

Agricultural Profile of Anantnag District of Jammu and Kashmir: an Analysis of Secondary Statistics

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Abstract

This study examines the agricultural profile of Anantnag district of Jammu and Kashmir using district-level secondary statistics, with particular attention to the structure and changing pattern of agricultural activities. The analysis is based primarily on official statistics published by the Directorate of Economics and Statistics, Government of Jammu and Kashmir, including the Digest of Statistics. It covers major dimensions of agriculture in the district, such as land utilization, net and gross area sown, Irrigation, cropping pattern, horticulture, fruit production and changes in the area under major crops. The study also considers the officially reported status of organic farming as an emerging component of the district's agricultural sector. Tables and graphical presentations are used to examine the distribution, composition and changing pattern of agricultural activities. The study seeks to provide a systematic overview of the agricultural structure of Anantnag district and to highlight the changing importance of different agricultural and horticultural activities within the district economy.

Keywords: Anantnag District; Agricultural Profile; Jammu and Kashmir; Cropping Pattern; Land Use; Irrigation; Horticulture; Fruit Production; Organic Farming; Secondary Statistics.

1. Introduction

Agriculture remains an important component of the rural economy of Jammu and Kashmir, providing livelihoods and supporting a wide range of crop and allied agricultural activities. The agricultural structure of the Union Territory varies across districts due to differences in agro-climatic conditions, land resources, irrigation facilities and cropping practices. Anantnag district, located in the Kashmir Valley, has a diverse agricultural base comprising field crops, horticultural crops and other agricultural activities. Examining the district's agricultural structure is therefore important for understanding the pattern of land use, crop cultivation, irrigation and horticultural production.

Official statistics provide an important basis for examining these agricultural characteristics at the district level. The Digest of Statistics 2024–25, published by the Directorate of Economics and Statistics, Government of Jammu and Kashmir, provides district-wise information on land utilization, crop area, agricultural production, irrigation, operational holdings, agricultural inputs and other aspects of the agricultural sector. These statistics provide a systematic basis for assessing the composition and

changing pattern of agriculture in Anantnag and its position within the wider agricultural structure of Jammu and Kashmir.

Anantnag's agricultural profile comprises both field crops and horticultural activities. District-level statistics on crop area, irrigation and agricultural production make it possible to examine the composition of agricultural activity beyond total cultivated land. This is particularly relevant to Anantnag, where horticulture forms an important component of the rural production system alongside the cultivation of field crops. Examining changes in crop area and the distribution of agricultural resources also provides an indication of the changing structure of agriculture in the district.

Organic farming constitutes an emerging component of this broader agricultural structure. The Digest of Statistics 2024–25 includes district-wise statistics on the area under organic farming. According to Table 4.20 of the Digest, Anantnag had 417.12 hectares under organic farming in 2024–25, compared with 8,864.49 hectares for Jammu and Kashmir as a whole. The data are sourced from the Agriculture Production Department, Jammu and Kashmir. The inclusion of organic farming in the official statistics provides an opportunity to examine its reported extent alongside the wider agricultural characteristics of the district.

Against this background, the present study analyses the agricultural profile of Anantnag district using official secondary statistics, with particular attention to land utilization, cropping pattern, irrigation, horticulture, fruit production and the changing area under major crops. The study also examines the officially reported position of organic farming within the district's agricultural sector. The analysis is presented systematically through statistical tables, while graphical presentations are used selectively where they assist in identifying differences, proportions and trends in the data. The study therefore seeks to provide a comprehensive statistical overview of agriculture in Anantnag and to situate organic farming within the broader agricultural structure of the district.

2. Review of Literature

Agricultural research in Jammu and Kashmir has examined different aspects of crop cultivation, horticulture, cropping patterns, organic farming and agricultural production systems.

Gupta et al. examined the concept and prospects of organic farming in Jammu and Kashmir and reviewed the relevance of organic farming methods based on ecological principles. Their study discussed practices such as green manuring, farmyard manure and compost and also highlighted the prospects and limitations of organic farming under the conditions of Jammu and Kashmir [3].

More recently, Panotra et al. examined the status and prospects of organic crop management in Jammu and Kashmir. Their study discussed the role of organic inputs and management practices, including crop residues, farmyard manure, vermin-compost, green manure, crop rotation, intercropping and biological pest management. The authors also discussed the growing relevance of organic agriculture from environmental, social and economic perspectives [4].

The marketing dimension of organic agriculture has also been examined in previous research. Raahinipriya and Jansi Rani studied the marketing behavior of organic farmers in Karur district of Tamil Nadu. Their study examined marketing-related aspects of organic farmers and provides a broader perspective on the importance of marketing in the disposal of organic agricultural produce [5]. Although the study was conducted outside Jammu and Kashmir, it is relevant to the present study because market access and marketing arrangements are important components of agricultural development.

Research specifically related to Anantnag has examined changes in the structure and composition of agriculture. Sheikh et al. examined the shifting of agriculture towards horticulture in Anantnag district. Their study documented the conversion of agricultural land, particularly paddy-growing areas, towards horticultural activities, especially apple cultivation. The authors reported a substantial shift in the area devoted to agricultural crops towards horticultural crops and identified economic returns and irrigation-related conditions among the factors associated with this change [8].

Similarly, Waza et al. examined the dynamics of cropping patterns in Anantnag district using a Theil–Sen estimator approach. Their study analyzed changes in the area and production of paddy and perennial fruit crops, including apple, walnut, pear and cherry, over the period 2001–2020. The study contributes to understanding the changing relationship between field-crop cultivation and perennial horticultural crops in the district [9].

Saleem et al. examined the inventory and composition of prevalent agro-forestry systems across Anantnag district. Their study documented different agricultural and tree-based production systems and provides evidence of the diversity of farming systems present in the district [10].

At the regional level, Taufique and Khursheed examined the status of horticulture in Jammu and Kashmir and provided an overview of the importance of horticultural activities in the agricultural economy of the region [11]. Their work provides a broader regional context for understanding the significance of horticulture in districts such as Anantnag, where fruit cultivation represents an important component of agricultural activity.

Rice cultivation in Kashmir has also been examined from a historical and agricultural perspective. Sofi et al. reviewed the historical importance of rice cultivation in the Kashmir Valley and discussed the challenges and opportunities associated with sustainable rice production and rural livelihoods [12]. Their study provides useful background for understanding the continuing role of rice cultivation within the agricultural system of Kashmir.

