



## Women's Agripreneurship in India's Maharashtra State: An Analysis of the AC & ABC Scheme

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### Abstract

The purpose of this study is to investigate the impact of the Agri Clinics and Agri Business Centers (AC&ABC) scheme of the Ministry of Agriculture and Farmers Welfare (MoA&FW), Government of India, on Women Agripreneurship (WA) in Maharashtra, India. Using secondary data from 2002-2022 available at the AC&ABC cell at the National Institute of Agricultural Extension Management (MANAGE), we assessed WA in Maharashtra. The analysis employed descriptive statistics and visual representations. Our findings indicate that the AC&ABC scheme has limited women's participation, with only 8.6% of trained candidates being women. Maharashtra State leads in terms of trained women and established agri-ventures. Notably, older women agripreneurs, particularly in the 53-60 age group, exhibit the highest success rate. Additionally, diploma holders have a success rate of 53.95%, and preferences lean towards Livestock Farming, Agri Clinics, and Agri Business Centers. In terms of practical implications, our study underscores the need for enhanced training and support for women entrepreneurs in agriculture. Policymakers should focus on expanding training programs, providing greater financial resources, and establishing more extensive marketing networks. From a theoretical standpoint, our research highlights the untapped potential of women in agriculture and their role in promoting rural development, poverty alleviation, and women's empowerment with the support of policymakers. This study is the first exploratory examination of women participating in the AC&ABC scheme in Maharashtra, India, aimed at promoting WA. The AC&ABC scheme stands as one of the world's largest government interventions in agripreneurship promotion. Our findings reveal critical factors influencing the success of women agripreneurs in the region, offering valuable guidance for future research.



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## Introduction

India is one of the world's leading producers of agricultural commodities, and agriculture plays a critical role in providing livelihood for millions of people in the country.<sup>1</sup> Agriculture contributes to about 17% of India's GDP and provides employment to over 40% of the country's workforce.<sup>2</sup> Women's participation in agriculture is crucial for improving agricultural productivity, ensuring food security, and promoting rural development.<sup>3</sup> Research has shown that women's empowerment in agriculture is associated with increased agricultural production, improved nutrition, and better household well-being.<sup>4-6</sup> Recognizing the importance of women in agriculture, the Indian government has been implementing various initiatives to promote agricultural development and increase women's participation in the sector.

In recent years, the Indian government has introduced several schemes and policies to promote women agripreneurship (WA), such as the Mahila Kisan Sashaktikaran Pariyojana (MKSP), which aims to empower women farmers by providing them with access to resources, knowledge, and services.<sup>7,8</sup> The Agri Clinics and Agri Business Centers (AC&ABC) scheme is another such initiative, focusing on fostering Agripreneurship among young graduates and supporting them in establishing Agri Clinics and Agri Business centers.<sup>9</sup>

The AC&ABC scheme has been successful in promoting agripreneurship, but studies indicate that women's participation in the program remains low.<sup>10</sup> Barriers such as gender norms, limited access to resources, and a lack of confidence in entrepreneurial abilities may be contributing to this disparity.<sup>10</sup> Identifying and addressing these barriers is critical to ensuring that women can fully participate in and benefit from the AC&ABC scheme and other similar initiatives.

There is a growing body of research on women entrepreneurship<sup>11-16</sup> and participation of women in agriculture and Agripreneurship in India.<sup>17-22</sup> However, there is still limited understanding of the status of WA and the factors influencing women's involvement in the AC&ABC scheme and the potential benefits of their increased participation in this initiative.

In this article authors have explored the current status of WA and derived deeper insights from it. This study contributes to the development of targeted interventions and policies to promote women's empowerment in agriculture and Agripreneurship in Maharashtra and other regions of India.

## Agri Clinics and Agri Business Centres (AC&ABC) Scheme

The AC&ABC scheme was launched by the Government of India in 2002 as a comprehensive program to encourage and support agricultural entrepreneurship (agripreneurship) among qualified agricultural graduates. Administered by the Ministry of Agriculture and Farmers Welfare (MoA&FW) and implemented through the National Institute of Agricultural Extension Management (MANAGE), the AC&ABC scheme addresses the challenges faced by the agricultural sector in India by creating self-employment opportunities for agriculture graduates and providing much-needed support services to the farmers.

The objectives of the AC&ABC scheme include creating self-employment opportunities for unemployed agricultural graduates, promoting agripreneurship, providing professional agricultural extension and advisory services to farmers, and supporting innovation and adoption of new technologies in agriculture. To achieve these objectives, the scheme offers comprehensive and intensive residential training programs through selected partner institutions called Nodal Training Institutes (NTIs) across the country free of cost for 45 days. The training covers various aspects of agriculture, including agri clinic (agro advisory centre), agribusiness centre (agri input retail store) crop production, livestock and poultry management, marketing, finance, and project management.

Upon successful completion of the training, agripreneurs are eligible to access credit facilities which is loan up to ₹20 lakhs (approx. \$ 24,000/-) for individual projects and up to ₹ 1 crore (approx. \$1,21,000/-) for group projects, for establishing their agri-ventures. The scheme provides a subsidy on bank loans to reduce the financial burden on the agripreneurs. The subsidy rate varies depending on the category of the entrepreneur: 44% for women agripreneurs, 36% for general category male

agripreneurs, and 44% for agripreneurs belonging to Scheduled Caste (SC), Scheduled Tribe (ST), and Other Backward Classes (OBC). This higher subsidy rate for women entrepreneurs is designed to encourage their participation in Agripreneurship. The remaining amount is financed through bank loans, with a repayment period of up to 7 years, including a moratorium of two years. Moreover, the agripreneurs receive continuous support and guidance from MANAGE and the NTIs through regular monitoring, evaluation, and capacity-building initiatives.

There are a total of 83,422 candidates trained under the scheme (by November 2022), of which 36,354 people established businesses, representing a success rate of almost 43.5%. Of the 83,422 trained candidates, 7,178 were women. Among women candidates, 2,403 established agri-ventures.

#### Literature Review

We have reviewed the research work done on WA, and the AC&ABC scheme. We focused on the important role of women in agriculture, the challenges they face, and the impact of the AC&ABC scheme on promoting Agripreneurship. Despite the growing body of research on these topics, there is still a need for more in-depth studies on the specific impact of the AC&ABC scheme on WA, as well as the development of strategies to improve their participation and success in the sector. By addressing these gaps, future research can contribute to the design and implementation of more effective policies and interventions that support women's empowerment and involvement in Agripreneurship in India.

