy and belong to the age group of less than 25 did not want to shift in cropping pattern (table 7).

**Table 7: Extent of Cropping Pattern Change**

Category of Farmers	Number	Percentage
<b>Age</b>		
<i>Less than 25</i>		
<i>25-45</i>	1	3.3
<i>Above 45</i>	19	63.3
<b>Education</b>	10	33.3
<i>Illiterate</i>		
<i>Upto 10<sup>th</sup></i>	2	6.7
<i>More than 10<sup>th</sup></i>	19	63.3
<b>Land Category</b>	9	30.0
<i>Marginal</i>		
<i>Small</i>	1	3.3
<i>Medium</i>	12	40.0
<i>Large</i>	8	26.7
<b>Total</b>	9	3.0
<b>All together</b>		54.5

Source: Survey

Due to the cropping pattern shifts, about 60 per cent of the farmers have obtained the income gain of more than Rs 8000. Of these 60 per cent, maximum number of farmers (86%) belong to the small sized land holdings. About 30 per cent of the marginal farmers gained income between Rs. 5000 to 8000. A very small number of farmers that too large farmers could gain less than Rs. 5000 (Table 8).

**Table 8 : Land Category Wise Income Gains to the Farmers**

Category	Income earned in Rs		
	Less than 5000	5000-8000	Above 8000
<i>Marginal</i>	0	6 (30.0)	0
<i>Small</i>	0	4 (13.8)	25 (86.2)
<i>Medium</i>	0	5 (62.5)	3 (37.5)
<i>Large</i>	0 (16.7)	5 (41.7)	5 (41.7)
<i>All</i>	2 (3.6)	20 (36.4)	33 (60.0)

Note : Figures in the parentheses are percentages

Source: Survey



### **Conclusion**

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.
4. On an overall perspective, South and North zone have fared 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. Though, the objective of technology transfer has been met to some extent, yet 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.

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