CHAPTER - IV
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(🖇)   DYNAMICS OF OCCUPATIONAL CHARACTERISTICS   (🖇)

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4.1   INTRODUCTION :

Work involves not only actual work but also effective supervision. It also includes unpaid work on the farm or in the family enterprise. Work is defined as participation in any economically productive activity. Such participation may be physical or mental.

The study of occupational characteristics is of great importance in understanding their occupational structure and functional association. It is essential to understand the economic base of districts in the study area. Several persons have already worked on the occupational characteristics of towns in India and yet our knowledge of this subject remains far from adequate, because of the following reasons.

(i)   The available studies are based on the census data which have various shortcomings.

(ii)   For the reason of public and social policy, the relationship between caste and occupation is still a functional one in modern India, but can no longer be a subject of general investigation.

(iii)   The most important of all is that considers the occupational structure as a function of economic development at levels of study

According to census "Occupation is the name of the function which a person performs by engaging himself in some gainful activity". The occupational characteristics of a place depend largely on its socio-economic history, the sequence of its growth, its basic function and the resources of region in which it is located. A comparative analysis of the occupational structure based on census data, throws light on several difficulties because, the census authorities, while classifying major occupational groups, have changed the grouping of working population.

4.2 BASIC OCCUPATIONAL CLASSIFICATION :

The study of occupational structure is essential to consider the working population because this population is engaged in economically productive activity. The 1991 census authorities have classified workers into nine industrial categories.

1) Cultivators

2) Agricultural labours

3) Livestock and forestry, fishing, hunting plantation and allied activities

4) Mining and quarrying

5) Manufacturing, processing servicing and repairs

   A) Household industry

   B) Other than household industry

6) Construction

7) Trade and Commerce

8) Transport, Storage and Communication

9) Other services

Above mentioned nine industrial categories have served for the 1991 census of population. But the 1981 census has entirely changed the classification of working population. The rational line of classification of workers followed by earlier census has been drastically modified. According to 1981 census following classification of workers has been given.

1) Cultivators

2) Agricultural labour

3) Household industry

4) Other workers

5) Marginal workers

The detailed explaination of basic classification of working population given by census authorities is as follows :-

Cultivators :

A person is considered working as cultivator, if he or she is engaged either as employer, single worker or family worker in cultivation of land owned or held from for

payment in money, kind or share. The cultivation ploughing sowing, harvesting and production of crops. It does not include fruit growing, vegetable growing or plantation agriculture.

Agricultural labour :

A person working on another person's land for wage in cash or kind or share is agricultural labour.

Other workers :

All workers, i.e. those who have been engaged in some economic activity during the year preceding enumeration who are not cultivators or agricultural labours or household industry workers are 'other workers', this type of workers that come under this category includes factory workers, plantation workers, those in trade, commerce, business, transport, mining, construction, political or social work, all government servants, municipal employees, teachers, priests, entertainment artists etc. In effect, all those who work in any field of economic activity other than cultivation; agricultural labour or household industry are other workers.

Marginal Workers :

A person who has worked for six months or more is treated as a main worker and the one who has worked for less than six months is treated as a marginal worker.

Comments on 1981 census

According to 1981 census the changes in the mining, quarrying, livestock, fishing and forestry activity, the present classification treats all these activities are as productive and processing activities which are operated on large scale and their nature has totally changed from sub-sistance form to commercial actiyity.

The census authorities have realised the mistake and they have again given the 1991 classification of workers according to 1971 census. However we could procure the data of 1981 working population in nine categories which was only available in Census of India 1981 Series - 12 Maharashtra, Part II A and B (i).

4.3 METHODOLOGY :

The present chapter deals with the occupational structure of Pune division, looking into the changing nature of the classification of working population. It becomes almost impossible to analyse the changes in occupational characteristics. However, in the present study an attempt has been made to analyse the changes in occupational characteristics into broad divisions of primary, secondary and tertiary structure by preparing the trilinear charts. To indicate the dynamics of changes the graphs have been drawn to analyse the shift of population

from one sector to another. The shift of occupational changes is analysed only for 1981 and 1991 census periods. The data of both censuses are individually analysed. Further, it is felt that the functional association of districts can also clearly indicate the changes in occupational characteristics. Then functional association analysis has been attempted for the 1981 and 1991 census years.

The functional classification of towns has been worked out by Nelson's (1955) and Doi's (1957) methods of classification. The same method has been adopted by P.W. Deshmukh(1977) for classification of new towns in Maharashtra. The Doi's method is basically used for classifying industrial regions. This method gives rational results of the occupational combination of the region.

