



## A Spatio-temporal analysis of the Occupational structure and decadal changes in Shrigonda Taluka of Ahmednagar District (1991-2011)

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### Abstract:

The study of the temporal Analysis of active population occupies an important position in the field of population Studies .and at present there is increasing interest in studying the various aspects of labor force of any region or nation. The economic and social development of a region depends on the number of persons who are economically active. In that research paper how Labor force and other participation rates are useful for an understanding of the extent of the level of economic and social growth of the region or nation. As it is universal accepted fact that majority of the labor force involved in the primary activities indicates low level of economic growth and as advancement taken place transformation taken place in the form of Secondary and Tertiary activities.

Since Shrigonda Taluka (Ahmednagar district) is primarily an agricultural region, according to the 1991 census, the majority of its working population was engaged in primary occupations, which accounted for approximately 87% of the total workforce. Although secondary and tertiary occupations were present in small proportions in the taluka at that time, the situation has been changing very rapidly between 1991 to 2011. In recent years, there has been a significant development of tertiary occupations and agro-processing industries in this region. Thus, an attempt has been made to depict the changing scenario of this workforce engaged in various economic activities over these Three decades.

### Introduction:

Businesses exhibit an almost infinite variety. The nine most commonly found significant groups are as follows:

- (1) Agriculture, forestry, hunting and fishing
- (2) mining industry,
- (3) manufacturing industry,
- (4) electricity, gas and water,
- (5) construction,
- (6) commerce, wholesale and retail trade, including hotels and restaurants
- (7) transport, storage and communication
- (8) banks, insurance, real estate and business services
- (9) community services, social and personal services.

In an alternative method of presentation, the nine categories mentioned above are divided

into three groups: a primary group, which includes agriculture, forestry, hunting, and fishing.

a secondary group, which includes mining industry, manufacturing industry, electricity, gas and water, and construction.

tertiary group, which includes all other remaining branches of the economy.

The advantage of this is that it allows for a quick comparison of three main types of activities.

### Hypothesis:

The economy of this Shrigonda taluka is primarily rural in nature, with 88% of the total population residing in rural areas and the majority of the working population engaged in primary occupations; however, this trend is now declining

**Objectives:**

Based on the Census of 2011, Shrigonda Taluka is primarily a rural region of Ahmednagar District. Approximately 88% of the population resides in rural areas, while only 12% is urban. The objectives of this study are:

- (1) To explain the spatial variations of the working population by category wise.
- (2) To identify temporal changes in the distribution of the working population over time.
- (3) To correlate these changes with the evolving economic scenario and growth of the Taluka.
- (4) To identify Decadal changes in the distribution of the working population over time sector wise (Primary, Secondary, Tertiary).

**Methodology:**

The present study is based on secondary sources of data, including the Ahmednagar District and Shrigonda Taluka Census Handbook, socio-economic reviews of the Shrigonda taluka, and reports from the Statistical Office of Ahmednagar and Shrigonda Tahasil.

**About the Study Region:**

Shrigonda Taluka is located in the southern part of the Ahmednagar District in Maharashtra. It is situated between 18°27' N to 18°51' N latitude and 74°23' E to 74°52' E longitude

