



Agripreneurship development under the Agri-Clinics and Agri-Business Centres Scheme: Evidence from India with special reference to Tamil Nadu

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Abstract

This study examines the performance of the Agri-Clinics and Agri-Business Centres (hereafter abbreviated as AC&ABC) scheme in India with special reference to Tamil Nadu. Using secondary data from 2002-2022, the study analyses state-wise distribution, district-level performance, activity-wise diversification, and institutional participation. The findings reveal significant regional disparities, with a concentration of performance in a few states and districts. Tamil Nadu emerges as a strong performer in terms of training and venture establishment; however, intra-state imbalances persist. The study highlights the need for targeted interventions, improved credit linkages, and diversification of agribusiness activities for inclusive agripreneurship development.

Keywords: Agri-clinics, agri-business centres, agripreneurship, Tamil Nadu

Introduction

Agriculture continues to play a vital role in the Indian economy, providing livelihood to a large section of the population and contributing significantly to national income and food security. However, the sector faces persistent challenges such as low productivity, inadequate access to timely information, and inefficiencies in the public extension system in addressing the diverse needs of farmers (Bondre *et al.*, 2017; Vincent & Raj, 2022) ^[2, 6]. At the same time, a growing number of agricultural graduates remain underemployed, highlighting the need for innovative approaches that combine extension services with employment generation (Chaitra *et al.*, 2020) ^[3]. In this context, the Government of India launched the AC&ABC scheme in 2002 to promote agripreneurship among agricultural graduates. The scheme is a subsidy-based, credit-linked initiative aimed at supplementing the public extension system by enabling trained graduates to establish enterprises that provide advisory, input supply, and value-added services to farmers (Bairwa *et al.*, 2014; Chaitra *et al.*, 2020) ^[1, 3]. By doing so, the scheme seeks to strengthen technology transfer, enhance farmers' access to services, and generate self-employment opportunities in rural areas. The emergence of agripreneurship reflects a broader shift in agricultural development from traditional subsistence practices to a more market-oriented and knowledge-driven approach. Conventional extension systems alone are no longer sufficient to meet the complex and dynamic requirements of modern agriculture, which increasingly depend on technological innovation, market linkages, and entrepreneurial skills (Vincent & Raj, 2022) ^[6]. In this regard, the AC&ABC scheme plays a crucial role in bridging the gap between research institutions and farmers by creating a network of trained agripreneurs who deliver location-specific and demand-driven services.

Furthermore, the scheme addresses the issue of underemployment among agricultural graduates. Each year, a substantial number of graduates enter the job market, but only a limited proportion secure employment in the public

or private sectors, leaving a large pool of skilled human resources underutilized (Chaitra *et al.*, 2020) ^[3]. By encouraging self-employment and enterprise development, the scheme contributes to income generation, rural development, and human resource utilization (Bairwa *et al.*, 2014) ^[1].

Empirical evidence suggests that the AC&ABC scheme has positively influenced farmers' awareness and adoption of scientific agricultural practices, thereby improving productivity and income levels (Bondre *et al.*, 2017) ^[2]. However, the performance of the scheme varies across regions, and challenges such as regional disparities, limited access to credit, and sustainability of enterprises persist. These issues underline the need for continuous evaluation and policy support to maximize the effectiveness of the scheme. Therefore, the present study attempts to examine the regional and sectoral distribution of the AC&ABC scheme with special reference to Tamil Nadu. A comprehensive understanding of the scheme is essential for strengthening agripreneurship and ensuring inclusive and sustainable agricultural development in India.

Objective of the Study

- To examine the regional and sectoral distribution of the AC&ABC scheme with special reference to Tamil Nadu.

Database and Methodology

The study is based on secondary data obtained from the National Institute of Agricultural Extension Management (MANAGE) database covering the period from 2002 to 31st December 2022. The dataset includes information on trained candidates, ventures established, training programmes, and bank-sanctioned projects. A descriptive and analytical approach has been adopted using percentages, growth rates, and Compound Annual Growth Rate (CAGR). State-wise, district-wise, and activity-wise analyses have been conducted to examine performance patterns and regional disparities.