The existing literature therefore provides evidence on several important dimensions of agriculture in Jammu and Kashmir and Anantnag, including organic farming, organic crop management, marketing behaviour, horticultural development, cropping-pattern changes, agroforestry and rice cultivation. However, the reviewed studies largely concentrate on particular agricultural activities or specific aspects of agricultural change. There is comparatively limited district-level work that brings together land utilization, operational holdings, cropping pattern, irrigation, horticulture, fruit production, high-yielding varieties and the officially reported area under organic farming within a single assessment of Anantnag district.

The present study attempts to address this gap by providing a systematic assessment of the agricultural profile of Anantnag district using official secondary statistics. It brings together multiple agricultural indicators and examines their distribution and changes over time, while also presenting the officially reported status of organic farming in the district. Thus, the study complements the existing literature by providing an integrated statistical assessment of the agricultural structure of Anantnag rather than concentrating on a single agricultural activity.

3. Research Objectives

The present study was undertaken with the following objectives:

1. To examine the agricultural profile of Anantnag district using district-level secondary statistics.

2. To analyze the pattern of land utilization, crop cultivation, irrigation and horticultural activities in Anantnag district.
3. To examine changes in the area under major crops and identify the major shifts in the agricultural cropping pattern of the district.
4. To examine the status and extent of organic farming in Anantnag district using officially reported statistics for 2024–25.
5. To present and interpret the major agricultural patterns of the district through statistical tables and appropriate graphical representations.

4. Research Methodology

4.1 Study Area

The study was conducted in Anantnag district of Jammu and Kashmir, situated in the Kashmir Valley. The district has a diverse agricultural economy comprising field crops, horticultural crops and allied agricultural activities. Anantnag was selected for the study because of the importance of agriculture in its rural economy and the availability of district-level official statistics covering various dimensions of agricultural activity, including land utilization, crop cultivation, irrigation, horticulture and organic farming.

4.2 Sources of Data

The study is based exclusively on secondary data obtained from official sources. The principal source of information is the Digest of Statistics 2024–25, published by the Directorate of Economics and Statistics, Government of Jammu and Kashmir. District-level data for Anantnag relating to land utilization, crop area, irrigation, horticulture, fruit production and other agricultural indicators were extracted from the publication. Wherever relevant, corresponding Jammu and Kashmir-level figures were also used for comparison.

The officially reported statistics on organic farming are presented in the Digest based on information sourced from the Agriculture Production Department, Jammu and Kashmir. Additional official publications and departmental sources were considered wherever necessary to supplement the district-level agricultural information.

4.3 Nature and Scope of Analysis

The analysis focuses on the major dimensions of agriculture in Anantnag district. These include geographical and land-use characteristics, net and gross area sown, irrigation, cropping pattern, area under major crops, changes in crop cultivation, horticulture and fruit production. The study also examines the officially reported extent of organic farming and considers its position within the wider agricultural structure of the district.

The analysis covers the available agricultural statistics for relevant years, with particular emphasis on 2024–25 for the current agricultural profile. Earlier years, particularly 2014–15, are used where comparable data are available to examine changes in the cropping pattern over time.

4.4 Data Presentation and Analysis

The data are organized and presented through systematic statistical tables. Frequencies, percentages, totals, differences and comparative measures are used wherever appropriate to describe the distribution and changing pattern of agricultural activities. Jammu and Kashmir-level figures are included where they provide a meaningful basis for understanding the position of Anantnag.

Graphical representations are used selectively alongside the tables to improve the presentation and interpretation of major patterns. Bar charts are used for categorical and cross-sectional comparisons, while line graphs are used where the data represent changes over time. Pie charts are used only where the categories constitute meaningful parts of a single total. Each table and graphical representation is followed by a concise interpretation based on the reported statistics.

The methodology therefore provides a systematic secondary-statistical framework for examining the agricultural structure of Anantnag district and the officially reported position of organic farming within it.

5 Agriculture Profile of Anantnag District

Anantnag is an important agricultural district of the Kashmir Valley, where crop cultivation, horticulture and other allied agricultural activities contribute significantly to the rural economy. The agricultural structure of the district is characterized by predominantly small operational holdings and a combination of seasonal field crops and horticultural production. This section presents selected indicators of the district's agricultural structure and cropping pattern using official secondary data. The purpose is to provide a broader understanding of the agricultural characteristics of Anantnag and to establish the context within which organic farming is practiced in the district.

5.1 Operational Land Holdings

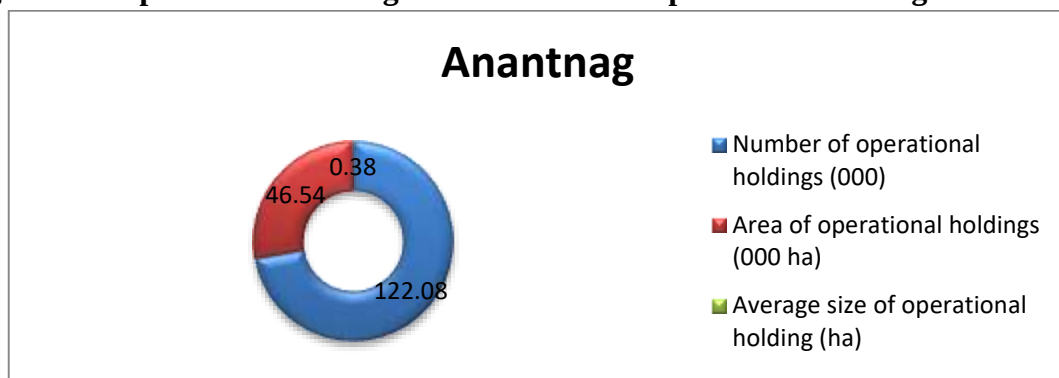
The size and distribution of agricultural holdings are important for understanding the structure of farming in Anantnag. According to the Digest of Statistics 2024–25, the latest operational-holding data available are from the Agriculture Census 2015–16. Anantnag recorded 122.08 thousand operational holdings, covering 46.54 thousand hectares, with an average holding size of 0.38 hectares. The corresponding figures were reported under Table 4.13 of the Digest.

Table 5.1: Operational Land Holdings in Anantnag District

S.NO	Indicator	Anantnag
1	Number of operational holding (thousand)	122.08
2	Area of operational holding (thousand ha)	46.54
3	Average size of operational holding (ha)	0.38

Source: Directorate of Economics and Statistics, Government of Jammu and Kashmir, Digest of Statistics 2024–25, Table 4.13; source of underlying data: Agriculture Census.

