Addressing Socio-Economic Imbalance in Maharashtra: A Convex Hull Analysis of MIDC Distribution and Proposals for Balanced Development.

Suhas Vilas Kamble¹, Mohit Maroti Gaikwad², Prof. Ramchandra N. Gohad.³

¹Masters Student, College of Engineering Pune; ²Masters Student, College of Engineering Pune; ³Faculty & Research Guide, College of Engineering, Pune.

1kamblesv20.plan@coeptech.ac.in, 2gaikwadmm20.plan@coeptech.ac.in, 3rng.civil@coeptech.ac.in

Abstract:

The study investigates the socio-economic imbalance in Maharashtra since its inception in 1960 and addresses the spatial disparities in industrialization across three sub-regions. The dominance of cities like Mumbai, Pune, and Nagpur has led to population influx and uneven growth patterns. By employing convex hull analysis and studying the Maharashtra Industrial Development Corporation (MIDC) distribution, the study identifies significant spatial imbalances in industrial development. To counter this, the research proposes the establishment of new MIDC areas in underdeveloped districts on the basis of dominant commodity study, particularly those with potential for agro-based industries. This approach aims to attract investments, create job opportunities, and foster inclusive growth, thereby reducing migration and promoting balanced development across the state.

Keywords: MIDC, Industries, Commodities, Convex Hull Analysis, Balanced Development.

1. Introduction

The growth of Maharashtra is highly imbalanced from the point ofsocio-economic. Since the formation of Maharashtra state on 1st May 1960, the state has experienced enormous changes in its socio-economic growth and infrastructure development. Maharashtra is the 3rd largest state currently and contributes the highest Gross domestic product(GDP) compared to other states. In Maharashtra state the major occupation is agriculture and about 51 percent of the labour force is involved in agriculture and agriculture-related activities. Maharashtra is also rich in industries and to attract industries to different areas of the state, the government of Maharashtra established Maharashtra Industrial Development Corporation (MIDC) in 1962. MIDC facilitates manufacturing business by creating Special Economic Zones (SEZ), Industrial Parks, Knowledge parks, and Information Technology parks which have infrastructure such as open plots, built-up spaces with roads, water supply, drainage facilities, Electricity, etc.

As mentioned above, it has been observed that the socio-economic growth of Maharashtra is highly imbalanced. The development is seen highly in the cities like Mumbai, Pune, and Nagpur whereas in maximum areas of the state still lack even basic facilities. Mumbai is acting like one dominant city, attracting a huge population around and across the state creating haphazard population growth. It was observed in census data that in 2011, the urban population grew from 27 percent in 1971 to an alarming rate of 45 percent.

So, in this study, all the Districts of Maharashtra state are studied concerning their sub-regional areas I, II, and III fromtheregional planning point of view inclusively with the context of the 73rd Constitutional Amendment Act, to achieve balanced growth as well as socio-economic growth throughout the state and also studying migration patterns and avoiding excessive migration by balancing the regions with the help of planning tools and techniques and studying different case studies

In this study, there is a study carried out on parameters related to socio-economic parameters and 29 subjects mentioned in article 243G which are listed below with the help of Census data and Government reports concerning rural and urban regions of the entire Maharashtra district wise. The entire Maharashtra state is divided into three sub-regions viz Sub-Region I, II, and III from the regional planning point of view. The analysis will present the benefits of studying the socio-economic scenario in Maharashtra and will provide the base for defining many planning strategies and implementing planning tools for economic growth anddevelopmentin Maharashtra.

2. Background and Purpose of study

As per the study of census data from 1971 to 2011, it was found that in Maharashtra state population share decreased in rural areas and increased in the urban area. If we consider district-wise urban population ranking within the range of 285 km from Mumbai, good ranking is observed, and away from Mumbai ranking get decreased. As per the World Bank, more than half the world's population now lives in cities and this proportion will continue to increase rapidly to reach 70% by 2050.

• Purpose of study

To study all three sub-regions of Maharashtra state and analyze as per Constitutional Amendment Act No. 73 to achieve balanced regional growth, and also to determine sub regin wise imbalance of industrial development. As well as identify various industrial areas which will work as counter magnet areas and arrest the migration within the sub region and help to generate employment.

3. Study Area

In this study review of the whole Maharashtra state is carried out, for this purpose Maharashtra state is divided into three sub-regions based on 285 km distance from Maharashtra state capital Mumbai.

- *Sub-region one* is the Study area (Districts) lies between 0 km to 285 km distance (Buffer) from Maharashtra State Capital Mumbai.
- *Sub-regiontwo* is the study area (Districts) lies between 285 km to 570 km distance from Maharashtra State Capital Mumbai.
- *Sub-region three* is the study area (Districts) lies between 570 km to the State border from Maharashtra State Capital Mumbai.

i. Sub-Region I

Sub-Region I consists of 11 districts in which most of the districts are economically very rich and highly populous it has large metropolitan cities with rich municipal councils. There are 9 out of 10 cities in Maharashtra that have more than 10 lakh populations. Mumbai and Mumbai Suburban are the 2 districts that have no rural population

ii. Sub-Region II

Sub-Region II consists of 18 districts in which most of the districts are economically weak and the population is around moderate. This sub-region consists of the Khandesh and Marathwada Regions.

iii. Sub-Region III

Sub-Region III consists of 6 districts in which most of the districts are economically low and the population is very low. Sub-Region III consists of the Vidarbha Region. This sub-region has forests and mines that are rich in minerals. This region also has Nagpur Metropolitan Region and Nagpur Municipal Corporation is also a very rich council and has more than 10 lakh population.

4. Methodology

To find out the imbalance in each subregion, the convex-hull centroid method is used. The calculation of all centroids and differences in two centroids in a convex polygon is drawn with the QGIS software. A convex hull of an area is the smallest polygon whose boundaries consist of all the extreme points of the area connected by great circles on a spherical surface. The convex hull of the region is composed of the points where the distribution would achieve maximum spatial imbalance in the region. Any point on the hull, intersected by a great circle passing through the center of gravity of a distribution and the geometric center of the region is the point of maximum imbalance.

After obtaining the longitude and latitude of the point of maximum imbalance, a great circle distance between the geometric centre of all three sub-regions and this point can be measured in QGIS.

Maharashtra Industrial Development Corporation (MIDC) Sub region-wise distribution.

In this subchapter s an attempt to analyze spatial imbalances in the pattern of industrialization in Maharashtra state Sub regions I, II and III. With the help of ArcGIS, the convex hull of the state and all three sub-regions is calculated for the study, and its centroid are shown on the map, then the centroid and convex hull of sub-region-wise industrial concentration are also marked on the map, along with the centroid of the convex hull. Both centroid values are calculated with a convex hull or a convex polygon. The difference between the two centroid provides the greatest spatial imbalance in the area that make up the convex hull of the region.

Data used in the sub-chapter is secondary which is collected from the government resolution of the government of Maharashtra regarding the location of MIDC in the state given in table 1. All locations of MIDC are mapped on the map with the help of ARCGIS. The centroid of state and all three sub-regions are found out with the help of ArcGIS and also convex polygon of industrial locations in sub-region is drawn of each sub-region. with the help of the convex hull centroid of each subregion industrial location is

find out. Coordinates in the form of Latitude and longitude with the help of ArcGISare used to find out for each centroid which is given in table 1.