Results and Discussions

1. State-wise Distribution and Performance of the AC&ABC Scheme in India

To understand the overall performance of the scheme, state-wise distribution across key indicators is analyzed. The results reveal a highly uneven and regionally concentrated pattern. States such as Maharashtra, Uttar Pradesh, and Tamil Nadu dominate in terms of trained candidates and ventures established, indicating stronger institutional support and better programme penetration. In contrast, northeastern states show

negligible participation, reflecting structural and geographical constraints. A similar pattern is observed in enterprise establishment, suggesting that leading states not only train more candidates but also achieve better conversion into agriventures. The distribution of training programmes and bank-sanctioned projects further reinforces this concentration, highlighting disparities in training infrastructure and financial linkages. Overall, the findings indicate that the scheme’s performance is skewed towards a few states, emphasizing the need for balanced regional development.

Table 1: State-wise Status of AC&ABC Scheme in India (As on 31st December 2022)

Sr. No	Name of State/ Union Territory (UT)	Trained Candidates		Ventures Established		Training Programmes		Sanctioned Projects by Bank	
		No.	%	No.	%	No.	%	No.	%
1	Andhra Pradesh	1628	1.94	480	1.31	52	1.67	2	0.18
2	Arunachal Pradesh	48	0.06	3	0.01	2	0.06	1	0.09
3	Assam	844	1.01	266	0.72	29	0.93	3	0.27
4	Bihar	4372	5.22	1544	4.22	133	4.26	3	0.27
5	Chandigarh	4	0.00	2	0.01	2	0.06	0	0.00
6	Chhattisgarh	986	1.18	384	1.05	38	1.22	2	0.18
7	Delhi	42	0.05	6	0.02	0	0.00	0	0.00
8	Goa	15	0.02	7	0.02	4	0.13	0	0.00
9	Gujarat	2222	2.65	887	2.42	83	2.66	5	0.45
10	Haryana	737	0.88	245	0.67	29	0.93	31	2.81
11	Himachal Pradesh	429	0.51	111	0.30	13	0.42	6	0.54
12	Jammu and Kashmir	1523	1.82	191	0.52	52	1.67	3	0.27
13	Jharkhand	783	0.93	198	0.54	37	1.18	1	0.09
14	Karnataka	4418	5.27	1782	4.88	153	4.90	78	7.06
15	Kerala	277	0.33	60	0.16	16	0.51	3	0.27
16	Madhya Pradesh	4959	5.92	2190	5.99	202	6.47	8	0.72
17	Maharashtra	22204	26.49	11352	31.06	837	26.80	292	26.43
18	Manipur	522	0.62	135	0.37	19	0.61	2	0.18
19	Meghalaya	37	0.04	3	0.01	2	0.06	0	0.00
20	Mizoram	52	0.06	0	0.00	2	0.06	0	0.00
21	Nagaland	187	0.22	22	0.06	7	0.22	1	0.09
22	Orissa	643	0.77	116	0.32	25	0.80	1	0.09
23	Pondicherry	145	0.17	86	0.24	23	0.74	8	0.72
24	Punjab	668	0.80	224	0.61	23	0.74	1	0.09
25	Rajasthan	4549	5.43	1871	5.12	163	5.22	18	1.63
26	Sikkim	9	0.01	1	0.00	1	0.03	0	0.00
27	Tamil Nadu	9075	10.83	4495	12.30	317	10.15	184	16.65
28	Telangana	2216	2.64	608	1.66	108	3.46	62	5.61
29	Tripura	6	0.01	2	0.01	0	0.00	1	0.09
30	Uttar Pradesh	18435	22.00	8808	24.10	679	21.74	383	34.66
31	Uttaranchal	555	0.66	175	0.48	28	0.90	2	0.18
32	West Bengal	1216	1.45	298	0.82	44	1.41	4	0.36
	Total	83806	100	36552	100	3123	100	1105	100

Source: MANAGE- AC&ABC Database.

2. Contribution of Tamil Nadu to National Performance

Building upon the national-level analysis, it is important to examine the contribution and relative performance of Tamil Nadu under the AC&ABC scheme over time. Table 2 shows the year-wise contribution of Tamil Nadu to the AC&ABC scheme from 2002 to 2022. Overall, the state accounts for 10.83% of trained candidates and 12.30% of ventures established, indicating a relatively better conversion of training into enterprise creation. In the initial years (2002–2006), Tamil Nadu’s share remained low (around 2–6%), reflecting limited outreach. However, performance improved significantly after 2008, with the share of trained candidates exceeding 10% and peaking at 19.23% in 2013.

Similarly, the share of ventures established reached a peak of 23.43% in 2013, indicating strong entrepreneurial growth.