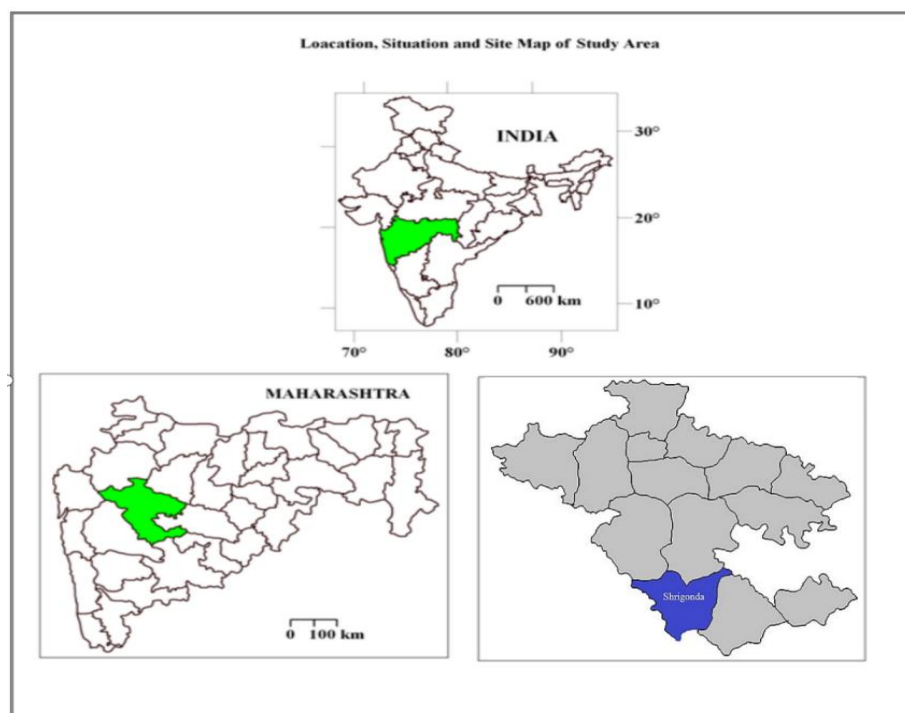


Fig.1 : Location Map of Study Area

**Location Map of Shrigonda Tahsil (Taluka)****According to the 2011 Census:**

- Total Population: 315975
- Rural Population: Approximately 284841(90.15%)
- Urban Population: Approximately 31143 (9.85%),
- Average sex Ratio: Approximately 923 females per 1000 males

- Rural sex Ratio: Approximately 921 females per 1000 males
- Urban sex Ratio: Approximately 940 females per 1000 males.

#### **Litracy Rate of Shrigonda Taluka (Tahsil):**

- According to the 2011 Census:
- Total Literacy Rate 76.25%
- Male Literacy Rate 84.09%,
- Female Literacy Rate 67.88%
- Rural Literacy Rate 75.63% ,
- Urban Literacy Rate 81.91%

#### **Density of Shrigonda Taluka (Tahsil):**

According to the 2011 census, Shrigonda taluka has an average population density of approximately 197 people per square kilometer. The detailed demographic and geographical data for the taluka in 2011 includes the following:  
**Total population:** 315975 people. Total geographical area: Approximately 1605.61 square kilometers.

#### **Working Population of the Shrigonda Taluka:**

In 2011, the occupational structure of Shrigonda was heavily dominated by the agrarian sector:

**Primary Sector:** About Approx 77.4% of the total working population were engaged as cultivators and agricultural laborers.

**Secondary & Tertiary Sectors:** Roughly 22.6% of the workers were engaged in household industries, trade, transport, and other services.

##### **1) Primary Sector Workers:**

In Shrigonda taluka, the primary sector is the main source of livelihood. This category includes farmers, agricultural laborers, and individuals engaged in livestock farming, fisheries, and horticulture.

- Child sex Ratio: (0-6) 835 835 (This is significantly lower than the average, indicating a critical area for social intervention).

**Distribution According to Statistics:** Of the taluka's total working population, approximately 77.4% are engaged in primary occupations.

##### **2) Secondary Sector Workers:**

According to the 2011 census, the secondary sector, which includes mining, manufacturing, construction, and household industries, had a small share in the workforce.  
**Sector Share:** Approximately 6.5% of the working population falls into this category.  
**Major Industries:** This includes the Shrigonda Cooperative Sugar Factory, local jaggery manufacturing units, and workers in the construction sector.

**Regional Concentration:** The highest proportion of secondary workers is found in Shrigonda town and near industrial belts, while the proportion is significantly lower in remote rural areas.

##### **3) Tertiary Sector Workers:**

The tertiary sector, which includes trade, commerce, transportation, communication, and various services, has a larger share than the secondary sector.

**Sector Share:** This category comprises approximately 16.1% of the total working population.  
**Components:** This includes trade and commerce (agricultural marketing), transportation services (transportation of sugar and milk), and other professional workers.  
**Urban Dominance:** Shrigonda city, with the highest urban population, accounts for approximately 32% of this category, ranking first. Conversely, agricultural areas like Limpangaon have a lower proportion of tertiary workers.