#### Women's role in Agriculture and Agripreneurship

Numerous studies have emphasized the essential role women play in agriculture, both as farmers and entrepreneurs.<sup>23-28</sup> Their involvement in various agricultural activities, including cultivation, livestock rearing, food processing, and marketing, significantly impacts food security and household well-being in developing countries.<sup>29</sup> The Food and Agriculture Organization (FAO) estimates that if women had the same access to resources as men, agricultural output in developing countries could increase by 2.5-4%, potentially reducing the number of undernourished people by 12-17%.<sup>29</sup>

In recent years, the phenomenon of the 'feminization of agriculture' has been observed in developing countries like India, where women's participation in agriculture is on the rise.<sup>30-33</sup> This trend has been attributed to several factors, such as male out-migration to urban areas for non-farm jobs, leaving women to manage the agricultural activities at home.<sup>34-36</sup> Furthermore, women are increasingly participating in Agripreneurship, creating additional income-generating opportunities, and contributing to rural development.<sup>37</sup>

Women's involvement in agriculture is also associated with sustainable agricultural practices, such as the use of organic farming techniques, crop diversification, and agroforestry.<sup>38-41</sup> These practices not only contribute to increased agricultural productivity but also help mitigate the effects of climate change, improve soil health, and promote biodiversity.<sup>42,43</sup> By incorporating traditional knowledge and adopting innovative practices, women play a crucial role in ensuring the sustainability of agriculture and the resilience of rural communities.<sup>44</sup>

Empowering women in agriculture has been shown to have a positive impact on agricultural production, household food security, and overall well-being.<sup>45,46</sup> Women's empowerment, measured by indicators such as decision-making power, access to resources, and control over income, is associated with improved agricultural outcomes, better nutrition, and enhanced educational opportunities for children.<sup>47</sup> As women's roles in agriculture and Agripreneurship continue to expand, it becomes increasingly important to understand and address the challenges they face to ensure their full participation and contribution to the sector.

#### Challenges Faced by Women in Agripreneurship

Women in agriculture often face numerous challenges, such as limited access to finance, land, training, technology, and market information.<sup>9,10</sup> Gender bias, discrimination, and stereotypes further exacerbate these challenges, hindering women's success in Agripreneurship.<sup>48</sup> The gender gap in agriculture refers to the disparities between men and women in terms of access to resources, opportunities, and benefits within the agricultural sector. Women play a vital role in agriculture,

contributing significantly to food production, processing, and marketing activities.<sup>40</sup> However, they often face numerous barriers that limit their involvement and success in the sector, leading to a persistent gender gap. A few challenges are mentioned below.

- Access to land and resources: Women often face challenges in obtaining secure land rights, which can hinder their ability to invest in and manage agricultural activities. In many countries, customary and legal norms restrict women's access to land ownership or inheritance, putting them at a disadvantage compared to men.<sup>49</sup>
- Access to finance: Limited access to credit and financial services is another significant barrier faced by women in agriculture.<sup>50</sup> Due to gender biases and lack of collateral (often linked to land ownership), women may find it more challenging to secure loans to invest in their agricultural activities.<sup>51</sup>
- Access to education and training: Women may have limited access to agricultural education, training, and extension services due to gender stereotypes, social norms, or logistical constraints.<sup>52,53</sup> This can result in knowledge gaps and hinder their ability to adopt new technologies and practices that could improve productivity and income.
- Access to markets and networks: Women may face challenges in accessing markets and networks due to social norms, mobility constraints, or limited market information.<sup>52</sup> This can limit their ability to sell their produce at competitive prices and engage in profitable value chains.
- Cultural and social norms: Gender biases, discrimination, and stereotypes can create additional challenges for women in agriculture.<sup>10</sup> Women may be expected to prioritize household and care responsibilities over their agricultural activities, limiting the time and energy they can dedicate to farming and entrepreneurship.
- Limited decision-making power: In many contexts, women may have limited decision-making power within households and communities, restricting their ability to make strategic choices regarding agricultural

activities.<sup>54</sup> This can further exacerbate the gender gap in agriculture.

### **Impact of the AC&ABC Scheme**

Research on the AC&ABC scheme has mainly focused on its overall impact on promoting Agripreneurs and Agripreneurship in India.<sup>55-61</sup> These studies have shown that the AC&ABC scheme has contributed significantly to the growth of agripreneurship by empowering agricultural graduates and promoting the establishment of numerous agri-ventures across the country.

### **Women's in the AC&ABC scheme**

Few studies have examined the impact of the AC&ABC scheme on WA.<sup>62</sup> However, it is known that the scheme has made efforts to encourage women's participation by offering higher subsidy rates, reserved seats in training programs, and targeted capacity-building initiatives.<sup>63</sup>

Previous research has highlighted the critical role of women in agriculture and Agripreneurship, the barriers they face, and the potential of the AC&ABC scheme to support their efforts.<sup>62,64</sup> However, there is a need for in-depth research to understand the specific impact of the AC&ABC scheme on women's Agripreneurship and identify strategies for further improving their participation and success in the agriculture sector.

### **Methodology**

This study aims to explore the gender aspect of the AC&ABC scheme, assess women's participation state-wise, and examine socio-economic features, temporal distribution, geographical distribution, and demographic characteristics of women agripreneurs from Maharashtra State, India. The need for the study arises from the under-representation of women in the agricultural sector and the limited opportunities available to them. The AC&ABC scheme offers women access to training, subsidies, and credit to establish agribusiness ventures. The study's objective is to evaluate the scheme's impact on WA and identify factors affecting their success. By understanding these characteristics, the study aims to provide insights for designing effective policies and programs that empower women in agriculture, agripreneurship and promote sustainable development.

### Data Collection

The Centre for Agripreneurship Development (CAD) hosted at National Institute of Agricultural Extension Management (MANAGE) maintains the entire data pertaining to the number of candidates enrolled for the program, trained candidates, number and details of ventures established by the agripreneurs, etc. of the scheme. The data from inception of the scheme, i.e. April 01, 2002 till November 25, 2022 was collected from CAD for this study.

The entire population data of 83,422 trained candidates under the scheme, pan India, was collected and was filtered for segregation of data of women. We got the data of 7,178 women candidates present pan India. From data of all women from India, state wise data was filtered. The data of 2112 women candidates was obtained for Maharashtra State. Maharashtra State hold top spot among all states in India for AC&ABC schemes success. This dataset was analyzed, tabulated and graphically represented.

