

GENERAL LANDUSE CROPPING PATTERN AND OCCUPATIONAL STRUCTURE OF WESTERN MAHARASHTRA

Dr. Santosh Maruti Shinde

Sanskar Mandir Sanstha's Arts & Commerce College, Warje-Malwadi, Pune- 58

Article Info	ABSTRACT
Article History: Received: 16th Sep 2025 Accepted: 01st Oct 2025 Published: 14th Oct 2025 Keywords: General Land use, Cropping Pattern, Occupational Structure, Western Maharashtra.	General Land use of a region is a combined result of the natural set up. cropping pattern is the to understand geographical adjustment of agriculture resources. Occupational structure context in a special context is essential to understand regional zonation of the areas of optimum occupational degraded areas etc. The use of land constitutes a major item in national planning and this is especially in western Maharashtra. This study of land use is of vital importance from the point of view of the planning and development of the area. In the present paper an attempt has been made to study the General land use pattern, the crop combination and occupational structure of western Maharashtra. The entire district has identified seven districts of western Maharashtra. My study basically concentrates on the monitoring of land use patterns and their periodic mapping is the most effective practice for future planning. The cropping pattern of the study area emerges as a function. The proportion of various occupations shows the socio-economic and cultural face of society.

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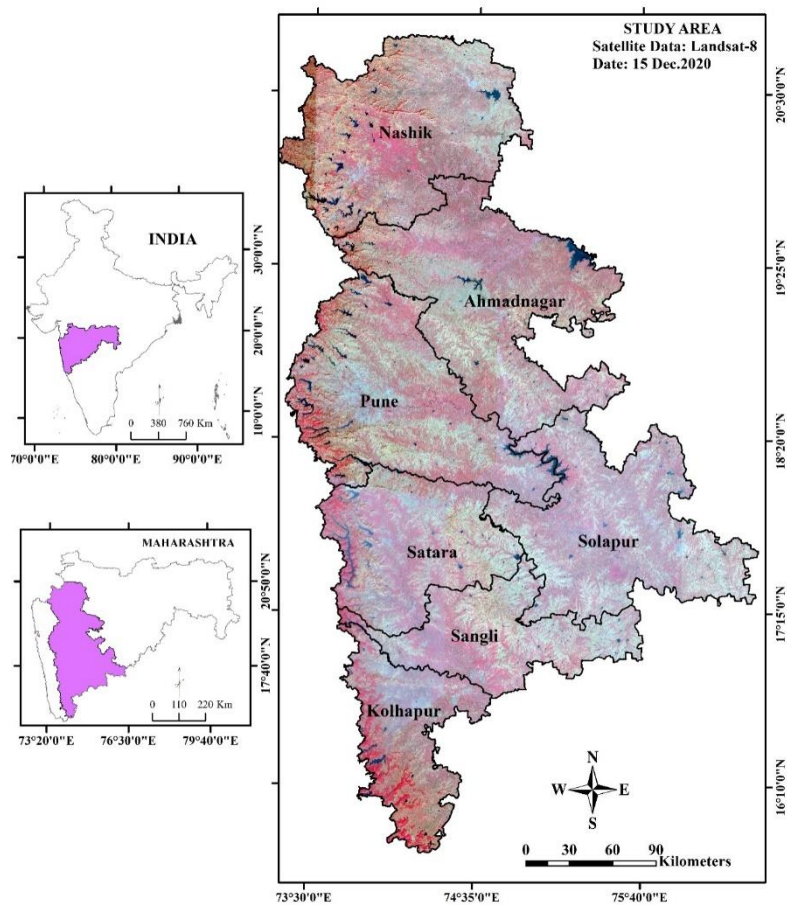
Introduction-

Maharashtra extends from 15° 45' north latitude to 22° 00' north latitude and 72° 45' east latitude to 80° 45' east latitude. The state covers 307713 sq. km area which is 9.36 percent of India, in terms of area, Maharashtra ranks third in the country after Rajasthan (3,42,239 sq. km) and Madhya Pradesh (3,08,252 sq. km). The state extends about 700 km from the mouth of the Tapi River to Telkhol River and 800 km from the Arabian Sea to Bhamrgad-Chiroli Hills.

