



District Strategic Plan for Palghar 2023
Achieving Vision 2047: Economy with Ecology



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LIST OF ABBREVIATIONS

1	AHD	Animal Husbandry Department
2	AI	Artificial Intelligence
3	API	Active Pharmaceutical Ingredient
4	ASHA	Accredited Social Health Activist
5	BCE	Before the Common Area
6	BCG	Boston Consultancy Group
7	BRTC	Bamboo Research and Training Centre
8	CAA	Coastal Aquaculture Authority
9	CAGR	Compound Annual Growth Rate
10	CAMPA	Compensatory Afforestation Fund Management and Planning Authority
11	CBPS	Centre for Budget and Policy Studies
12	CFR	Community Forest Rights
13	CIDCO	City and Industrial Development Corporation
14	CMFPI	Chief Minister Agriculture Food Processing Scheme
15	CMR	Child Mortality Rate
16	Cr	Crore
17	CRE	Corporate Real Estate
18	CREDAI-MCHI	The Confederation of Real Estate Developers Associations of India-Maharashtra Chamber of Housing Industry
19	CRZ	Coastal Regulations Zone
20	CS	Chief Secretary
21	CSR	Corporate Social Responsibility
22	CTC	Cancer Treatment Cell
23	DFC	Dedicated Freight Corridor
24	DFCCIL	Dedicated Freight Corridor Corporation of India Ltd
25	DHO	District Health Officer
26	DMIC	Delhi-Mumbai Industrial Corridor
27	DoT	Directorate of Tourism
28	DPC	District Planning Committee
29	DPDC	District Planning and Development Council
30	EAC	Economic Advisory Council
31	EoI	Ease of Implementation
32	ESG	Environmental, Social and Governance
33	ESIC	Employee's State Insurance Scheme
34	EWDFC	East-West Dedicated Freight Corridor
35	EXIM	Export-Import
36	FDI	Foreign Direct Investment
37	FPO	Farmer Producing Organisation
38	FY	Financial Year
39	GDDP	Gross Domestic District Product
40	GDP	Gross Domestic Product
41	GDVA	Gross Domestic Value Added

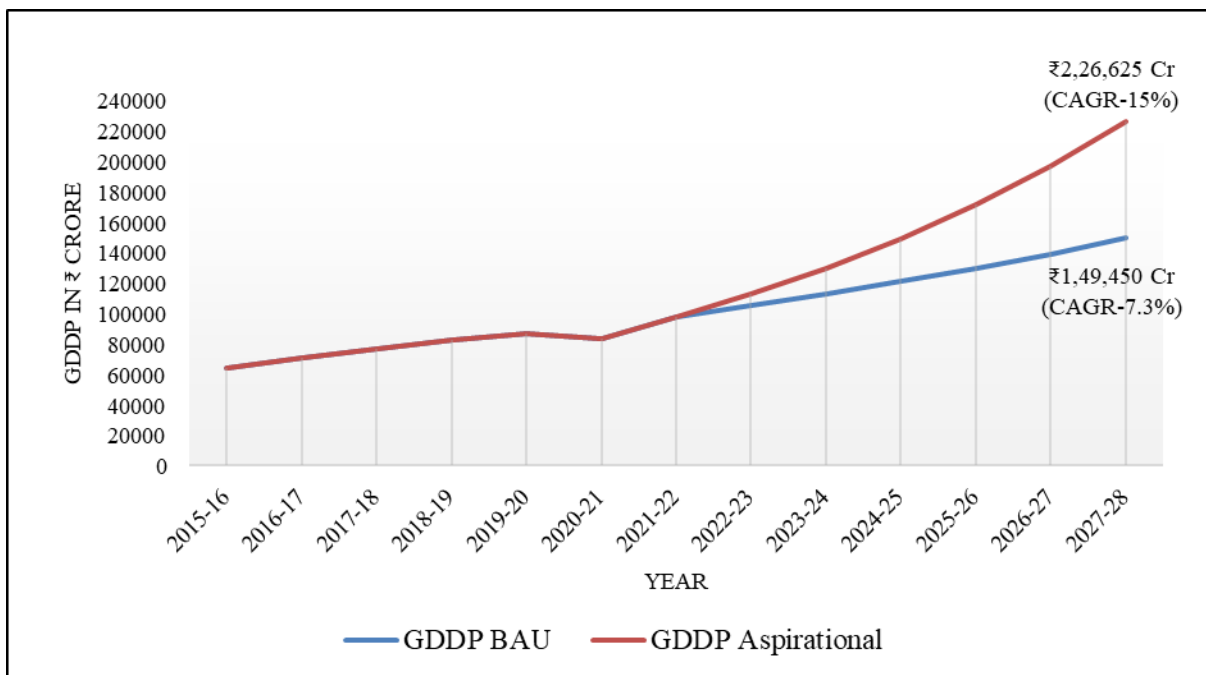
42	GI	Geographical Indication
43	GOI	Government of India
44	GOM	Government of Maharashtra
45	GSDP	Gross State Domestic Product
46	GST	Goods and Services Tax
47	Ha	Hectare
48	HDI	Human Development Index
49	HSR	High-Speed Rail
50	HT	High Transmission
51	ICAR	Indian Council of Agricultural Research
52	ICDS	Integrated Child Development Services
53	ICT	Information Communication Technology
54	IFR	Individual Forest Rights
55	IMR	Infant Mortality Rate
56	ITI	Industrial Technology Institute
57	JFM	Joint Forest Management
58	JLR	Jungle Lodges and Resorts
59	JNPT	Jawaharlal Nehru Trust Port
60	Kg/Ha	Kilogram per Hectare
61	KGBV	Kasturba Gandhi Balika Vidyalaya
62	Km	Kilometres
63	KVK	Krishi Vigyan Kendra
64	LiDAR	Light Detection and Ranging
65	LULC	Land Use and Land Cover
66	MAM	Moderate Acute Malnutrition
67	MCED	Maharashtra Centre for Entrepreneurship
68	MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
69	MHADA	Maharashtra Housing and Area Development Authority
70	MHRD	Ministry of Human Resource Development
71	MICE	Meetings, Incentives, Conferences and Exhibitions
72	MIDC	Maharashtra Industrial Development Corporation
73	MITCON	Maharashtra Industrial and Technical Consultancy Organisation Limited
74	MJPJY.	Mahatma Jotirao Phule Jan Arogya Yojana
75	MMB	Maharashtra Maritime Board
76	MMC	Multi-Modal Corridor
77	MMR	Maternal Mortality Rate
78	MMRDA	Mumbai Metropolitan Region Development Authority
79	MRVC	Mumbai Rail Vikas Corporation
80	MSICDP	Maharashtra State Industrial Cluster Development Programme
81	MSME	Micro Small and Medium Enterprise
82	MSP	Minimum Support Price
83	MT	Metric Tonne
84	MTDC	Maharashtra Tourism Development Corporation
85	MTHL	Mumbai Trans Harbour Link