For the analysis of functional association activities technique of combined analysis invented by Waver (1954) and further modified by Doi's (1957) has been used. The modified method of Doi's substitutes the standard deviation $\bigcirc = \sqrt{\dfrac{d^2}{n}}$ with the sum of the squared difference $\leq d^2$ value is found out by consulting one sheet table of which use requires the summing up of percentage. The comparative advantages of Doi's method can easily compared.

4.4 OCCUPATIONAL ANALYSIS :

The analysis of occupational structure made separately for 1981 and 1991 census years, because census authorities made considerable change in the classification of workers. The occupational analysis has been made here, considering the districts of the study area. The analysis of 1) total worker 2) rural worker 3) urban worker 4) male worker 5) female worker has been taken into consideration.

In order to study the dominance of occupational activities in the study area, we have grouped the occupation in three main activities. The percentages of population engaged in their activities for 1981 and 1991 period have been grouped in five categories for analysis. They are as follows.

1) Total workers of the district
2) Rural workers in the district
3) Urban workers in the district
4) Male workers in the district
5) Female workers in the district

In order to compare this data we have also calculated the percentage of population for all above categories in the state of Maharashtra. The data has been plotted on trilinear charts for comparison (Fig.4.1 and 4.2).

4.4.1 <u>Regional Analysis</u> :

When we analyse the total working population in these three category we find that the state of Maharashtra has very little change in percentage of population engaged in primary, secondary and tertiary activities during the decade 1981-91. In the study area in Pune district in 1981 the percentage of population engaged in primary, secondary and tertiary activities was 49.85, 18.92 and 31.23 percent respectively but in 1991 percentage of primary activity has been reduced by 2.70 percent but the percentage of tertiary activity has been increased by 3.8 percent. In Satara district there is very little change in all the three activities during this period. However in Sangli district considerable change has been observed, the percentage of population engaged in primary activity in 1981 was 72.22 percent and in tertiary activity it was 17.90 percent but in 1991 percentage of primary activity has been reduced 69.82 percent and there is a considerable increase in the percentage of population in tertiary activity. It shows an increase to 21.13 percent. In Solapur district there is very little change in primary activity but in secondary and tertiary activities there is a considerable change in the percentage of secondary activity has been reduced by 2.33 percent during the span of ten years in the same period there is an increase of 1.22 percent in tertiary activity.

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District/ State	ssilcation of male rkes in district and state			Classification of female workers in district and state		
	mar	Secon- dary	Terti- ary	Primary	Secon- dary	Terti- ary
1	2	13	14	15	16	17
Maharashtra	.04	17.59	27.37	85.04	5.54	9.42
	.85	17.16	31.99	83.60	5.04	11.36
Pune	.92	23.37	35.71	74.59	6.57	18.84
	.68	22.78	40.54	71.95	6.08	21.97
Satara	.16	10.17	23.67	88.64	3.37	7.99
	.19	10.82	24.99	89.46	3.86	6.74
Sangli	.76	11.44	20.80	87.26	4.62	8.12
	.28	11.15	25.57	87.12	3.53	9.35
Solapur	,65	15.94	21.41	78.47	12.80	8.73
	,08	13.27	25.65	81.16	11.51	7.33
Kolhapur	,10	17.88	20.92	90.11	3.84	6.05
	,35	19.27	26.38	88.04	3.80	8.0

The study of Kolhapur district shows that primary and
tertiary activities had a considerable change during
this period the percentage of primary activity which
was 69.05 percent in 1991 has been reduced to 64.74%
which shows the decrease of 4.31 percent. On the other
hand in tertiary activity there is an increase of nearly
4 percent as shown in Table 4.1.

4.4.2 Rural Workers in the District :

When we analyse the rural workers into three
categories we find that the state of Maharashtra has
very little change in the percentage of population
engaged in primary, secondary and tertiary activity.
In the study area in Pune district in 1981 the percen-
tage of population engaged in primary, secondary and
tertiary activities was 80.54, 7.81 and 11.65 percent
respectively but in 1991 primary activity percentage has
been reduced by 1.77 percent but the percentage of tertiary
activity has increased by 1.74 percent. In the Satara
district considerable change observed in the percentage
of population engaged in primary activity in 1981 was 80.0
percent in secondary activity it was 6.43 percent and there
is a considerable increase in percentage of population in
secondary activity, it shows an increase to 7.29 percent.
However in Sangli district considerable change has been
observed, in 1981 the percentage of population engaged in
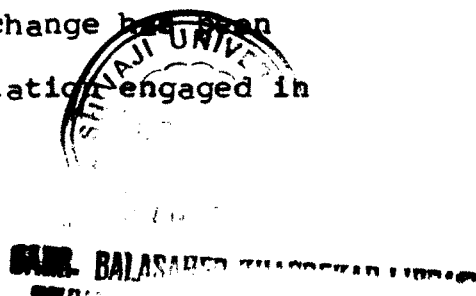
primary, secondary and tertiary activities was 82.69,
6.74 and 10.57 percent respectively, but in 1991
primary activity percentage has been reduced by 2.35
percent but the percentage of tertiary activity has
increased by 2.74 percent. In Solapur district there
is very little change in all the three activities during
this period. However in Kolhapur district considerable
change has been observed, the percentage of population
engaged in primary activity in 1981 was 82.87 percent
and in tertiary activity it was 8.84 percent but in 1991
primary activity percentage has been reduced to 78.52
percent and there is considerable increase in the percen-
tage of population in tertiary activity. It shows the
increase to 13.39 percent as shown in Fig.4.1.

