

A STUDY MARKET CENTERS AND RURAL HOUSEHOLD IN A SOLAPUR DISTRICT: A GEOGRAPHICAL PERSPECTIVE

Dr. Lavate M.G., Mr. Waydande D. L.

Assistant Professor, Dept. of Geography, D.B.F. Dayanand College of Arts & Science College, Solapur.

Research Student, Dept. of Geography, D.B.F. Dayanand College of Arts & Science College, Solapur.

Article Info	ABSTRACT
<p>Article History: Received: 21st Sep 2025 Accepted: 06th Oct 2025 Published: 20th Oct 2025</p>	<p>Market centers and rural households form the backbone of the rural economy, shaping both livelihood opportunities and socio-economic linkages. In Solapur district, located in the semi-arid region of Maharashtra, weekly markets act as vital nodes connecting agricultural producers, traders, and consumers, while rural households reflect the demographic and settlement strength of the agrarian population. The present study", investigates the spatial distribution of 142 weekly market centers and 5.93 lakh rural households across eleven tehsils. Data from the 2011 Census and district handbooks were analyzed using Spearman's Rank Correlation method to evaluate their relationship. The result ($r = 0.17$) indicates a weak positive correlation, suggesting that tehsils with larger rural households generally support more weekly markets, but geographical, economic, and historical factors create significant variations. For instance, Mangalwedha shows a high number of markets despite fewer households, while Malshiras records the highest rural households but comparatively fewer markets. The study concludes that the distribution of rural markets in Solapur is influenced not merely by population size but also by cropping patterns, irrigation facilities, transport connectivity, urban dominance, and trade traditions. These findings underscore the need for a geographical perspective in understanding rural market dynamics and planning regional development.</p>
<p>Keywords: Market Centers, Rural Households, Weekly Markets, Spearman's Rank Correlation, Geographical Perspective</p>	

Plagiarism Check Report:

Tool Used: Turnitin

Date of Report: Oct 01, 2025

Similarity Index: 4%

Remarks: No significant matching text. All citations and matches are properly referenced. The manuscript is considered original.

Copyright © 2025 The Author(s). This is an open access article distributed under the Creative Commons Attribution License, (<http://creativecommons.org/licenses/by/4.0/>) which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

How to Cite: Lavate, M. G., & Waydande, D. L. (2025). A Study of Market Centers and Rural Household in Solapur District: A Geographical Perspective. IIP: International Multidisciplinary Research Journal (IIPMRJ), 2(IV), 437-446.

INTRODUCTION

The study of market centers and rural households in Solapur district provides valuable insights into the interrelationship between population distribution, agricultural economy, and spatial trade networks. Weekly markets are not merely economic exchange points; they are socio-cultural institutions that link rural producers, traders, and consumers, shaping the livelihood systems of the district. In a predominantly agrarian region like Solapur, where the majority of households depend directly or indirectly on agriculture, these periodic markets act as a bridge between surplus production and local demand.

Geographically, Solapur district occupies a semi-arid zone of Maharashtra, characterized by black cotton soils, irregular rainfall, and strong dependence on irrigation and cash crops. This natural setting creates sharp variations in agricultural productivity, settlement density, and household distribution across the eleven tehsils. As a result, the number and spread of weekly market centers are influenced not only by the size of rural households but also by geographical factors such as soil fertility, irrigation facilities, cropping patterns, road connectivity, and urban proximity.

Understanding this relationship from a geographical perspective is important, as it highlights the role of both physical and human factors in shaping the rural economy. While areas with high household density sustain larger populations and agricultural activities, the presence or absence of market centers reflects wider patterns of regional development, trade traditions, and urban influence. Thus, the present study examines the distribution of weekly market centers and rural households in Solapur district, evaluates their correlation, and interprets the findings through a geographical lens to explain regional disparities and socio-economic dynamics.

STUDY AREA

Solapur district, located in the southeastern part of Maharashtra, is spread between 17°10' North to 18°32' North latitude and 74°42' East to 76°15' East longitude, covering a geographical area of about 14,895 sq km. Administratively, the district is divided into eleven tehsils: Akkalkot, Barshi, Karmala, Madha, Malshiras, Mangalwedha, Mohol, Pandharpur, Sangola, North Solapur and South Solapur, with Solapur city as the district headquarters. Geographically, the district lies in the rain shadow region of the Western Ghats and experiences a semi-arid climate, with an average annual rainfall of about 560 mm, although its distribution is highly uneven. The black cotton land (Regur) is mainly used for the cultivation of jowar, bajra, pulses and oilseeds, while irrigation through wells and borewells like Ujani, Sina and Neera projects leads to the cultivation of sugarcane, grapes and pomegranate.