Figure 5.1: Operational Holdings and Area under Operational Holdings in Anantnag



The data indicate that the agricultural structure of Anantnag is dominated by relatively small operational holdings. The district had 122.08 thousand operational holdings covering 46.54 thousand hectares, with an average operational holding size of only 0.38 hectares. The predominance of small holdings is an important characteristic of the district's agricultural system and provides useful context for understanding the adoption and practice of organic farming. Small-scale farmers may have different requirements in terms of farm inputs, labor utilization, production organization and marketing compared with farmers operating larger holdings.

5.2 Size Distribution of Operational Holdings

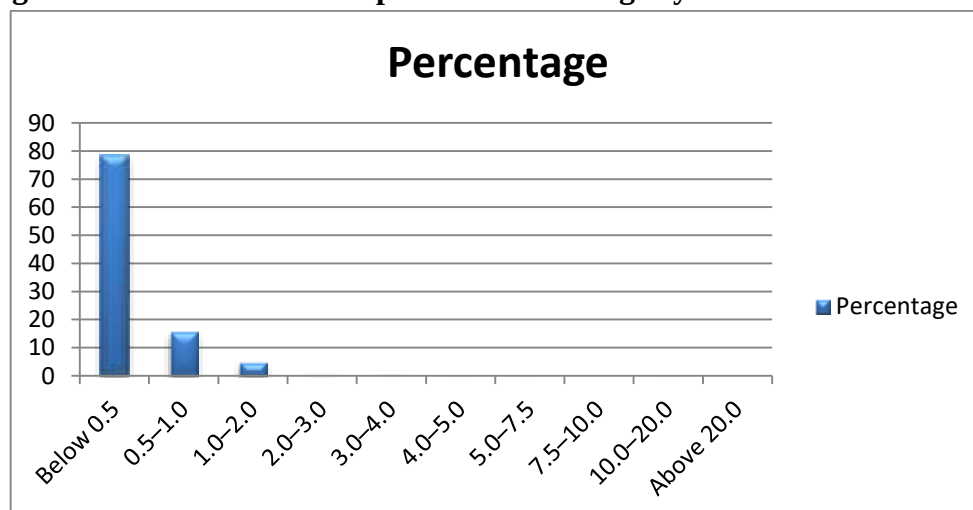
To understand the structure of land ownership more closely, the distribution of operational holdings across size classes can also be presented. In 2015–16, 78.29% of Anantnag's operational holdings were below 0.5 hectare, while another 15.85% were between 0.5 and 1.0 hectare. Thus, holdings below one hectare constituted the overwhelming majority of operational holdings in the district.

Table 5.2: Distribution of Operational Holdings by Size Class in Anantnag, 2015–16

S. No	Size class (ha)	Number of holdings	Percentage
1	Below 0.5	95579	78.29
2	0.5-1.0	19352	15.85
3	1.0-2.0	6024	4.93
4	2.0-3.0	791	0.65
5	3.0-4.0	274	0.22
6	4.0-5.0	33	0.03
7	5.0-7.5	11	0.01
8	7.5-10.0	4	0.00
9	10.0-20.0	7	0.01
10	Above 20.0	3	0.00
	Total	122078	100.00

Source: Directorate of Economics and Statistics, J&K, *Digest of Statistics*; Agriculture Census 2015–16.

Figure 5.2: Distribution of Operational Holdings by Size Class in Anantnag



The distribution of operational holdings provides an important indication of the structural characteristics of agriculture in Anantnag. The latest operational-holding information reported in the Digest of Statistics 2024–25, based on the Agriculture Census 2015–16, shows that the district had 122.08 thousand operational holdings covering 46.54 thousand hectares, with an average operational holding size of 0.38 hectares. The relatively small average holding size indicates that agricultural production in the district is predominantly organized on a small-scale basis.

This structure is relevant to the study of organic farming because the adoption and management of organic practices take place within the existing farm-size structure. Small holdings can influence decisions concerning labor use, input management, crop diversification and marketing of agricultural produce. Therefore, the predominance of small operational holdings provides an important background for examining the status and practices of organic farming among farmers in Anantnag.

It also shows a strong concentration of operational holdings in the smaller size categories. Holdings below 0.5 hectare account for 78.29% of all operational holdings, while a further 15.85% fall within the 0.5–1.0 hectare category. Thus, holdings below one hectare together constitute 94.14% of operational holdings. In contrast, holdings above two hectares account for only 0.92% of the total.

This distribution indicates that the agricultural structure of Anantnag is predominantly characterized by small and marginal operational holdings. This is an important contextual feature for the present study because organic farming practices, input requirements, labor use, production decisions and marketing arrangements need to be understood within this small-farm structure

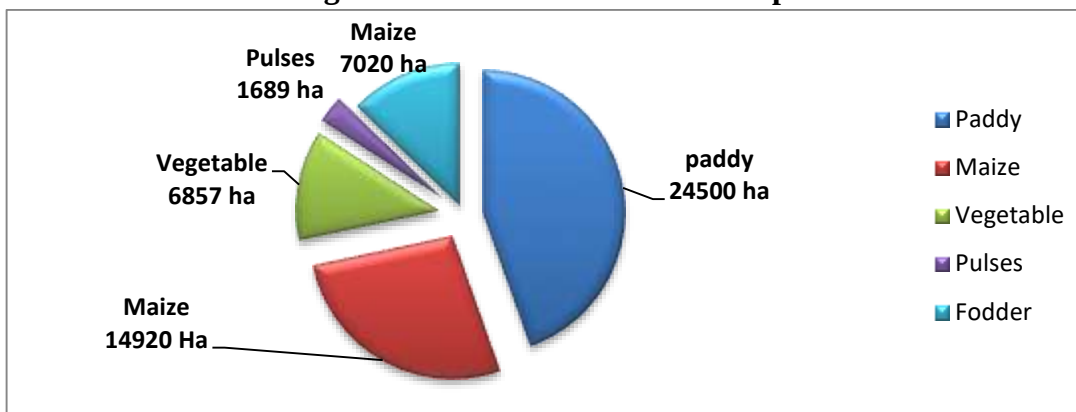
5.3 Area under Rabi and Kharif Crops

Table 5.3: Area under Kharif Crops in Anantnag District, 2023

S. No	Crop	Area (hectare)	Percentage
1	Paddy	24500	44.56
2	Maize	14920	27.13
3	Vegetable	6857	12.47
4	Pulses	1689	3.07
5	Fodder	7020	12.77
	Total	54986	100.00

Source: Agriculture Compendium, Anantnag, 2023.