## Comparative Analysis of Temporal Change and Difference in Sectoral Working Population:

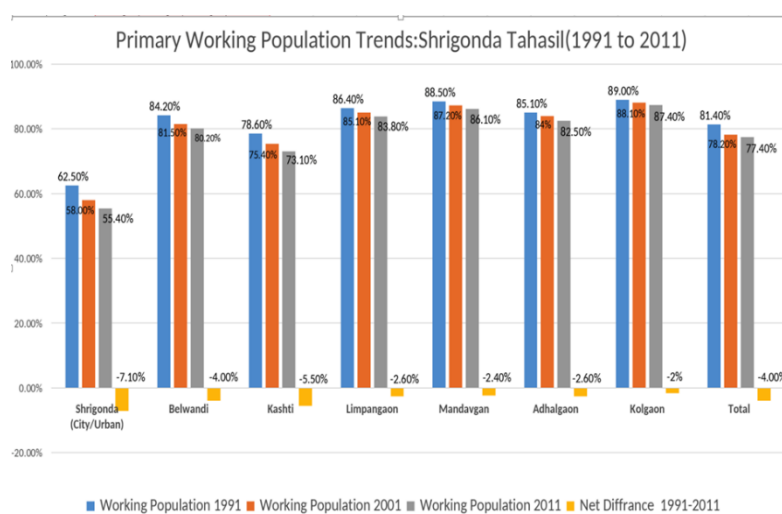
### 1) Primary Sector Workers /working Population (1991-2011)

1) 1991 Ratio: In Shrigonda taluka, the proportion of main workers was approximately 81% of the total population.

2) 2001 Ratio: This proportion increased to 78%.

3) 2011 Ratio: This proportion increased to 77% (Net Change: 1991,2001 to 2011 decade shows an overall increase of approximately 4.00% in the work participation rate over these three decades.

Sr No	Villages in shrigonda tahsil	Working Population 1991	Working Population 2001	Working Population 2011	Net Difference 1991-2011
1	Shrigonda (City/Urban)	62.5%	58.0%	55.4%	-7.1%
2	Belwandi	84.2%	81.5%	80.2%	-4.0%
3	Kashti	78.6%	75.4%	73.1%	-5.5%
4	Limpangaon	86.4%	85.1%	83.8%	-2.6%
5	Mandavgan	88.5%	87.2%	86.1%	-2.4%
6	Adhalgaon	85.1%	83.9%	82.5%	-2.6%
7	Kolgaon	89.0%	88.1%	87.4%	-1.6%
	Total	81.4%	78.2%	77.4%	-4.0%



### Primary Sector Workers /working Population

#### Bar Graph Analysis:

**Consistent Decline:** The graph clearly shows a downward trend, almost like 'steps,' at nearly every point.

**Overall Taluka Average:** The 'Entire Taluka' group summarizes the progress of the entire region, which has decreased from 81.4% in 1991 and 78.2% in 2001 and 77.4% in 2011.

### 4) Secondary Sector Workers /working Population (1991-2011):

1991 Ratio: In Shrigonda taluka, the proportion of Secondary main workers was approximately 5.2% of the total population.

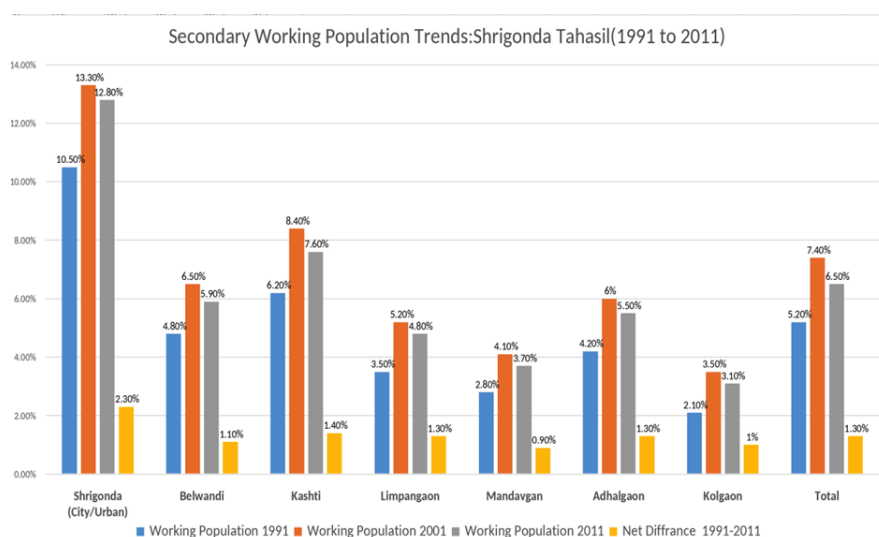
2001 Ratio: This proportion increased to 7.4%

2011 Ratio: This proportion increased to 6.5%

(Net Change: 1991,2001 to 2011 decade shows an overall increase of approximately +1.3% in the

work participation rate over these three decades.