After 2014, fluctuations are observed, with a decline during 2017–2019 and further impact during 2020-2021, likely due to economic and institutional constraints. However, a recovery is seen in 2022, with shares rising to 12.79% (trained) and 13.83% (ventures). The CAGR analysis further shows that Tamil Nadu outperforms the national average, with 8.57% growth in training and 29.66% in ventures, compared to 6.68% and 18.20% at the national level. Overall, Tamil Nadu demonstrates strong performance, though consistency and sustained support remain key concerns.

Table 2: Year-wise Share of Tamil Nadu in Number of Trained Candidates and Ventures Established under the AC&ABC Scheme in India (2002- 31st December 2022)

Sr. No	Year	Number of Trained Candidates		Share of Tamil Nadu in India (%)	Number of Ventures Established		Share of Tamil Nadu in India (%)
		India	Tamil Nadu		India	Tamil Nadu	
1	2002	1521	137	9.01	138	3	2.17
2	2003	2595	80	3.08	679	55	8.10
3	2004	1946	55	2.83	448	1	0.22
4	2005	3399	131	3.85	1413	35	2.48
5	2006	2209	139	6.29	1101	72	6.54
6	2007	3309	177	5.35	1215	94	7.74
7	2008	2393	233	9.74	823	69	8.38
8	2009	2575	261	10.14	1176	178	15.14
9	2010	3184	361	11.34	1269	200	15.76
10	2011	4432	603	13.61	1498	203	13.55
11	2012	3146	508	16.15	1792	291	16.24
12	2013	5387	1036	19.23	2399	562	23.43
13	2014	5669	858	15.13	2730	584	21.39
14	2015	4072	657	16.13	2713	366	13.49
15	2016	5611	789	14.06	1676	286	17.06
16	2017	5096	470	9.22	2451	360	14.69
17	2018	5478	425	7.76	2655	163	6.14
18	2019	7878	637	8.09	2340	167	7.14
19	2020	3331	337	10.12	2073	143	6.90
20	2021	5033	472	9.38	2051	122	5.95
21	2022	5542	709	12.79	3912	541	13.83
Total		83806	9075	10.83	36552	4495	12.30
CAGR		6.68%	8.57%		18.20%	29.66%	

Source: MANAGE- AC&ABC Database.

3. Status of AC&ABC Scheme in Tamil Nadu

To gain deeper insights into the implementation of the AC&ABC scheme at the micro level, this section examines the district-wise performance, financial linkages, and sectoral distribution of ventures in Tamil Nadu.

3.1. District Level Performance of AC & ABC Scheme

Table 3, collectively present the district-wise distribution of trained candidates, ventures established, and bank-sanctioned projects in Tamil Nadu as on 31st December 2022. The analysis reveals a highly uneven spatial distribution of the scheme across districts. A few districts consistently perform well across all indicators. Notably, Namakkal, Madurai, and Salem emerge as leading districts, accounting for a significant share of trained candidates, ventures established, and sanctioned projects. This indicates strong institutional support, better access to credit, and effective implementation of the scheme in these regions. Similarly, districts such as Erode, Dindigul, Dharmapuri, Tiruvannamalai, and Viluppuram show balanced performance, contributing moderately across training, enterprise creation, and financial linkage. These districts

reflect a relatively stable agripreneurial ecosystem with scope for further expansion. In contrast, several districts exhibit low or negligible performance in one or more indicators. The presence of districts with minimal training participation and limited venture establishment suggests weak outreach, inadequate institutional support, and constraints in access to credit facilities.

A comparison across the three indicators highlights that districts with higher training levels generally report higher venture establishment and bank linkage, indicating a positive relationship between training, enterprise creation, and financial support. However, the existence of districts with training but limited venture creation points to gaps in post-training support and entrepreneurial facilitation. The analysis also reveals data inconsistencies and duplication of district names, which may affect the accuracy of interpretation and require standardization. Overall, the findings indicate that while Tamil Nadu performs well at the aggregate level, the intra-state disparities highlight the need for targeted interventions, improved credit access, and strengthening of institutional mechanisms in low-performing districts.