According to the 2011 census, Solapur district has a population of 43.17 lakh, of which nearly 68 percent live in rural areas, i.e. 5.93 lakh rural households. These households are unevenly distributed across the tehsils due to differences in agricultural potential, availability of irrigation and proximity to urban centres. The district also has 142 weekly market centres which act as important centres for trade and exchange. Talukas like Sangola (19), Mangalwedha (18) and Barshi (16) have the highest density of markets, while North Solapur, being more urbanised, has only 6 centres. This uneven distribution highlights the interrelationship between population density, rural economy, and market accessibility.

Thus, Solapur district provides a representative example of a semi-arid agricultural region where spatial disparities between rural households and market centers can be analyzed from a geographical perspective. Its natural environment, demographic characteristics, and trade linkages make it an ideal area to study the correlations between rural household distribution and the development of weekly market centers.

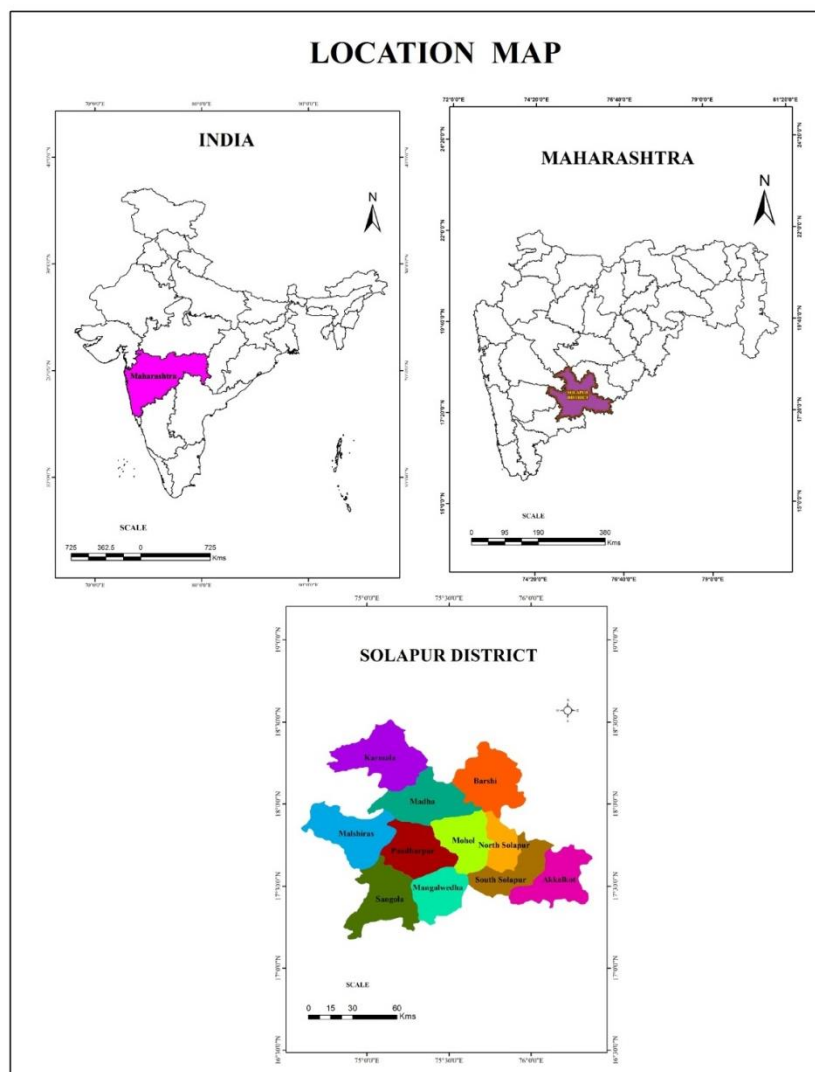


Fig. no. 1

OBJECTIVES

1. To examine the spatial distribution of weekly market centers in Solapur district and identify regional variations across tahsils.
2. To analyze the size and distribution of rural households in relation to agricultural potential, irrigation availability, and settlement patterns.
3. To classify tahsils into high, moderate, and low categories of market centers and rural households for comparative assessment.
4. To study Correlation between weekly market centers and rural households.