Administratively, the state includes 36 districts grouped into six administrative divisions, namely Kokan, Nashik, Pune, Aurangabad, Amravati, and Nagpur, it is also well known as Kokan, Khandesh, Pachhim Maharashtra, Marathwada, and Vidarbha. The study region (Western Maharashtra) is comprised of seven districts including Nashik, Ahmednagar, Pune, Solapur, Satara, Sangali, and Kolhapur. Western Maharashtra is the most urbanized, industrialized, and agriculturally developed region of the state. Where agriculture and agro-based industry is the backbone of the rural economy.

Location of the study area-

Western Maharashtra extends from 15° 40' N to 20° 53' N, and 73° 16' E to 76° 45' E. The study area is about 500 km. from north to south and 300 km. from east to west. Western Maharashtra covers seven districts with a total geographical area of 89,911 sq. km. Territorially, it has Gujarat to the north, Dhule and Jalgaon district to the northeast, Jalana, and Beed to the east, and Karnataka, and Goa to its south, whereas Kokan to the west. The Western Ghats lies in the study area is well known as 'Sahyadri', which runs from the mouth of Tapi southwards along the western edge of the Deccan plateau to the southern boundary of Maharashtra. The average elevation of 1200 m, found more than 1600 m in the northern part while declining towards the south



Objective-

- 1) To study the General land use in Western Maharashtra.
- 2) To highlight cropping pattern of western Maharashtra.
- 3) To find out occupational structure of Western Maharashtra.

Methodology-

The present study is based on primary and secondary data sources. Primary extensive field survey with the help of questionnaires, interviews, and discussions with the owner of agro-tourism centers and visiting tourists. Whereas, information regarding secondary data has been collected from World Tourism Organization, World Trade and Tourism Council, journals, magazines, newspapers, books, District Gazetteers, District Census Handbooks, etc. Socio-economic data was collected from the Directorate of Economics and Statistics, Planning Department, Government of Maharashtra. The data regarding climatic parameters were obtained from Indian Meteorological Department, Pune.

Western Maharashtra has divided into a hilly zone, plateau zone, and plain zone using ArcGIS software.

General Land Use -

The land use pattern of the area is mostly controlled by the complex geographical factors which include climatic conditions, geology, topography, soil types, vegetation coverage, etc. for the establishment, development, and management of agro tourism business, the study of land use is necessary. The monitoring of land use patterns and their periodic mapping is the most effective practice for future planning. Therefore, prepared the land use/land cover map of the study area with Resourcesat-1, LISS-III data. Five principal classes of general land use of the study area which are given in table.