Figure 5.3: Area under Kharif Crops



The distribution of Kharif crop area shows that paddy occupied the largest share, covering 24,500 hectares (44.56%) of the total area under the selected Kharif crops. Maize was the second major crop,

accounting for 14,920 hectares (27.13%). Together, paddy and maize constituted 71.69% of the total area represented in the table, indicating their prominent position in the Kharif cropping pattern of Anantnag.

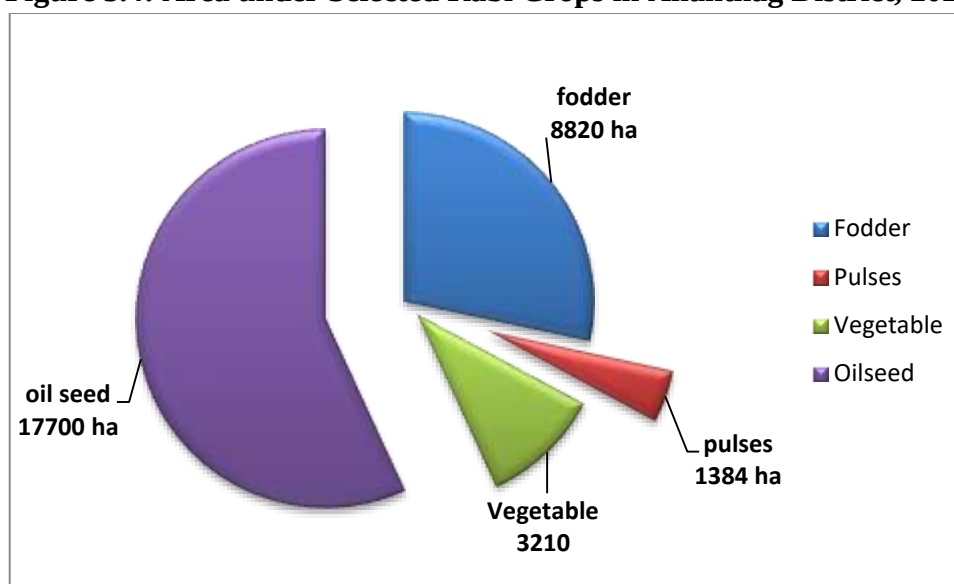
Vegetables covered 6,857 hectares (12.47%), while fodder crops accounted for 7,020 hectares (12.77%). Pulses occupied the smallest area, with 1,689 hectares (3.07%). Overall, the data indicate that Kharif cultivation in Anantnag was predominantly concentrated in paddy and maize, while vegetables, fodder and pulses constituted comparatively smaller components of the selected Kharif crop area.

Table 5.4: Area under Rabi crops

S. No	Crop	Area (hectare)	Percentage
1	Fodder	8820	28.30
2	Pulses	1384	4.5
3	Vegetable	3210	10.30
4	Oilseed	17700	56.90
	Total	31114	100.00

Source: Agriculture Compendium, Anantnag, 2023.

Figure 5.4: Area under Selected Rabi Crops in Anantnag District, 2023



The Rabi crop pattern shows a clear predominance of oilseed cultivation, which accounted for 17,700 hectares (56.90%) of the total area under the selected Rabi crops. Fodder was the second-largest category, covering 8,820 hectares (28.30%). Vegetables occupied 3,210 hectares (10.30%), while pulses accounted for the smallest share at 1,384 hectares (4.50%).

Thus, the Rabi cropping pattern was mainly concentrated in oilseeds and fodder, which together accounted for 85.20% of the total area represented in the table. Vegetables and pulses constituted comparatively smaller shares. When viewed alongside the Kharif cropping pattern, these figures demonstrate the seasonal diversity of crop cultivation in Anantnag and provide a useful agricultural context for examining the subsequent horticultural and organic farming profile of the district.

5.4 Major Crops under Cultivation and changing pattern

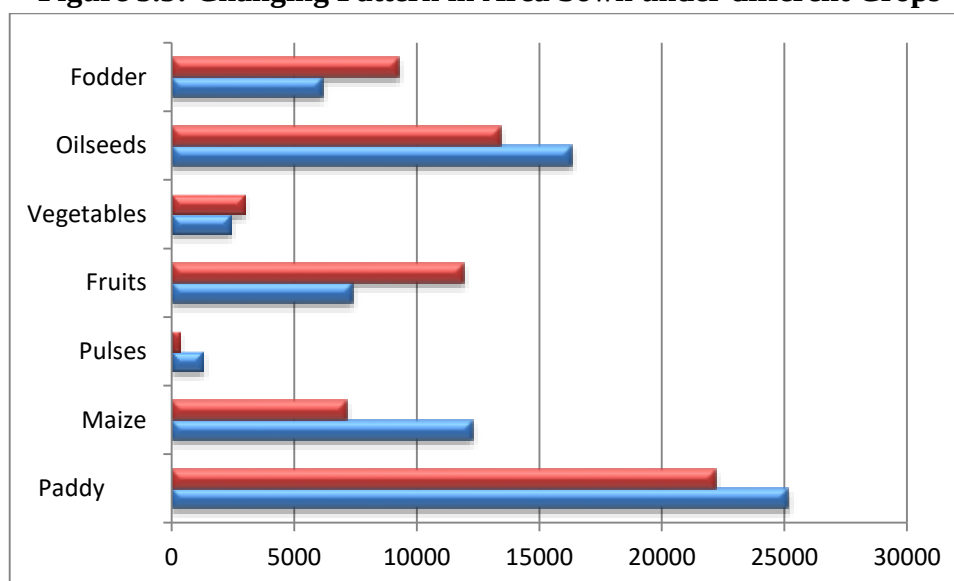
The cropping pattern of a district provides an indication of the relative importance of different crops within its agricultural system. In Anantnag, field crops form an important part of agricultural activity, while horticultural crops also contribute substantially to the agricultural economy. To understand the changing composition of crop cultivation, selected major crops can be compared over time.

Table 5.5: Changing Pattern in Area Sown under different Crops

S. No	Crop	Area (2014-15) ha	Area (2024-25) ha	Change in Area ha
1	Paddy	25147	22176	-2971
2	Maize	12279	7145	-5134
3	Pulses	1289	333	-956
4	Fruits	7374	11898	+4524
5	Vegetables	2408	2973	+565
6	Oilseeds	16329	13416	-2913
7	Fodder	6160	9273	+3113
	Total	70986	67214	

Source: Directorate of Economics and Statistics, J&K, Digest of Statistics, 2014–15 and 2024–25.

