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Socio-economic and psychological profile of agricultural assistants in the Konkan region of Maharashtra

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Abstract

The present study was undertaken to understand the socioeconomic conditions of agriculture assistants of the Konkan region of Maharashtra. The study was conducted in Ratnagiri and Raigad districts, encompassing both North and South Konkan sub-regions. A sample of 240 agriculture assistants was selected using multi-stage sampling. Ex-post-facto research design was adopted and data were collected through structured personal interviews. Frequency, percentage, mean, and standard deviation were used for analysis. Findings revealed that the majority (58.33%) of respondents belonged to the middle-age group, with a mean age of 44 years. Graduate-level education predominated (63.75%), and medium service experience (4-18 years) characterized 83.75% of respondents. Training exposure was moderate for 61.67% of respondents (5-9 trainings), and a substantial proportion (70.40%) fell in the medium annual income bracket. Perceived workload was medium for 62.50%, while organizational climate was moderately favourable for 57.50%. Job satisfaction (75.83%), role perception (63.33%), innovativeness (60.83%), and achievement motivation (65.83%) were all predominantly at medium levels. The findings underscore the need for enhanced training, better incentives, streamlined workload management, and stronger institutional support to improve extension effectiveness in the region.

Keywords: Extension personnel, socioeconomic characteristics, agricultural assistants, extension services, Konkan region, Maharashtra, human resource development, frontline extension workers, job satisfaction, innovativeness, achievement motivation

Introduction

Agriculture remains central to India's economy, contributing significantly to rural livelihoods and national food security. Agricultural extension services constitute the critical bridge between research institutions and farming communities, and their quality largely determines the pace of technology adoption at the grassroots level. Agriculture assistants — the frontline functionaries of the state agricultural extension machinery — are the principal agents through whom scientific knowledge and improved practices reach farmers. The effectiveness of these extension workers is shaped by a complex interplay of socioeconomic variables, including age, educational qualification, service experience, training exposure, annual income, workload, organizational climate, job satisfaction, role perception, innovativeness, and achievement motivation. A thorough understanding of these characteristics is essential for designing relevant training programmes, reforming human resource policies, and enhancing the overall quality of extension service delivery.

The Konkan region of Maharashtra — comprising Raigad, Ratnagiri, and Sindhudurg districts — is a distinct coastal

agro-ecological zone characterized by horticultural crops such as mango, cashew, and coconut. The region faces unique agricultural challenges including fragmented landholdings, seasonal labour migration, rugged terrain, and limited infrastructure. Agriculture assistants operating in this region contend with additional burdens of heavy workloads, low institutional support, and constrained income — all of which impede their extension performance. Despite their pivotal role, comprehensive empirical research on the socioeconomic profile of agriculture assistants in the Konkan region remains limited. Most available studies focus on generalized extension personnel or address only psychological dimensions, neglecting the interplay between socioeconomic factors and professional effectiveness. The present study addresses this gap through a systematic, evidence-based assessment of key socioeconomic and socio-psychological characteristics of agriculture assistants in Raigad and Ratnagiri districts, with the aim of generating insights for policy reform and programme improvement in agricultural extension education.

Objective: To study the personal and socio-psychological

characteristics of agriculture assistants of the Konkan region of Maharashtra, and to analyze their distribution across key socioeconomic dimensions relevant to extension education policy and human resource development.

Materials and Methods

Study Area

The investigation was conducted in the Konkan region of Maharashtra, a distinct coastal agro-ecological zone along India's western seaboard. The region is categorized into North and South Konkan. Raigad district (comprising subdivisions: Mahad, Mangaon, Khopoli, and Alibag) was purposively selected to represent North Konkan, while Ratnagiri district (subdivisions: Ratnagiri, Chiplun, and Dapoli) represented South Konkan. The selection was based on agro-ecological representativeness, administrative significance, and concentration of agricultural extension personnel.

Sampling Design

All subdivisions from both districts were included to ensure comprehensive regional coverage and minimize geographic bias. Agriculture assistants with a minimum of two years of service experience were eligible for selection. From each of the 24 tahsils, 10 agriculture assistants were selected, yielding a total sample of 240 respondents. Multi-stage purposive and random sampling techniques were employed.

Research Design and Data Collection

An ex-post-facto research design was adopted for the study. Primary data were collected through structured personal interviews using a pre-tested schedule. The collected data were scored, tabulated, and analyzed using descriptive statistics including frequency, percentage, mean, and standard deviation. Variables were categorized into three levels (low, medium, high) based on mean $\pm$ Standard deviation.