### Results and Discussion

#### Exploring the Gender Aspect of the AC&ABC Scheme in pan India

The AC&ABC scheme aims to generate rewarding self-employment opportunities for unemployed youth with educational background of agriculture and allied sectors. As of November 2022, the scheme had trained 83,422 candidates, with 36,354 successfully launching agriventures, achieving an impressive 43.5% success rate. Among the trained candidates, 76,244 were male, with 33,951 of them establishing businesses and a success rate of 44.5%. Conversely, only 7,178 women agri-graduates, or 8.6% of the total trained candidates, underwent two months of training across the country. Of these women, 2,403 successfully founded agriventures, resulting in a 33.5% success rate. (Table 1)

**Table 1. Present state-wise status of women in Agri Clinics and Agri Business Centre scheme**

Name of the State	Trained Women		Agri-Venture Established by Women		Success Rate (%)
	No.	(%) Distribution to total	No.	(%) Distribution to total	
Chandigarh	1	0	1	0	100
Puducherry	20	0.3	14	0.6	70
Maharashtra	2112	29.4	968	40.3	45.8
Tamil Nadu	1578	22	680	28.3	43.1
Chhattisgarh	102	1.4	42	1.7	41.2
Bihar	356	5	139	5.8	39
Karnataka	250	3.5	80	3.3	32
Haryana	13	0.2	4	0.2	30.8
Rajasthan	151	2.1	45	1.9	29.8
Uttarakhand	27	0.4	8	0.3	29.6
Gujarat	88	1.2	25	1	28.4
Madhya Pradesh	118	1.6	33	1.4	28
Goa	4	0.1	1	0	25
West Bengal	107	1.5	25	1	23.4
Uttar Pradesh	155	2.2	33	1.4	21.3
Andhra Pradesh	428	6	85	3.5	19.9
Telangana	488	6.8	95	4	19.5
Punjab	43	0.6	8	0.3	18.6
Manipur	187	2.6	34	1.4	18.2

Kerala	93	1.3	16	0.7	17.2
Assam	168	2.3	28	1.2	16.7
Jharkhand	135	1.9	16	0.7	11.9
Nagaland	40	0.6	3	0.1	7.5
Odisha	95	1.3	5	0.2	5.3
Meghalaya	20	0.3	1	0	5
Jammu & Kashmir	306	4.3	14	0.6	4.6
Himachal Pradesh	47	0.7	0	0	0
Mizoram	30	0.4	0	0	0
Arunachal Pradesh	14	0.2	0	0	0
Delhi	2	0	0	0	0
Overall	7178	-	2403	-	33.5

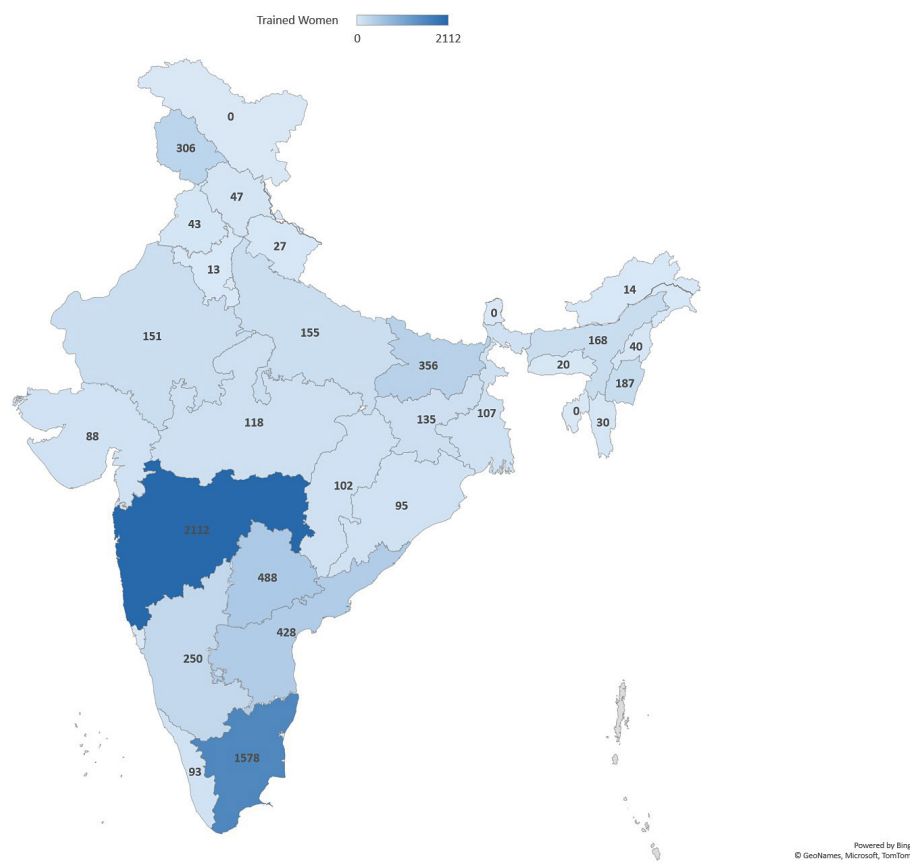
Note: \*The period for analysis is considered from AC &ABC scheme inception (01-04-2002 ) to till 25-11-2022

Source: ACABC Cell, MANAGE

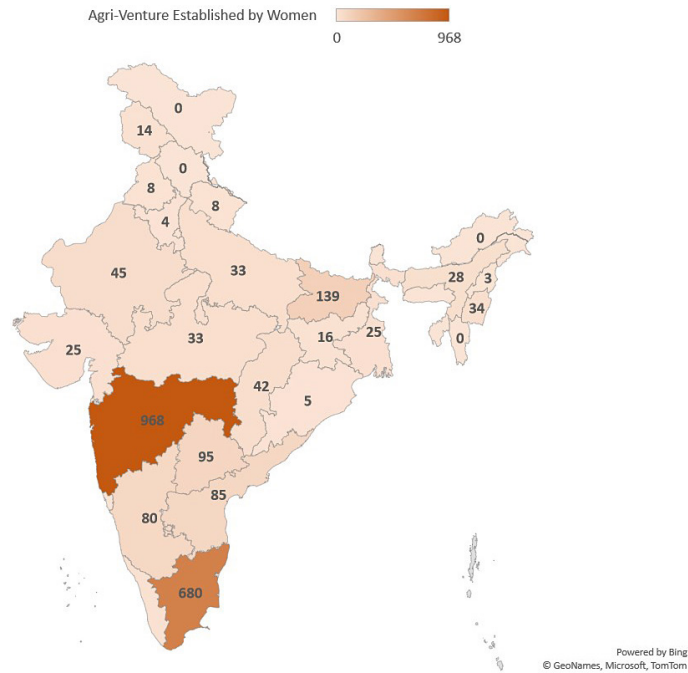
### Assessing State-Wise Participation of Women in the AC&ABC Scheme