Figure 5.5: Changing Pattern in Area Sown under different Crops



The data presented in Table and Figure show a changing pattern in the area under different crops in Anantnag district between 2014–15 and 2024–25. The total area under the selected crops declined from 70,986 hectares in 2014–15 to 67,214 hectares in 2024–25, indicating a net decrease of 3,772 hectares. Among the major crops, paddy remained an important crop, although its area declined from 25,147 hectares in 2014–15 to 22,176 hectares in 2024–25, representing a decrease of 2,971 hectares. The area under maize also declined substantially from 12,279 hectares to 7,145 hectares, a reduction of 5,134 hectares. Pulses recorded the largest relative decline, decreasing from 1,289 hectares to 333 hectares. In contrast, the area under fruits increased considerably from 7,374 hectares in 2014–15 to 11,898 hectares in 2024–25, showing an increase of 4,524 hectares. The area under vegetables also increased

from 2,408 hectares to 2,973 hectares. Fodder recorded an increase from 6,160 hectares to 9,273 hectares, indicating an expansion of 3,113 hectares.

The area under oilseeds declined from 16,329 hectares in 2014–15 to 13,416 hectares in 2024–25, representing a reduction of 2,913 hectares. Overall, the data indicate a shift in the cropping pattern, with reductions in the area devoted to paddy, maize, pulses and oilseeds, while fruits, vegetables and fodder registered increases during the period under consideration. These changes reflect a gradual reallocation of cultivated area among different crop groups in the district.

5.5 Land use profile of Anantnag

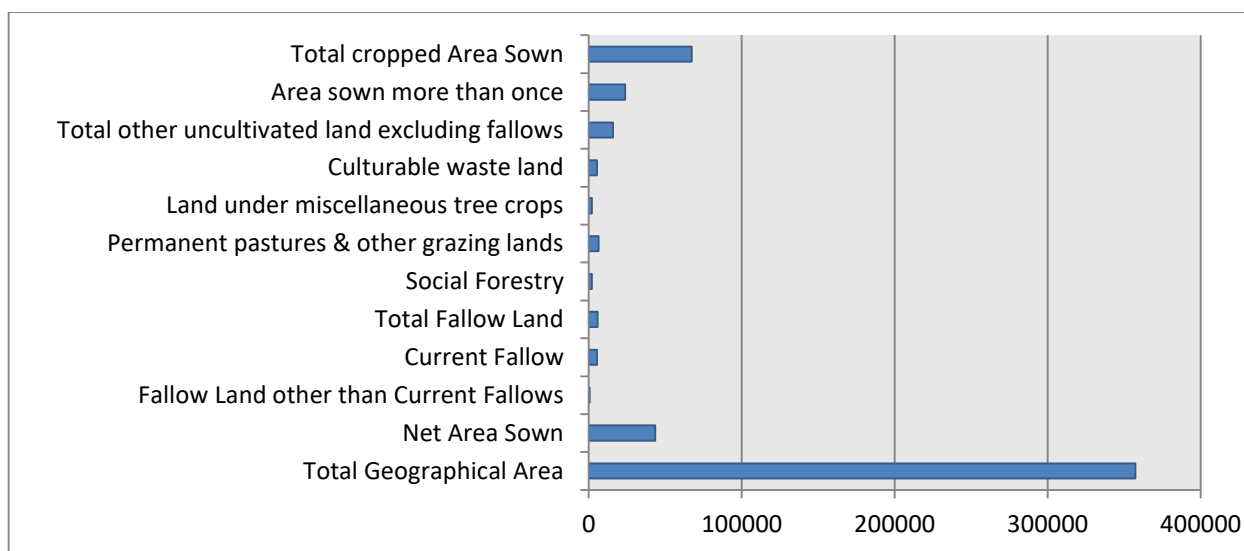
Agriculture constitutes an important component of the rural economy of Anantnag district and provides livelihoods and employment opportunities to a considerable section of the population. The agricultural landscape of the district is influenced by its land-use pattern, availability of irrigation, cropping intensity and the cultivation of food grains, oilseeds, vegetables, fruits and fodder crops. Understanding the agricultural profile of the district is essential for assessing the existing farming system and examining the context in which organic farming is being practiced. The following table presents the major land-use and agricultural characteristics of Anantnag district for 2024–25.

Table 5.6: Agricultural and Land-Use Profile of Anantnag District, 2024–25

S. No	Particulars	Anantnag (ha)
1	Total Geographical Area	357400
2	Net Area Sown	43428
3	Fallow Land other than Current Fallows	503
4	Current Fallow	5363
5	Total Fallow Land	5866
6	Social Forestry	2027
7	Permanent pastures & other grazing lands	6333
8	Land under miscellaneous tree crops	1957
9	Culturable waste land	5453
10	Total other uncultivated land excluding fallows	15770
11	Area sown more than once	23826
12	Total Cropped Area Sown	67254

Directorate of Economics & Statistics, Government of Jammu & Kashmir, Digest of Statistics 2024–25.

Figure 5.6: Agricultural and Land-Use Profile of Anantnag District, 2024–25



5.6 Area under Horticulture Crops

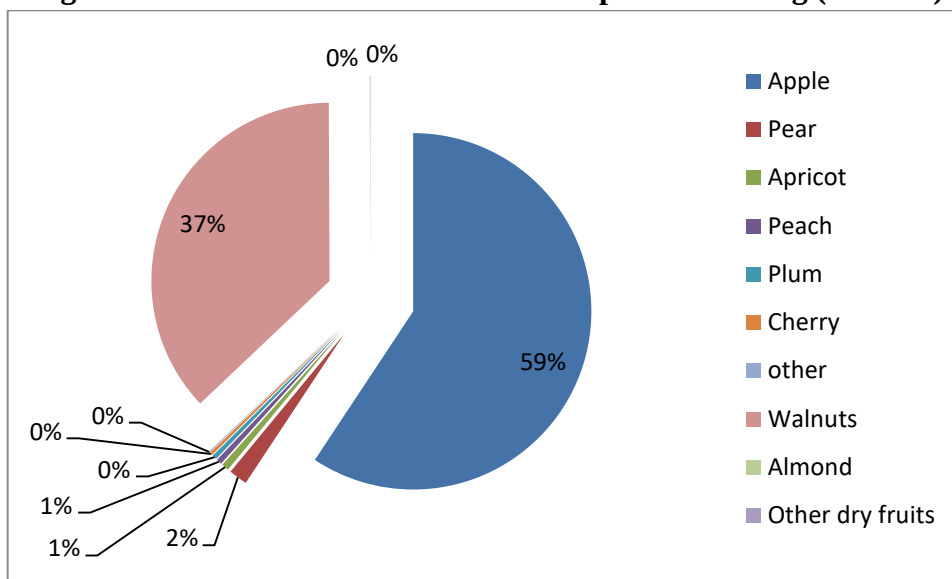
Horticulture is an important component of the agricultural economy of Anantnag district, particularly because of the favorable agro-climatic conditions for the cultivation of a variety of fruit and horticultural crops. The sector contributes to farm income, employment generation and diversification of agricultural activities in the district. The area under different horticultural crops provides an indication of the relative importance of horticulture within the agricultural sector. The following table presents the area under major horticultural crops in Anantnag district during 2024–25.