86	MUTP	Mumbai Urban Transport Project
87	NA	Not Available
88	NABARD	National Bank for Agriculture and Rural Development
89	NAINA	Navi Mumbai Airport Influence Notified Area
90	NBCI	National Building Code of India
91	NFHS	National Family Health Survey
92	NGO	Non-Governmental Organisation
93	NH-17	National Highway 17
94	NH-3	National Highway 3
95	NH-4	National Highway 4
96	NH-48	National Highway 48
97	NH-4B	National Highway 4B
98	NH-8	National Highway 8
99	NHM	National Health Mission
100	NHSRCL	National High Speed Rail Corporation Limited
101	NICU	Neonatal Intensive Care Unit
102	NLP	National Logistics Policy
103	NRC	Nutrition Rehabilitation Centre
104	NTFP	Non-Timber Forest Products
105	ODOP	One District One Product
106	PESA	Panchayats Extension to Scheduled Areas Act
107	PHC	Primary Health Centre
108	PHU	Primary Health Unit
109	PMAY	Pradhan Mantri Awas Yojana
110	PMJAY	Pradhan Mantri Jan Arogya Yojana
111	PMMSY	Pradhan Mantri Matsya Sampada Yojana
112	R&D	Research and Design
113	R. ESTATE	Real Estate
114	RTE	Right to Education
115	SAM	Severe Acute Malnutrition
116	SDF	Sustainable Development Fee
117	SDG	Sustainable Development Goal
118	SHG	Self Help Group
119	SRA	Slum Rehabilitation Authority
120	SWOT	Strengths, Weaknesses, Opportunities and Threats
121	TAPS	Tarapur Atomic Power Station
122	TEU	Twenty-Foot Equivalent Unit
123	UAE	United Arab Emirates
124	UDCPR	Unified Development Control and Promotion Regulation
125	UK	United Kingdom
126	UNDG	United Nations Sustainable Development Group
127	USA	United States of America
128	VAMMC	Virar-Alibag Multi-Modal Corridor
129	ZP	Zilla Parishad

Executive Summary

Palghar with its unique locational advantage, offers a huge opportunity in terms of becoming a warehousing hub, affordable housing hub, food and agricultural processing hub, and tourism hub, to the growing demand in the district and the adjacent regions. In FY2022, the Palghar district with GDDP (Current Prices) of ₹97,926 Crores with per capita income ₹3,40,492 and CAGR (FY16 to FY22) of 7.3% contributed 3.15% to the Maharashtra GSDP. To augment the growth target of \$1 trillion economy of Maharashtra by FY2028, the Palghar district GDDP will need to embark on an aspirational target of more than doubling to ₹2,26,625 Crores with per capita income ₹6,11,247 at 15% CAGR or an optimistic target of growing by 42% to reach ₹1,49,450 Crores with per capita income ₹4,03,300 at 7.3% CAGR Business as Usual (Figure A). Given the historical performance of the sub-sectors of the district economy and prospects of major infrastructure projects, the realisation of the target depends on the performance of a few key sectors such as Real Estate, Agriculture and allied sectors, Manufacturing, and Warehousing. An equitable growth in these sectors supported by equal commitment towards the Sustainable Development Growth (SDG) indicators for the district is imperative for realising overall development.

Figure A Growth scenarios for Palghar (FY2022 to FY2028)



Source: Directorate of Economics and Statistics (2022-2023) (*BAU: Business as Usual)

Palghar, a newly formed district carved out of Thane on August 1, 2014, faces its own challenges and opportunities. On one hand, it gets access to matured markets like Mumbai,

Thane, Nashik, Gujarat, Dadra, and Nagar Haveli. On the other hand, it faces contention as well as competition from the Thane district across all the sub-sectors of the economy. However, the pathways to a successful future strategy for the district are contingent upon leveraging its locational advantage in tandem with improved accessibility due to various mega projects that are under implementation. In other words, prepositioning itself as a warehousing hub, affordable housing hub, and agricultural processing hub to be ready for all the opportunities opened by infrastructural projects will decide the growth trajectory of the district in the future.

In addition to the Mumbai Local Line and NH-8, the district is witnessing several mega infrastructure projects such as the country's first mega port – Vadhvan (वाढवण) Port, Delhi-Mumbai Industrial Corridor (DMIC), High-Speed Rail (HSR), East West Dedicated Freight Corridor (EWDFC) and Virar-Alibaug Multi-Modal Corridor (VAMMC). Further, there are major infrastructure projects like Navi Mumbai Airport Influence Area (NAINA) and Mumbai Trans-Harbour Link. The Vadhvan Port, which is envisaged to add a container capacity of 15 million Twenty-Foot Equivalent Units (TEUs), when coupled with DMIC, HSR, EWDFC and VAMMC offers huge opportunities in the warehousing sector.

The Indian warehousing market is predicted to grow at 15% CAGR to reach ₹2.8 trillion by 2027 (IBEF, 2023). Mumbai warehousing market handled 8.6 million square feet transactions in FY2022, and it is witnessing a healthy CAGR of 41% from FY2017 to FY2022 (Knight Frank, 2022). Mumbai market, with other closely located markets like Pune, Surat, and Vapi, account for major warehousing transactions in Western India. There are two major clusters in the vicinity of Mumbai namely Bhiwandi (Thane) and Panvel (Raigad) that are highly accessible along the northwest and southwest corridors, connecting Nashik, Pune, Ahmedabad, and other major consumption centres. The Bhiwandi cluster is largely consumption-centric for inland goods, whereas the Panvel cluster is port-centric owing to its proximity to JNPT, which primarily caters to EXIM demand. Undoubtedly, Palghar will gain from both clusters' locational advantage due to the enhanced connectivity through the mega projects. Therefore, it is imperative to focus on the opportunity of developing Palghar as a warehousing hub to reap the dividends in the coming years. Moreover, given that except for some areas in Vasai and Palghar Tehsils, all other area is declared as Scheduled areas inhabited by 11.18 lakhs Tribal population, it is important to ensure overall development while preserving the unique culture and identities of tribal communities.

Palghar district offers immense opportunity to become an affordable housing hub given its proximity to Mumbai, ease of accessibility, and ample available land parcels, enabling the affordability of housing. From the Real Estate market perspective, the Palghar district is divided

into two regions: Vasai-Virar and the rest of Palghar. The house prices (in square feet) as a percentage of the MMR house prices for the Vasai-Virar region and the rest of the Palghar region are approximately 50% and 25%, respectively (CREDAI-MCHI CRE-Matrix, 2023). Mega projects like the Mumbai–Ahmedabad High Speed Railway (HSR) Corridor (Bullet Train) and Mumbai-Vadodara Expressway, coupled with initiatives such as quadrupling of Local train tracks between Virar to Dahanu Road and the upcoming Versova-Virar Sea Link, will improve accessibility manifolds. Accessibility and affordability make Palghar district an important affordable housing destination in the MMR region.