An analysis of the data showed that Maharashtra led

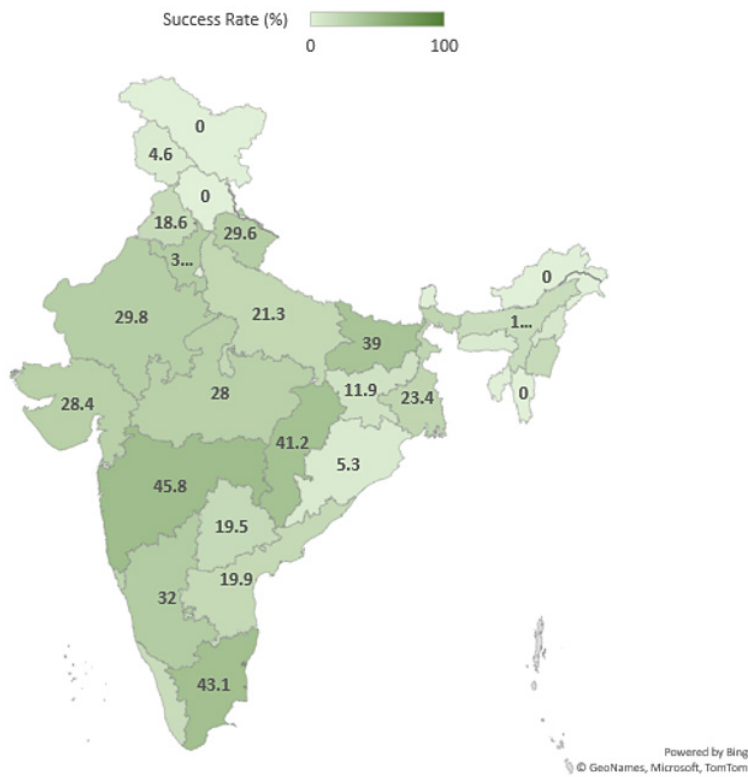
the top five states with the highest number of trained women candidates, totaling 2,112. (Fig. 1)



**A. State wise number of Women candidates trained**



**B. State wise number of Agriventures established by women agripreneurs**



**C. State wise Success rate of women agripreneurs**

**Fig. 1: State wise distribution women under Agri Clinics and Agri Business Centre scheme in India**



Tamil Nadu followed with 1,578, Telangana with 488, Andhra Pradesh with 428, and Bihar with 356. Maharashtra also has the highest number of women-led agri-venture establishments at 968, trailed by Tamil Nadu at 680, Bihar at 139, Telangana at 95, and Andhra Pradesh at 85 (see Fig 1.). The analysis disclosed that the scheme's implementation success varied across states, with Maharashtra achieving the highest overall success rate of 45.8% and Tamil Nadu close behind at 43.1%. Conversely, Chandigarh, Delhi, Goa, Haryana, and the seven sister states of India reported poor results in both the number of trained candidates and established agri-ventures under the AC&ABC scheme. This underperformance could be attributed to a scarcity of interested agri-graduates and National Training Institutes (NTIs).

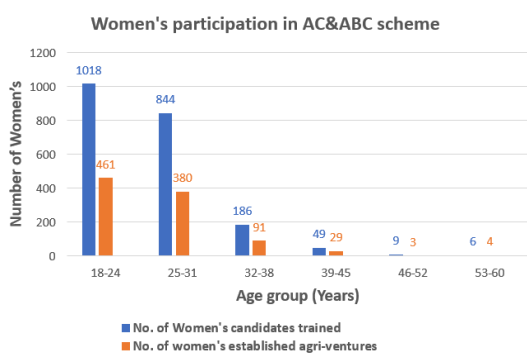
Recent research underscores the positive influence of women's involvement in agriculture on food security and rural development.<sup>65</sup> Additionally, studies indicate that women's participation in agribusiness leads to increased income, strengthened decision-making power, and elevated social status.<sup>66</sup> The AC&ABC

scheme's success in states like Maharashtra and Tamil Nadu is better as it demonstrates the empowerment of women in agriculture. However, the weak performance of states such as Chandigarh, Delhi, and Goa highlight the necessity for focused efforts to boost women's participation in these areas. Furthermore, measures should be taken to augment the availability of agri-graduates and National Training Institutes in underperforming states, ensuring the scheme's effective implementation.

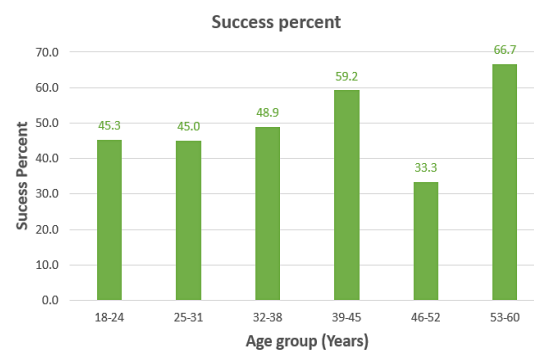
**Assessing Women's Participation in the AC&ABC Scheme with a Focus on Maharashtra State Demographic characteristics (Age-wise Distribution)**

Our study found that women aged 18-24 established 461 businesses, while those aged 25-31 started 380 agri-ventures. (Fig. 2 (A))

The age group 53-60 exhibited the highest success rate at 66.7%, followed by the 39-45 age group with a success rate of 59.2%.