A. Classification of MIDC

Classification of MIDC Areas detailed taluka-wise classification of different areas of the State as Group, A/B/C/D/D+, etc., based on their level of industrial development is given in Table 1 where -

- 1) Group A: Denotes industrially developed areas
- 2) Group B: Denotes areas where some industrial development has taken place, but are less developed than the areas under Group A.
- 3) Group C: Denotes areas, which are less developed than those covered under Group B.
- 4) Group D: Denotes the lesser-developed areas of the State, not covered under Group A/ Group B/ Group C.
- 5) Group D+: Denotes the least developed areas, not covered under Group A/ Group B/ Group C/ Group D.

Table 1 List of MIDC areas In Maharashtra with Class

List Of MIDC Area In Maharashtra WithClass				
Sr.No.	Name Of MIDC Area	Class		
1	Marol MMR 1	A		
2	Tahne	A		
3	Mita MMR 1	A		
4	TCC MMR 1	A		
5	TCC IT	A		
6	AiroliKnowledge Park	A		
7	Khanda	A		
8	Nerul	A		
9	Kharghar	A		
10	Kamothe	A		
11	Dombivali MMR 2	A		
12	Ambarnath MMR 2	A		
13	Add. Ambarnath MMR 2	A		
14	Add. Ambarnath2 Pale	A		
15	Badalapur MMR2	A		
16	Kalyan Bhivandi MMR 2	A		
17	Add Kalyan Bhivandi	A		
18	Taloja	A		
19	PatalgangaBorivili	A		
20	Tarapur	A		
21	Murbad	В		
22	Add Murbad	A		
23	PatalgangaBorivili	A		
24	Add. Patalganda	A		
25	25 Add.			
PatalgandaBhokarpada				
26	Vile BhagadMangaw	С		
27	Roha	A		

28	Mahad	С
29	Add Mahad	С
30	Mahad Five Star	С
31	Usar	В
32	Nagothane	В
33	Chiplun Khed	C
34	Chiplun Ganekhdapoli	C
35	Lote Parshuram	D
36	Add Lote Parshuram	D
37	Sadavali	D+
38	Ratnagiri	C
39	Dapoli Small	D+
40	Dabhol	D+
41	Kudal	D+
42	Adali- Doda Marg	D+
43	Pimpri	A
44	Talegaw1	A
45	Talegaw2	A
46	TalegawFlowryculturePark	A
47	Chakan 1	A
48	Chakan 2	A
49	Chakan 3	A
50	Chakan 4	A
51	Ranjangaw	A
52	Baramati	A
53	Pandare	C
54	Rajiv Gandhi IT Park	A
	Phase 1	
55	Rajiv Gandhi IT Park	A
	Phase 2	
56	Rajiv Gandhi IT Park	A
	Phase 3	C
57	Kurkumbh	C

58	Add KurkumbhPatas	С
59	Indapur	С
60	Kharadi Knowledge Pak	A
61	Talawadw Software Patk	A
62	Jejuri	С
63	Add Jejuri	С
64	Bhagwan	C
65	SangliMiaraj	D
66	Islampur	D+
67	Palus	D+
68	Shirala	D+
69	Kadegaw	D+
70	Add Kadegaw	D+
71	Kawathemahankal	D+
72	Vita	D+
73	Add Palus Wine Park	D+
74	SahlgawBobalewadi	D+
75	Jat	D+
76	Solapur	D
77	Chincholi	D+
78	Tembhurni	D+
79	Magalwedha	D+
80	Karmala	D+
81	Kurduwadi	D+
82	Barshi	D+
83	Kolhapur Gokul	D
84	Kolhapur Shiroli	D
85	KagalHatkalangle	D
86	Gadhinglaj	D+
87	Ajara	D+
88	Halkarni	D+
89	Karad	D
90	Patan	D+
91	Wai	D+
92	Lonand	D
93	Satara	D
94	Khandala	D
95	Khandala SEZ	D
96	Khandala Phase 2	D
97	Phaltan	D
98	Phaltan SEZ	D
99	Koregaw	D
100	Mhaswad	D+
101	Aurngabad	D
102	Chkalthana	D
103	Walunj	D
104	Shendra	D
105	Shendra SEZ	
106	Paithan	D+
107	Vaijapur	D+
108	Juna Jalana	D+
109	Jalana Phase 1	D+
110	Jalana Phase 2	D+
111	Jalana Phase 3	D+
112	Bid	D+