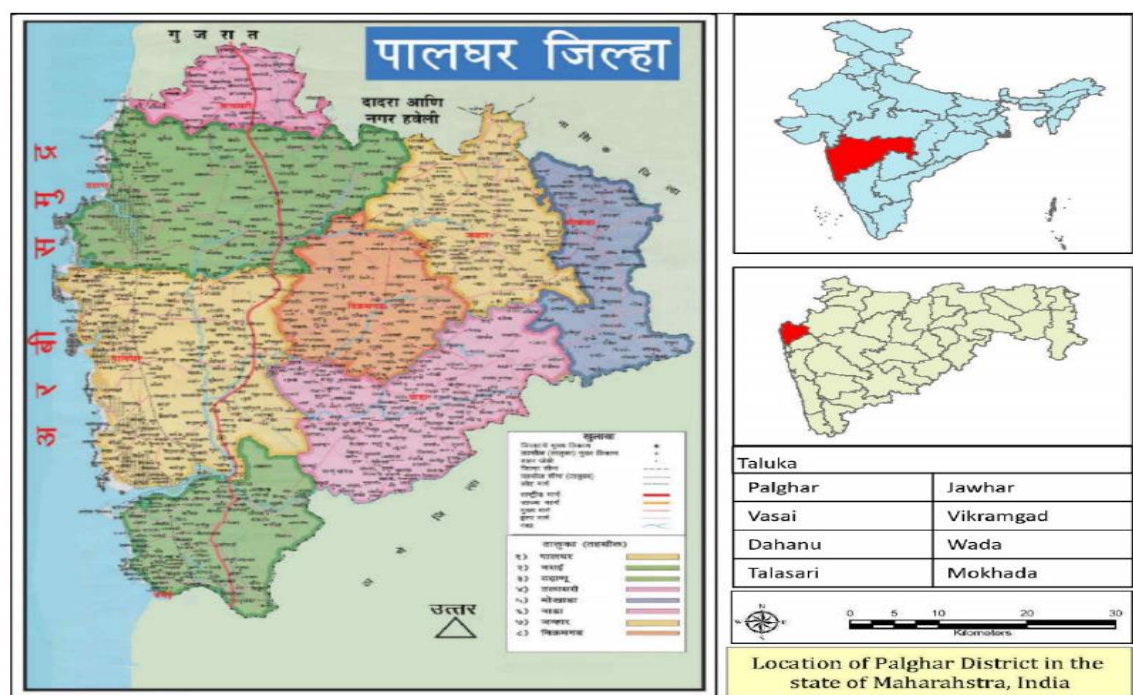
Considering that the agriculture and allied activities sector is the key primary activity in the district, and there is a considerable tribal population in Vikramgad, Jawhar, Mokhada, Talasari, and Wada, it is important to explore opportunities to develop the sector. For instance, focusing on floriculture, crop diversification, processing and strengthening the value-chain will be critical given the presence of huge markets like Mumbai and Thane. Further, the six talukas including Jawhar, Mokhada, Vikramgad, Wada, Talasri, and Dahanu has 77.66% tribal population with their livelihood directly linked with a Forest-based economy. Therefore, the development of income generation avenues such as agroforestry, ecotourism, and the promotion of forest-based products is critical for the tribal community’s holistic growth, which will ensure the realization of the objective of achieving balanced growth.

Interestingly, the overall Palghar growth story differs along the coastal Palghar (including talukas like Vasai, Palghar, Dahanu, and Talasari) and the landlocked Palghar (including Talukas like Jawhar, Mokhada, Vikramgad, and Wada). Most of the economic development is focused along the coastal Palghar, whereas the landlocked Palghar faces challenges like accessibility and low human development indicators. Therefore, it is imperative that the District Strategic Plan accounts for a balanced growth across both regions. In sum, the future growth of Palghar as a Warehousing hub, Affordable Housing hub, and agriculture processing centre will require a holistic approach to develop the coastal and landlocked Palghar together.

Chapter 1: Baseline profile of Palghar district

Palghar district is in the northern part of the Konkan division of the state of Maharashtra, India. It is the 36th district in Maharashtra that was carved out of the Thane district on August 1, 2014. Therefore, the history of Palghar is closely associated with that of the Thane district. However, the Palghar district has its own golden historical heritage in the Talukas of Vasai, Palghar and Jawhar. It is famous for its tourist destinations having a rich culture, heritage value and recreation like Jawhar Rajwada, Arnala Fort, Vasai Fort, Gambhirgad, Kelva Beach, Arnala Beach, Jivdani temple, Mahalakshmi temple, among others. In addition to the major fishing ports like Satpati, Dahanu, Arnala, Vasai and Datiware, Palghar is also known for Chikoo (sapodilla) cultivation. It is also home to the Tarapur Atomic Power Station (TAPS), the first nuclear power plant in India and the world's oldest nuclear power plant in commercial operation. (Government of Maharashtra, 2024)

Figure 1.1 Location of Palghar District



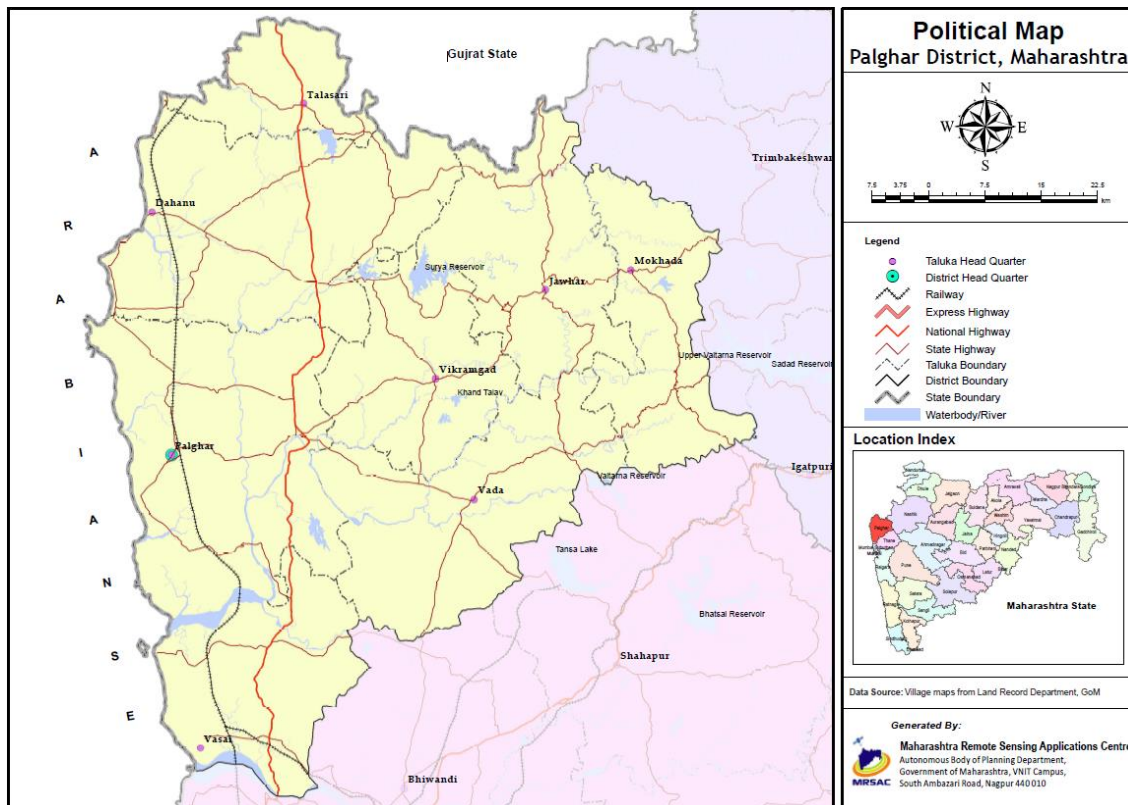
Source: District Planning Committee Palghar (2023)

1.1 Geographical location and area

Palghar is spread between the west coast of the Arabian Sea and the Sahyadri Mountains, which are east of the Northern District of Palghar. The district is well connected through roads, highways, and railways. The district's area is 4,696 sq.km. and has a 112 km coastline. Geographically, the district lies at North Latitude 9°41'49.5852" and East Longitude

72°45'49.4100", with an elevation of 7 metres. The district is generally categorized into three broad areas according to geographical structure. The first section of linear Sahyadri mountain is known by the name 'Jangalapati' (forest region), which includes Jawhar, Mokhada, and Vikramgad talukas. The second section is known as 'Bandarpati' (seaside area), which includes Vasai, Palghar, and Dahanu talukas. Lastly, the third section is known as the plain land, which includes Wada taluka. (Central Ground Water Board, 2022; Government of Maharashtra, 2024)