4.4.3 Urban Workers in the District :

The analysis of urban working population into three
categories indicate that the state of Maharashtra shows that
secondary and tertiary activities have a considerable change
during this period, the percentage of secondary activity
which was 34.75 percent in 1981 has been reduced to 30.70
percent which shows the decrease of 4.5 percent. On the other
hand in tertiary activity there is an increase of 4.07 percent.
In the study area in Pune district a considerable change has
been observed, the percentage of population engaged in secondary
activity in 1981 was 35.60 percent and in tertiary activity

it was 59.11 percent but in 1991 secondary activity per-
centage has been reduced to 31.33 percent and there is a
considerable increase in the percentage of urban population
in tertiary activity. It shows that increase to 64.28 per-
cent. The study of Satara district shows that primary and
tertiary activity have a considerable change during this
period. The change which was 18.89 percent in 1981 has
been increased to 20.27 percent which shows the increase
of 1.38 percent. On the other hand in secondary activity
there is a decrease of 2.59 percent and in the tertiary
activity there is an increase of 1.21 percent. In the
Sangli district there is a considerable in all the three
activities during this period. In the Solapur district
in 1981, the percentage of urban workers population engaged
in primary, secondary and tertiary activities was 9.67,
46.27 and 44.06 percent respectively but in 1991 primary
activity percentage has been increased by 0.86 percent but
the percentage of tertiary activity has increased by 7.89
percent and the percentage of secondary activity has been
reduced to 8.75 percent. The study of Kolhapur district
shows that secondary and tertiary activities have a consi-
derable change during this period, the percentage of secon-
dary activity which was 37.47 percent in 1981 has been
reduced to 35.11 percent which shows 2.36 percent. On the
other hand in tertiary activity there is a increase of 3.66
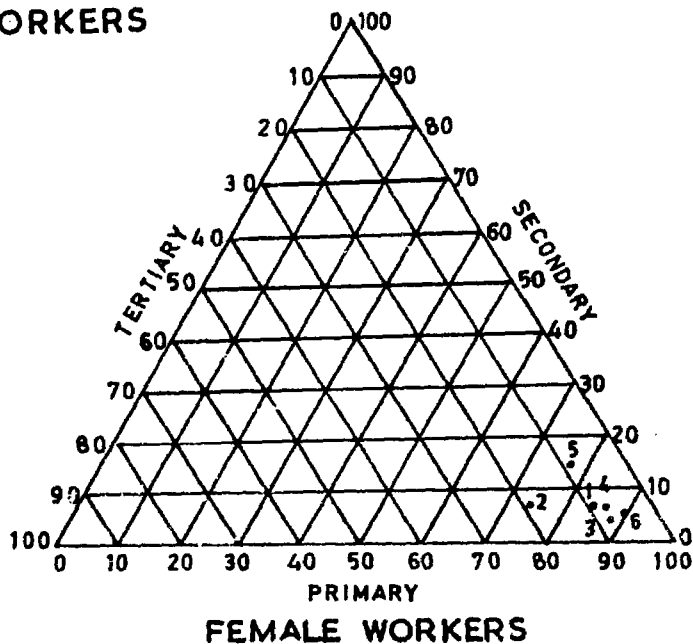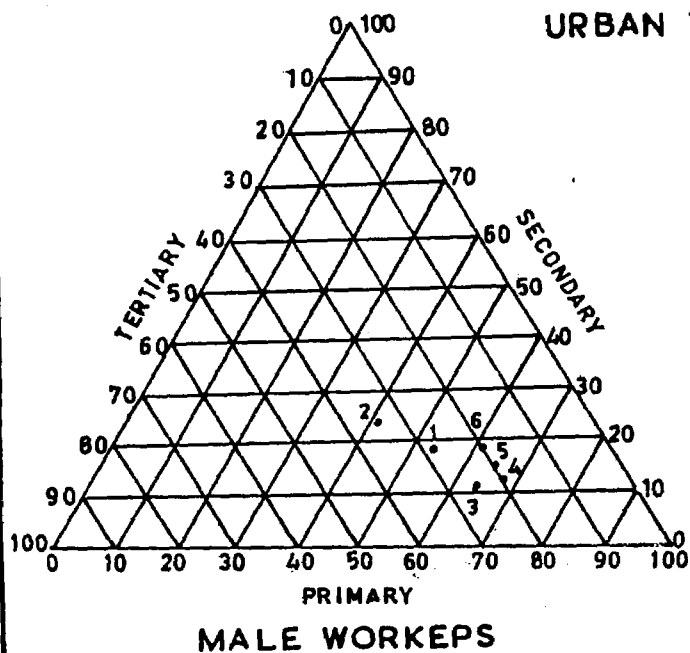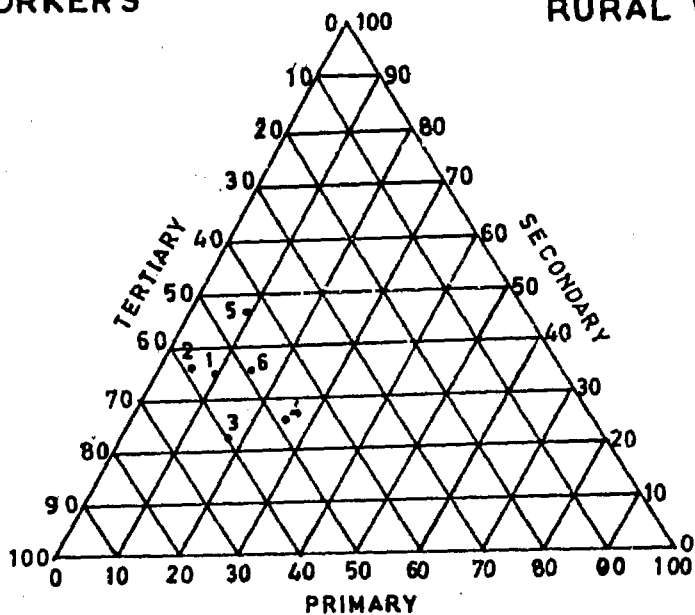percent as shown in Fig.4.1.

