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Study of Livestock (Dairy Animals) in Nashik District, Maharashtra

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Abstract

This study examines the distribution of livestock (dairy animals), specifically cows and buffaloes, across 15 tehsils in a given region. Using statistical data on the number of cows and buffaloes in each tehsil, this paper evaluates the relative proportions of each species, identifies high- and low-density areas, and provides insights into regional livestock management and resource planning. The total livestock population (comprising dairy animals) studied includes 254,583 cows and 82,843 buffalo, making a combined total of 337,426 animals. The findings offer valuable insights into regional livestock management, agricultural practices, and policy planning.

Keywords- Livestock, Dairy Animals, Nashik.

Introduction

Livestock plays a crucial role in rural economies by providing milk, manure, labor, and income. Livestock serves as the backbone of rural livelihoods in India. The relative distribution of different types of livestock can reflect environmental suitability, agricultural practices, cultural preferences, and economic priorities. This paper aims to evaluate the spatial variation and proportions of cows and buffaloes in the Nashik district and analyze their tehsil-wise distribution to identify patterns and disparities.

Study area

Nashik district lies between latitudes 19°33' and 20°53' N and longitudes 73°16' and 74°56' E. The total geographical area of Nashik district is approximately 15530 sq. km. The district comprises 15 tehsils and features diverse agro-climatic zones, which significantly influence the distribution and composition of livestock. Nashik district experiences a tropical monsoon climate characterized by distinct seasonal variations. Summers, from March to May, temperatures range between 30°C and 42°C. The monsoon season extends from June to September, bringing moderate to heavy rainfall, with annual precipitation ranging from around 700 mm in the eastern plains to over 2,000 mm in the western hilly regions. Winters, which last from October to February, are mild and dry, with temperatures dropping to as low as 8°C. This climatic diversity across the district significantly influences agricultural practices and livestock rearing, particularly in terms of fodder availability, water resources, and breed adaptability. Nashik district's livestock patterns are closely tied to its geography, rainfall, soil types, and economic development levels**.** The variation across tehsils offers a unique opportunity to analyze region-specific livestock management strategies.

Objectives of the Study

1. To study the proportions of cow and buffalo populations in Nashik district.
2. To study the Tehsil-wise proportions of cow and buffalo populations in Nashik district.

Methodology:

Secondary data has been use for study from Department of Agriculture, Nashik District (2019, 2023–24), Maharashtra State Agriculture Department, Krishi Vigyan Kendra (KVK), Livestock Census, Government of India (2019), socio-economic and geographic survey reports Nashik 2023-24 and Scholarly articles and government publications on livestock geography. The data includes the number of cows, buffalo's livestock in each tehsil of Nashik District. The charts were prepared by author on the basis of information available from a secondary source. The quantitative approach allows for direct comparison between the tehsils. An attempt has been made to tabulate, analyse, and interpret the data by applying suitable statistical and cartographic techniques.