113 Majalgaw D+ 114 Khultabad D+ 115 Bhokardan D+ 116 Jafrabad D+ 117 Ambad D+ 118 Partur D+ 119 Ashti D+ 119 Ashti D+ 120 Dharur D+ 121 Patoda D+ 121 Patoda D+ 122 Latur D+ 124 Osmanabad D+ 125 Add Osmanabad D+ 126 Nilanga D+ 127 Ahamadpur D+ 128 Umarga D+ 129 Kalamb D+ 130 Bhum D+ 131 KaudgawPhase 1 D+ 132 Nanded D+ 133 Krushnur SEZ 134 Krushnur SEZ 135 Parbhani D+			
115 Bhokardan D+ 116 Jafrabad D+ 117 Ambad D+ 118 Partur D+ 119 Ashti D+ 120 Dharur D+ 121 Patoda D+ 121 Patoda D+ 122 Latur D+ 123 Add Latur D+ 124 Osmanabad D+ 125 Add Osmanabad D+ 126 Nilanga D+ 127 Ahamadpur D+ 128 Umarga D+ 129 Kalamb D+ 130 Bhum D+ 131 KaudgawPhase I D+ 132 Nanded D+ 133 Krushnur D+ 134 Krushnur D+ 135 Parbhani D+ 136 Deglur D+ 137 Kandhar D+ </th <th></th> <th></th> <th></th>			
116			
117 Ambad D+ 118 Partur D+ 119 Ashti D+ 120 Dharur D+ 121 Patoda D+ 121 Patoda D+ 122 Latur D+ 123 Add Latur D+ 124 Osmanabad D+ 125 Add Osmanabad D+ 126 Nilanga D+ 127 Ahamadpur D+ 128 Umarga D+ 129 Kalamb D+ 130 Bhum D+ 131 KaudgawPhase 1 D+ 132 Nanded D+ 133 Krushnur D+ 134 Krushnur SEZ D+ 135 Parbhani D+ 136 Deglur D+ 137 Kandhar D+ 138 Kinwat D+ 139 Bhokardan D+		21101141 4411	
118 Partur D+ 119 Ashti D+ 120 Dharur D+ 121 Patoda D+ 122 Latur D+ 123 Add Latur D+ 124 Osmanabad D+ 125 Add Osmanabad D+ 126 Nilanga D+ 127 Ahamadpur D+ 128 Umarga D+ 129 Kalamb D+ 130 Bhum D+ 131 KaudgawPhase 1 D+ 132 Nanded D+ 133 Krushnur D+ 134 Krushnur SEZ D+ 135 Parbhani D+ 136 Deglur D+ 137 Kandhar D+ 138 Kinwat D+ 139 Bhokardan D+ 140 Gangakhed D+ 141 Jintur D+			
119 Ashti D+ 120 Dharur D+ 121 Patoda D+ 122 Latur D+ 123 Add Latur D+ 124 Osmanabad D+ 125 Add Osmanabad D+ 126 Nilanga D+ 127 Ahamadpur D+ 128 Umarga D+ 129 Kalamb D+ 130 Bhum D+ 131 KaudgawPhase 1 D+ 132 Nanded D+ 133 Krushnur D+ 134 Krushnur SEZ D+ 135 Parbhani D+ 136 Deglur D+ 137 Kandhar D+ 138 Kinwat D+ 139 Bhokardan D+ 140 Gangakhed D+ 141 Jintur D+ 143 Basmat D+	117	Ambad	
120 Dharur D+ 121 Patoda D+ 122 Latur D+ 123 Add Latur D+ 124 Osmanabad D+ 125 Add Osmanabad D+ 126 Nilanga D+ 127 Ahamadpur D+ 128 Umarga D+ 129 Kalamb D+ 130 Bhum D+ 131 KaudgawPhase 1 D+ 130 Bhum D+ 131 KaudgawPhase 1 D+ 133 Krushnur D+ 134 Krushnur SEZ D+ 135 Parbhani D+ 134 Krushnur SEZ D+ 135 Parbhani D+ 136 Deglur D+ 137 Kandhar D+ 138 Kinwat D+ 139 Bhokardan D+ 140 Gangakhed	118	Partur	D+
121 Patoda D+ 122 Latur D+ 123 Add Latur D+ 124 Osmanabad D+ 125 Add Osmanabad D+ 126 Nilanga D+ 127 Ahamadpur D+ 128 Umarga D+ 129 Kalamb D+ 130 Bhum D+ 131 KaudgawPhase 1 D+ 130 Bhum D+ 131 KaudgawPhase 1 D+ 132 Nanded D+ 133 Krushnur D+ 134 Krushnur SEZ D+ 135 Parbhani D+ 136 Deglur D+ 137 Kandhar D+ 138 Kinwat D+ 139 Bhokardan D+ 140 Gangakhed D+ 141 Jintur D+ 143 Basmat D	119	Ashti	
122 Latur D+ 123 Add Latur D+ 124 Osmanabad D+ 125 Add Osmanabad D+ 126 Nilanga D+ 127 Ahamadpur D+ 128 Umarga D+ 129 Kalamb D+ 120 Kalamb D+ 120 Nanded D+ 130 Bhum D+ 131 KaudgawPhase 1 D+ 134 Krushnur D+ 135 Parbhani D+ 136 Deglur D+ 137 Kandhar D+ 136 Deglur D+ 137 Kandhar D+ 138 Kinwat D+	120	Dharur	D+
123 Add Latur D+ 124 Osmanabad D+ 125 Add Osmanabad D+ 126 Nilanga D+ 127 Ahamadpur D+ 128 Umarga D+ 129 Kalamb D+ 130 Bhum D+ 131 KaudgawPhase 1 D+ 131 KaudgawPhase 1 D+ 132 Nanded D+ 133 Krushnur D+ 134 Krushnur SEZ D+ 135 Parbhani D+ 136 Deglur D+ 137 Kandhar D+ 136 Deglur D+ 137 Kandhar D+ 138 Kinwat D+ 139 Bhokardan D+ 140 Gangakhed D+ 141 Jintur D+ 143 Basmat D+ 144 Kalamnuri	121	Patoda	D+
124 Osmanabad D+ 125 Add Osmanabad D+ 126 Nilanga D+ 127 Ahamadpur D+ 128 Umarga D+ 129 Kalamb D+ 130 Bhum D+ 131 KaudgawPhase I D+ 131 KaudgawPhase I D+ 132 Nanded D+ 133 Krushnur D+ 134 Krushnur SEZ D+ 135 Parbhani D+ 136 Deglur D+ 137 Kandhar D+ 138 Kinwat D+ 139 Bhokardan D+ 140 Gangakhed D+ 141 Jintur D+ 142 Hingoli D+ 143 Basmat D+ 144 Kalamnuri D+ 145 Satpud B 146 Ambad <td< th=""><th>122</th><th>Latur</th><th>D+</th></td<>	122	Latur	D+
125 Add Osmanabad D+ 126 Nilanga D+ 127 Ahamadpur D+ 128 Umarga D+ 129 Kalamb D+ 130 Bhum D+ 131 KaudgawPhase I D+ 131 KaudgawPhase I D+ 132 Nanded D+ 133 Krushnur D+ 134 Krushnur SEZ D+ 135 Parbhani D+ 136 Deglur D+ 137 Kandhar D+ 138 Kinwat D+ 139 Bhokardan D+ 139 Bhokardan D+ 140 Gangakhed D+ 141 Jintur D+ 142 Hingoli D+ 143 Basmat D+ 144 Kalamnuri D+ 145 Satpud B 146 Ambad <td< th=""><th>123</th><th>Add Latur</th><th>D+</th></td<>	123	Add Latur	D+
126 Nilanga D+ 127 Ahamadpur D+ 128 Umarga D+ 129 Kalamb D+ 130 Bhum D+ 131 KaudgawPhase I D+ 131 KaudgawPhase I D+ 132 Nanded D+ 133 Krushnur D+ 134 Krushnur SEZ D+ 135 Parbhani D+ 136 Deglur D+ 137 Kandhar D+ 138 Kinwat D+ 139 Bhokardan D+ 140 Gangakhed D+ 141 Jintur D+ 142 Hingoli D+ 143 Basmat D+ 144 Kalamnuri D+ 144 Kalamnuri D+ 145 Satpud B 146 Ambad B 147 Sinnar C	124	Osmanabad	D+
127 Ahamadpur D+ 128 Umarga D+ 129 Kalamb D+ 130 Bhum D+ 131 KaudgawPhase 1 D+ 131 KaudgawPhase 1 D+ 132 Nanded D+ 133 Krushnur D+ 134 Krushnur SEZ D+ 135 Parbhani D+ 136 Deglur D+ 137 Kandhar D+ 138 Kinwat D+ 139 Bhokardan D+ 140 Gangakhed D+ 141 Jintur D+ 142 Hingoli D+ 143 Basmat D+ 144 Kalamnuri D+ 145 Satpud B 146 Ambad B 147 Sinnar C 148 Add Sinnar C 149 Malegaw D+	125	Add Osmanabad	D+
128 Umarga D+ 129 Kalamb D+ 130 Bhum D+ 131 KaudgawPhase 1 D+ 132 Nanded D+ 132 Nanded D+ 133 Krushnur D+ 134 Krushnur SEZ D+ 135 Parbhani D+ 136 Deglur D+ 137 Kandhar D+ 138 Kinwat D+ 139 Bhokardan D+ 140 Gangakhed D+ 141 Jintur D+ 142 Hingoli D+ 143 Basmat D+ 144 Kalamnuri D+ 144 Kalamnuri D+ 145 Satpud B 146 Ambad B 147 Sinnar C 148 Add Sinnar C 149 Malegaw D+ <th>126</th> <th>Nilanga</th> <th>D+</th>	126	Nilanga	D+