Results and Discussion

Age

Age is a significant demographic variable that shapes the professional outlook, adaptability, and communication behaviour of extension personnel. Younger workers tend to be more receptive to innovation, while those in middle age exhibit greater stability; older workers may show resistance to change. Table 1 presents the age distribution of the respondents.

Table 1: Distribution of respondents according to their age

Sl. No.	Age (Yrs.)	Respondents(n=240)	
		Frequency	Percentage
1.	Young (Up to 35)	90	37.50
2.	Middle Age (36 to 52)	140	58.33
3.	Old (53 and above)	10	4.17
Total		240	100.00
Mean: 44 (yrs.), S.D: 9 (yrs.)			

Data from Table 1 revealed that the majority (58.33%) of respondents belonged to the middle-age group (36-52 years), followed by the young age group (37.50%; up to 35 years), while only 4.17% were in the old age group (53 years and above). The mean age of 44 years reflects a

workforce that is predominantly in its productive midcareer phase.

This pattern may be attributed to the limited direct recruitment undertaken in the agricultural department over the last decade, combined with existing promotion policies that restrict lateral entry of younger officers. The findings align with those of Anil (2018) ^[1], Noor *et al.* (2018), Praveen (2018) ^[8], James (2020), and Nagiri (2022), though they diverge from Nagalakshmi (2008).

Educational qualification

Educational attainment is a critical determinant of professional competence, adoption of innovation, and communication effectiveness in extension. Table 2 shows the distribution of respondents by educational qualification.

Table 2: Distribution of the respondents according to their level of education qualification

Sl. No.	Category (Standard)	Respondents(n=240)	
		Frequency	Percentage
1.	Diploma	24	10.00
2.	Graduate	153	63.75
3.	Post graduate	53	22.08
4.	Doctorate	10	04.17
Total		240	100.00

Table 2 indicates that the overwhelming majority (63.75%) of respondents were educated up to the graduate level, while 22.08% held postgraduate qualifications. Diploma holders constituted 10.00%, and only 4.17% possessed doctoral degrees. The data are significant in policy terms: while the minimum qualification for Krishi-sevak in Maharashtra is a diploma or graduation in agriculture, more than one-quarter of the workforce held postgraduate degrees, which represents underutilization of human capital and warrants attention from policymakers.

These findings are in agreement with Noor *et al.* (2018), Praveen (2018) ^[8], Daniel and Kozari (2021), and Nagiri (2022).

Service experience

Service experience shapes an extension worker's knowledge base, familiarity with farmers, institutional memory, and communication behaviour. Table 3 presents the distribution of respondents by service experience.

Table 3: Distribution of the respondents according to their service experience

Sl. No.	Category (yrs.)	Respondents(n=240)	
		Frequency	Percentage
1.	Low (up to 3)	21	8.75
2.	Medium (4 to 18)	201	83.75
3.	High (19 & above)	18	7.50
Total		240	100.00
Mean: 11, S.D: 8			

A large majority (83.75%) of respondents possessed medium service experience (4-18 years), while low (8.75%) and high (7.50%) categories were relatively rare. The mean experience of 11 years indicates a workforce with sufficient field familiarity to communicate effectively with farmers and implement extension programmes competently.

The concentration in the medium category may reflect the absence of large-scale fresh recruitments in recent years. These findings are consistent with Patil (2016), Tayade (2016) ^[9], Babu (2017), James (2020), and Nagiri (2022), but differ from Srinivasa Rao (2002).

Training exposure

Training is a primary mechanism through which extension personnel upgrade knowledge, skills, and attitudes. Exposure to diverse training programmes positively influences extension behaviour, decision-making, and technology dissemination. Table 4 presents training exposure data.

Table 4: Distribution of respondents according to their training exposure

Sl. No.	Category (score)	Respondents(n=240)	
		Frequency	Percentage
1.	Low (Up to 4)	74	30.83
2.	Medium (5 to 9)	148	61.67
3.	High (10 and above)	18	07.50
	Total	240	100.00
Mean: 7, S.D.: 3			

Table 4 shows that 61.67% of respondents had medium training exposure (5-9 trainings), 30.83% had low exposure (up to 4 trainings), and only 7.50% had high exposure (10 or more trainings). The finding suggests that while most agriculture assistants have attended a baseline set of trainings, the overall level of structured capacity-building remains suboptimal.

This may reflect limited departmental opportunities for voluntary or specialized training, with most respondents attending only mandatory programmes. These findings are consistent with Chavhan (2015), Gopika *et al.* (2015) ^[3], Tayade (2016) ^[9], and Praveen (2018) ^[8], but diverge from Potare (2003), Mundhe *et al.* (2016), and Tayade (2016) ^[9].