PUNE DIVISION
WORKFORCE CLASSIFICATION IN MAJOR ACTIVITIES 1981

1:3

TOTAL WORKERS

RURAL WORKERS

URBAN WORKERS

MALE WORKEPS
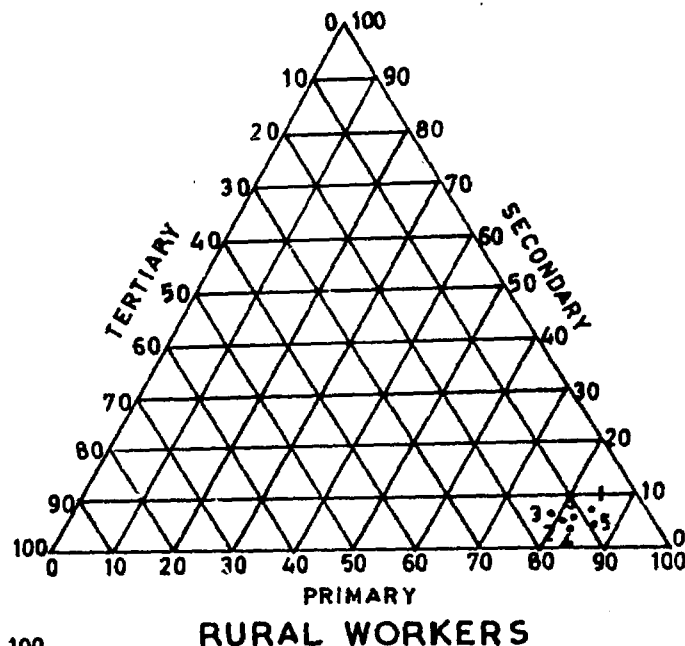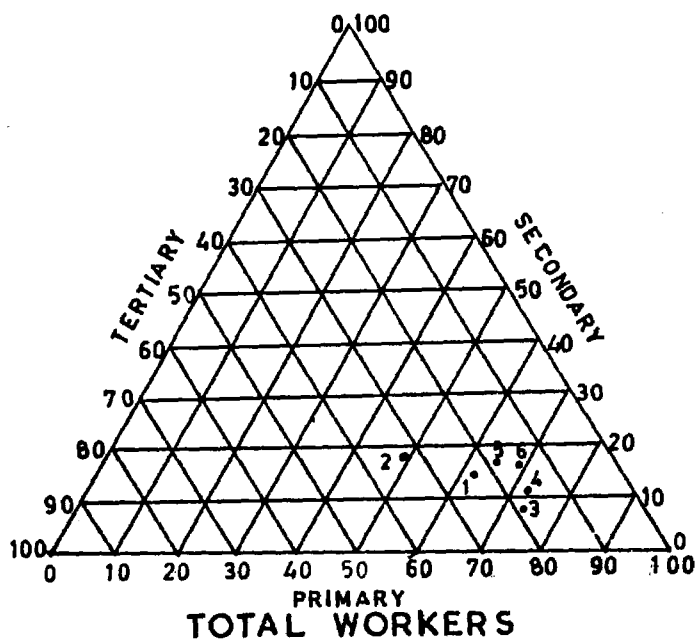
FEMALE WORKERS