Table 5.7: Area under Horticultural Crops

S. No	Fruits	Area (ha)	Percentage
	Fresh fruits		
1	Apple	19149.57	59.31
2	Pear	544.63	1.69
3	Apricot	213.88	0.66
4	Peach	163.60	0.51
5	Plum	133.22	0.41
6	Cherry	87.62	0.27
7	Citrus	0	0.00
8	other	29.49	0.09
	Total fresh Fruit	20322.01	62.94
	Dry Fruits		
9	Walnuts	11946.30	37.00
10	Almond	9.70	0.03
11	Other dry fruits	12.49	0.04
	Total dry fruits	11968.49	37.06
	Total Fruits	32290.5	100.00

Source: Directorate of Economics & Statistics, Government of Jammu & Kashmir, Digest of Statistics 2024–25

Figure 5.7: Area under Horticultural Crops in Anantnag (2024-25)



The distribution of horticultural crops in Anantnag district during 2024–25 shows a clear predominance of fresh fruits, which accounted for 20,322.01 hectares or 62.94 percent of the total area under horticultural crops. Among the fresh fruits, apple occupied the largest area at 19,149.57 hectares, accounting for 59.31 percent of the total horticultural area. Other fresh fruits occupied comparatively smaller areas, with pear covering 544.63 hectares (1.69 percent), apricot 213.88 hectares (0.66 percent), peach 163.60 hectares (0.51 percent), plum 133.22 hectares (0.41 percent) and cherry 87.62 hectares (0.27 percent).

Dry fruits accounted for 11,968.46 hectares, representing 37.06 percent of the total horticultural area. Walnuts constituted the major dry fruit crop, covering 11,946.30 hectares or 37.00 percent of the total area. Almonds and other dry fruits accounted for only 9.70 hectares (0.03 percent) and 12.49 hectares (0.04 percent), respectively.

Overall, the horticultural area of Anantnag district was 32,290.47 hectares in 2024–25. The distribution indicates that apple and walnut were the two dominant horticultural crops, together accounting for approximately 96.31 percent of the total horticultural area. The remaining horticultural crops occupied relatively small proportions of the total area, indicating a highly concentrated horticultural cropping pattern in the district.

5.7 Production of Fruits in Anantnag

Fruit production is an important component of the agricultural economy of Anantnag district. The favorable agro-climatic conditions of the district support the cultivation of various fruit crops, particularly apple and walnut. Fruit production contributes to farm income, employment generation and agricultural diversification. The following table presents the production of major fruit crops in Anantnag district.

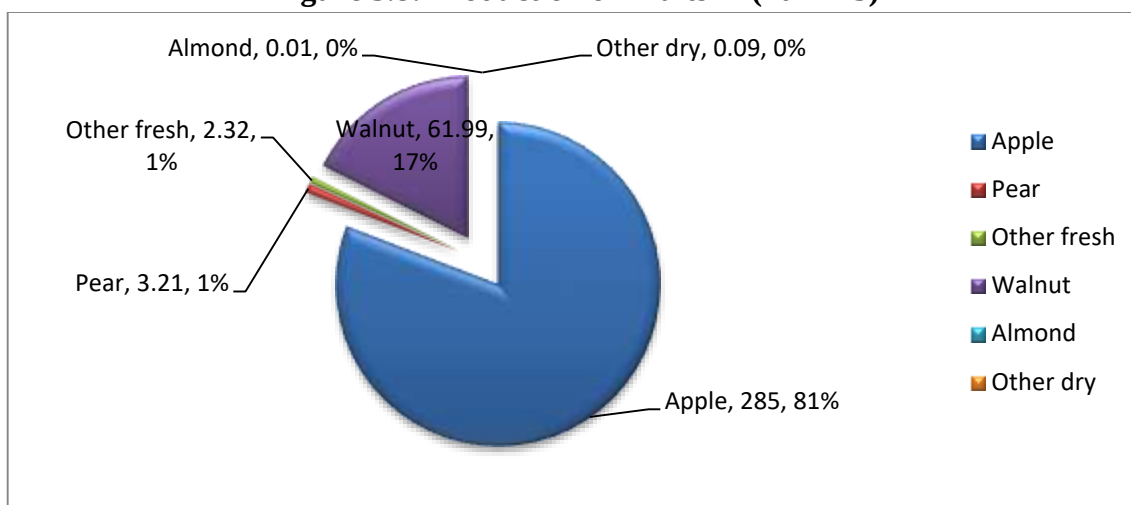
Table 5.8 Production of Fruits in Anantnag in (2024-25)

S. No	Fruits	Production (000 Mts)
1	Apple	285.00
2	Pear	3.21

3	Other fresh	2.32
4	Walnut	61.99
5	Almond	0.01
6	Other dry	0.09
	Total	352.63

Source: Directorate of Economics & Statistics, Government of Jammu & Kashmir, *Digest of Statistics* 2024–25

Figure 5.8: Production of Fruits in (2024-25)



The production of fruits in Anantnag district shows a clear dominance of apple during the year under consideration. Apple recorded the highest production of 285.00 thousand metric tonnes, accounting for approximately 80.83 percent of the total fruit production of 352.63 thousand metric tonnes. Walnut was the second major fruit crop, with a production of 61.99 thousand metric tonnes, contributing about 17.58 percent of the total production.

Among the other fruit categories, pear recorded a production of 3.21 thousand metric tonnes, while other fresh fruits accounted for 2.32 thousand metric tonnes. The production of other dry fruits was 0.09 thousand metric tonnes, whereas almond recorded only 0.01 thousand metric tonnes. Overall, the data indicate that fruit production in Anantnag is highly concentrated in apple and walnut, which together contributed approximately 98.41 percent of the total fruit production.

5.8 Area Sown Irrigated

Table 5.9: Percentage of Net and Gross Area Sown under Irrigation in Anantnag and Jammu & Kashmir

S. No	Area irrigated	2023-24		2024-25	
		Anantnag (%)	J&K (%)	Anantnag (%)	J&K (%)
1	Net Area sown	63.14	42.08	69.69	41.98
2	Gross area sown	41.66	27.58	45.00	27.14

Source: Directorate of Economics & Statistics, Government of Jammu & Kashmir, *Digest of Statistics* 2024–25.