**A. Number of women candidates trained and Number of Agri-Venture established by women segmented by age**



**B. Success rate of turning trained women into agripreneurs segmented by age**

**Fig. 2: Age wise distribution of women under Agri Clinics and Agri Business Centre scheme in the state of Maharashtra, India**

Although there were fewer trained women in these groups, a significant percentage became successful entrepreneurs. The study concluded that older female entrepreneurs are as successful as younger ones, with success chances increasing in later life stages.<sup>67</sup>

These findings align with previous research on women entrepreneurship in India, indicating that younger women are more likely to engage in entrepreneurial activities.<sup>68</sup> However, success rates diverged by age, with the 53-60 age group showing the highest success rate, followed by the



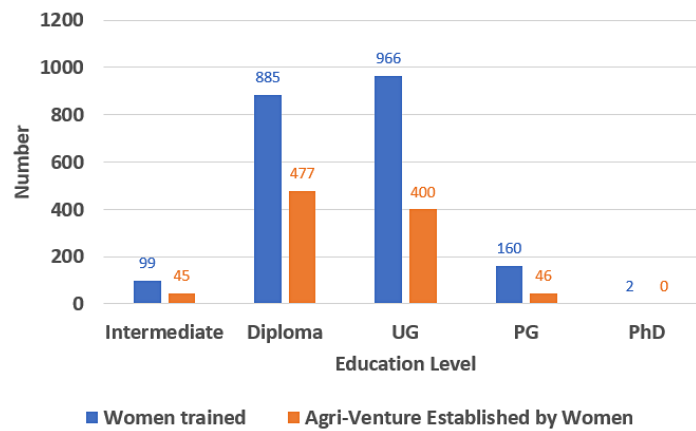
39-45 age (Fig 2(B)) Despite the smaller number of trained women in these groups, a significant portion achieved entrepreneurial success.

older entrepreneurs may have valuable experience and networks beneficial for starting and growing a business.<sup>69</sup>

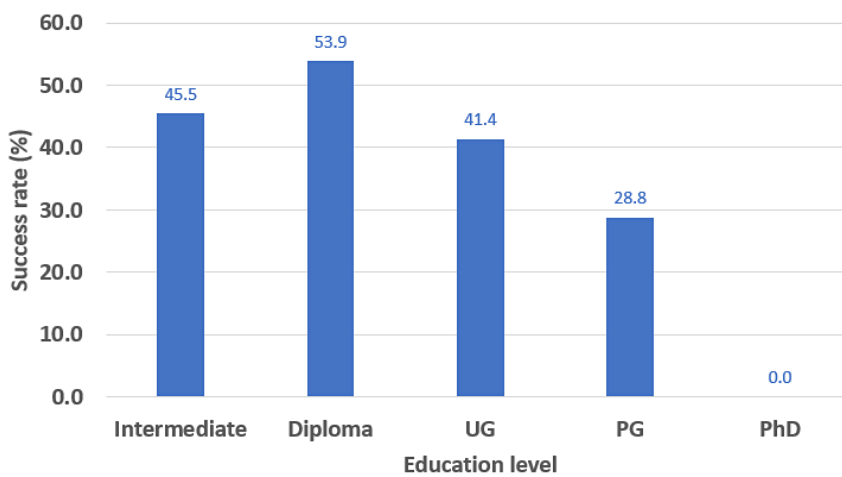
These results support the idea that age is not an entrepreneurship barrier, and older women entrepreneurs can be as successful as younger ones. In fact, the chances of success might be higher for women entrepreneurs in later life stages.<sup>67</sup> This is consistent with past research, which found that

**Socioeconomic characteristics (Educational Level and Stream-Wise Distribution)**

The majority of trained women candidates held bachelor's degrees, but those with diplomas achieved a higher success rate of 53.95% in establishing agriventures. (Fig. 3)



**A. Number of women candidates trained and Number of Agri-Venture established by women segmented by educational level**



**B. Success rate of turning trained women into agripreneurs segmented by educational level**

**Fig. 3: Educational level of the women trained under Agri Clinics and Agri Business Centre scheme in the state of Maharashtra, India**

Further it is revealed from the study that diploma holders received more loans compared to those with bachelors, masters, or doctoral degrees (data not shown). In Maharashtra under the AC&ABC scheme, 87.5% of trained women were from the agriculture stream, while only 3.2% were from

the horticulture stream. This pattern persisted in business establishment, with agriculture-background women having the highest number of agriventures, followed by those with horticulture backgrounds (3.0%).

**Table 2: Stream-wise distribution of women of Maharashtra in Agri Clinics and Agri Business Centre scheme**

S. No.	Name of the Degree	Women Trained		Agri ventures established by women enterpreneurs	
		No.	(%) Distribution	No. to total	(%) Distribution to total
1	Ag. Engineering	20	0.9	5	0.6
2	Ag. Marketing	3	0.1	1	0.2
3	Agriculture	1847	87.5	850	87.9
4	Animal Husbandry	26	1.2	12	1.3
5	Biotechnology	20	0.9	6	0.7
6	Botany	25	1.2	12	1.3
7	Chemistry	25	1.2	13	1.4
8	Dairy Technology	22	1	14	1.5
9	Environmental Science	1	0	0	0
10	Fisheries	7	0.3	3	0.4
11	Food and Nutrition	2	0.1	1	0.2
12	Food technology	6	0.3	2	0.3
13	Forestry	6	0.3	2	0.3
14	Home Science	4	0.2	0	0
15	Horticulture	68	3.2	30	3.1
16	Intermediate	0	0	0	0
17	Management	0	0	0	0
18	Micro Biology	2	0.1	1	0.2
19	Rural science	0	0	0	0
20	Seed Technology	4	0.2	4	0.5
21	Sericulture	0	0	0	0
22	Zoology	24	1.1	12	1.3
	Grand Total	2112	-	968	-

Note: \*The period for analysis is considered from AC &ABC scheme inception (01-04-2002) to till 25-11-2022  
Source: ACABC Cell, MANAGE

Additionally, the research found that more diploma holders secured loans than those with higher academic degrees, possibly because diploma holders are often trained in specific trades and may need financial support to start businesses.

Regarding stream-wise distribution, the study reported that the vast majority (87.5%) of trained

women came from the agriculture stream, with only a small percentage (3.2%) from the horticulture stream. This pattern was also reflected in agriventure establishments, with women from agriculture backgrounds leading in the number of agriventures, followed by those from horticulture backgrounds.

These findings suggest that the AC&ABC program offers opportunities for women with agriculture backgrounds to become successful entrepreneurs. However, it might be beneficial to explore methods of encouraging women from other streams, like horticulture, to participate in the program and establish their own agri-ventures.

This study provides essential insights into the educational level and stream-wise distribution of women entrepreneurs in Maharashtra under the AC&ABC program. The findings indicate that practical skills gained through diplomas or vocational training can be valuable in entrepreneurship and that there is a need to encourage women from non-agricultural streams to participate in the program. The study serves as a solid foundation for future research into the factors contributing to the success of women entrepreneurs in India, with a focus on broadening opportunities for those from diverse educational backgrounds and further promoting their involvement in the AC&ABC scheme.