129 Kalamb D+ 130 Bhum D+ 131 KaudgawPhase 1 D+ 132 Nanded D+ 133 Krushnur D+ 134 Krushnur SEZ D+ 135 Parbhani D+ 136 Deglur D+ 137 Kandhar D+ 138 Kinwat D+ 139 Bhokardan D+ 140 Gangakhed D+ 141 Jintur D+ 142 Hingoli D+ 143 Basmat D+ 144 Kalamnuri D+ 144 Kalamnuri D+ 145 Satpud B 146 Ambad B 147 Sinnar C 148 Add Sinnar C 149 Malegaw D+ 150 Malegaw Phase 2 D+ 151 Vinchur C	127	Ahamadpur	D+
130 Bhum D+ 131 KaudgawPhase 1 D+ 132 Nanded D+ 133 Krushnur D+ 134 Krushnur SEZ D+ 135 Parbhani D+ 136 Deglur D+ 137 Kandhar D+ 138 Kinwat D+ 139 Bhokardan D+ 140 Gangakhed D+ 141 Jintur D+ 142 Hingoli D+ 143 Basmat D+ 144 Kalamnuri D+ 144 Kalamnuri D+ 145 Satpud B 146 Ambad B 147 Sinnar C 148 Add Sinnar C 149 Malegaw D+ 150 Malegaw Phase 2 D+ 151 Vinchur C 152 Add Vinchur C<	128	Umarga	D+
131 KaudgawPhase 1 D+ 132 Nanded D+ 133 Krushnur D+ 134 Krushnur SEZ D+ 135 Parbhani D+ 136 Deglur D+ 137 Kandhar D+ 138 Kinwat D+ 139 Bhokardan D+ 140 Gangakhed D+ 141 Jintur D+ 142 Hingoli D+ 143 Basmat D+ 144 Kalamnuri D+ 144 Kalamnuri D+ 145 Satpud B 146 Ambad B 147 Sinnar C 148 Add Sinnar C 149 Malegaw D+ 150 Malegaw Phase 2 D+ 151 Vinchur C 152 Add Vinchur C 153 Dindori	129	Kalamb	D+
132 Nanded D+ 133 Krushnur D+ 134 Krushnur SEZ D+ 135 Parbhani D+ 136 Deglur D+ 137 Kandhar D+ 138 Kinwat D+ 139 Bhokardan D+ 140 Gangakhed D+ 141 Jintur D+ 142 Hingoli D+ 143 Basmat D+ 144 Kalamnuri D+ 145 Satpud B 146 Ambad B 147 Sinnar C 148 Add Sinnar C 149 Malegaw D+ 150 Malegaw Phase 2 D+ 151 Vinchur C 152 Add Vinchur C 153 Dindori D+ 154 Add Dindori D+ 155 Ahamadnagar D 156 Supa Parner D+ 158 <	130	Bhum	D+
133 Krushnur SEZ D+ 134 Krushnur SEZ D+ 135 Parbhani D+ 136 Deglur D+ 137 Kandhar D+ 138 Kinwat D+ 139 Bhokardan D+ 140 Gangakhed D+ 141 Jintur D+ 142 Hingoli D+ 143 Basmat D+ 144 Kalamnuri D+ 145 Satpud B 146 Ambad B 147 Sinnar C 148 Add Sinnar C 149 Malegaw D+ 150 Malegaw D+ 151 Vinchur C 152 Add Vinchur C 153 Dindori D+ 154 Add Dindori D+ 155 Ahamadnagar D 156 Supa Parner D+ 158 Nevasa D 159 Sh	131	KaudgawPhase 1	D+
134 Krushnur SEZ D+ 135 Parbhani D+ 136 Deglur D+ 137 Kandhar D+ 138 Kinwat D+ 139 Bhokardan D+ 140 Gangakhed D+ 141 Jintur D+ 142 Hingoli D+ 143 Basmat D+ 144 Kalamnuri D+ 145 Satpud B 146 Ambad B 147 Sinnar C 148 Add Sinnar C 149 Malegaw D+ 150 Malegaw D+ 151 Vinchur C 152 Add Vinchur C 153 Dindori D+ 154 Add Dindori D+ 155 Ahamadnagar D 156 Supa Parner D+ 158 Nevasa D	132		D+
135 Parbhani D+ 136 Deglur D+ 137 Kandhar D+ 138 Kinwat D+ 139 Bhokardan D+ 140 Gangakhed D+ 141 Jintur D+ 142 Hingoli D+ 143 Basmat D+ 144 Kalamnuri D+ 145 Satpud B 146 Ambad B 147 Sinnar C 148 Add Sinnar C 149 Malegaw D+ 150 Malegaw D+ 151 Vinchur C 152 Add Vinchur C 153 Dindori D+ 154 Add Dindori D+ 155 Ahamadnagar D 156 Supa Parner D+ 157 Add Supa Parner D+ 158 Nevasa D 159 Shrirampur D 160 Ra	133	Krushnur	D+
136 Deglur D+ 137 Kandhar D+ 138 Kinwat D+ 139 Bhokardan D+ 140 Gangakhed D+ 141 Jintur D+ 142 Hingoli D+ 143 Basmat D+ 144 Kalamnuri D+ 145 Satpud B 146 Ambad B 147 Sinnar C 148 Add Sinnar C 149 Malegaw D+ 150 Malegaw Phase 2 D+ 151 Vinchur C 152 Add Vinchur C 153 Dindori D+ 154 Add Dindori D+ 155 Ahamadnagar D 156 Supa Parner D+ 157 Add Supa Parner D+ 158 Nevasa D 159 Shrirampur D 160 Rahuri D 161 <	134	Krushnur SEZ	D+
137 Kandhar D+ 138 Kinwat D+ 139 Bhokardan D+ 140 Gangakhed D+ 141 Jintur D+ 142 Hingoli D+ 143 Basmat D+ 144 Kalamnuri D+ 145 Satpud B 146 Ambad B 147 Sinnar C 148 Add Sinnar C 149 Malegaw D+ 150 Malegaw Phase 2 D+ 151 Vinchur C 152 Add Vinchur C 153 Dindori D+ 154 Add Dindori D+ 155 Ahamadnagar D 156 Supa Parner D+ 157 Add Supa Parner D+ 158 Nevasa D 159 Shrirampur D 160 Rahuri D 161 Peth D+ 162 <td< th=""><th>135</th><th>Parbhani</th><th>D+</th></td<>	135	Parbhani	D+
138 Kinwat D+ 139 Bhokardan D+ 140 Gangakhed D+ 141 Jintur D+ 142 Hingoli D+ 143 Basmat D+ 144 Kalamnuri D+ 145 Satpud B 146 Ambad B 147 Sinnar C 148 Add Sinnar C 149 Malegaw D+ 150 Malegaw D+ 151 Vinchur C 152 Add Vinchur C 153 Dindori D+ 154 Add Dindori D+ 155 Ahamadnagar D 156 Supa Parner D+ 157 Add Supa Parner D+ 158 Nevasa D 159 Shrirampur D 160 Rahuri D 161 Peth D+	136	Deglur	D+
139 Bhokardan D+ 140 Gangakhed D+ 141 Jintur D+ 142 Hingoli D+ 143 Basmat D+ 144 Kalamnuri D+ 145 Satpud B 146 Ambad B 147 Sinnar C 148 Add Sinnar C 149 Malegaw D+ 150 Malegaw D+ 151 Vinchur C 152 Add Vinchur C 153 Dindori D+ 154 Add Dindori D+ 155 Ahamadnagar D 156 Supa Parner D+ 157 Add Supa Parner D+ 158 Nevasa D 159 Shrirampur D 160 Rahuri D 161 Peth D+ 162 Jamked D+ 163 Dhule D 165 Nardana Ph	137	Kandhar	D+
140 Gangakhed D+ 141 Jintur D+ 142 Hingoli D+ 143 Basmat D+ 144 Kalamnuri D+ 145 Satpud B 146 Ambad B 147 Sinnar C 148 Add Sinnar C 149 Malegaw D+ 150 Malegaw D+ 151 Vinchur C 152 Add Vinchur C 153 Dindori D+ 154 Add Dindori D+ 155 Ahamadnagar D 156 Supa Parner D+ 157 Add Supa Parner D+ 158 Nevasa D 159 Shrirampur D 160 Rahuri D 161 Peth D+ 162 Jamked D+ 163 Dhule D 164 Add Dhule D 165 Nardana Pha	138	Kinwat	D+
141 Jintur D+ 142 Hingoli D+ 143 Basmat D+ 144 Kalamnuri D+ 145 Satpud B 146 Ambad B 147 Sinnar C 148 Add Sinnar C 149 Malegaw D+ 150 Malegaw Phase 2 D+ 151 Vinchur C 152 Add Vinchur C 153 Dindori D+ 154 Add Dindori D+ 155 Ahamadnagar D 156 Supa Parner D+ 157 Add Supa Parner D+ 158 Nevasa D 159 Shrirampur D 160 Rahuri D 161 Peth D+ 162 Jamked D+ 163 Dhule D 164 Add Dhule D 165 Nardana Phase 1 D+	139	Bhokardan	D+