Annual income

Income is a foundational indicator of financial security, motivation, and social status. For frontline extension workers, adequate income is closely linked to job commitment, communication behaviour, and professional effectiveness. Table 5 presents the income distribution.

Table 5: Distribution of respondents according to their annual income

Sl. No.	Category (₹in lakhs)	Respondents (n=240)	
		Frequency	Percentage
1.	Low income (Up to 4.53)	33	13.80
2.	Medium income (4.54 to 11.06)	169	70.40
3.	High income (11.07 and above)	38	15.80
	Total	240	100.00
Mean: 7.80 lakh, S.D: 3.27 lakh			

A majority (70.40%) of respondents fell in the medium income category (₹4.54-₹11.06 lakhs annually), while 13.80% were in the low category and 15.80% in the high category. The mean annual income of ₹7.80 lakhs confirms the medium income profile of the respondent group. Respondents with higher incomes were observed to exhibit better interpersonal communication and higher motivation,

consistent with the financial security-performance linkage documented in extension literature.

These findings are consistent with Charles Jeeva *et al.* (2013) ^[2] and Kadam *et al.* (2014), but contradict Mundhe *et al.* (2016).

Perceived workload

Workload is a critical determinant of extension performance and professional wellbeing. An unmanageable workload reduces effectiveness, increases stress, and limits farmer contact time. Table 6 presents the workload distribution.

Table 6: Distribution of respondents according to their perceived workload

Sl. No.	Category (score)	Respondents (n=240)	
		Frequency	Percentage
1.	Low workload (Up to 12)	42	17.50
2.	Medium workload (13 to 17)	150	62.50
3.	High workload (18 and above)	48	20.00
	Total	240	100.00
Mean: 14.44, SD: 2.36			

The data show that 62.50% of respondents experienced medium workload, while 17.50% and 20.00% experienced low and high workloads, respectively. The workload distribution reflects the administrative reality of agriculture assistants in the Konkan region, where staff shortages, vacant posts, and multi-village charge (each assistant managing 5-10 villages) generate significant occupational pressure for a substantial minority.

These findings align with Mohan (2003), Babu (2005), Nagananda (2005), and Nagiri (2022). The variation in workload perceptions across respondents reflects differences in administrative support, staff availability, and individual work management capacities.

Organizational climate

Organizational climate encompasses the overall working environment perceived by employees, including policies, communication, administrative support, and interpersonal relationships. A favourable climate is associated with higher commitment and better extension performance. Table 7 presents the distribution of respondents by perceived organizational climate.

Table 7: Distribution of respondents according to their organizational climate

Sl. No.	Category (score)	Respondents (n=240)	
		Frequency	Percentage
1.	Unfavourable (Up to 23)	50	20.83
2.	Moderately favourable (24 to 30)	138	57.50
3.	Highly favourable (31 and above)	52	21.67
	Total	240	100.00
Mean: 26.41, SD: 3.77			

More than half (57.50%) of respondents perceived their organizational climate as moderately favourable, indicating basic administrative support and collegial cooperation but with identifiable limitations. A further 21.67% rated the climate as highly favourable, while 20.83% found it unfavourable. Areas of relative dissatisfaction included autonomy in decision-making, performance-based reward

systems, and leadership opportunities.

These findings align with Gopika *et al.* (2015)^[3] and Nagiri (2022). The evidence suggests that targeted improvements in reward mechanisms, transparent communication channels, and participatory management could meaningfully elevate organizational climate.

Job satisfaction

Job satisfaction reflects the degree of contentment an agriculture assistant derives from their work, encompassing dimensions of salary, recognition, security, advancement, and work environment. It is a key predictor of organizational commitment and performance. Table 8 shows the distribution.

Table 8: Distribution of respondents according to their job satisfaction

Sl. No.	Category (score)	Respondents (n=240)	
		Frequency	Percentage
1.	Low satisfaction (Up to 29)	52	21.67
2.	Medium satisfaction (30 - 44)	182	75.83
3.	High satisfaction (45 and above)	06	2.50
Total		240	100.00
Mean: 37, S.D: 8			

A commanding majority (75.83%) of respondents reported medium job satisfaction, with 21.67% experiencing low satisfaction and only 2.50% reporting high satisfaction. Collectively, 88.33% of respondents were in the medium-to-high satisfaction band. Medium satisfaction reflects the reality that agriculture assistants benefit from basic job security, salary, and social status, but are constrained by inadequate financial incentives, opaque promotion policies, limited residential facilities, and insufficient career development opportunities.

These findings are consistent with Srinivasa Rao (2002), Wankhade (2002)^[11], Nagananda (2005), Tayade (2016)^[9], Praveen (2018)^[8], and Amita Kshatriya (2020)^[7].