Table 2 presents the stream-wise distribution of women in Maharashtra who participated in the Agri Clinics and Agri Business Centre scheme, and the agri ventures established by them. The table provides information about the number and percentage of women trained in each degree stream and the number and percentage of agri ventures established by women entrepreneurs. The data covers the period from the inception of the AC&ABC scheme in 2002 till 25th November 2022.

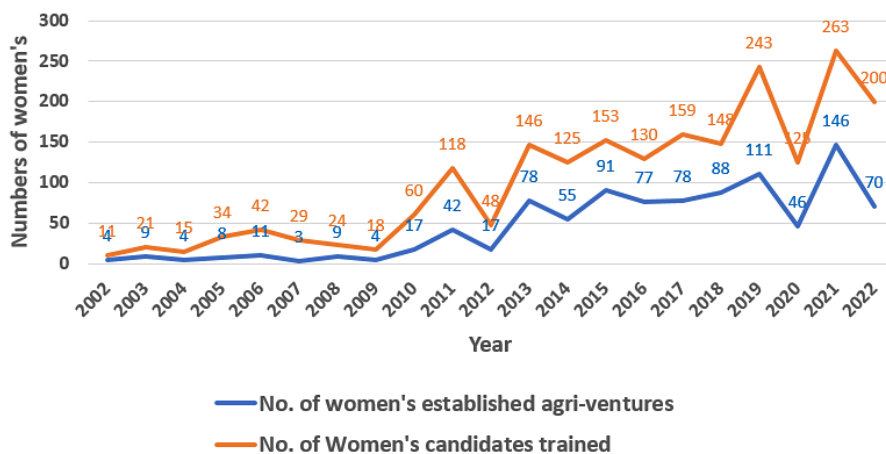
The data indicates that out of 2112 women who participated in the scheme, 1847 (87.5%) were trained in Agriculture, followed by Horticulture (3.2%), Zoology (1.1%), and Animal Husbandry (1.2%). On the other hand, in terms of agri ventures established, the highest percentage was in Agriculture (87.9%), followed by Horticulture (3.1%), and Animal Husbandry (1.3%).

The table also highlights that only a small percentage of women were trained in streams such as Agri Engineering (0.9%), Chemistry (1.2%), and Dairy Technology (1.0%). However, these streams also saw a modest percentage of agri ventures established by women entrepreneurs.

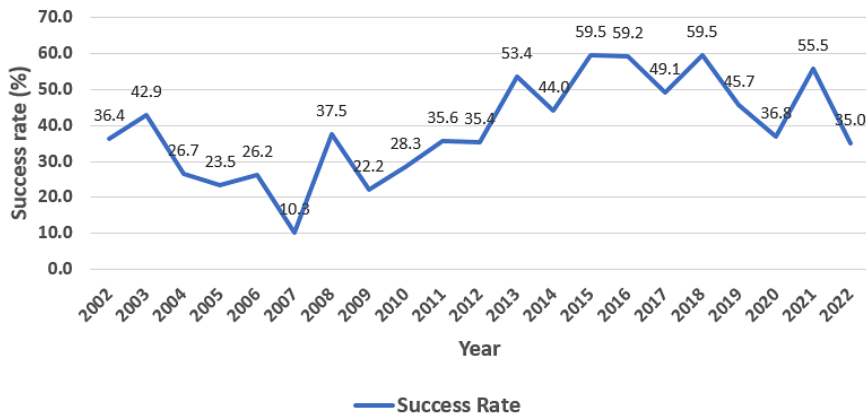
Overall, the table provides important insights into the degree streams that have been most effective in encouraging women's participation in the AC&ABC scheme and the types of agri ventures they have established. This information can be useful in designing targeted training programs for women in Maharashtra and other states to increase their participation in agri-business and entrepreneurship.

**Temporal Distribution of Women Trained and Venture Establishment in Maharashtra**

Over the past two decades, Maharashtra has experienced a substantial increase in the number of women trained and establishing agri-ventures through the Agri-Clinics and Agri-Business Centers (AC&ABC) program (Fig. 4-A).



**A. Temporal distribution of Number of women candidates trained and Number of Agri-Venture established by women**



**B. Temporal distribution of success rate of trained women turning into agripreneur**

**Fig. 4: Temporal distribution of women from Maharashtra under Agri Clinics and Agri Business Centre scheme since year 2002 to 2022**

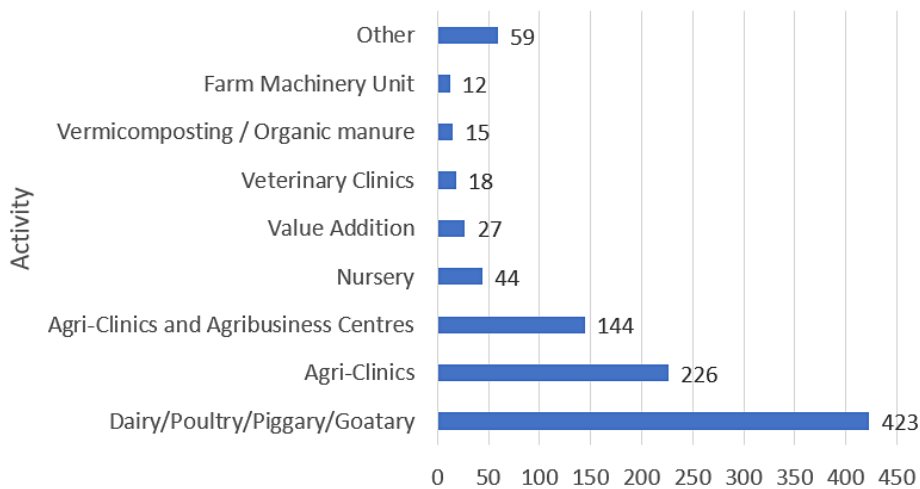
Between 2012 and 2022, the number of women trained in Maharashtra grew by 316.667%, with the number of women-led ventures increasing by 311.765%. However, the COVID-19 pandemic disrupted the program in 2022, leading to a significant decrease in trained women and new agriventures.

Maharashtra under the Agri Clinics and Agri Business Centre scheme. Out of a total of 968 agri-ventures established by women, the majority (43.7%) are in the Dairy/ Poultry/ Piggary/ Goatary category.

This is followed by Agri-Clinics (23.3%) and Agri-Clinics and Agri Business Centres (14.9%).