DATABASE AND METHODOLOGY

The present study is based on both primary and secondary sources of data. Primary data were collected through field visits to selected weekly market centers in Solapur district and informal interviews with traders, farmers, and rural households to understand the functioning of markets and their role in the local economy. Secondary data were obtained from the District Census Handbook (2011), the Socio-Economic Review and District Statistical Abstract of Solapur (various years), Maharashtra State Gazetteers, and relevant scholarly works in agricultural and settlement geography. For analytical purposes, statistical and cartographic techniques were employed. The Spearman's Rank Correlation method was applied to examine the relationship between the number of weekly market centers and rural households across the eleven tahsils of Solapur district, with tahsils further classified into high, moderate, and low categories on the basis of their values. Cartographic techniques, including choropleth maps and proportional symbols, were used to represent the spatial distribution of market centers and rural households. The study adopts a geographical perspective, combining quantitative methods with regional analysis to highlight how cropping patterns, irrigation availability, settlement distribution, and urban influence interact with the organization of weekly markets in Solapur district.

WEEKLY MARKET CENTERS

Weekly market centers play a crucial role in shaping the economic and social fabric of rural areas. They act as focal points where agricultural producers, traders, and consumers converge to exchange goods and services. In semi-arid regions like Solapur district, where agriculture is the dominant occupation and rural households rely heavily on both subsistence and cash crops, weekly markets provide a vital link between rural production and urban demand. These centers not only facilitate the distribution of agricultural commodities such as cereals, pulses, oilseeds, fruits, and vegetables but also support the circulation of household necessities, farm inputs, and small-scale industrial products. In Solapur district, a total of 142 weekly market

centers are spread across its eleven tahsils, with Sangola (19) and Mangalwedha (18) recording the highest number, reflecting their strong agrarian base and trade linkages. On the other hand, North Solapur, being more urbanized, has only 6 centers. The variation in the distribution of weekly markets across tahsils highlights the interplay between geography, population density, agricultural productivity, and accessibility.

TABLE NO. 1

SOLAPUR DISTRICT: NO. OF WEEKLY MARKET CENTERS

Sr. No.	Tahsil	No. Of Weekly Market Centers
1	Akkalkot	15
2	Barshi	16
3	Karmala	10
4	Madha	13
5	Malshiras	14
6	Mangalwedha	18
7	Mohol	9
8	Pandharpur	13
9	Sangola	19
10	N. Solapur	6
11	S. Solapur	9
Total / Average		142