142 Hingoli D+ 143 Basmat D+ 144 Kalamnuri D+ 145 Satpud B 146 Ambad B 147 Sinnar C 148 Add Sinnar C 149 Malegaw D+ 150 Malegaw Phase 2 D+ 151 Vinchur C 152 Add Vinchur C 153 Dindori D+ 154 Add Dindori D+ 155 Ahamadnagar D 156 Supa Parner D+ 157 Add Supa Parner D+ 158 Nevasa D 159 Shrirampur D 160 Rahuri D 161 Peth D+ 162 Jamked D+ 163 Dhule D 164 Add Dhule D 165 Nardana Phase 1 <	140	Gangakhed	D+
143 Basmat D+ 144 Kalamnuri D+ 145 Satpud B 146 Ambad B 147 Sinnar C 148 Add Sinnar C 149 Malegaw D+ 150 Malegaw Phase 2 D+ 151 Vinchur C 152 Add Vinchur C 153 Dindori D+ 154 Add Dindori D+ 155 Ahamadnagar D 156 Supa Parner D+ 157 Add Supa Parner D+ 158 Nevasa D 159 Shrirampur D 160 Rahuri D 161 Peth D+ 162 Jamked D+ 163 Dhule D 165 Nardana Phase 1 D+	141	Jintur	D+
144 Kalamnuri D+ 145 Satpud B 146 Ambad B 147 Sinnar C 148 Add Sinnar C 149 Malegaw D+ 150 Malegaw Phase 2 D+ 151 Vinchur C 152 Add Vinchur C 153 Dindori D+ 154 Add Dindori D+ 155 Ahamadnagar D 156 Supa Parner D+ 157 Add Supa Parner D+ 158 Nevasa D 159 Shrirampur D 160 Rahuri D 161 Peth D+ 162 Jamked D+ 163 Dhule D 164 Add Dhule D 165 Nardana Phase 1 D+	142	Hingoli	D+
145 Satpud B 146 Ambad B 147 Sinnar C 148 Add Sinnar C 149 Malegaw D+ 150 Malegaw Phase 2 D+ 151 Vinchur C 152 Add Vinchur C 153 Dindori D+ 154 Add Dindori D+ 155 Ahamadnagar D 156 Supa Parner D+ 157 Add Supa Parner D+ 158 Nevasa D 159 Shrirampur D 160 Rahuri D 161 Peth D+ 162 Jamked D+ 163 Dhule D 164 Add Dhule D 165 Nardana Phase 1 D+	143	Basmat	D+
146 Ambad B 147 Sinnar C 148 Add Sinnar C 149 Malegaw D+ 150 Malegaw Phase 2 D+ 151 Vinchur C 152 Add Vinchur C 153 Dindori D+ 154 Add Dindori D+ 155 Ahamadnagar D 156 Supa Parner D+ 157 Add Supa Parner D+ 158 Nevasa D 159 Shrirampur D 160 Rahuri D 161 Peth D+ 162 Jamked D+ 163 Dhule D 164 Add Dhule D 165 Nardana Phase 1 D+	144	Kalamnuri	D+
147 Sinnar C 148 Add Sinnar C 149 Malegaw D+ 150 Malegaw Phase 2 D+ 151 Vinchur C 152 Add Vinchur C 153 Dindori D+ 154 Add Dindori D+ 155 Ahamadnagar D 156 Supa Parner D+ 157 Add Supa Parner D+ 158 Nevasa D 159 Shrirampur D 160 Rahuri D 161 Peth D+ 162 Jamked D+ 163 Dhule D 164 Add Dhule D 165 Nardana Phase 1 D+	145	Satpud	В
148 Add Sinnar C 149 Malegaw D+ 150 Malegaw Phase 2 D+ 151 Vinchur C 152 Add Vinchur C 153 Dindori D+ 154 Add Dindori D+ 155 Ahamadnagar D 156 Supa Parner D+ 157 Add Supa Parner D+ 158 Nevasa D 159 Shrirampur D 160 Rahuri D 161 Peth D+ 162 Jamked D+ 163 Dhule D 164 Add Dhule D 165 Nardana Phase 1 D+	146	Ambad	В
149 Malegaw D+ 150 Malegaw Phase 2 D+ 151 Vinchur C 152 Add Vinchur C 153 Dindori D+ 154 Add Dindori D+ 155 Ahamadnagar D 156 Supa Parner D+ 157 Add Supa Parner D+ 158 Nevasa D 159 Shrirampur D 160 Rahuri D 161 Peth D+ 162 Jamked D+ 163 Dhule D 164 Add Dhule D 165 Nardana Phase 1 D+	147		C
150 Malegaw Phase 2 D+ 151 Vinchur C 152 Add Vinchur C 153 Dindori D+ 154 Add Dindori D+ 155 Ahamadnagar D 156 Supa Parner D+ 157 Add Supa Parner D+ 158 Nevasa D 159 Shrirampur D 160 Rahuri D 161 Peth D+ 162 Jamked D+ 163 Dhule D 164 Add Dhule D 165 Nardana Phase 1 D+	148	Add Sinnar	C
151 Vinchur C 152 Add Vinchur C 153 Dindori D+ 154 Add Dindori D+ 155 Ahamadnagar D 156 Supa Parner D+ 157 Add Supa Parner D+ 158 Nevasa D 159 Shrirampur D 160 Rahuri D 161 Peth D+ 162 Jamked D+ 163 Dhule D 164 Add Dhule D 165 Nardana Phase 1 D+	149	Malegaw	D+
152 Add Vinchur C 153 Dindori D+ 154 Add Dindori D+ 155 Ahamadnagar D 156 Supa Parner D+ 157 Add Supa Parner D+ 158 Nevasa D 159 Shrirampur D 160 Rahuri D 161 Peth D+ 162 Jamked D+ 163 Dhule D 164 Add Dhule D 165 Nardana Phase 1 D+	150	Malegaw Phase 2	D+
153 Dindori D+ 154 Add Dindori D+ 155 Ahamadnagar D 156 Supa Parner D+ 157 Add Supa Parner D+ 158 Nevasa D 159 Shrirampur D 160 Rahuri D 161 Peth D+ 162 Jamked D+ 163 Dhule D 164 Add Dhule D 165 Nardana Phase 1 D+	151	Vinchur	C
154 Add Dindori D+ 155 Ahamadnagar D 156 Supa Parner D+ 157 Add Supa Parner D+ 158 Nevasa D 159 Shrirampur D 160 Rahuri D 161 Peth D+ 162 Jamked D+ 163 Dhule D 164 Add Dhule D 165 Nardana Phase 1 D+	152		C
155 Ahamadnagar D 156 Supa Parner D+ 157 Add Supa Parner D+ 158 Nevasa D 159 Shrirampur D 160 Rahuri D 161 Peth D+ 162 Jamked D+ 163 Dhule D 164 Add Dhule D 165 Nardana Phase 1 D+	153		D+
156 Supa Parner D+ 157 Add Supa Parner D+ 158 Nevasa D 159 Shrirampur D 160 Rahuri D 161 Peth D+ 162 Jamked D+ 163 Dhule D 164 Add Dhule D 165 Nardana Phase 1 D+	154		D+
157 Add Supa Parner D+ 158 Nevasa D 159 Shrirampur D 160 Rahuri D 161 Peth D+ 162 Jamked D+ 163 Dhule D 164 Add Dhule D 165 Nardana Phase 1 D+			D
158 Nevasa D 159 Shrirampur D 160 Rahuri D 161 Peth D+ 162 Jamked D+ 163 Dhule D 164 Add Dhule D 165 Nardana Phase 1 D+	156		D+
159 Shrirampur D 160 Rahuri D 161 Peth D+ 162 Jamked D+ 163 Dhule D 164 Add Dhule D 165 Nardana Phase 1 D+	157		D+
160 Rahuri D 161 Peth D+ 162 Jamked D+ 163 Dhule D 164 Add Dhule D 165 Nardana Phase 1 D+	158	Nevasa	D
161 Peth D+ 162 Jamked D+ 163 Dhule D 164 Add Dhule D 165 Nardana Phase 1 D+			_
162 Jamked D+ 163 Dhule D 164 Add Dhule D 165 Nardana Phase 1 D+			D
163 Dhule D 164 Add Dhule D 165 Nardana Phase 1 D+	161		D+
164 Add Dhule D 165 Nardana Phase 1 D+			D+
165 Nardana Phase 1 D+			
	164	Add Dhule	D
166 N 1 DI 2	165		D+
166 Nardana Phase 2 D+	166	Nardana Phase 2	D+
167 Jalgaon D	167	Jalgaon	D