**Economic Characteristic (Activity wise Distribution)**

The table 3 and Fig. 5 provides the activity-wise distribution of agri-venture established by women in



**Fig. 5: Activity wise distribution of number of Agri-Venture established by women under Agri Clinics and Agri Business Centre scheme in the state of Maharashtra, India**

**Table 3: Activity-wise distribution Agri-venture established by women of Maharashtra in Agri Clinics and Agri Business Centre scheme**

S. No.	Activity	Agri-Venture Established by Women	
		No. of total	(%) Distribution
1	Dairy/Poultry/Piggary/Goatary	423	43.7
2	Agri-Clinics	226	23.3
3	Agri-Clinics and Agribusiness Centres	144	14.9
4	Nursery	44	4.5
5	Value Addition	27	2.8
6	Veterinary Clinics	18	1.9
7	Vermicomposting / Organic manure	15	1.5
8	Farm Machinery Unit	12	1.2
9	Crop Production	8	0.8
10	Landscaping + Nursery	6	0.6
11	Organic Production/ Food Chain	6	0.6
12	Bio-fertilizer production and Marketing	5	0.5
13	Mashroom Cultivation	5	0.5
14	Fisheries Development	4	0.4
15	Vegetable Production and Marketing	4	0.4
16	Horticulture Clinic	3	0.3
17	Pesticides Production and Marketing	3	0.3
18	Agro-Eco Tourism	2	0.2
19	Direct Mkt	2	0.2
20	Floriculture	2	0.2
21	Production & Marketing of Bio-Control Agents	2	0.2
22	Agriculture Journalism	2	0.2
23	Sericulture	2	0.2
24	Animal Feed Unit	1	0.1
25	Fishery clinic	1	0.1
26	Soil Testing Laboratory	1	0.1
	Grand Total	968	100

Note: \*The period for analysis is considered from AC & ABC scheme inception (01-04-2002) to till 25-11-2022  
Source: ACABC Cell, MANAGE

It is interesting to note that only a small percentage of ventures are in the areas of Soil Testing Laboratory, Animal Feed Unit, Fishery Clinic, Floriculture, Agro-Eco Tourism, and Pesticides Production and Marketing. This suggests that there may be untapped opportunities in these areas for women entrepreneurs in the agriculture sector.

Overall, the data suggests that women in Maharashtra are actively participating in the Agri Clinics and Agri Business Centre scheme and are involved in a wide

range of agricultural activities. The distribution of ventures across various activities provides insights for policymakers and other stakeholders to design targeted interventions that can further encourage and support women's participation in agribusiness.

The ACABC program in the Maharashtra state revealed that the livestock farming activities such as dairy, poultry, pig farming, and goat rearing were the most favored options among women agripreneurs, constituting 43.7% of the total choices.

The subsequent most preferred ventures were agri-clinics and agribusiness centers (23.3%) and agri-clinics alone (14.9%). The surge in popularity for agri-clinics can be primarily attributed to their low investment and risk factor, as they offer consultation services and input supply, leading to prompt revenue generation without any gestation period. Other undertakings were less popular owing to an unsuitable environment, inferior product demand, and scope, as stated by Bairwa *et al.*, 2014

Recent studies have also reported similar findings regarding the popularity of dairy and poultry farming among women agripreneurs in India. A study by Gupta *et al.*, 2019 found that 60% of women agripreneurs in Rajasthan were engaged in dairy farming, while 40% were involved in poultry farming.<sup>72</sup> Another study by Kaushik *et al.*, 2021) in Haryana reported that dairy farming was the most popular venture among women agripreneurs, with 68% of them involved in this activity.

The findings of this study regarding the popularity of dairy and poultry farming among women agripreneurs in Maharashtra are consistent with other studies conducted in different regions of India. The popularity of agri-clinics and agribusiness centers as low-cost and low-risk options for starting a business has also been reported in some studies.<sup>74,75</sup> Overall, these findings can help policymakers and development organizations in designing targeted interventions to support women agripreneurs in starting and scaling up their ventures.

### Geographical Distribution

Women agripreneurs has effectively established agriventures across 26 different categories in agriculture and related sectors, creating women agripreneurs in 34 districts of Maharashtra State.

**Table 4: Present district-wise status of Maharashtra women entrepreneur in Agri Clinics and Agri Business Centre scheme**

S.No.	Name of the District	No. of Agri-Venture Established by Women	No. of villages Covered	No. of Farmers Covered	No. of People Employed
1	Kolhapur	187	1162	69730	386
2	Sangli	92	499	120188	133
3	Pune	87	690	20572	142
4	Solapur	86	615	13754	146
5	Satara	62	428	13520	131
6	Nagpur	58	376	24324	53
7	Ahmednagar	57	318	23573	103
8	Ratnagiri	54	565	10510	135
9	Sindhudurg	54	315	12439	66
10	Nashik	32	194	11355	81
11	Osmanabad	21	216	3602	112
12	Jalgaon	20	538	6700	17
13	Amravati	16	183	7910	19
14	Raigarh	16	76	1415	34
15	Bhandara	15	103	5340	9
16	Gondia	15	124	4405	18
17	Chandrapur	13	168	4150	12
18	Beed	11	93	4051	23
19	Nanded	10	377	16545	24
20	Akola	8	61	3420	7
21	Aurangabad	8	49	1895	38

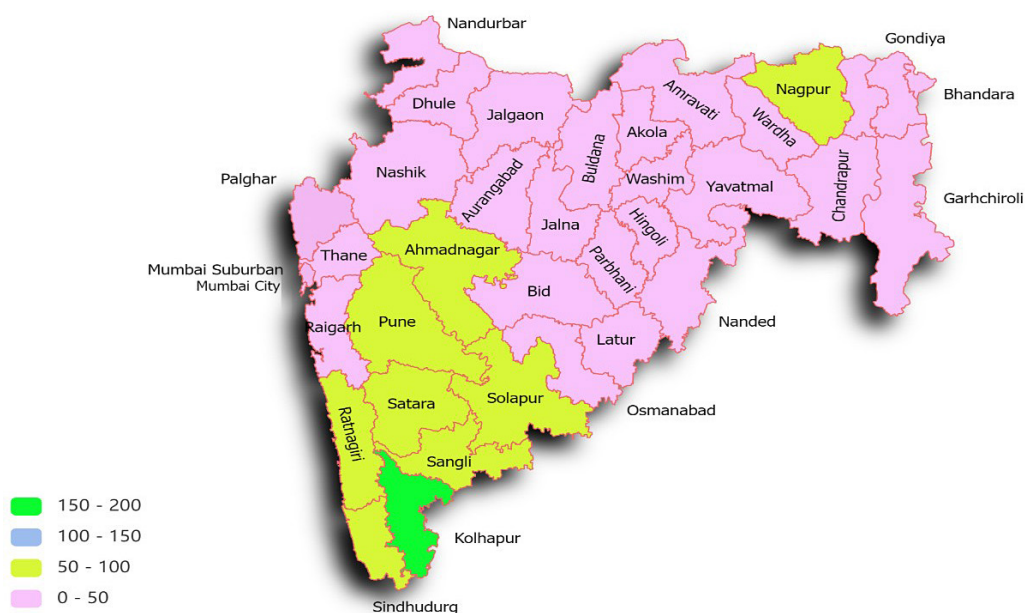
22	Dhule	7	107	1010	4
23	Buldhana	6	57	1306	4
24	Mumbai	5	42	188	10
25	Nandurbar	5	360	1870	5
26	Washim	5	50	1200	3
27	Thane	4	53	1370	9
28	Yavatmal	4	311	4815	24
29	Latur	3	17	655	5
30	Gadchiroli	2	70	650	8
31	Wardha	2	17	850	3
32	Hingoli	1	0	0	0
33	Jalna	1	5	250	2
34	Parbhani	1	16	550	1
	Grand Total	968	8255	394112	1767