Source: Solapur district Census Handbook, 2011

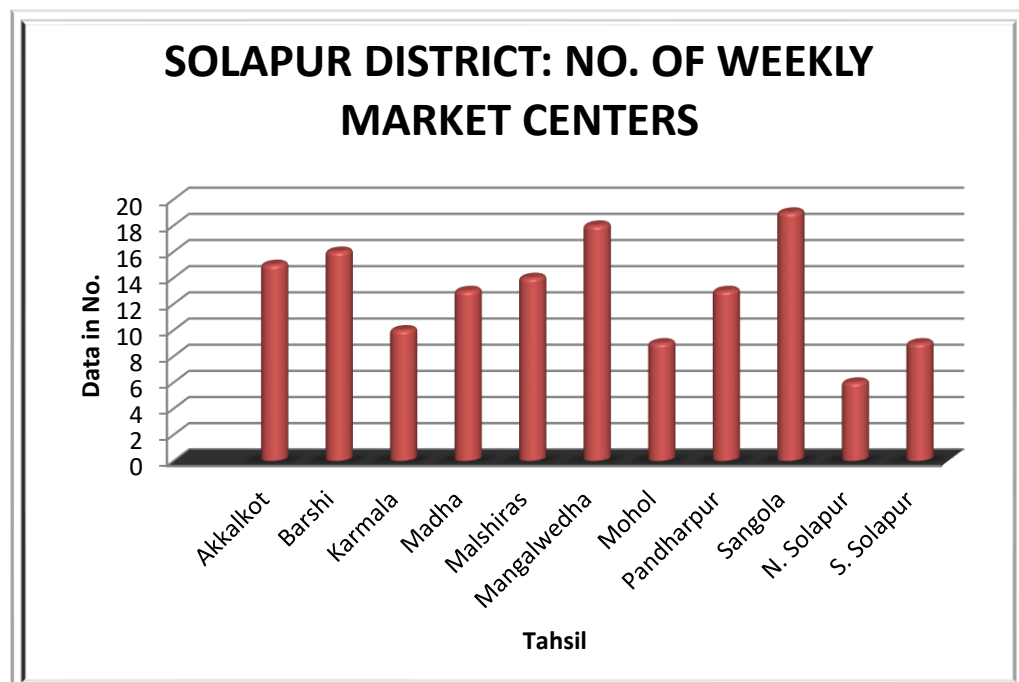


Fig. no. 2

Above table no.1 and fig.no.2 shows tahsil wise weekly market centers in Solapur District

There is significant regional variation in the distribution of weekly market centres in Solapur district. Out of the total 142 centres, tehsils like Sangola (19), Mangalwedha (18) and Barshi (16) fall in the high category. These tehsils have a large number of markets because their rural area is vast, heavily dependent on agriculture and there is a high need for periodic exchange of agricultural produce and consumer goods. The dominance of crops like jowar, pulses and oilseeds, along with relatively dispersed settlements, increases the importance of such markets as economic and social centres.

The middle category includes tehsils like Malshiras (14), Madha (13), Pandharpur (13) and Akkalkot (15). The number of weekly markets is balanced across these regions due to mixed agricultural conditions and semi-urban influence. The irrigation base from canals and wells in these areas encourages crop diversification, which sustains regular trade. Moreover, these tehsils are relatively well connected by roads and transport facilities, so weekly markets are moderately distributed.

In contrast, tehsils like North Solapur (6), Mohol (9) and South Solapur (9) fall in the low category. The low number of weekly markets here is mainly due to their proximity to urban centres like Solapur city, which already serves as a permanent commercial centre. As a result, rural households in these areas rely more on daily or urban markets rather than periodic weekly centres. Urban dominance reduces the number of rural markets.

RURAL HOUSEHOLD

Rural households are the backbone of the economy and society of Solapur district, as the majority of the population is directly or indirectly dependent on agriculture and allied occupations. A rural household is not just a dwelling unit but an economic unit where production, consumption and livelihood activities are closely linked to the surrounding geographical environment. In Solapur, located in the semi-arid region of Maharashtra, the size and distribution of rural households reflects the differences in agricultural potential, irrigation availability and settlement patterns across different tehsils.

As per the 2011 census, Solapur district had a total of 5,93,560 rural households, which were unevenly distributed across its eleven tehsils. Malshiras (86,320) and Pandharpur (68,583) had the highest number of rural households due to their extensive cultivable land, fertile black soil and irrigation facilities that supported a large arable population. Tehsils like Madha (62,153) and Sangola (57,825) had a significant proportion of rural households, indicating their reliance on agriculture despite drought-affected conditions. On the other hand, North Solapur (21,450) had the lowest number of rural households, mainly due to its proximity to Solapur city, which is dominated by urban settlements and is a major source of migration away from rural areas.

TABLE - 2

SOLAPUR DISTRICT: RURAL HOUSEHOLD (2011)

Sr. No.	Name of Tahsil	No. of Rural Households
1	Karmala	49017
2	Madha	62153
3	Barshi	55256
4	North Solapur	21450
5	Mohol	56836
6	Pandharpur	68583
7	Malshiras	86320
8	Sangola	57825
9	Mangalwedha	37354
10	South Solapur	51230
11	Akkalkot	47536
Total		593560

Source: District Census Handbook, Solapur (2011).