Dogo Rangsang Research Journal ISSN: 2347-7180

UGC Care Group I Journal Vol-12 Issue-08 No. 07 August 2022

1.60		_
168	Add Jalgaon	D
169	Chalisgaon	D
170	Bhusawal	D+
171	Navapur	D+
172	Bhramhanvel	D+
173	Amaravati	D
174	Add Amaravati	D
175	Add Amaravati Textile	D
	Park	_
176	Achalpur	D+
177	Morshi	D
178	Daryapur	D
179	Tivasa	D
180	Dharni	D
181	Varud	D
182	Anjangaw	D
183	Bhatukali	D
184	Chandur Railway	D
185	Dhamangaw	D+
186	Nandgaw Peth	D+
105	Khandeshwar	D
187	Akola	D D
188	Akola	
189	Murtijapur	D+ D
190	Badalpur	
191	Patur Akot	D D
192	Telhara	D D
193 194		D
194	Malakpur	D D
196	Khamgaw Bhuldhana	D
190	Mehkar	D
198	Sangrampur	D+
199	Lonar	D+
200	Deulgaw Raja	D
201	Chikhali	D+
201	Washim	D+
203	Malegaw	D+
203	Manora	D
205	Mangrulpir	D
206	Risod	D
207	Yavatmal	D
208	Add Yavatmal	D
209	Pusad	D+
210	Vani	D+
211	Darvha	D+
212	Digraj	D+
213	Ghatanji	D
214	Mahagaw	D
215	Umarkhed	D
216	Maregaw	D
217	Kalamb	D
218	Nagpur Hingana	D+
219	Parsodi IT Park	D+

220	Butibori	D+	
221	Add Butibori	D+	
222	Sawner	D+	
223	Kamleshwar	D+	
224	Katola	D+	
225	Wardha	D+	
226	Umarkhed	D+	
227	Narkhed	D+	
228	Parshivani	D+	
229	Kuhi	D+	
230	KamtiKanhan	D+	
231	Bhivapur	D+	
232	Devli	D+	
233	Hinagaghat	D+	
234	Samudrapur	D+	
235	Karanja	D+	
236	Chandrapur	D+	
237	Add Chandrapur	D+	
238	Chandrapur Tadali	D+	
239	Varora	D+	
240	Bhadravati Small	D+	
241	Bhadravati	D+	
242	Ghuggus	D+	
243	Mul	D+	
244	Chimur	D+	
245	Nagbhid	D+	
246	Sindevahi	D+	
247	Rajura	D+	
248	Godpimpri	D+	
249	Tiroda	D+	
250	Gondia	D+	
251	Devari	D+	
252	Goregaw	D+	
253	MorgawArjuni	D+	
254	Pavani	D+	
255	Bhandara	D+	
256	Mohadi	D+	
257	Tumsar	D+ D+	
258			
259	Gadchiroli	D+	
260	Aheri	D+	
261	Dhanora	D+	
262	Kurkheda	D+	

Ref:-MIDCCircular no E94498 Dated29/12/2021.

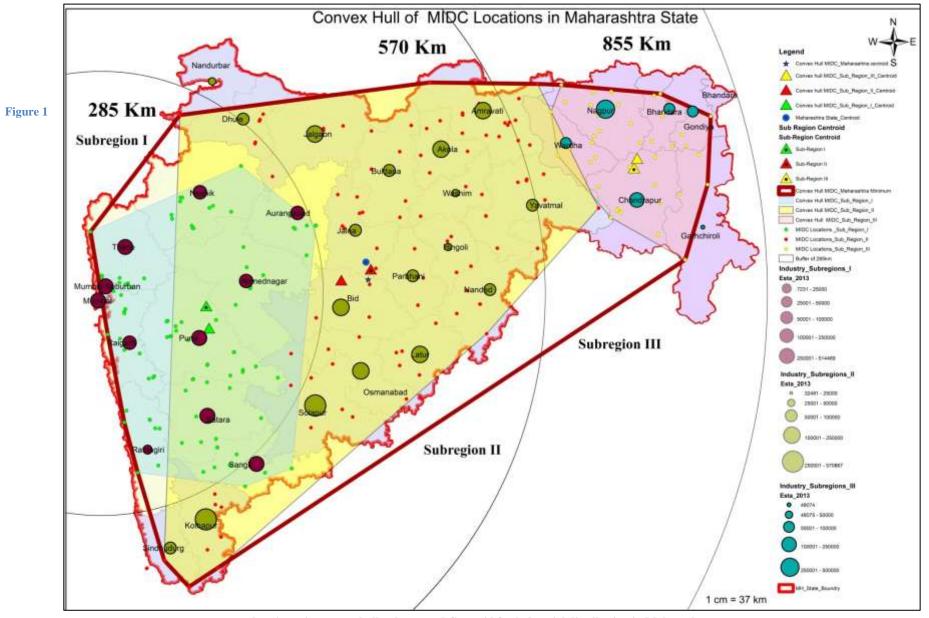
B. Convex Hull centroid

Sub region-wise Convex Hull centroid latitude and longitude Of MIDC Distribution and distance between two centroid

Sr. No Sub Region	Sub Pagion	A-Actual Centroid		B-The centro of MID	Distance Between two	
	Sub Region	Latitude (Y)	Longitude (X)	Latitude (Y)	Longitude (X)	centroid (A-B) in km
1	Maharashtra State	19.44977	76.10828	19.24843	76.13384	22.45
2	Sub Region I	18.94391	74.15796	18.68724	74.19438	28.67
3	Sub region II	19.3699	76.16772	19.24331	75.80627	40.49
4	Sub Region III	20.49018	79.41055	20.5995	79.45354	12.91

Table 2 Details of Centroid and distance between two centroid.

- 1) Distance between two centroid indicates the industrial distribution imbalance. In sub-region I industrial distribution imbalance is 28.6 km.
- 2) The industrial distribution imbalance in subregion II is 40.49 km and for subregion II imbalance is 12.91 km. given in table 2 and thematically presented in map fig no 1.



subregion-wise convex hull polygon and Centroid for industrial distribution in Maharashtra state.

Dogo Rangsang Research Journal ISSN: 2347-7180

Proposal:- New MIDC area in sub-regions District.