INDEX

1	MAHARASHTRA
2	PUNE DISTRICT
3	SATARA ,,
4	SANGLI ,,
5	SOLAPUR ,,
6	KOLHAPUR ,,

4.4.4 <u>Male Workers in the District</u> :

When we analyse the male working population into
three categories, we find that the state of Maharashtra
has shown that primary and tertiary activities have a
considerable change during this period, the percentage of
primary activity which was 55.04 percent in 1981 has been
reduced to 50.85 percent which shows decrease of 4.19 per-
cent. On the other hand in tertiary activity there is an
increase of 4.62 percent.

In the study area in Pune district in 1981 the
percentage of population engaged in primary, secondary
and tertiary activities was 40.92, 23.37 and 35.71 percent
respectively but in 1991 primary activity percentage has
been reduced by 4.24 percent also the percentage of secondary
activity has been reduced by 0.59 percent but the percentage
of tertiary activity has increased by 4.83 percent. In Satara
district there is very little change in all three activities
during this period. However in Sangli district considerable
change has been observed, the percentage of population engaged
in primary activity in 1981 was 67.76 percent and tertiary
activity it was 20.80 percent but in 1991 primary activity
percentage has been reduced to 63.28 percent and there is a
considerable increase in the percentage of male population
in tertiary activity, it shows an increase of 4.77 percent.
In the Solapur district there is very little change in all the

three activities during this period. In Kolhapur district there is very little change in secondary activity but in primary and tertiary activities a considerable change is observed. The percentage of primary activity has been reduced by 6.75 percent during a span of ten years. In the same period there is an increase of 5.46 percent in the tertiary activity as shown in Fig.4.2.

4.4.5 Females Workers in the District :

The study of female working population in three categories, find that the state of Maharashtra there is very little change in secondary activity, but primary and tertiary activities. There is a considerable change in the percentage of primary activity which was reduced by 1.44 percent during the span of ten years. In the same period there is an increase of 1.94 percent in the tertiary activity. In the study area in Pune district in 1981 the percentage of female population engaged in primary, secondary and tertiary activities were 74.59, 6.57 and 18.84 percent respectively, but in 1991 primary activity percentage has been reduced by 2.64 percent but the percentage of tertiary activity has increased by 3.13 percent. In the Satara, Sangli districts there is very little change in all the three activities during this period. However in Solapur district considerable change has been observed, the percentage of female population engaged in primary activity in 1981 was