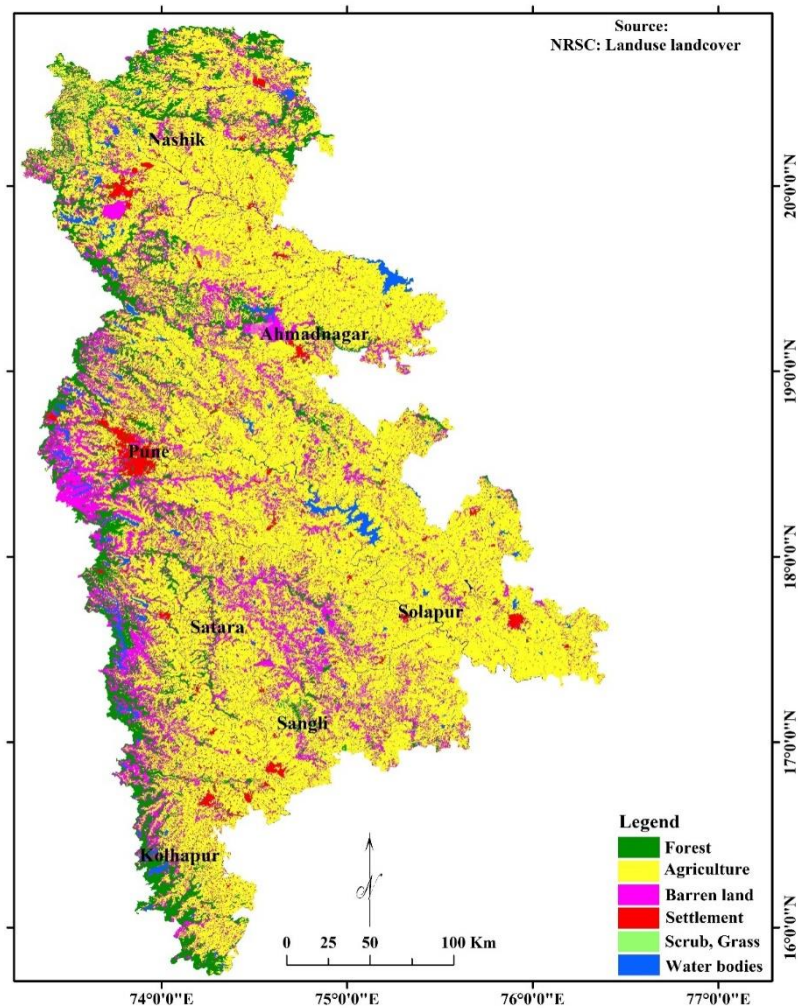
Land Use in Western Maharashtra

Districts	Land Use (%)					
	Forest	Agriculture	Barren Land	Settlement	Water bodies	Grand Total
Nashik	20.12	67.15	7.04	2.65	3.04	100
Ahmednagar	6.13	78.87	9.81	2.3	2.88	100
Pune	9.73	60.78	18.74	5.3	5.45	100
Solapur	1.06	87.03	7.59	2.01	2.31	100
Satara	16.27	62.39	14.51	2.57	4.26	100
Sangli	4.12	79.9	11.64	2.13	2.22	100
Kolhapur	20.78	57.2	15.59	3.68	2.75	100
Western Maharashtra	10.6	71.47	11.76	2.82	3.35	100

(Source: National Remote Sensing Centre, Hyderabad)

Of the total geographical area of the region, 10.6% of the land is under forest. There exist three districts, where the proportion of area under forest is significantly higher than the average for the region, one of them is Kolhapur (20.78%), second is a Nashik (20.12 %) located in the northern part of the region, and the third district is Satara (16.27%).

There are four districts, where the proportion of forest is significantly lower than average for the region. The lowest forest cover is in Solapur district only about 1.06 percent of total land, followed by Sangali (4.12%), Ahmednagar (6.13%), and Pune (9.73%).



The area under agriculture denotes the proportion of land under cultivation, it covers about 71.47 percent of the total geographical area. The proportion of the cultivated area is in the range between 57.2 to 87.03 percent in seven districts of Western Maharashtra. The highest proportion accounts for Solapur district (87.03%) followed by Sangli (79.9%), Ahmednagar (78.87%), Nashik (67.15%), Satara (62.39%), Pune (60.78%). Kolhapur district has been observed lowest cultivated area (57.2%) due to more percent area of the district covered by forest (20.78%).

The proportion of barren land for the study area is quite high about 11.76 percent. This proportion is very high in the central and western parts of the region, consisting of the districts of Pune (18.74%), Kolhapur (15.59%), Satara (14.51%), and Sangli (11.64%). Western parts of these districts consist of high elevation with rigid topography, hence, it reveals a more proportion of barren land. There are three districts where this proportion is significantly lower than average, the northern part consisting of districts of Nashik (7.04%), Solapur (7.59%), and Ahmednagar (9.81%).

Within the study area, the lowest proportion of land occupied by settlements or built-up areas (2.82%) has been observed. The highest proportion under the settlement is found in Pune district (5.3%) followed by Kolhapur (3.68%). Whereas the lowest percent than average is identified in Nashik (2.65%), Satara (2.57%), Ahmednagar (2.30%), Sangli (2.13%), and Solapur (2.01%) districts.