Figure 1.2 Political Map of Palghar District

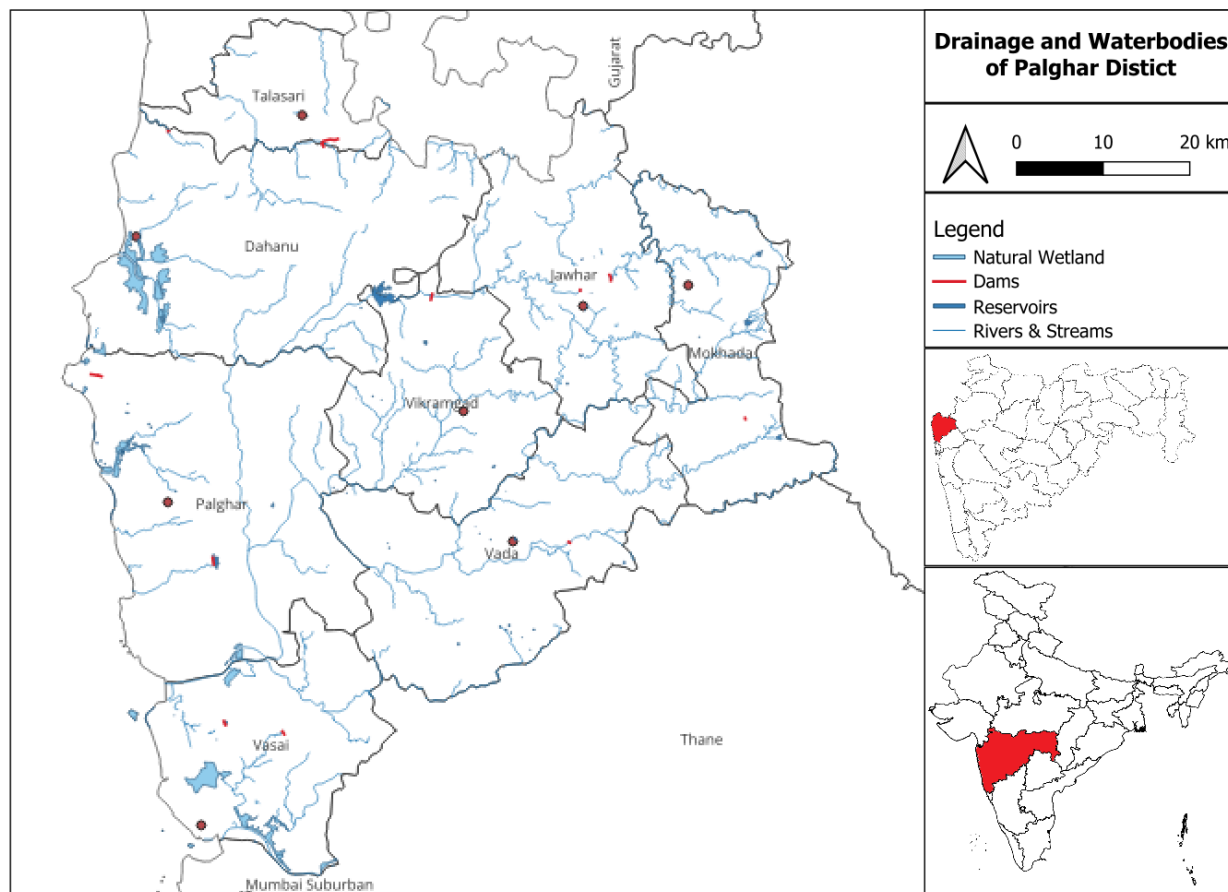


Source: Maharashtra Remote Sensing Application Centre (2024)

1.2 Physiography and soil

The Palghar district forms part of the western slope of the Sahyadri hill range, majorly constituting rugged and uneven topography characterized by high hills and steep valleys. The district is broadly divided into two divisions, Undulating Hilly Tract and Coastal Plain in the western part. (Central Ground Water Board, 2022)

Figure 1.3 Drainage pattern of Palghar District



Source: Author(s)

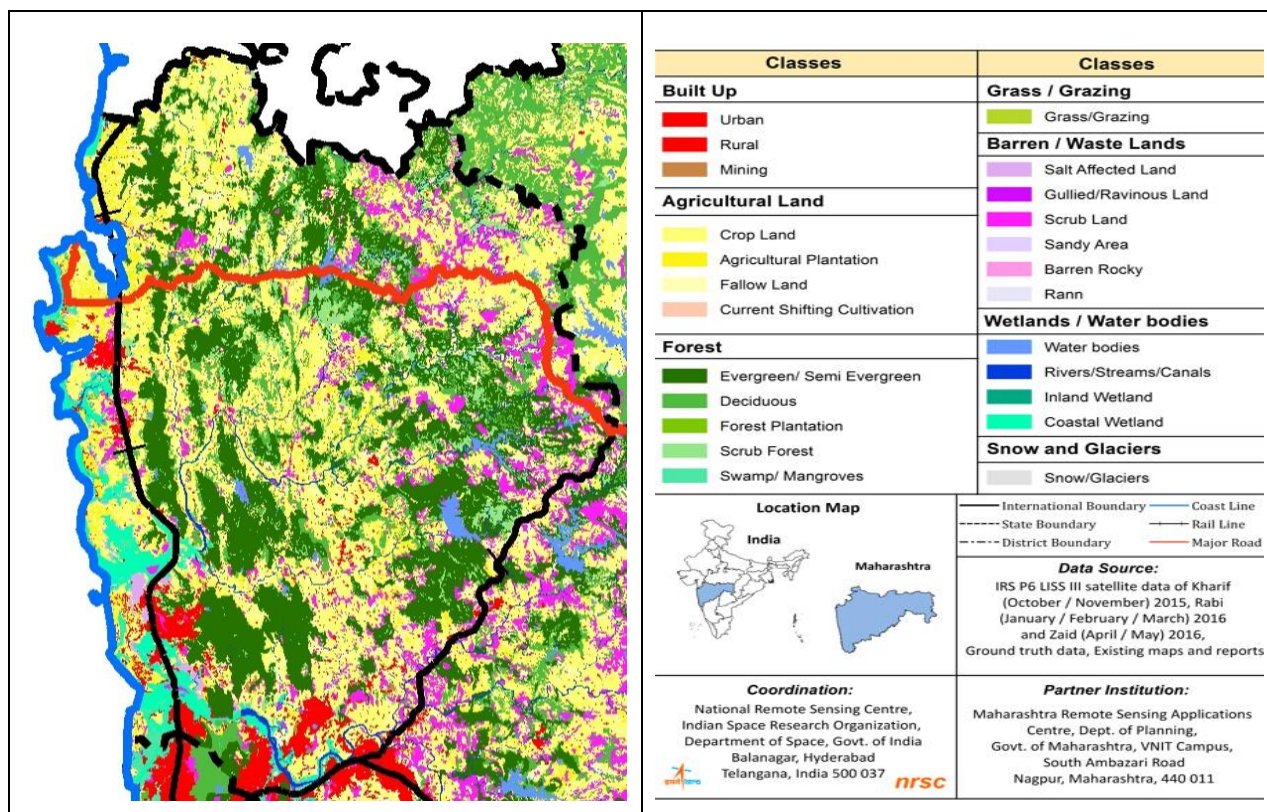
Vaitarna is the main river flowing through the district. It is 154 km long and has a drainage area that practically covers the entire northern part of the district. It is the largest of rivers in the Konkan region, rising in the Trimbakeshwar hills in Nashik district, opposite to the source of Godavari. The river flows across Shahapur, Wada and Palghar talukas and enters the Arabian Sea through a wide estuary off Arnala. It has many important tributaries, such as Barvi and Bhatsa, Pinjal, Surya, Daherja and Tansa. (Central Ground Water Board, 2022)