Table 3: District-wise Distribution of Trained Candidates, Ventures Established and Projects Sectioned by Banks in Tamil Nadu (As on 31 December 2022)

Sr.No	District	Trained Candidates		Ventures Established		Projects Sectioned by Banks	
		No	%	No	%	No	%
1	Ariyalur	168	1.85	72	1.60	1	0.54
2	Bangalore	1	0.01	0	0.00	0	0.00
3	Chengalpattu	5	0.06	0	0.00	0	0.00
4	Chennai	127	1.40	65	1.45	9	4.89
5	Coimbatore	295	3.25	157	3.49	7	3.80
6	Cuddalore	465	5.12	208	4.63	9	4.89
7	Dharmapuri	466	5.13	228	5.07	2	1.09
8	Dindigul	429	4.73	234	5.21	14	7.61

9	Erode	486	5.36	244	5.43	7	3.80
10	Kallakurichi	2	0.02	0	0.00	0	0.00
11	Kanchipuram	277	3.05	165	3.67	1	0.54
12	Kanniyakumari	127	1.40	43	0.96	5	2.72
13	Karur	166	1.83	78	1.74	0	0.00
14	Krishnagiri	179	1.97	101	2.25	3	1.63
15	Madurai	774	8.53	413	9.19	17	9.24
16	Nagapattinam	144	1.59	59	1.31	1	0.54
17	Namakkal	869	9.58	487	10.83	22	11.96
18	Nilgiris	30	0.33	12	0.27	0	0.00
19	Perambalur	151	1.66	75	1.67	3	1.63
20	Pondicherry	1	0.01	1	0.02	0	0.00
21	Pudukkottai	145	1.60	58	1.29	4	2.17
22	Ramanathapuram	77	0.85	37	0.82	2	1.09
23	Salem	690	7.60	347	7.72	18	9.78
24	Sivaganga	121	1.33	64	1.42	2	1.09
25	Tenkasi	5	0.06	0	0.00	0	0.00
26	Thanjavur	254	2.80	126	2.80	2	1.09
27	Theni	263	2.90	141	3.14	9	4.89
28	Thoothukudi	133	1.47	51	1.13	1	0.54
29	Tiruchirappalli	315	3.47	136	3.03	11	5.98
30	Tirunelveli	284	3.13	140	3.11	9	4.89
31	Tiruppur	95	1.05	38	0.85	0	0.00
32	Tiruvallur	65	0.72	32	0.71	3	1.63
33	Tiruvannamalai	479	5.28	217	4.83	4	2.17
34	Tiruvarur	124	1.37	52	1.16	1	0.54
35	Vellore	151	1.66	62	1.38	2	1.09
36	Viluppuram	533	5.87	261	5.81	7	3.80
37	Virudhunagar	179	1.97	91	2.02	8	4.35
	Total	9075	100	4495	100	184	100

Source: MANAGE- AC&ABC Database.

Note: Bangalore (Karnataka) and Pondicherry (Union Territory) they are not administratively part of Tamil Nadu.

3.2. Activity-wise Distribution of Ventures

To understand the nature of agripreneurship promoted under the scheme, Table 4 presents the activity-wise distribution of ventures established in Tamil Nadu. The findings show a high concentration of ventures in a few dominant sectors. Livestock-based activities, particularly dairy, poultry, piggery, and goatary, account for the largest share (43.07%), indicating a preference for low-risk and income-stable enterprises. Similarly, Agri-Clinics (21.58%) and Agri-Business Centres (15.22%) form a significant proportion, reflecting the importance of advisory and extension services.

Moderate participation is observed in activities such as farm machinery, nursery development, fisheries, and vegetable production, suggesting gradual diversification into allied agricultural sectors. However, several high-value and technology-driven activities such as tissue culture, bio-control agents, and value addition have very low representation. This indicates limited adoption of innovative agribusiness models, possibly due to higher investment requirements, technical complexity, or lack of awareness. Overall, the pattern suggests that agripreneurs in Tamil Nadu prefer traditional and less risky enterprises, highlighting the need to promote diversification into high-value sectors.

Table 4: Activity-wise Distribution of Ventures Established under the AC&ABC Scheme in Tamil Nadu (2002-31st December 2022)

Sr. No	Project Description	No	%	Sr. No	Project Description	No	%
1	Agri-Clinics	970	21.58	17	Landscaping + Nursery	25	0.56
2	Agri-Clinics and Agribusiness Centres	684	15.22	18	Mushroom Cultivation	46	1.02
3	Agri-Eco Journalism	1	0.02	19	Nursery	127	2.83
4	Animal Feed Unit	6	0.13	20	Organic Production/ Food Chain	21	0.47
5	Apiary	2	0.04	21	Pesticides Production and Marketing	5	0.11
6	Bio-fertilizer production and Marketing	16	0.36	22	Production & Marketing of Bio-Control Agents	3	0.07
7	Contract Farming	21	0.47	23	Rural Godown	3	0.07
8	Crop Production	24	0.53	24	Seed Processing and Marketing	35	0.78
9	Cultivation of Medicinal Plants	10	0.22	25	Sericulture	14	0.31
10	Dairy/Poultry/Piggery/Goatary	1936	43.07	26	Soil Testing Laboratory	25	0.56
11	Direct Mkt.	13	0.29	27	Tissue Culture Unit	2	0.04
12	Farm Machinery Unit	102	2.27	28	Value Addition	2	0.04
13	Fisheries Development	50	1.11	29	Vegetable Production and Marketing	49	1.09
14	Fishery clinic	6	0.13	30	Vermicomposting / Organic manure	36	0.80
15	Floriculture	15	0.33	31	Veterinary Clinics	56	1.25
16	Horticulture Clinic	29	0.65		Total	4495	100