PUNE DIVISION
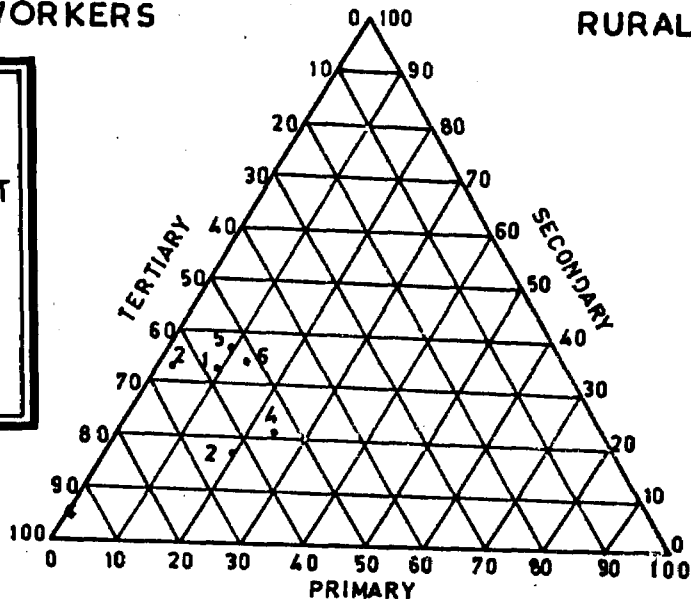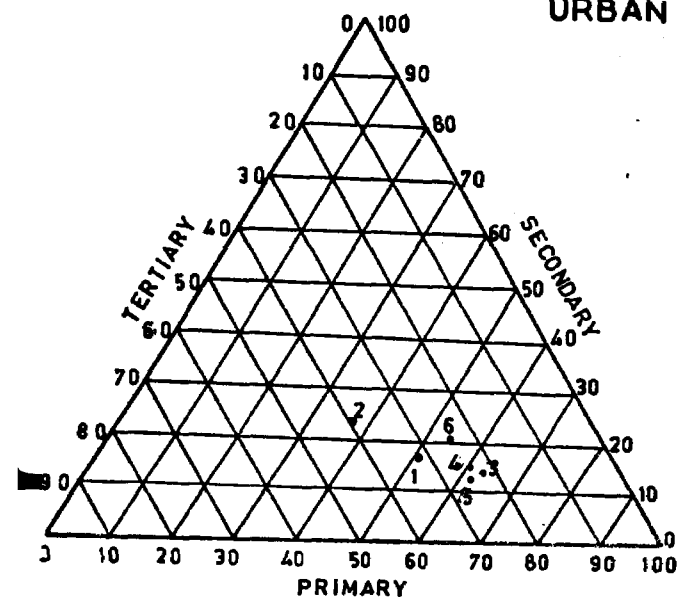## WORKFORCE CLASSIFICATION IN MAJOR ACTIVITIES 1991
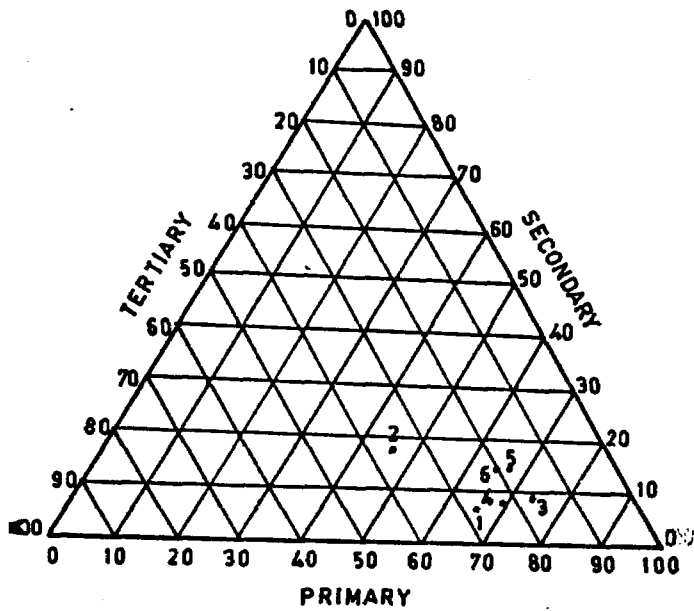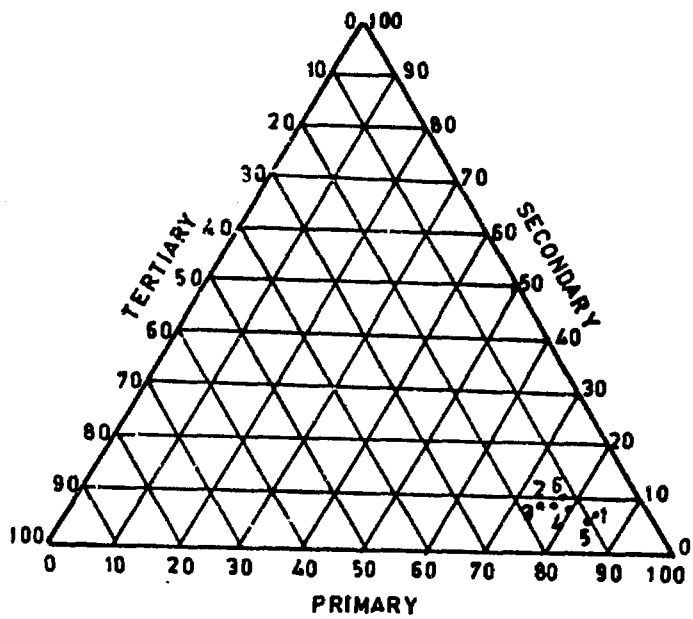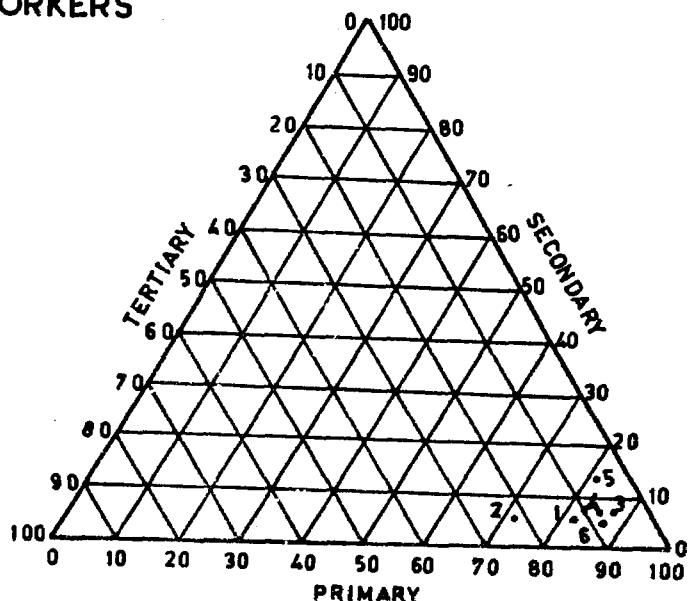