The soil of the Palghar district is considered to be derived from trap (Basaltic) rocks. It is classified into three broad categories. (1) Soil of coastal lands with residual hills: These soils are slightly deep, poorly drained, fine soils on gently sloping land and very fine soil on sloping land. These soils are calcareous and occur along the coast of Vasai, Palghar and Dahanu. (2) Lighter coloured soils: These soils occur on the undulating, elongated hills and five intervening valleys. In the district, black and sand mixed soil is found in Palghar taluka. (3) Brown reddish soil: It is mainly found in coastal and Sahyadri descent valleys. Each type of soil covering a well-defined track which displays a different cropping pattern. The soils occurring in the Wardha and Painganga valleys are more fertile. (Central Ground Water Board, 2022)

1.3 Climate, Rainfall, and Land Use and Land Cover (LULC)

The climate of the district is characterized by high humidity throughout the year. The district's average rainfall is about 2458 mm, with significant spatial variation in the normal rainfall ranging from less than 2000 mm/year to more than 2800 mm/year (Central Ground Water Board, 2022). The district receives a well-distributed and heavy rainfall during the southwest monsoon season, from June to September, while October and November constitute the post-monsoon season. The cold season starts from December to February, followed by summer from March to May. Across the district, the western part along the coast receives minimum rainfall, while the rainfall pattern gradually increases towards the southeastern and reaches a maximum in the southern parts of the district. The north-western part of the district (western Dahanu Block) receives the lowest rainfall, followed by the central and southeastern parts of the district (Vikramgad, Jawhar and Wada blocks) receiving moderate rainfall. The southern part of the district is observed to have heavy rainfall of more than 2800 mm/year, particularly in parts of the Vasai block. (Central Ground Water Board, 2022)

Figure 1.4 Land Use and Land Cover



Source: ICAR report on LULC

As shown in Figure 1.4, the main land use in Palghar is agriculture (193481 Hectares), followed by forest land (185868 Hectares). Further, the other major land classes are mudflats (13636 Hectares), mangroves (3703 Hectares), and salt pans (1597 Hectares), among others. The

built-up area is 26756 Hectares, with a major concentration in the Vasai-Virar region and along the rail and road network.

1.4 Administrative profile

Palghar district, headquartered in Palghar city, is a part of the Konkan region. It is divided into eight talukas (Palghar, Vasai, Dahanu, Talasari, Wada, Vikramgad, Jawhar, and Mokhada) grouped into five sub-divisions, namely Palghar, Vasai, Jawhar, Dahanu, and Wada. Palghar represents one parliamentary (Lok Sabha) constituency comprised of six legislative assembly (Vidhan Sabha) segments. This constituency was created in 2008 and is reserved for Scheduled Tribes.

Table 1.1 Administrative profile of Palghar district

Sr. No.	Indicator	Details
1	No. of Subdivisions	5
2	No. of Blocks/ Tehsils	8
3	No. of Cities/ Towns	20
4	No. of Municipal Corporation	1
	No. of Nagar Parishad	3
5	No. of Nagar Panchayats	4
6	No. of Villages	897
7	No. of Gram Panchayats	473

Source: District Socio-Economic Review (2022-23)

1.5 Demographic profile

As per Census 2011, the population is 29,90,116, which is 2.66 per cent of the total population of Maharashtra. The district is home to many tribal communities with their unique culture and lifestyle. Except for Palghar and Vasai Taluka, the district has a 77.66% tribal population. The population density of Palghar district is 559 inhabitants per square kilometre, which is almost double that of Maharashtra, standing at 365 per square kilometre. Out of the total population, 47.78% live in urban areas, and the rest, 52.22%, live in rural areas. The literacy rate of Palghar district (77.04%) is lower than the State's (82.34%) and has a noticeable gap between female (70.23%) and male literacy (83.40%).

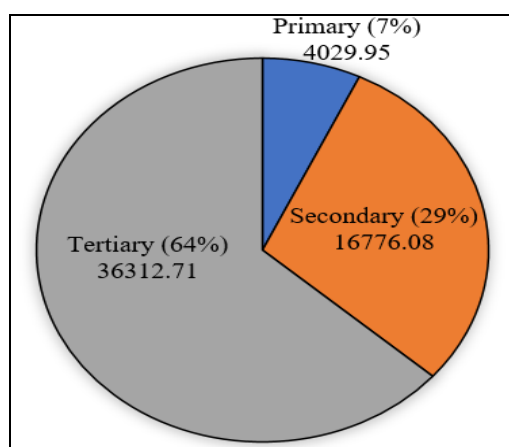
Table 1.2 Demographic profile of Palghar district

Sr. No.	Indicator	District details	State details	Source of data	Data as on
1	No. of inhabited villages	1008	40969	Census 2011	2011
2	No. of households	669823	24296607	Census 2011	2011
3	Population	2990116	112374333	Census 2011	2011
4	Growth rate of population in last decade	39.80	15.99	Census 2011	2011
5	Urban population (as % of total population)	52.22	45.22	Census 2011	2011
6	Sex Ratio (No. of Females per 1000 males)	963	966	National Family Health Survey (NFHS-5)	2019-20
7	Population density (per Square Kms)	559	365	Census 2011	2011
8	Literacy Rate	77.04	82.34	Census 2011	2011
9	Human Development Index	0.80 (Including Thane and Palghar)	0.75	Maharashtra Human Development Report	2012

1.6 Economic profile

The GDDP figures at constant prices for Palghar stood at ₹63857.9 Crores in FY2022 with 2.8% CAGR (FY2016 to FY2022).

Figure 1.6 Sectoral contribution to GDVA (in ₹ Crores)

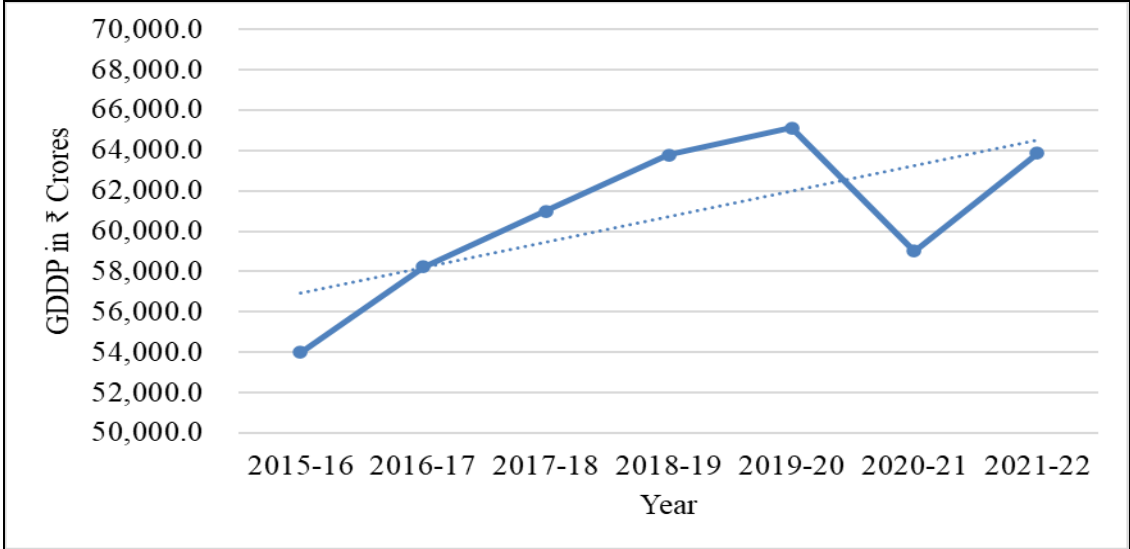


Source: Directorate of Economics and Statistics (2022-2023)

As shown in Figure 1.6, the district's economy is largely driven by the Tertiary sector, which contributes 64% of the GDDP, followed by the Secondary sector, which contributes 29%. The primary sector, which is comprised of agriculture and allied activities, contributes only 7% to the

total GDDP. This sectoral composition of the GDDP closely resembles the Maharashtra state-level statistics.