The area under water bodies is depicted that only 3.35 percent of the land is occupied by various water bodies. A more proportion of underwater bodies are shown in the Western Ghats which is the main source of rivers. The highest proportion has been observed in Pune (5.45%) because of the large numbers of dams that have been constructed on the Bhima River and its tributaries while the lowest area under water bodies is shown in the Sangli (2.22%). There are other districts where this proportion of water bodies is moderate including Satara (4.26%), Nashik (3.04%), Ahmednagar (2.88%), and Kolhapur (2.75%).

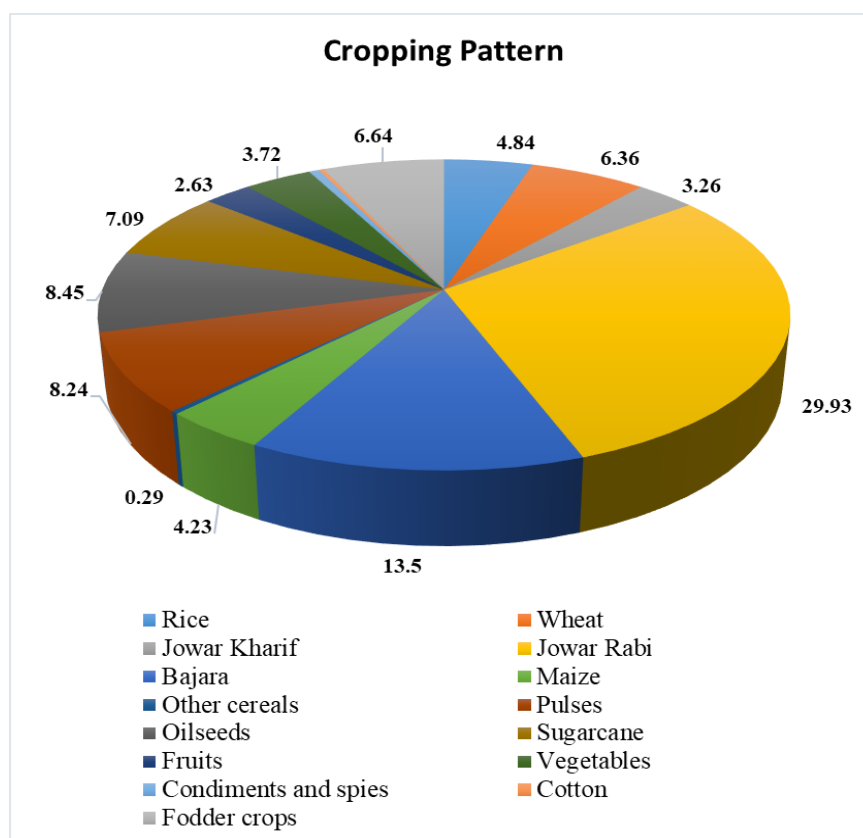
Cropping Pattern -

Agriculture is the dominant economic activity in the study area, which covers about 64220.88 km² area (71.47 %) out of 89853 km² area. This area is occupied by various crops as shown in table.

Cropping Pattern in Western Maharashtra

Sr. No.	Crops	Percentage of total NSA
1	Rice	4.84
2	Wheat	6.36
3	Jowar Kharif	3.26
4	Jowar Rabi	29.93
5	Bajara	13.50
6	Maize	4.23
7	Other cereals	0.29
	Total Cereals	62.41
8	Pulses	8.24
	Total food grains	70.65
9	Oilseeds	8.45
10	Sugarcane	7.09
11	Fruits	2.63
12	Vegetables	3.72
13	Condiments and spies	0.55
14	Cotton	0.27
15	Fodder crops	6.64
	Grand Total	100

Source: Directorate of Economics and Statistics, Maharashtra



Cropping Pattern in Western Maharashtra

The cropping pattern of the study area emerges as a function of not only of agro-climatic conditions but also the availability of good irrigation facilities, varieties of seeds, fertilizers, market price, and choice of farmers. The double cropping system is a common practice in the study area. The food crops are mainly produced in the study area, it occupied about 70.65 percent of NSA.