TOTAL WORKERS

RURAL WORKERS

INDEX
1 MAHARASHTRA
2 PUNE DISTRICT
3 SATARA   ,,
4 SANGLI   ,,
5 SOLAPUR   ,,
6 KOLHAPUR   ,,

URBAN WORKERS

MALE WORKERS

FEMALE WORKERS

78.47 percent and in secondary activity it was 12.80 percent but in 1991 primary activity percentage has been increased by 81.16 percent. There is a little change in the percentage of secondary and tertiary activities. The study of Kolhapur district shows that primary and tertiary activities have a considerable change during this period, the percentage of primary activity which was 90.11 percent in 1981 has been reduced to 88.04 percent which shows a decrease of 2.07 percent. On the other hand in tertiary activity there is an increase of 2.11 percent as shown in Fig.4.2.

4.5 OCCUPATIONAL ASSOCIATION OF ACTIVITIES

(By Doi's Method) :

The functional association of activities for the year 1981 and 1991 have been calculated by Doi's method and shown in Table 4.2. This method is most suitable for showing functional association of activities. The observations are used and explained in the table. Then data are calculated by Doi's method, the association of major activities with other activities become clear.

4.5.1 Regional Analysis :

The regional analysis of the occupation has been studied for five categories in the sudy area they are as follows.

1) Total workers

2) Rural workers

3) Urban workers

4) Male workers

5) Female workers

The analysis has been made for data 1981 and 1991 census. The association has been studied considering the district as a unit and for comparison data of Maharashtra state for all above categories have been given as a reference (Table 4.2).

4.5.2 Occupational Association of All Workers :

The analysis of occupational association and changes during 1981 and 1991 period in all five districts of Pune division has been shown in Table 4.2. In Pune district in 1981 following occupations were associated, they are Cu, MF, as and Aglb but in 1991 one more occupation, trade and commerce is also added. Thus, the occupation combination shows a change from four to five occupations. There are two districts Sangli and Satara where two occupations Cu and Aglb are dominant in 1981 and 1991 period. There is no change in the occupation character of total working population in these two districts this also shows the high dominance of agricultural activity in the area. Solapur and Kolhapur districts of the study region have association of these occupation namely Cu, Aglb and Mf and there is no change in the occupational association.

981-1991).

District/ State	aptional association ale workers in the istrict and state	Occupational association of female workers in the district and state
1	6	7
Maharashtra	u + Aglb + Mf + Os	Aglb + Cu + Os
	u + Aglb + Mf + Os + Tc	Aglb + Cu + Os
Pune	u + Mf + Os + Tc	Cu + Aglb
	u + Mf + Os + Tc + Aglb	Cu + Aglb + Os + Mf
Satara	u + Aglb + Os + Mf	Cu + Aglb + Os
	u + Aglb + Os + Mf	Cu + Aglb + Os
Sangli	u + Aglb + Mf	Cu + Aglb + Os
	u + Aglb + Mf + Os	Cu + Aglb + Os
Solapur	u + Aglb + Mf	Aglb + Cu + Mf
	u + Aglb + Mf	Aglb + Cu + Mf
Kolhapur	u + Mf + Aglb	Cu + Aglb + Os
	u + Mf + Aglb + Os	Cu + Aglb + Os

NOTE :   CHousehold industry) Tc - Trade & Commerce
         O

4.5.3 Occupational Association of Rural Workers :

In the study region in 1981 and 1991 period following occupations have been observed which are shown in Table 4.2. There are two districts Pune and Satara where two occupations Cu and Aglb are dominant in 1981 and 1991 period, there is no change in the occupational character of population in these two districts, it indicates high dominance of agricultural activity area. From the study area Sangli, Solapur and Kolhapur district of the region indicate four occupational associations in 1981 they are Cu, Aglb, Mf and OS. Similar association is observed for the state of Maharashtra. In 1991 there are changes in the association of occupations in the two districts namely Sangli and Kolhapur, however, there is no change in occupational association in Solapur district. In Sangli and Kolhapur districts the association of occupation which was Cu, Aglb, Mf and Os has changed to Cu and Aglb which means the change is negative and association has shifted from 4 to 2 occupation.