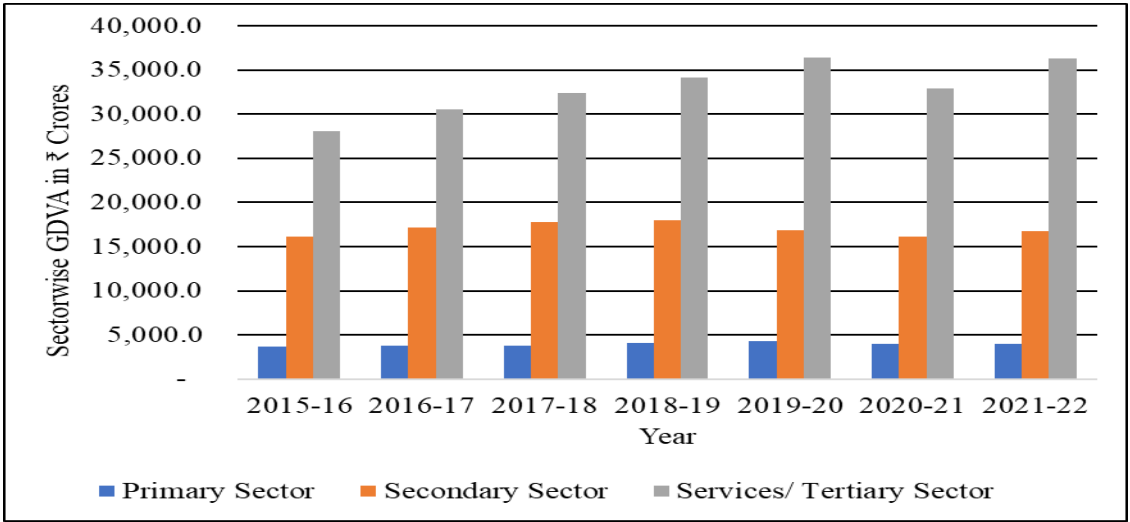
Figure 1.7 GDDP in ₹ Crores (FY2016 to FY2022) at Constant Prices at base year 2012



Source: Directorate of Economics and Statistics (2022-2023)

Figure 1.7 shows the performance of the economy of Palghar district over the last five years. The dotted line represents a consistent growth trend of the economy over the last five years, from 2015-2016 to 2021-2022. There was a 9.3% decrease in the GDDP from 2019-2020 to 2020-2021 due to the impact of the COVID-19 pandemic on the overall economy. However, the district economy exhibited strong resilience and bounced back in 2021-2022.

Figure 1.8 Sectoral GDVA from FY2016 to FY2022 at Constant Prices



Source: Directorate of Economics and Statistics (2022-2023)

Figure 1.8 presents the sectoral annual growth pattern for the Primary, Secondary, and Tertiary sectors of Palghar district from FY2016 to FY2022. Interestingly, the Primary and Secondary sectors grew at a constant growth rate, showing little effect of the pandemic, whereas

the Tertiary sector showed a slight decline due to the pandemic. However, it made a quick recovery after that.

Table 1.3 Economic profile of Palghar district

Sr. No.	Indicator	District Details
1	Gross District Domestic Product (GDDP) Constant prices (FY22)	₹63857.9 Crores
2	Growth rate of GDDP (%) (FY16 to FY22)	2.80%
3	Per capita income (in ₹) (FY22)	₹185050
4	District's share in State's GDP (FY22)	3.15%
5	Sector wise distribution of GDDP	
	Primary Sector (GDVA) (FY22)	₹4030 Crores
	Secondary Sector (GDVA) (FY22)	₹16776.1 Crores
	Tertiary Sector (GDVA) (FY22)	₹36312.7 Crores
	Primary Sector (% to total GDVA) (FY22)	7.05%
	Secondary Sector (% to total GDVA) (FY22)	29.37%
	Tertiary Sector (% to total GDVA) (FY22)	63.67%
6	Primary Sector growth rate (past 5 years)	1.58%
7	Secondary Sector growth rate (past 5 years)	-1.38%
8	Tertiary Sector growth rate (past 5 years)	2.92%
9	Export growth indicators	
	Total exports in FY22	₹26218 Crores
	Share in State's exports (in %)	4.8%
	Share in Konkan Division exports (in %)	21.71%
	Contribution of top 10 exporting products	₹13250.24 Crores
	Share of top 10 exporting products to total exports of the district (in %)	50.53%

Source: Directorate of Economics and Statistics (2021-2022)

Table 1.4 Sub-sector contribution to GDDP (₹) FY2022 for Palghar district

Sr. No.	Name of the Sub-sector	Contribution to GDDP (in ₹ Crores)	Contribution to GDDP (in %)
	<u>Primary Sector</u>		
1	Crops	1694.48	2.65
2	Livestock	568.88	0.89
3	Forestry and Logging	1452.29	2.27
4	Fishing and Aquaculture	266.87	0.41
5	Mining & Quarrying	47.4	0.07
	<u>Secondary Sector</u>		
6	Manufacturing	11955.73	18.72
7	Electricity, Gas, Water Supply & Other Utility Services	1387.81	2.17
8	Construction	3432.53	5.37
	<u>Tertiary Sector</u>		
9	Trade, Repair, Hotels & Restaurants	5346.29	8.37
10	Railways	271.67	0.42
11	Transport by means other than Railways	2183.04	3.41
12	Storage	114.68	0.17
13	Communication and services related to Broadcasting	971.62	1.52
14	Financial Services	7235.18	11.33
15	Real Estate, O. Dwellings & Professional Services	13402.6	20.98
16	Public Administration & Defence	2304.81	3.60
17	Other Services	4482.77	7.01
18	Gross District Value Added (GDVA)	57118.74	
19	Taxes on products	7722.85	
20	Subsidies on products	983.70	
21	Gross District Domestic Product (GDDP) (GDVA+Taxes-Subsidies)	63857.89	100

Source: Directorate of Economics and Statistics (2022-2023)

1.7 Environmental, Social and Governance (ESG) profile

Table 4 ESG profile

Sr. No.	Indicator	District details	Source of data
ENVIRONMENTAL			
1	Existing Carbon Footprint	NA	NA
2	Energy requirement obtained from renewable sources of energy	1.09 million units	Maharashtra Energy Development Agency (2022)
3	Drinking Water Availability throughout the year in %	33.57%	Jal Jivan Mission (2023)
4	Existing Green Bonds / Climate Bonds	NA	NA
5	Air Quality	NA	NA
6	Total Forest Area (Hectares)	216752	Forest Department (2023)
7	Proportion of Land under Forest Cover	38.38%	Forest Department (2023)
8	Deforestation Rate	NA	NA
SOCIAL			
1	No. of BPL residents	1595092	District Socio-Economic Review 2021-22
2	% of the Population Residing in Urban Areas	52.22	Census 2011
3	% of the Population Residing in Rural Areas	47.78	Census 2011
4	Women Labor Force Participation Rates	NA	NA
5	Existing Social Impact Bonds	NA	NA
6	Current Total No. of Human Rights Violation Cases	32	District Human Rights Cell, SP office (2023)
7	Sex Ratio	963	National Family Health Survey (NFHS-5) 2019-20
8	Total number of Sexual Harassment Incidents registered	429	District Socio-Economic Review 2021-22
GOVERNANCE			
1	No. of grievances received in a year	16685	Grievance Redressal Portal (2023)
2	Current Total No. of anti- Corruption Cases + Enquiries	7	Anti-Corruption Bureau (2023)
3	Total No. of Officials Charged with Corruption	11	Anti-Corruption Bureau (2023)
4	Crime Against Women	312	District Women Cell (2023)
5	Crime Against Children	220	District Women Cell (2023)