In the result and discussion, we can see that socio-economic imbalance is more in all three sub-regions and as per subchapter-18 "migration for work employment" Out-Migration from a rural area is more as compared to urban areas. Most of the out migrants from rural areas prefer sub-region-I, and some specified cities are Pune, Thane, Mumbai Suburb, Nashik, and Aurangabad district. Also if we see chapter 17 MIDC distribution in Maharashtra state and its analysis as per convexhull polygon result shows more imbalance of MIDC Distribution in Subregion II. Tominimize the out-migration from rural areas and to reduce the In- Migration in sub-region-I we need to arrest the population in their own sub-regions and develop the new MIDC in Sindhudurg, Nandurbar, Dhule, Jalgaon, BhandaraGadchiroli, and Gondia district to balance the region.

Also as per census village commodities data for Sindhudurg, Nandurbar, Dhule, Jalgaon, BhandaraGadchiroli, and Gondia district agro-based industries park are good for development as raw material is available easily. District-wise commodity data for those districts is given below. To find out strong commodities in the district all first commodities of villages present in the district are studied which are given in table4, based on those strong commodities for agro-based industries strong commodities are identified mentioned in table 3.

Agro-Based Industries Proposals

Sr.No	Sub Region	Name of District	Strong Agricultural Commodities for agro-based industries
1	Sub Region I	Sindhudurg	Mango, Rice
2	Sub Region II	Nandurbar	Cotton, Jowar, Rice
3	Sub RegionII	Dhule	Cotton
4	Sub RegionIII	Jalgaon	Cotton
5	Sub Region III	Bhandara	Paddy
6	Sub RegionIII	Gadchiroli	Paddy, Rice
7	Sub Region III	Gondia	Rice

Table 3 District Wise Strong Agricultural Commodities.

By providing MIDC in the Districtgiven in the above table 3, the convex hull polygon is drawn in the subregion wise and the centroid is also drawn. by comparing both centroid balancing of MIDC is possible which is shown in Map Fig 2.

Impact of New MIDC Area:

- 1) MIDC will play a vital role in the industrial fulfilment of the sub-regions and work to reduce imbalance among subregions.
- 2) The growth of the industries through the MIDC will generate employment opportunities. It creates more job opportunities for the local public.
- 3) It will reduce the burden of increasing In-Migration in Sub Region-I.
- 4) It will Arrest the Migrant population within Subregions.
- 5) Creates a way to earn and the economic condition of peoples also increase.
- 6) Fixing the source of income at the village level will reduce the outmigration toward urban areas for jobs.
- 7) New MIDC areas will work as Contour Magnets to Mumbai, Pune, and Nashik city.
- 8) It will boost consistent growth of the industrial sector and will make economic development more significant and relevant in terms of economic growth.

Dogo Rangsang Research Journal ISSN: 2347-7180

UGC Care Group I Journal Vol-12 Issue-08 No. 07 August 2022

9) Starting a New MIDC area will invite investors and scope to develop an Agrobase industry model and which will be beneficial forthefarming sector and farmers, many allied sectors are developed like roads with property connectivity along nearest towns or cities, water supply, and requirement of personnel like skilled and unskilled staffs along with maintenance team and security.

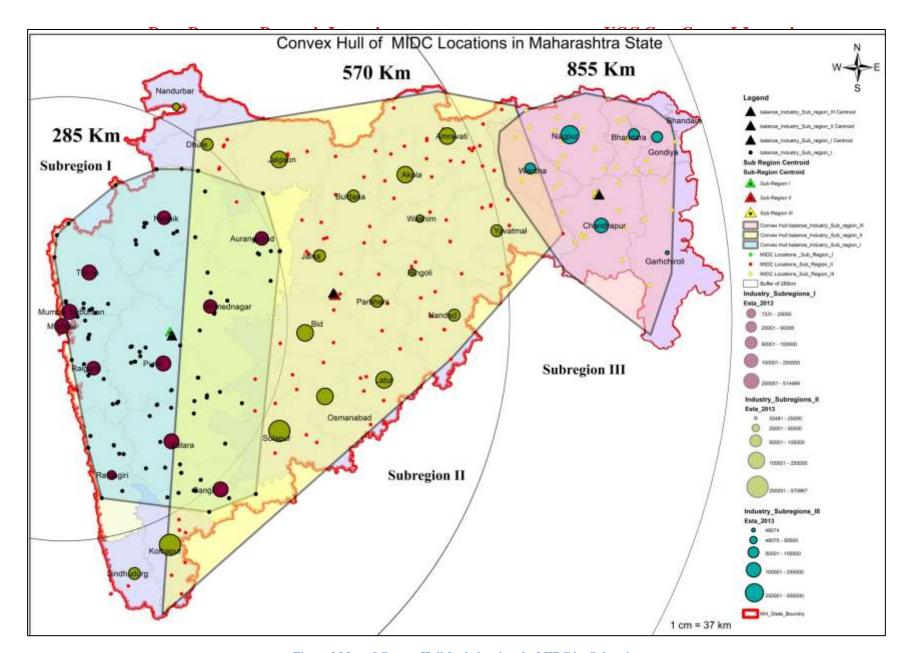


Figure 2 Map of Convex Hull for balancing the MIDC in Subregions.

Name Of District :- Nandurbar						
Agricultural Commodities (First)	Number Of Villages Having First Agricultu ral Commod ity	Manufacturers Commodities (First)	Number Of Villages Having First Manufacturers Commodity	Handicrafts Commodities (First)	Number Of Villages Having First Handicrafts Commodity	
Bajra	29	Chemicals	1			
Banana	10	Edible Oil	1			
Chilli	6	Honey Liquor	7			
Cotton	104	Jaggery	24			
Groundnut	45	Milk And Milk Products	15			
Jowar	289	Preparing Baskets	1			
Maize	48	Sugar	6			
Paddy	1					
Rice	179					
Sugarcane	24					
Toor	20					
Wheat	50					
Villages Not Having Commodity	138	Villages Not Having Commodity	888	Villages Not Having Commodity	943	
Total Villages	943		943		943	
N OF D' 4	4 DI I					
Name Of Distric	t:- Dhuie	A ani an 14 ma 1				
Cotton	15	Agricultural Implements	3	Wooden Toys	1	
Gram	1	Animal Feed	1	Zore	1	
Leaf	3	Brick Oven	1	Zora	1	
Maize	1	Bricks	15			
Sugarcane	1	Broom Bullock Cart Production	3			
		Cotton Thread	1			
		Gram Product	1			
		Jaggery	1			
		Leaf Article	13			
		Leatherwork	1			
		Metal Utencial	1			
		Milk And Milk Products	1			
		Plough	2			
		Pottery Making	7			
		Roofing Tiles	1			
		Wooden Furniture	7			
		Wooden	1			

		Instruments			
		Wool Garments	4		
Villages Not		Villages Not		Villages Not	
Having	657	Having	598	Having	675
Commodity		Commodity		Commodity	
Total Villages	678		678	·	678
Name Of Distric	t:- Jalgaon				
Bajra	1	Agricultural	1	Bamboo	1
.		Implements		Basket	
Banana	5	Bamboo Cane	3	Earthan Pot	1
CI.	2	Products	1	C	1
Cherry	2	Banana Wafers	1	Copper Lamp	1
Cotton	53	Bricks	95	Stone Statues	1
Jowar	5	Broom	1		
Lemon	2	Bucket	1		
Maize	2	Bullock Cart Production	1		
Moong	4	Carpet	1		
Onion	1	Coolers	1		
Pulses	1	Chemicals	2		
Sesame	1	Cattle Feed	1		
Sweet Lime	1	Cement	1		
		Crockery	1		
		Gas Fill. Plant	1		
		Flute	7		
		Edible Oil	11		
		Groundnut Oil	1		
		Ginning	1		
		Leather Shoes	1		
		Leather	5		
		Chappals	1		
		Leather Product	1		
		Lemon Pickle Molded Chair	2		
			1		
		Milk And Milk Products	1		
		Oxygen Gas	1		
		P.V.C. Pipes	1		
		Papad	1		
		Paper	1		
		Paper Board	1		
		Paper (Mill)	1		
		Plastic Products	3		
		Pesticides	1		
		Pvc Pipe	3		
		Plough	2		
		Seeds	1		
		Shoes	1		
		Steel Cupboard	1		_
		Starch	1		