The data presented in the table indicate the extent of irrigation coverage in Anantnag district in comparison with Jammu and Kashmir as a whole during 2023–24 and 2024–25. In Anantnag, the proportion of net area sown under irrigation increased from 63.14 percent in 2023–24 to 69.69 percent in 2024–25. This indicates an increase of 6.55 percentage points in the irrigation coverage of the net sown area in comparison, the corresponding proportion for J&K remained relatively stable, declining slightly from 42.08 percent to 41.98 percent.

A similar pattern is observed for gross area sown. In Anantnag, the irrigated share increased from 41.66 percent in 2023–24 to 45.00 percent in 2024–25, representing an increase of 3.34 percentage points. For J&K, the proportion declined marginally from 27.58 percent to 27.14 percent. Overall, the figures show that irrigation coverage in Anantnag increased between 2023–24 and 2024–25 for both net and gross area sown. The irrigated proportion of net area sown in Anantnag was also higher than the corresponding proportion for J&K in both years. The availability of irrigation is an important feature of the agricultural profile of the district, as it supports crop cultivation and influences cropping intensity and the choice of crops grown by farmers.

5.9 Distribution of High-Yielding Varieties of Seeds

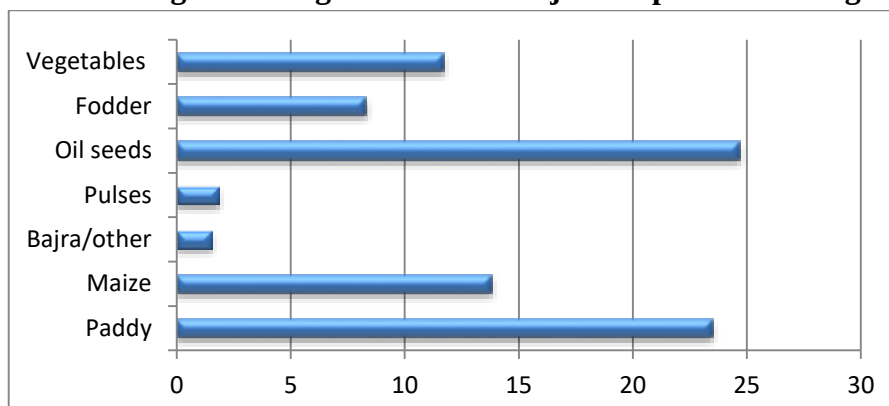
The use of high-yielding varieties of seeds is an important component of agricultural production, as improved varieties can contribute to higher productivity and support the cultivation of major crops. The extent of area covered under such varieties provides an indication of the adoption of improved crop varieties in the district. In Anantnag, high-yielding varieties are reported for major crops including paddy, maize, pulses, oilseeds, fodder and vegetables. The following table presents the area under high-yielding varieties of major crops in the district during 2024–25.

Table 5.10: Distribution of High-Yielding Varieties of Major Crops in Anantnag District, 2024–25

S. No	Crop	Area (thousand ha)
1	Paddy	23.51
2	Maize	13.79
3	Bajra/other	1.53
4	Pulses	1.85
5	Oil seeds	24.68
6	Fodder	8.31
7	Vegetables	11.70
	Total	85.37

Source: Agriculture Production Department, J&K, *Digest of Statistics 2024–25*, Table 4.17.

Figure 5.9: Area under High-Yielding Varieties of Major Crops in Anantnag District, 2024–25



5.10 Status of Organic Farming

Organic farming represents an emerging component of the agricultural sector and is included in the official agricultural statistics of Jammu and Kashmir. Examining the area under organic farming provides an indication of its reported extent within the agricultural structure of Anantnag district. The following table presents the officially reported area under organic farming in Anantnag in comparison with Jammu and Kashmir during 2024–25.

Table 5.11: Area under Organic Farming in Anantnag District and Jammu and Kashmir, 2024–25

S. No	Area	Organic Farming Area (ha)
1	Anantnag	417.12
2	Jammu & Kashmir	8,864.49

Source: Agriculture Production Department, Government of Jammu and Kashmir, Digest of Statistics 2024–25.

Organic farming in Anantnag is supported through a combination of government programmes, institutional agencies, certification mechanisms and emerging market-oriented initiatives. The Paramparagat Krishi Vikas Yojana (PKVY) provides an important framework for promoting organic agriculture through a cluster-based approach, with support covering organic inputs, farmer training, certification, residue analysis, packaging, branding and marketing. At the district level, organic agriculture has also been included within the proposed Safe and Smart Agriculture Initiative of Anantnag, under which 25 hectares were proposed to be brought under organic farming. More recently, organic farming has received attention under the Holistic Agriculture Development Programme (HADP) through the project on Alternate Agriculture System for Sustainability. An important institutional development in this regard is the proposed PGS-India Facilitation Centre at Bijbehara, Anantnag, which is intended to facilitate participatory organic certification and related support for farmers. The Agriculture Production Department, Jammu and Kashmir, together with the District Agriculture Department, Anantnag, constitutes the principal institutional framework for agricultural development and implementation of relevant programmes in the district. SKUAST-K and Krishi Vigyan Kendra (KVK), Anantnag also contribute through technical training, extension and capacity building; a training programme on Organic Certification of Niche Crops to enhance their Niche Value was conducted at

KVK Anantnag in 2024, highlighting the importance of certification and value enhancement for specialized agricultural products. Certification of organic produce can be undertaken through the Participatory Guarantee System (PGS-India), which is particularly relevant to farmer groups and domestic markets, while the National Programme for Organic Production (NPOP) provides a third-party certification framework for organic production, including production intended for wider domestic and export markets. The establishment of PGS-related facilitation infrastructure in Bijbehara indicates increasing institutional attention towards certification at the local level; however, the officially reported area under organic farming should not automatically be interpreted as fully PGS- or NPOP-certified area unless certification records specifically confirm this. Marketing is another important component of organic-farming development. PKVY provides for marketing, packaging, branding and value addition, while government-supported platforms such as Jaivik Kheti are intended to facilitate market linkages between organic producers and consumers. In the case of Anantnag, certification and market linkage are particularly relevant because they can help distinguish organic produce from conventionally produced commodities and potentially improve its market value. Thus, the development of organic farming in Anantnag involves not only expansion of organically managed area but also institutional support for farmer training, certification, technical assistance, market linkage and value addition. At the same time, the available official evidence does not establish a verified village-wise list of all organic farming areas or demonstrate that the entire reported organic area is certified under PGS-India or NPOP; therefore, such claims should be avoided unless supported by specific certification records.