Table 1.8 Good Governance Index Rankings across sub-sectors for Palghar

Sr. No	Sub-sector names	Good Governance Index Rank
1	Agriculture & Allied Sector	30
2	Commerce & Industry	2
3	Human Resource Development (Skilling, Education Programs)	16
4	Public Health	11
5	Public Infrastructure & Utilities	17
6	Social Development	8
7	Economic Governance & Financial Inclusion	27
8	Judiciary & Public Safety	8
9	Environment	28
10	Citizen Centric Governance	8

Source: Maharashtra Districts Good Governance Index 2023

Chapter 2 Theory of Change and Vision Statement

2.1 Theory of Change

A ‘theory of change’ is the process of making explicit the intent of the implementers regarding the final outcome of any intervention and how they plan to reach it. It is seen as a series of results that contribute to achieving the final intended impacts (Rogers, 2014). A sound theory of change draws from a causal analysis that is based on available evidence (UNDG, 2017). The theory of change is applicable to any level of intervention – an event, a project, a programme, a policy, a strategy or an organization (UNDG, 2017). Accordingly, as the district intends to develop a strategic plan of economic growth for the period 2023-24 to 2027-28 a theory of change is developed that tries to unravel the thought process involved in identification of various activities proposed in the action plan.

The theory of change for the district strategic plan was developed within the framework of the SDGs. It was ensured that those issues were identified that hampered the achievement of sustainable development. Most of the issues identified are very specific and characteristic of the Palghar district. The broader issues that have regional and state spread were not included in the theory of change. The identification was done in a consultative manner that included the understanding and reflection of the concerned stakeholders. In certain cases, the issues raised or observed were grounded and modified based on evidence from existing reports and research. It also involved the opinion of the experts regarding the interventions that have been enlisted.

The interventions identified to address the constraints are not completely achievable in 5 years' time, but these interventions would surely demonstrate the effort that needs to be taken and provide insights into how the work could be carried out in the future. Another concern that was considered was that the interventions that were suggested take advantage of the ‘comparative advantage’ of the district. There are certain initiatives that the district administration can undertake and effectively implement. On the other hand, certain policy-level interventions are not within the district's purview, though such interventions are not included in the theory of change but in the action plan. A concern that was of significance was that of feasibility. The interventions that are thought to be feasible and provide the required results have been included in the document and appear across different sections of the report.

Table 2.1 Theory of change

Issues/Constraints	Interventions required to address issues/ constraints	Expected outputs/ intermediate results	Outcomes (SDGs)
<p>Intra-district inequity in access to basic infrastructure like roads, power, sanitation, water supply, etc., hampers holistic development of the district</p>	<ul style="list-style-type: none"> • Investments in local infrastructure development • Improving connectivity between local and national infrastructure by building dedicated access roads • Aligning the local infrastructure development with upcoming mega projects • Promoting renewable energy sources 	<ul style="list-style-type: none"> • Improved access and road connectivity for all the villages and habitations in the district • Electrification of villages and habitations • Better coverage of water supply and sanitation facilities at the village level 	<p>3, 5, 6, 7, 8, 10</p>
<p>Need for planned and sustainable urbanization (proximity to overpopulated neighbouring areas of Mumbai, Thane and Gujarat and ease of travel) to ensure that the rapid development of residential areas does not jeopardize the evolving urbanization and put excessive pressure on the existing urban infrastructure and exploit the resources of the tribal areas.</p>	<ul style="list-style-type: none"> • Effective town planning concerning appropriate civic amenities. • Building regulation monitoring (approach roads/connectivity) • Effective futuristic planning for SRA • Appropriate land allocation for MHADA schemes • Growth centres: urban and rural, along with integrated townships 	<ul style="list-style-type: none"> • Development as an affordable housing hub • Plans developed for rural and urban growth centres with appropriate amenities • Plan for integrated townships • Identification of appropriate land for MHADA and SRA 	<p>11, 1, 10</p>
<p>Low levels of human development indicators</p> <ul style="list-style-type: none"> • Health, Education, and livelihood with respect to the tribal population • Access to health services for the working population in the manufacturing sector 	<ul style="list-style-type: none"> • Easy access to affordable healthcare • Ensuring good connectivity to schools, according to RTE • Addressing socio-economic issues that influence the drop-out rates in primary and secondary schools. • Correcting the student-teacher ratio as per RTE • Increase and diversification of livelihood opportunities within the district. • Establishing new ITIs • Developing relevant vocational courses for skill training • Improving healthcare facilities in Industrial belts and around highways • Efficient implementation of the ESIC scheme • Incentivizing health professionals to work in government institutes in Palghar District (Residential facilities, financial 	<ul style="list-style-type: none"> • Improved Enrolment ratio and decrease in dropout ratio at the school level • Improved employability owing to skill training • Improved health indicators such as - IMR, CMR, MMR, etc. • Reduced incidence of malnutrition captured in indicators like - anaemia, SAM, MAM, etc. • Reduction in morbidity in the working population in the industrial belt • Decrease in the attrition rate of the manufacturing workforce • Increase in the number of doctors and health professionals in government hospitals and PHCs 	<p>1, 2, 3, 4, 5, 6, 7, 10, 12</p>

	perks, Supporting amenities etc)	<ul style="list-style-type: none"> Improvement in the hospital infrastructure - hospital beds, surgical facilities, NICU facilities, etc. 	
<p>Vulnerability to Climate Change related disasters and the need for adaptation and mitigation</p> <ul style="list-style-type: none"> Port / coastal areas Forest / Deforestation faster than the rate of afforestation Wildlife conservation wildlife-human conflict Heavy rainfall - adaptation & mitigation Food security 	<ul style="list-style-type: none"> Stringent implementation/ monitoring of CRZ norms. Involvement of local population in coastal and forest conservation. Regulations concerning mechanized and deep-sea fishing. Wildlife-human conflict Landslide Risk Zonation Mapping Flood Risk Zonation Mapping Earthquake Risk Zonation Mapping Village-level disaster management committees (first district in Maharashtra, June 2023, Dahanu and in process for other talukas) Implementing NBCI, 2005, to ensure structural sufficiency for safety against various loads, forces, and effects due to natural disasters, such as earthquakes, landslides, cyclones, and floods. Use of ICT for Dissemination of Weather Forecast and Agromet Advisory to Farmers and Fishers Promoting local and Indigenous climate resilient variety of crops 	<ul style="list-style-type: none"> The existing Village Disaster Management Committee serves as a standard and resource for developing other talukas and districts. Conservation of existing biodiversity Mitigating the threat of development-related disasters such as landslides, poaching, deep-sea fishing, etc. Increased output, recognition and marketability of Indigenous varieties of crops of Palghar Improved food security 	13, 14, 15
<p>Heavy dependence on a select few sectors for skilled and low-skilled employment generation</p> <ul style="list-style-type: none"> Need for diversification of employment Developing sustainable local livelihood options 	<ul style="list-style-type: none"> Encouraging non-polluting and skill-based MSMEs in the district, like supporting the fashion industry, handicrafts, tourism & hospitality, agro-processing based on local agro-produce (especially GI tagged products), etc. To increase the vocational training facilities to produce skilled human resources for existing and upcoming industries. Improving commercial prospects by: a. highlighting the rich agricultural biodiversity of the district b. Indigenous varieties of meat and egg. Identification of indigenous varieties of crops for GI tagging. Development as a warehousing hub 	<ul style="list-style-type: none"> Livelihood opportunities generated by virtue of being a warehousing hub Initiation of MSMEs supporting tourism & hospitality, handicrafts, fashion industry and agro-processing. Positioning Palghar as a centre for procuring indigenous varieties of meat, eggs and crops. Identification of domestic and international markets for GI-tagged varieties of products. 	1, 8, 9, 10, 12
Distress out-migration of low-skilled and tribal	<ul style="list-style-type: none"> Employment generation can be achieved by increasing 	<ul style="list-style-type: none"> Improvement of HDI owing to the 	1, 2, 3, 4, 5,