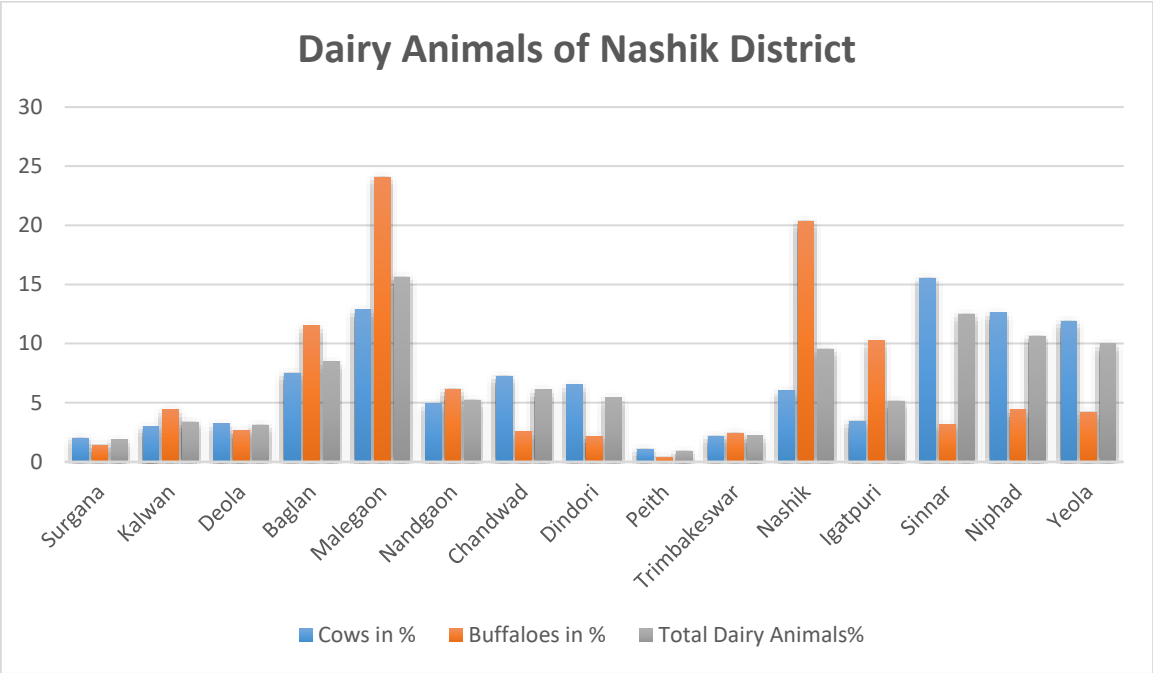
Discussion

Table No.1: **Dairy animals of Nashik District**

Sr. No.	Tehsil	Number of Cows	Cows in %	Number of Buffaloes	Buffaloes in %	Total Number Dairy Animals	Total Dairy Animals%
1	Surgana	5120	2.01	1179	1.42	6299	1.87
2	Kalwan	7617	2.99	3663	4.42	11280	3.34
3	Deola	8235	3.23	2194	2.65	10429	3.09
4	Baglan	19062	7.49	9523	11.50	28585	8.47
5	Malegaon	32737	12.86	19922	24.04	52659	15.61
6	Nandgaon	12521	4.92	5102	6.16	17626	5.23
7	Chandwad	18422	7.24	2103	2.54	20525	6.09
8	Dindori	16581	6.52	1747	2.11	18328	5.43
9	Peith	2705	1.06	329	0.40	3034	0.90
10	Trimbakeswar	5527	2.17	2006	2.42	7533	2.23
11	Nashik	15298	6.01	16869	20.36	32167	9.53
12	Igatpuri	8791	3.45	8483	10.24	17274	5.12
13	Sinnar	39543	15.54	2610	3.15	42153	12.50
14	Niphad	32153	12.63	3645	4.40	35798	10.61
15	Yeola	30271	11.89	3468	4.19	33739	10
Total		254583	100	82843	100	337426	100

Data from Livestock Census-2019, socio-economic survey-2023-24

Figure.1: Dairy animals of Nashik District



Cows constitute 75.45% (254,583) of the total bovine population, and Buffaloes account for 24.55% (82,843). This reveals a strong preference or suitability for cow rearing over buffalo in the region.

Sinnar holds the highest cow population (15.54%) with 39,543 cows, but a low buffalo share (3.15%). This indicates a cow-dominant dairy structure. Malegaon has the highest total livestock population (15.61%), contributing 12.86% cows and 24.04% buffaloes—making it a mixed-livestock tehsil with high productivity potential. Nashik, although ranking lower in cow population (6.01%), contributes 20.36% of the total buffaloes, second only to Malegaon.

Baglan, Chandwad, and Niphad each contribute around 6–10% of the total livestock. Their buffalo contributions vary significantly, indicating differentiated livestock strategies. Igatpuri and Dindori show nearly equal contributions to both cow and buffalo populations, possibly reflecting balanced agro-climatic conditions.

Peith, Trimbakeshwar, and Surgana contribute less than 2.5% of the total livestock. Their low figures may stem from geographical constraints, lower population density, or limited pasture land. Buffalo rearing is most prominent in Malegaon and Nashik, suggesting a focus on buffalo milk products (such as higher-fat milk). Conversely, regions like Sinnar and Niphad lean heavily toward cow farming, possibly due to pasture availability or traditional practices.

Buffalo rearing is most prominent in Malegaon and Nashik, suggesting a focus on buffalo milk products (such as higher-fat milk). Conversely, regions like Sinnar and Niphad lean heavily toward cow farming, possibly due to pasture availability or traditional practices.

Economic Role: Tehsils with larger populations of buffaloes (e.g., Malegaon, Nashik) may be leveraging buffalo milk for higher market returns. Environmental Suitability: Tehsils with cooler climates or hilly terrain (e.g., Surgana, Peith) have significantly lower livestock counts. Cultural Factors: Preferences for cow milk in certain areas may drive cow-dominant livestock patterns.

Conclusion

This analysis highlights distinct livestock patterns across tehsils. Malegaon and Sinnar emerge as leading contributors to the region's bovine economy, though with different livestock compositions. These insights are valuable for planning region-specific livestock development programs, veterinary services, and dairy infrastructure.

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