Source: MANAGE- AC&ABC Database

3.3. Institution-wise Training Performance

Table 5 presents the distribution of training programmes across institutions in Tamil Nadu, highlighting the role of different organizations in capacity building. The analysis reveals that training activities are highly concentrated among a few institutions. The Voluntary Association for People Service, Madurai, the Centre for Alternate Rural Employment, Namakkal, and the National Agro Foundation, Chennai together account for a major share of training programmes. This indicates their dominant role in the

implementation of the scheme.

Other institutions contribute moderately, while a large number of institutions have minimal participation. This uneven distribution suggests limited institutional capacity and unequal access to training across regions. Overall, the findings indicate that while multiple institutions are involved, the concentration of training among a few key players may lead to regional imbalances, highlighting the need to strengthen and expand the capacity of other institutions.

Table 5: Institution-wise Number of Training Programmes under the AC&ABC Scheme in Tamil Nadu (2002–December 2022)

Sr. No	Name of the Institute	No.	%
1	Agricultural Graduates Consultancy and Services Society (AGCASS)	1	0.32
2	Agro Clinical Development Trust, Kodaikanal	3	0.95
3	Annamalai University, Cuddalore, Tamil Nadu	2	0.63
4	Biofarm Nodal Training Institute, Coimbatore	16	5.05
5	Centre for Agricultural and Rural Development Studies, Coimbatore	5	1.58
6	Centre for Alternate Rural Employment, Namakkal, Tamil Nadu	68	21.45
7	Centre for Entrepreneurship Development, Madurai, Tamil Nadu	15	4.73
8	Coodu Trust, Dindigul, Tamil Nadu	1	0.32
9	Health Educational Awareness For Lacklustre Rural People Charitable Trust, Erode	19	5.99
10	Imaigal Trust, Salem, Tamil Nadu	17	5.36
11	International Institute of Bio-Technology and Toxicology, Padappai	3	0.95
12	Nalanda College of Agriculture, Trichy, Tamil Nadu	1	0.32
13	Natesan Institute of Co-operative Management, Chennai	1	0.32
14	National Agro Foundation, Chennai, Tamil Nadu	37	11.67
15	PSGR Krishnammal College for Women, Coimbatore, Tamil Nadu	1	0.32
16	Rajalakshmi Polytechnic college, Tiruvannamalai	8	2.52
17	Saraswati Foundation for Rural Development & Training, Karur, Tamil Nadu	9	2.84
18	Shanmuga Arts, Science Technology & Research Academy, Tanjavur	4	1.26
19	Small Industries Product Promotion Organisation, Madurai, Tamil Nadu	9	2.84
20	SRS Institute of Agriculture and Technology, Dindigul, Tamil Nadu	2	0.63
21	Stella Maris Institute of Development Studies (SMIDS), Kanyakumari Tamil Nadu	4	1.26
22	The Institute of Entrepreneurship Development (IED), Dharmapuri, Tamil Nadu	8	2.52
23	Vanavarayar Institute of Agriculture, Pollachi, Tamil Nadu	6	1.89
24	Voluntary Association for People Service, Madurai, Tamil Nadu	77	24.29
Total		317	100

Source: MANAGE- AC&ABC Database.

Conclusion

The AC&ABC scheme has significantly contributed to agripreneurship development and strengthening of agricultural extension services in India. However, its performance is highly uneven, with strong concentration in a few states and districts. Tamil Nadu performs well overall, but intra-state disparities remain a major concern. The dominance of traditional enterprises and limited diversification highlight structural constraints in the agripreneurial ecosystem. Issues related to credit access, training infrastructure, and post-training support further affect the sustainability of ventures. Policy efforts should focus on improving regional inclusiveness, strengthening credit linkages, expanding training capacity, and promoting diversified and technology-driven agribusiness activities. Enhancing post-training support and market integration will be crucial for ensuring long-term success and sustainability of the scheme.

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