Note: \*The period for analysis is considered from AC &ABC scheme inception (01-04-2002 ) to till 25-11-2022

Source: ACABC Cell, MANAGE

However, the success rate of women agri-entrepreneurs varies by region, with districts in western Maharashtra demonstrating promising results while districts in Vidarbha (excluding Nagpur) and northern Maharashtra exhibit poor performance

in terms of venture establishment. Kolhapur, Sangli, Pune, Solapur, Satara, and Nagpur are the leading districts in new business establishments. (Table 4 and Fig. 6)



**Fig. 6: District wise distribution of number of Agri-Venture established by women under Agri Clinics and Agri Business Centre scheme in the state of Maharashtra, India**

The figure map outlines the development of the Agri Clinics and Agri Business Center scheme

across various districts in Maharashtra from its implementation until November 2022.



The Central Sector Scheme, AC&ABC was launched in 2002 by the Central Government to support public extension efforts. This program allowed qualified agricultural professionals to establish agri-ventures that provide value-added extension advisory services directly to farmers and generate self-employment opportunities for agripreneurs. 3,94,112 farmers from 8,255 villages were provided with extension service by 968 female entrepreneurs in the agricultural sector in Maharashtra. The program has effectively increased agricultural extension to farmers and provided them with various indirect benefits. On average, one women agripreneur offers extension services to 405 farmers, and these 968 women entrepreneurs employ 1767 individuals.

The ACABC program has been successful in establishing agri-ventures in 26 different categories related to agriculture and allied sectors and has created women agripreneurs in 34 districts of Maharashtra. The ACABC scheme has not only provided employment opportunities to women but has also enhanced their status and improved their quality of life 55,76. The study found that women agripreneurs who participated in the program reported increased income, improved decision-making abilities, and greater social recognition.

A recent study by Ragasa *et al.*, 2013 highlights the impact of the ACABC scheme on farmer income and productivity. The study found that farmers who received extension services from women agripreneurs through the ACABC program reported a 36% increase in crop productivity and a 43% increase in income compared to those who did not receive such services.

The ACABC scheme has not only created employment opportunities for women but has also positively impacted the income and productivity of farmers in Maharashtra. However, there is still room for improvement, particularly in regions with poor performance in terms of venture establishment. The government and other stakeholders should continue to support and invest in programs such as ACABC to promote the development of agriculture and allied sectors in the country.

### Conclusion

The AC&ABC scheme has emerged as an effective tool for promoting WA in the agriculture sector in India.

The scheme has provided training and financial support to thousands of women, enabling them to start and run their own agri-ventures. The scheme's success in states like Maharashtra and Tamil Nadu highlights the potential for women's empowerment through agripreneurship.

However, there is still much work to be done to enhance women's participation in the scheme, particularly in underperforming states. Policymakers and program managers should focus on providing practical skills training, financial support, and targeted outreach to women from diverse educational backgrounds and streams. Moreover, the COVID-19 pandemic has highlighted the need for flexible and innovative approaches to support women entrepreneurs in times of crisis.

Overall, the AC&ABC scheme has made significant strides in promoting WA in India. With continued support and investment, the scheme can help more women realize their entrepreneurial potential and contribute to sustainable rural development and food security.

### Policy Implications

Based on the study, the following policy recommendations are suggested to enhance the participation and success of women agripreneurs under the AC&ABC scheme.

**Encourage and promote women's participation:** State governments should take proactive measures to encourage and promote women's participation in the AC&ABC scheme. This could include targeted outreach and awareness campaigns to attract women to the program and setting targets for women's participation in the scheme.

**Develop gender-sensitive training programs:** Training programs under the AC&ABC scheme should be designed to be gender-sensitive, taking into account the specific needs and challenges faced by women agripreneurs. This could include training on gender issues, financial management, marketing, and technology.

**Provide access to finance:** Access to finance is a critical factor for the success of agribusiness ventures. The government should work more financial institutions to provide targeted financial products

and services to women agripreneurs, including loans, subsidies, and grants. The government could also establish a dedicated fund to support women agripreneurs.

**Establish mentorship and networking programs:** Mentorship and networking are important for the success of women agripreneurs. The government should establish mentorship and networking programs to connect women agripreneurs with successful entrepreneurs, industry experts, and potential business partners.

#### **Provide access to Technology**

Access to technology is critical for the success of agribusiness ventures. The government should work with technology providers to develop and provide technology solutions that are accessible and affordable for women agripreneurs.

#### **Monitor and Evaluate Gender Outcomes**

The government should monitor and evaluate gender outcomes of the AC&ABC scheme regularly. This could include tracking the number of women enrolled, the success rates of women agripreneurs, and the impact of the scheme on women's economic empowerment.

Overall, the government should take a proactive approach to address the gender disparities in

agriculture and promote women's participation and success in the agribusiness sector. The AC&ABC scheme provides an opportunity to empower women and promote sustainable and inclusive agricultural development.

#### **Author Contributions**

Dr. Sagar Deshmukh - Conceptualization, project administration, methodology, validation, writing - review & editing. Dr. Kashmiri Jadhav - Data collection, Data analysis, Interpretation, writing - original draft. Dr. Shahaji Phand - Conceptualization, project administration, Proofreading. Dr. K. Sai. Maheshwari - Conceptualization, project administration, Proofreading

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