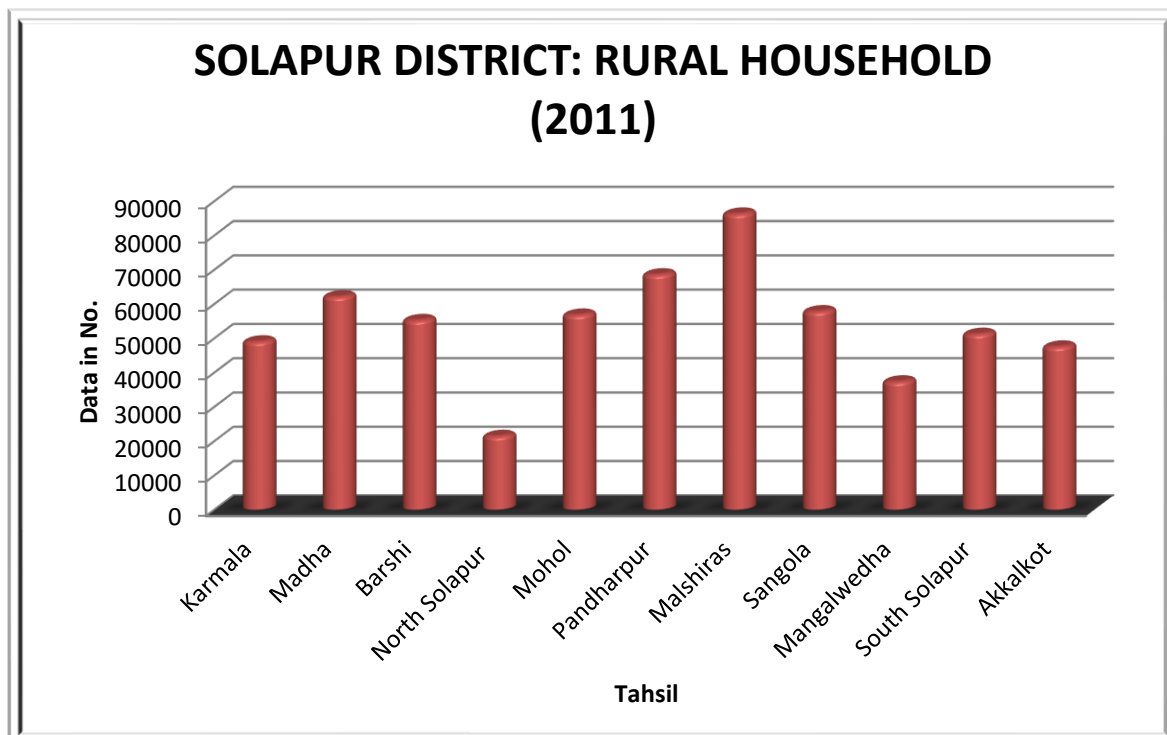


Fig. no. 3

Above table no.2 and fig.no.3 shows tahsil wise Rural Household (2011) in Solapur District. The distribution of rural households in Solapur district reveals significant spatial disparities that correspond to agricultural resources, irrigation facilities, and urban influence.

About High rural households, Tahsils such as Malshiras (86,320), Pandharpur (68,583),

and Madha (62,153) fall into the high category. These tahsils record the largest number of rural households because of their extensive cultivable land, fertile black soils, and irrigation support from canal networks like the Nira and Sina projects. The dominance of agriculture, along with market accessibility, sustains a larger rural population dependent on farming and allied activities.

About Moderate rural households, Tahsils like Sangola (57,825), Mohol (56,836), Barshi (55,256), South Solapur (51,230), Karmala (49,017), and Akkalkot (47,536) belong to the moderate category. These areas show balanced household distribution as agriculture is significant but constrained by semi-arid conditions, irregular rainfall, and limited irrigation coverage. While farming remains the main occupation, many households diversify into non-farm rural employment, leading to moderate household strength.

About, Low rural households, North Solapur (21,450) and Mangalwedha (37,354) represent the low category. North Solapur has the least number of rural households due to the dominance of urban Solapur city, which attracts migration and reduces reliance on rural settlements. Mangalwedha, though agriculturally important for crops like jowar and pulses, has fewer households because of smaller geographical extent and limited irrigation, restricting large-scale population settlement.

CORRELATION BETWEEN MARKET CENTERS AND RURAL HOUSEHOLD IN A SOLAPUR DISTRICT

The Spearman's Rank Order method is used for the calculation of the correlation of Market Centers And Rural Household in Solapur District. The formula are-

$$r = 1 - 6(\sum d^2) / N(N^2 - 1)$$

Table No. 3

MARKET CENTERS AND RURAL HOUSEHOLD IN A SOLAPUR DISTRICT

Sr. No.	Tahsil	No. Of Weekly Market Centers	Rank	No. of Rural Households	Rank	d ²
1	Akkalkot	15	4	47536	9	25
2	Barshi	16	3	55256	6	9
3	Karmala	10	8	49017	8	0
4	Madha	13	6	62153	3	9
5	Malshiras	14	5	86320	1	16
6	Mangalwedha	18	2	37354	10	64
7	Mohol	9	9	56836	5	16
8	N. Solapur	6	11	21450	11	0
9	Pandharpur	13	7	68583	2	25
10	S. Solapur	9	10	51230	7	9
11	Sangola	19	1	57825	4	9