Jowar is a staple food crop, which is generally sown in rabbi season. Rabbi Jowar is the most significant crop occupied about 1881313 acres (29.93 %) of NSA. Jowar is taken in the irrigated and non-irrigated area but a considerable area is under non-irrigated. Bajara is a second rank crop mainly sown in the Kharif season, it occupied about 848461 acres almost 13.50 percent of NSA. Wheat is another key food crop, sown in rabbi season on irrigated land. It occupied about 399510 acres (6.36%) which is less than Jowar and Bajara area. Pulses are occupied about 517664 acres (8.24%) of NSA.

Sugarcane is the principal cash crop of the study area, it is a very high water requirement crop hence, particularly grown under canal irrigated land. Sugarcane occupied about 445375 acres, which is 7.09 percent of NSA. Sugarcane crop acts as a booster engine for the rural economy of the study area. Oilseeds (sunflower, groundnut,

soybean) are another cash crop in the study area that occupied about 531223 acres almost 8.45 percent of NSA. Fodder crops are very important for animal husbandry; various fodder crops are occupied about 417108 acres (6.64%) of NSA.

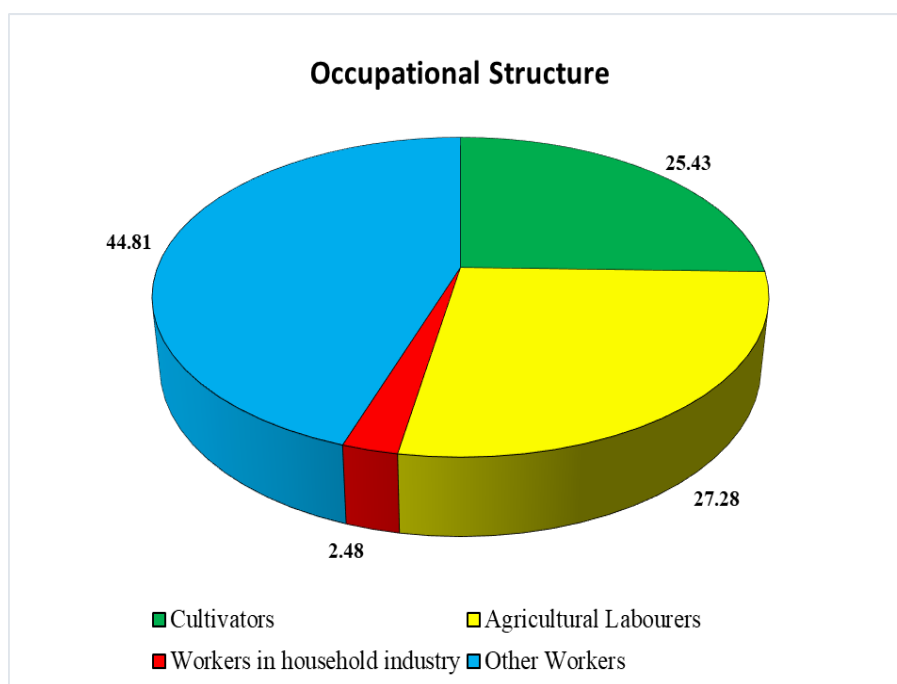
Occupational Structure-

The occupational structure is the mirror of the development area, Transformation in occupation structure can change in the standard of living, values ideology, and condition in which livelihood is to be earned. The proportion of various occupations shows the socio-economic and cultural face of society, where the cultural landing level has the main approach to man's livelihood.