6. Discussion

The findings of the study provide a broad statistical picture of the agricultural structure of Anantnag district and address the objectives of the study through the examination of land use, crop cultivation, irrigation, horticulture, fruit production, high-yielding varieties and organic farming. The analysis based on official secondary statistics indicates that agriculture in the district is characterized by a combination of field-crop cultivation and a substantial horticultural sector, with changes in the relative importance of different crops over time.

In relation to the first objective, the agricultural profile of Anantnag reflects the importance of cultivated land and farming activities within the district's rural economy. The distribution of operational holdings and land-use characteristics indicates the structure within which agricultural production takes place. The relatively limited net sown area in relation to the geographical area of the district, together with the presence of fallow and other uncultivated land, highlights the importance of examining agricultural resources not only in terms of total geographical area but also in terms of land actually brought under cultivation. The area sown more than once further indicates the extent to which available cultivated land is utilized for agricultural production.

The second objective concerned land utilization, crop cultivation, irrigation and horticultural activities. The findings show that irrigation constitutes an important feature of agriculture in Anantnag. The proportion of net area sown under irrigation increased from 63.14 percent in 2023–24 to 69.69 percent in 2024–25, while the corresponding share of gross area sown increased from 41.66 percent to 45.00 percent. These proportions were higher than the corresponding figures for Jammu and Kashmir as a whole. At the same time, horticulture represents a major component of the district's agricultural structure. In 2024–25, fruits accounted for the largest share of the reported horticultural area, with apple being the dominant fresh-fruit crop and walnut the dominant dry-fruit crop. Fruit production was

similarly concentrated, with apple and walnut together accounting for the overwhelming majority of total fruit production. These findings indicate that agricultural activity in Anantnag is not confined to seasonal field crops but includes a substantial and specialized horticultural component.

The third objective focused on changes in the area under major crops. The comparison between 2014–15 and 2024–25 indicates a change in the composition of cultivated area. The area under paddy, maize, pulses and oilseeds declined over the period, whereas fruits, vegetables and fodder recorded increases. The decline in maize was particularly pronounced, while the increase in fruit area was substantial. This pattern suggests a gradual change in the relative allocation of agricultural land among different crop categories. The increasing area under fruits, together with the dominant position of apple and walnut in horticulture, indicates the growing importance of horticultural activities within the agricultural structure of the district. The changes should, however, be interpreted as shifts in reported crop area rather than as evidence of a single cause, since cropping decisions may be influenced by several economic, environmental and resource-related factors.

The fourth objective examined the status of organic farming in Anantnag. According to the Digest of Statistics 2024–25, the district had 417.12 hectares reported under organic farming. This represents a relatively small component of the district's overall cultivated area, but it establishes the presence of organic farming within the agricultural profile of Anantnag. The development of organic farming is supported by programmes and institutions concerned with organic inputs, farmer training, certification, technical assistance and market development. PKVY provides a framework for cluster-based organic farming and includes support for certification, marketing and value addition, while the Holistic Agriculture Development Programme has introduced initiatives relating to alternative agricultural systems. The proposed PGS-India Facilitation Centre at Bijbehara and training activities undertaken through KVK Anantnag indicate increasing institutional attention towards organic certification and capacity building. However, the officially reported organic-farming area should not be treated as equivalent to fully certified PGS-India or NPOP area unless certification records specifically establish this distinction.

The fifth objective involved presenting the major agricultural characteristics through statistical tables and appropriate graphical representations. The combined evidence from the tables and selected graphical presentations highlights the main structural characteristics of agriculture in Anantnag, including changes in crop area, the importance of irrigation, the concentration of horticultural production and the emerging presence of organic farming. Taken together, the findings indicate that the agricultural profile of Anantnag is characterized by both traditional field-crop cultivation and an increasingly important horticultural component, while organic farming remains a comparatively small but institutionally developing segment of the agricultural sector.

7. Conclusion and Policy Implications

The study examined the agricultural profile of Anantnag district using official secondary statistics, with particular attention to land utilization, cropping pattern, irrigation, horticulture, fruit production, high-yielding varieties and organic farming. The findings indicate that agriculture in the district has a diverse structure comprising field crops and a substantial horticultural sector. The analysis of land-use characteristics shows the extent to which available agricultural resources are utilized for cultivation, while the irrigation data indicate a relatively important role of irrigated agriculture in the district.

The comparison of crop areas between 2014–15 and 2024–25 indicates changes in the composition of agricultural cultivation. The area under paddy, maize, pulses and oilseeds declined, whereas fruits, vegetables and fodder recorded increases. At the same time, horticulture has emerged as a major component of the agricultural structure, with apple and walnut accounting for a substantial share of the horticultural area and fruit production. These changes indicate a gradual shift in the relative importance of different agricultural activities and highlight the increasing significance of horticulture alongside conventional field-crop cultivation.

The study also examined the officially reported status of organic farming. Anantnag recorded 417.12 hectares under organic farming in 2024–25. Although this represents a relatively small share of the district's overall cultivated area, organic farming has an identifiable position within the agricultural sector. The presence of government programmes, technical institutions, training activities and emerging certification infrastructure indicates growing institutional attention towards the development of organic agriculture. However, further expansion requires appropriate technical support, reliable certification systems, availability of organic inputs, farmer capacity building and effective market linkages.

Based on the findings, several policy implications emerge. First, agricultural planning in Anantnag needs to recognize the coexistence of field-crop cultivation and a strong horticultural sector, with interventions designed according to the requirements of different agricultural activities. Second, continued investment in irrigation infrastructure and efficient water management can support stable agricultural production and improve the utilization of cultivated land. Third, the changing crop pattern suggests the need for policies that provide farmers with appropriate technical and market support when shifting towards higher-value crops and horticultural activities. Fourth, organic farming can be strengthened through greater awareness of certification procedures, expansion of farmer training, development of PGS-related support systems and improved access to organic inputs. Finally, stronger linkages between production, certification, packaging, branding and marketing can help create better opportunities for organically produced agricultural commodities.

Overall, the study establishes that Anantnag has a changing and diversified agricultural structure in which field crops, horticulture, irrigation and emerging organic-farming initiatives coexist. Continued institutional support, improved infrastructure, technical extension and stronger market linkages can contribute to the sustainable development of the district's agricultural sector.

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