The correlation between market centres and rural households in Solapur district, as shown in Table 3, highlights the complex relationship between population distribution and economic infrastructure. The calculated value of $r = 0.17$ indicates a weak positive correlation, indicating that tehsils with larger rural households generally have more weekly markets, but the relationship is not very strong. For example, Karmala (10 markets; 49,017 households) and North Solapur (6 markets; 21,450 households) show perfect balance in their ranges, indicating a direct relationship between household size and market provision. However, anomalies are clearly visible in tehsils like Mangalwedha (18 markets; 37,354 households) and Sangola (19 markets; 57,825 households), where weekly markets are highly frequented despite relatively fewer households. This may be due to the dispersed settlement patterns, traditional mandai system and inter-tehsil trade, which increases the need for multiple small market centres. On the other hand, in tehsils like Malshiras (14 markets; 86,320 households) and Pandharpur (13 markets; 68,583 households), where the rural population is very large, there are relatively few markets because agricultural trade is partly occupied by sugar factories, religious economy and urban centres, which reduces the dependence on weekly markets. Similarly, in Barshi (16 markets; 55,256 households), Akkalkot (15 markets; 47,536 households) and Mohol (9 markets; 56,836 households), differences arise due to connectivity, crop specialization and proximity to large cities. Thus, the weak correlation value indicates that weekly market centres in Solapur are shaped not only by the number of rural households but also by geographical factors, cropping patterns, irrigation facilities, urban influence and historical trade traditions. This geographical approach shows that population capacity does not only determine market distribution; Rather, the interaction of human and physical factors defines the spatial pattern of rural markets in the district.

CONCLUSION

A geographical study of market centres and rural households in Solapur district reveals the interdependence of population distribution, agricultural resources and trade infrastructure. Weekly markets emerge as the lifeline of rural communities, bridging the gap between producers and consumers and sustaining rural economies through the exchange of goods and services. The analysis shows that talukas with a higher rural household population often have more markets, but the relationship is not always direct. The weak positive correlation ($r = 0.17$) indicates that the spatial distribution of markets is influenced by many factors beyond household size – such as cropping patterns, irrigation support, transport connectivity, urban dominance and historical trade traditions.

Talukas like Sangola and Mangalwedha have a higher proportion of markets despite fewer households due to scattered settlements and traditional mandai systems, while talukas like Malshiras and Pandharpur with large rural populations rely more on sugar mills, religious economies and urban ties than weekly markets. This uneven pattern suggests that geographical

conditions, resource availability and socio-economic context play a decisive role in shaping rural marketing networks.

Thus, from a geographical perspective, it is clear that market centres in Solapur district are not merely demographic outcomes but represent complex interactions between the physical environment and human activities. Strengthening market infrastructure, improving transport connectivity and integrating modern marketing facilities with traditional weekly markets can further enhance rural livelihoods and regional development in the district.

REFERENCES

1. District Census Handbook, Solapur (2011). Directorate of Census Operations, Maharashtra. Government of India, New Delhi.
2. Socio-Economic Review and District Statistical Abstract, Solapur District (various years). Directorate of Economics and Statistics, Planning Department, Government of Maharashtra.
3. Chandna, R.C. (2010). Geography of Population: Concepts, Determinants and Patterns. Kalyani Publishers, New Delhi.
4. Hussain, M. (2015). Agricultural Geography. Rawat Publications, Jaipur.
5. Singh, R.L. (1993). India: A Regional Geography. National Geographical Society of India, Varanasi.
6. Shinde, D.N. (2016). "Weekly Market System in Rural Maharashtra: A Geographical Analysis." Transactions of the Institute of Indian Geographers, Vol. 38(2), pp. 229–240.
7. Sharma, T.C. & Coutinho, O. (2011). Economic and Commercial Geography of India. McGraw Hill Education, New Delhi.
8. Bhat, L.S. (1976). Micro-level Planning: A Case Study of Karnal Area. Town and Country Planning Organisation, Government of India.
9. Government of Maharashtra (2022). Maharashtra State Gazetteers: Solapur District. Directorate of Gazetteers, Mumbai.
10. Vaidya, B.C. (1997). Agricultural Land Use in India. Concept Publishing Company, New Delhi.