4.5.4 Occupational Association of Urban Workers :

The occupational association of urban workers in the study area and in the state of Maharashtra shows a very interesting picture. In the State of Maharashtra in Pune and Solapur districts Mf, OS, and TC are the dominant occupations in 1981 and 1991 period. In the Kolhapur district

in 1981 Mf, Os and TC are the occupational associated but in 1991 this association has changed as Mf, Tc and Os it means trade and commerce have become more important than other service activities. On the other hand in Solapur district the case is reversed where in 1981 Mf, Tc and Os these occupation were associated but in 1991 the position is reversed and their association is Mf, Os, and Tc. In case of Sangli district occupational association in 1981 was for five occupations where Mf, Os, Tc, Cu and Aglb association was observed but in 1991 third ranking occupation trade and commerce has become first ranking occupation associated with Mf, Os, Agli and Cu it means inspite of dominance of manufacturing activity, trade and commerce is gaining more importance.

4.5.5 Occupational Association of Male Workers :

The study of occupational association of male workers in the state and the region has been observed which is shown in the Table 4.2. There are two districts Solapur and Kolhapur where three occupations Cu, Aglb and Mf are dominant in 1991 as occupation associated with above activities in Kolhapur district. The district of Pune indicates four occupational associations in 1981, they are Cu, Mf, Os and Tc are dominant but in 1991 agricultural labour activity is associated with above activities. In the Satara and Sangli districts the association which was Cu, Aglb, Os and Mf has not changed,

but other service activity is added in the Sangli district.
In the state of Maharashtra the association of occupation
which was Cu, Aglb, Mf and Os dominant in 1981 and 1991
but trade and commerce added in 1991 period.

4.5.6 Occupational Association of Female Workers :

The analysis of occupational association of female
workers changed during 1981 and 1991 period in all five
districts of Pune division and state of Maharashtra has
been shown in Table 4.2. There are three districts Satara,
Sangli and Kolhapur where three occupation Cu, Aglb and Os
are dominant in 1981 and 1991 period. There is no change
in the occupation character of total working population in
this three districts. This also shows the high dominance
of agricultural activity and other services in the area.
The similar case is observed in the case of Maharashtra
state. In Pune district indicates two occupational associa-
tions in 1981 they are Cu and Aglb were dominant activity
but in 1991 the associational occupation changed to Cu,
Aglb, Os and Mf, which means the change is positive and
association has shifted from 2 to 4 occupations.

4.6 CONCLUSION :

The salient features of working population in the
study area and its districtwise analysis indicate that the
total working population classified in primary, secondary

and tertiary activity indicates drastic change in Pune, Kolhapur, Solapur and Sangli districts. However the Satara district indicates insignificant change.

The study of rural population also shows significant changes in the tertiary activity in Pune, Satara and Kolhapur districts, while in the Solapur district there is significant change.

The urban working population indicates significant change in all the three categories particularly in the secondary activity.

The study of change in male and female working population gives very interesting picture, male working population shows more change in primary and tertiary activities. On the other hand secondary activity shows little change. While female working population in the primary activity in the Solapur district shows increase, on the otherhand all other districts show decrease in primary activity. In respect of secondary activity in all the district of study area there is very little change, however, in tertiary activity Pune, Sangli and Kolhapur districts indicate positive change, while in Satara and Solapur districts change is negative.

The analysis of functional association of working population in the study area for entire districts indicate

that two districts Satara and Sangli have two occupational associations without any change, Solapur and Kolhapur districts have three occupational association for 1981 and 1991 period. While in Pune district in 1981 there was four occupational associations which has change to five occupational associations.

The study of rural working population in Pune and Satara district shows two occupational associations for 1981 and 1991 period without any change, Sangli and Kolhapur district indicate four occupational associations during 1981 period but in 1991 they have shifted to two occupational associations.

The urban working population gives different picture. Pune, Solapur and Kolhapur district have an association with three occupations without any change. On the other hand Satara district has four occupational associations with no change during the last ten years. The Sangli district of study area has five occupational associations for the 1981 period but the dominance of occupation shows shift from manufacturing to trade and commerce.

In respect to total working population, the study region shows that Pune and Satara district have four occupational associations but in 1991 one more occupation is added in the association of Pune district, while in Satara district

there is no change. Sangli, Solapur and Kolhapur districts
have three occupations in 1981 but in 1991 Sangli and Sola-
pur districts have four occupational associations where
other services activities have been added.

The analysis of female workers in the study area
indicate that in 1981 Satara, Solapur, Sangli and Kolhapur
districts have three occupational associations where agri-
cultural and other services were dominant activities. Only
in Solapur district other services activities are replaced
by manufacturing activity. There is no change in these
areas during 1991 period. In Pune district 1981 two
occupations, cultivator and agricultural labour are domi-
nant but in 1991 there four occupational associations other
services and manufacturing activities are added the associa-
tion.

The overall observation indicates more changes in
occupational association of the district where positive
economic change is observed.

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