Occupational Structure of Western Maharashtra

District	Occupational Class				Total Workers
	Cultivators	Agricultural Labourers	Workers in Household Industry	Other Workers	
Nashik	12569373 (35.01%)	13486140 (26.43%)	1225426 (2.03%)	22146939 (36.53%)	49427878 (100%)
Ahmednagar	12569373 (45.95%)	13486140 (25.36%)	1225426 (2.59%)	22146939 (26.1%)	49427878 (100%)
Pune	12569373 (21.9%)	13486140 (10.24%)	1225426 (2.6%)	22146,939 (65.26%)	49427878 (100%)
Solapur	12569373 (33.57%)	13486140 (29.4%)	1225426 (3.75%)	22146939 (33.28%)	49427878 (100%)
Satara	12569373 (43.24%)	13486140 (21.94%)	1225426 (2.94%)	22146939 (31.88%)	49427878 (100%)
Sangli	12569373 (39.55%)	13486140 (23.92%)	1225426 (3.36%)	22146939 (33.17%)	49427878 (100%)
Kolhapur	12569373 (38.78%)	13486140 (15.61%)	1225426 (3.52%)	22146939 (42.09%)	49427878 (100%)
Western Maharashtra	87985611 (25.43%)	94402980 (27.28%)	8577982 (2.48%)	1550285 73 (44.81%)	3459951 46 (100%)

(Source: Census, 2011 District Handbook)



Occupational Structure of Western Maharashtra

The socio-economic status of any region reflects by occupational structure, the role of the working population is crucial in development. The working population is classified into two principal occupational classes, main workers and marginal workers. Main workers are further sub-divided into four types cultivators, agricultural labourers, workers in the household industry, and other workers.

The occupational structure in Western Maharashtra is dominated by agriculture, 25.43 percent of workers are cultivators while 27.28 percent of workers are agricultural labourers, and combined it cover 52.71 percent of the working population. Whereas the remaining 44.81 percent are other workers and only 2.48 percent of workers are engaged in the household industry.

Findings and Conclusion-

- General land use the total geographical area of the region, 10.6% of the land is under forest. There exist three districts, where the proportion of area under forest is significantly higher than the average for the region, one of them is Kolhapur (20.78%).
- The area under agriculture denotes the proportion of land under cultivation, it covers about 71.47 percent of the total geographical area. The proportion of the cultivated area is in the range between 57.2 to 87.03 percent in seven districts of

Western Maharashtra. The highest proportion accounts for Solapur district (87.03%).

- The proportion of barren land for the study area is quite high about 11.76 percent. This proportion is very high in the central and western parts of the region, consisting of the districts of Pune (18.74%)
- Within the study area, the lowest proportion of land occupied by settlements or built-up areas (2.82%) has been observed. The highest proportion under the settlement is found in Pune district (5.3%).
- The area under water bodies is depicted that only 3.35 percent of the land is occupied by various water bodies. A more proportion of underwater bodies are shown in the Western Ghats which is the main source of rivers. The highest proportion has been observed in Pune (5.45%).
- The double cropping system is a common practice in the study area. The food crops are mainly produced in the study area, it occupied about 70.65 percent of NSA. Jowar is a staple food crop, which is generally sown in rabbi season. Rabbi Jowar is the most significant crop occupied about 1881313 acres (29.93 %) of NSA.
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References-

- Kashid A.D. (2004) Agriculture Land use in Solapur District; A Geographical Analysis. M.Phil dissertation submitted to SRT MUN. 39-75.
- Patil P.N. (1986) Agriculture in Drought Prone Area of Maharashtra State; A case study of Solapur District. M.Phil dissertation submitted to Shivaji University, Kolhapur. 34-49.

- Mr Pandurang Taware, Director – Marketing, A.T.D.C., Pune, Agri – Tourism Conclave: Concept Note, Agri – Tourism: Innovative Supplementary Income Generating Activity for Enterprising Farmers.
- Diddee, J., Jog, S. R., Kale, V. S. and Datye, V. S. (2002): 'Geography of Maharashtra', Rawat Publication, Jaipur.
- Dikshit, K. R. (1986): 'Maps in Maharashtra', Maharashtra State Board for Literature and Culture, Bombay.
- Husain, M., (1982): Crop Combination in India, Concept Publication. Co., New Delhi.