Role perception

Role perception refers to an agriculture assistant's clarity and understanding of their professional duties, responsibilities, and position within the extension system. Accurate role perception is foundational to effective performance. Table 9 presents the distribution.

Table 9: Distribution of respondents according to their role perception

Sl. No.	Category (score)	Respondents (n=240)	
		Frequency	Percentage
1.	Poor role perception (Up to 56)	34	14.17
2.	Moderate role perception (57 to 67)	152	63.33
3.	High role perception (68 and above)	54	22.50
Total		240	100.00
Mean: 62, S.D: 6			

Nearly two-thirds (63.33%) of respondents demonstrated moderate role perception, while 22.50% had high role perception and 14.17% had poor role perception. Agriculture assistants were generally clear about their core responsibilities — including farmer advisory services, scheme implementation, and extension activities — but

experienced ambiguity arising from overlapping functions and frequent programmatic changes. Notably, a majority affirmed that their role is important for rural development and technology transfer.

The findings are in conformity with Ingle *et al.* (2000), Wankhade (2002)^[11], and Amita Kshatriya (2020)^[7].

Innovativeness

Innovativeness captures an agriculture assistant's willingness to adopt, experiment with, and promote new ideas, technologies, and methods in extension work. Higher innovativeness correlates with greater technology transfer effectiveness. Table 10 presents the distribution.

Table 10: Distribution of respondents according to their innovativeness

Sl. No.	Category (score)	Respondents (n=240)	
		Frequency	Percentage
1.	Low innovativeness (Up to 17)	52	21.67
2.	Medium innovativeness (18 - 24)	146	60.83
3.	High innovativeness (25 and above)	42	17.50
Total		240	100.00
Mean: 21, S.D: 4			

Three-fifths (60.83%) of respondents demonstrated medium innovativeness, while 17.50% showed high innovativeness and 21.67% showed low innovativeness. Agriculture assistants were generally aware of newer communication technologies and methods, and held a positive attitude towards innovation. However, practical constraints — including cost of new tools, risk aversion, inadequate training, and infrastructure gaps — limited the extent of actual adoption and experimentation in routine extension work.

These findings agree with Neethi and Sailaja (2013), Ashok (2014), Praveen (2018)^[8], and Nagiri (2022).

Achievement motivation

Achievement motivation refers to the internal drive of an agriculture assistant to perform tasks efficiently, meet targets, and pursue professional excellence. It is a key predictor of proactive extension behaviour and long-term organizational commitment. Table 11 presents the distribution.

Table 11: Distribution of respondents according to their achievement motivation

Sl. No.	Category (score)	Respondents (n=240)	
		Frequency	Percentage
1.	Low motivation (Up to 20)	42	17.50
2.	Medium motivation (21 - 29)	158	65.83
3.	High motivation (30 and above)	40	16.67
Total		240	100.00
Mean: 25, S.D: 5			

Nearly two-thirds (65.83%) of respondents exhibited medium achievement motivation, with 17.50% and 16.67% at low and high levels, respectively. Agriculture assistants demonstrated commitment to professional duties, enthusiasm for target achievement, and a desire for continuous performance improvement. However, constraints such as excessive workloads, inadequate incentive

structures, and limited organizational recognition tempered the expression of full motivational potential.

These findings concur with Wankhede (2002), Gopika *et al.* (2015) [3], Praveen (2018) [8], Hossain *et al.* (2019) [4], and Nagiri (2022).

Conclusion

The present investigation provides a comprehensive socioeconomic profile of agriculture assistants in the Konkan region of Maharashtra. The study reveals a predominantly middle-aged, graduate-level workforce with medium service experience and training exposure, operating under medium income conditions and moderate workloads. Across all key psychosocial dimensions — organizational climate, job satisfaction, role perception, innovativeness, and achievement motivation — medium levels predominate, reflecting a workforce that is functionally competent but constrained by institutional, financial, and infrastructural limitations.

For agricultural extension education and human resource development, these findings have important implications. First, the underutilization of postgraduate talent in frontline positions warrants a review of recruitment and deployment policies. Second, the low proportion of high-training-exposure respondents highlights the need for structured, continuous capacity-building programmes. Third, medium levels of job satisfaction — driven by inadequate salaries, limited promotion prospects, and insufficient residential facilities — call for targeted welfare reforms. Fourth, workload management strategies, including adequate staffing and reallocation of administrative responsibilities, are essential to sustain extension effectiveness. Finally, deliberate efforts to nurture innovativeness and achievement motivation through incentive systems, exposure visits, and recognition programmes could substantially enhance the extension performance of agriculture assistants in the Konkan region.

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