		Steel Fab'tion	8			
		Stone Metals	2			
		Steel Plate	1			
		Wooden	2			
		Furniture	2			
		Sugar	3			
		TurkathiTopali	1			
Villages Not		Villages Not		Villages Not		
Having	1435	Having	1335	Having	1509	
Commodity		Commodity		Commodity		
Total Villages	1513		1513		1513	
Name Of Distric	Rhandara					
Name Of Distric		Agricultural				
Paddy	17	Implements	3	Burud Kam	1	
		_		Bamboo		
Rice	9	Bamboo Cane	1	Handmade	4	
	_	Products		Products		
Sugarcane	2	Bidi	21			
Sugarcane	1	Jaggery	1			
		Metal Power	1			
		Brass Utensils	1			
		Noodles	1			
		Pottery Making	4			
		Paper	1			
		Plates From	1			
		Leaves	_			
		Sugar	2			
		Wooden	1			
		Furniture				
		Soyabean Oil	6	X 7 111 X Y		
Villages Not	925	Villages Not	020	Villages Not	0.50	
Having	835	Having Commodity	820	Having Commodity	859	
Commodity Total Villages	864	Colliniouity	864	Commodity	864	
Total villages	004		004		804	
Name Of Distric	t•. Gadchiro	Ji				
		Metal		Ganapati		
Paddy	394	Instruments	1	Clay Statues	1	
Rice	11	Edible Oil	3	J		
Pulses	5	Bran	11			
Toor	1	Rice Milling	4			
Villages Not		Villages Not		Villages Not		
Having	1264	Having	1656	Having	1674	
Commodity		Commodity		Commodity		
Total Villages	1675		1675		1675	
Name Of District Compliant						
Name Of Distric	:- Gondiya			Domboo		
Canacla	87	Didi	14	Bamboo Handmade	2	
Cereals	8/	Bidi	14	Products	2	
Bamboo	1	Jaggery	1	Bamboo Mat	1	
บลแบบบ	1	Jaggery	1	Daiii000 Mat	1	

Paddy	42	Wooden Crafts	1		
_		Bamboo Cane	2		
Rice	93	Products	2		
Toor	1	Woolen Cloth	2		
Villages Not		Villages Not		Villages Not	
Having	718	Having	922	Having	939
Commodity	0.10	Commodity	0.40	Commodity	0.40
Total Villages	942		942		942
Name Of Distric	t:- Sindhudu				
Cashew	26	Bamboo Cane Products	5	Burud Kam	5
Banana	1	Broom	1	Bamboo Products	1
Coconut	11	Cashew Nut	14	Bamboo Handmade Products	6
Fruits	4	Clay Oven	2	Ganapati Clay Statues	21
Mango	157	Edible Oil	2	Cane Business	1
Groundnut	1	Fish	21	Wooden Toys	2
Paddy	26	Leather Products	1		
Rice	497	Mango	2		
Wheat	5	Honey	1		
Vegetables	1	Mango Juice	2		
		Plough	7		
		Pots	1		
		Presswal Industries	1		
		Product.Rice	1		
		Rice Mill	2		
		Rice Chakki	2		
		Rice Milling	13		
		Rice Processing Rice Product.	13		
		Sugar	2		
		Sawmill	2		
		Roof Tiles	1		
		Wine	1		
		Wooden			
		Furniture	6		
		Wooden Pot	6		
Villages Not Having	19	Villages Not Having	650	Villages Not Having	712
Commodity	7.40	Commodity	7.40	Commodity	7.40
Total Villages	748		748 First Commodities of	***	748

Table 4 District Wise First Commodities of villages

5. Conclusion:

The growth of Maharashtra is highly imbalanced and because of this imbalanced regional growth in all three sub-regions, some cities are dominant in nature. Migration for work employment is observed in those dominant cities. Because of large in-migration in those cities, population growth in rural areas is less, in some places it is negative and in urban areas, there is haphazard growth in nature. Most graduates prefer urban areas for migration because of less job availability, especially rural populations prefer sub region I for migration. To balance the growth of all three sub-regions we need to find out some counter-magnet areas in which industrial development will attract and arrest the out migrants. In-migration is more in Mumbai and Mumbai Suburban, Thane, Pune, Nagpur, Aurangabad, and Nashik.

Industrial locations show a high imbalance in Sub region II and Sub region III in border districts like Nandurbar, Gadchiroli, Gondia, and Chandrapur industrial concentration is very poor and because of this job availability is also very less to remove this imbalance we needed to develop the agro-based industrial area based on agriculture commodities. Due to the absence of any industrial area (MIDC), low per capita income high BPL percentage in rural areas, and backwardness the district identified. So, there is a clear need for government intervention in taking some initiatives and schemes for increasing MIDC areas and improving infrastructural facilities in the district that will ultimately improve the socio-economic and backwardness of the district. Sub-region II and Sub-region III have huge potential to generate an economy if this region gets investments and new development strategies implementations. The government's involvement is inevitable for the sustainable and inclusive growth of the district present in all the sub regions.

References

- 1) Singh Dharmendra, 2007. Migration in Mumbai: Trends in Fifty Years, Demography India.
- 2) Dhanai Rekha, Negi R.S., 2014, Migration as A Livelihood Strategy in Uttarakhand, Kurukshetra Ministry Of Rural Development Vol. 62 No. 11.
- 3) Shinde Pravin, Zodage Suresh, 2021, Patterns of Population Migration in Pune District of Maharashtra, Quest Journals Journal of Research in Humanities and Social Science, Vol. 9 Issue 7.
- 4) RamphulOhlan,2012, Pattern of Regional Disparities in Socio-economic Development in India: District Level Analysis, Springer Science Business Media Dordrecht.
- 5) Dr.Rajendra S. Suryawanshi, Mr. Jitendra M. God, 2017, Socio-economic Development In Mahabaleshwar And Jaoli Tahsil of Satara District Maharashtra State India. IJRSS. Vol. 7 Issue 12.
- 6) Report by National Capital Region Planning Board, A Study on Counter-magnet Areas to NCR, 2008.
- 7) DheeraKalota, Mohammad Firoz Khan, Dynamics of Industrialization in Maharashtra: A Spatial Analysis, Researchgate.net /publication / 216680054, January 2011
- 8) Viraj Shah, Study Of Temples Of Medieval Maharashtra (11th To 14th Centuries Ce) A Socio-Economic Approach, Indian Council of Historical Research (ICHR), New Delhi, March 2009.
- 9) Suddhasheel Ghosh, Parag Narkhede, A conceptual model for heritage tourism corridor in the Marathwada Region, Mrinal Kashid, National Online Conference on Planning, Design, and Management, 2022.
- 10) Dr.RaisulBari,Rural Infrastructural Facilities In Sant Kabir Nagar District (U.P.): A Geographical Analysis, Journal Of Gujrat Research Society, Issn: 0374-8588 Volume 21 Issue 14, December 2019.
- 11) Economic Survey of Maharashtra, Govt of Maharashtra, 2011-12,2019-20,2020-21
- 12) District Census Handbook, Office of the Registrar General & Census Commissioner, Govt. of India.