Sr. No	Villages in Shrigonda Tahsil	Working Population 1991	Working Population 2001	Working Population 2011	Net Difference 1991-2011
1	Shrigonda (City/Urban)	10.5%	13.3%	12.8%	+2.3%
2	Belwandi	4.8%	6.5%	5.9%	+1.1%
3	Kashti	6.2%	8.4%	7.6%	+1.4%
4	Limpangaon	3.5%	5.2%	4.8%	+1.3%
5	Mandavgan	2.8%	4.1%	3.7%	+0.9%
6	Adhalgaon	4.2%	6.0%	5.5%	+1.3%
7	Kolgaon	2.1%	3.5%	3.1%	+1.0%
	Total	5.2%	7.4%	6.5%	+1.3%



### Secondary Sector Workers /working Population Bar Graph Analysis:

The chart presents the percentage of the workforce engaged in secondary activities—defined in the Indian Census as manufacturing, household industries, and construction. Significant Rural Growth: Several rural areas experienced noteworthy growth between 1991 and 2001. Belwandi saw its proportion increase from 4.80% to 6.50%. Kashti increased from 6.20% to 8.40%. Adhalgaon increased from 4.20% to 6.00%.

### 5) Tertiary Sector Workers /working Population (1991-2011):

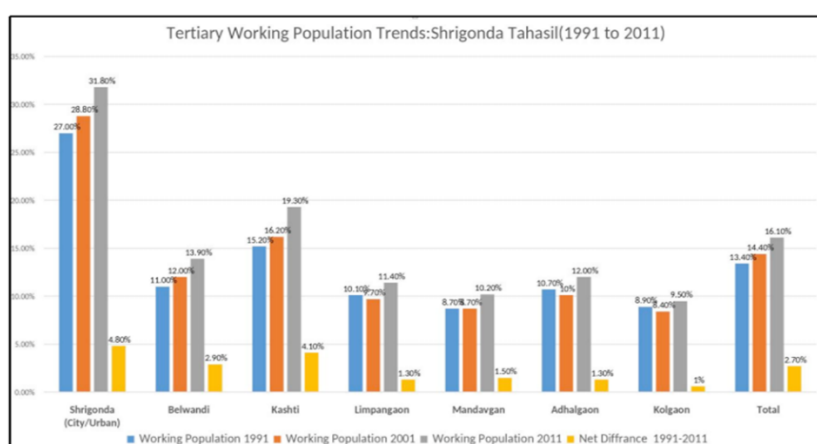
1991 Ratio: In Shrigonda taluka, the proportion of Tertiary main workers was approximately 13.4 % of the total population.

2001 Ratio: This proportion increased to 14.4%

2011 Ratio: This proportion increased to 16.1%

Net Change: 1991,2001 to 2011 decade shows an overall increase of approximately

Sr. No	Villages in Shrigonda Tahsil	Working Population 1991	Working Population 2001	Working Population 2011	Net Difference 1991-2011
1	Shrigonda (City/Urban)	27.0%	28.8%	31.8%	+4.8%
2	Belwandi	11.0%	12.0%	13.9%	+2.9%
3	Kashti	15.2%	16.2%	19.3%	+4.1%
4	Limpangaon	10.1%	9.7%	11.4%	+1.3%
5	Mandavgan	8.7%	8.7%	10.2%	+1.5%
6	Adhalgaon	10.7%	10.1%	12.0%	+1.3%
7	Kolgaon	8.9%	8.4%	9.5%	+0.6%
	Total	13.4%	14.4%	16.1%	+2.7%



### Tertiary Sector Workers /working Population Bar Graph Analysis:

Overall Growth: The total tertiary working population percentage across the Tahasil increased significantly from 13.40% in 1991

### Conclusion:

The study of the decadal change in the occupational structure of Shrigonda Tahsil between 1991 to 2011 reveals significant transitions in the workforce distribution across the Primary, Secondary, and Tertiary sectors. The primary sector saw a consistent "step-like" decline, dropping from **81.4% in 1991 to 77.4% in 2011**. The secondary sector (manufacturing and construction) showed growth between 1991 and 2001 but faced a slight contraction by 2011. The tertiary sector (services, trade, and transport)

,14.4%in 2001 16.10% in 2011, a net difference of 2.70 percentage points.

**Decadal Shifts:** The most notable growth occurred between 1991 and 2001, where the total figure rose from 13.40% to 14.40%. Growth continued from 2001 to 2011, reaching 16.10%. emerged as the most dynamic component of the economy, growing by **2.7%**. In other words, our research found that Shrigonda taluka is still closely linked to its rural areas, meaning the primary sector, and the overall index of change shows that the workforce is increasing requiring further investigation.

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