<p>populations (that has an adverse effect on health and education indicators) & skilled out-migration as a result of lack of opportunities within the district (one of the drivers is the ease of travel/connectivity)</p>	<p>vocational training facilities to produce skilled human resources for existing and upcoming industries.</p> <ul style="list-style-type: none"> • Focusing on technical education aligned with industrial demand • Employment generation and improving access to livelihood opportunities by improving road connectivity with respect to the hilly and inaccessible terrain of the district. • Encouraging non-polluting and skill-based MSMEs in the district, such as supporting the fashion industry, handicrafts, tourism & hospitality, agro-processing based on local agro-produce, etc. • Improving village-level basic public infrastructure - schools, anganwadis, sanitation and water supply. 	<p>development of the district</p> <ul style="list-style-type: none"> • Retention of and increase in technically skilled local youths in the district • Access to alternate and allied livelihoods for tribal farmers in the off-season (agriculture) • Development of MSMEs in agro-processing and warehousing • Improved village-level basic infrastructure 	<p>6, 7, 8, 9, 10, 12</p>
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Having identified key economic, social and environmental issues and constraints for the district of Palghar, we have proposed interventions that will enable the district to achieve specific intermediate and long-term outcomes. We reiterate the need to recognize and protect the coexistence of two diametrically opposite faces of Palghar in the form of - economy vs ecology, coastal vs landlocked (forested), and urban vs tribal. The vision statement given below attempts to recognize the need to maintain these distinct identities of the district while also aspiring towards achieving a sustained growth trajectory.

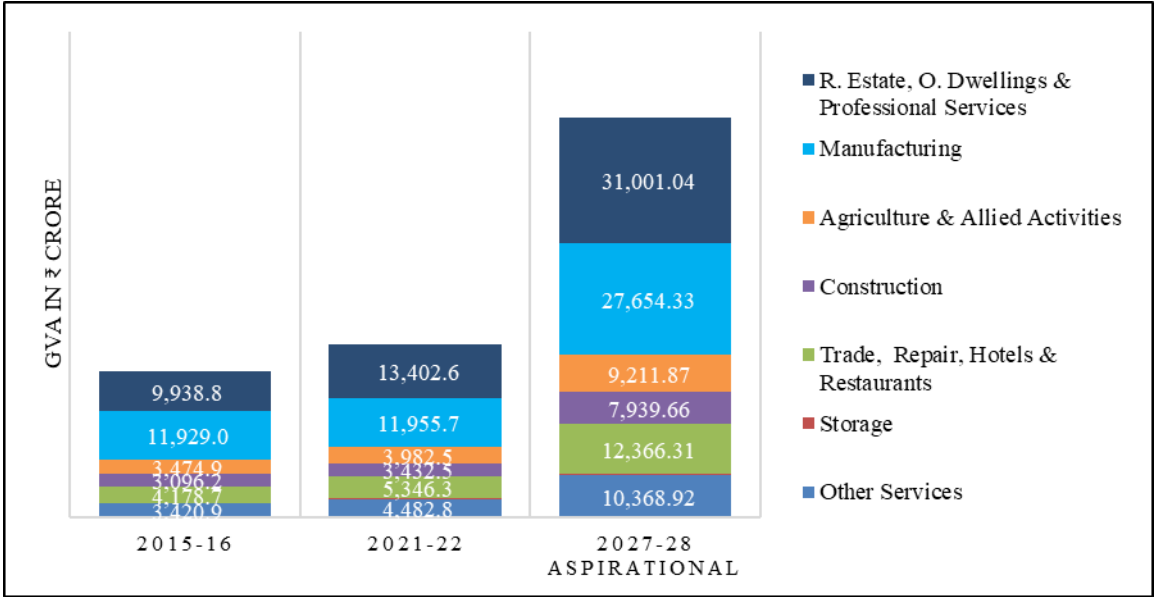
2.2 Vision statement

Tagline: Achieving Vision 2047: Economy and Ecology

Vision Statement: Safeguarding the ecological and human capital of the district by enhancing the economic growth (Current Prices) at 15% CAGR sustainably and equitably, resulting in a 131% growth in GDDP to reach ₹2,26,625 Crores (from ₹97,926 Crores in FY2022) and a 115% increase in per capita income to reach ₹6,11,247 (from ₹3,40,092 in FY2022).

Long-term objective: To promote Palghar as a Warehousing Hub, Affordable Housing Hub, and Food and Agro-processing Hub (including marine products) and to improve overall human and social capital

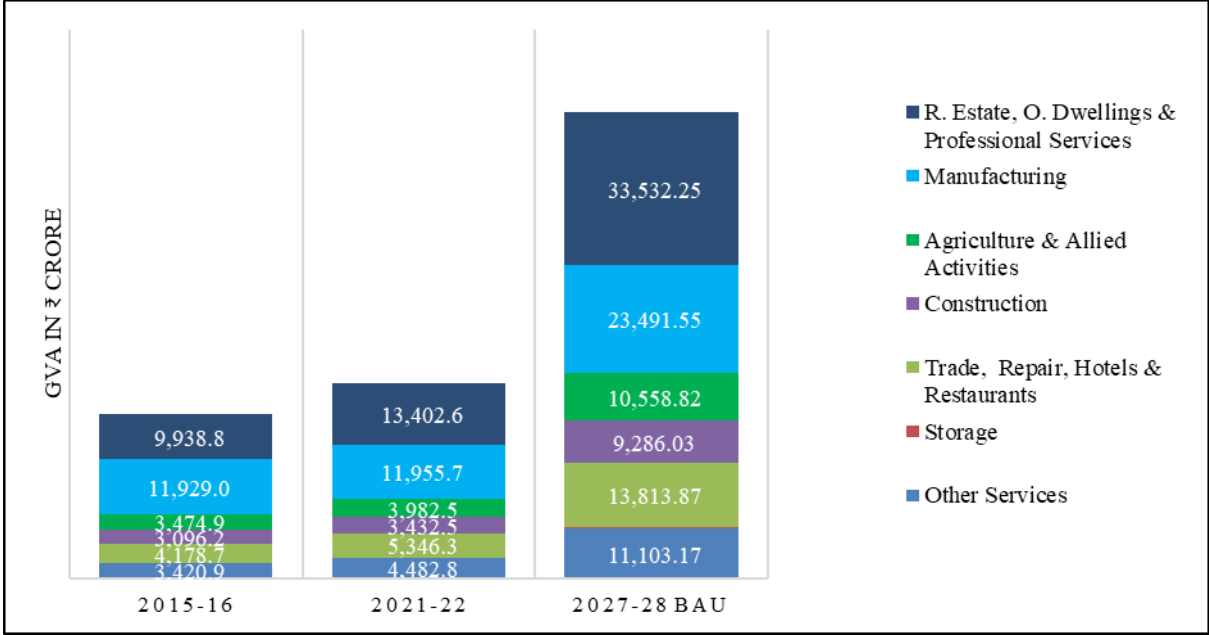
Figure 2.1 Sectoral GDVA with Aspirational target for FY2028



Source: Directorate of Economics and Statistics (2023-2023); Maharashtra Economic Advisory Council (2023); *Aspirational figures for FY2028 are computed with CAGR of 15%.

Business as Usual: To achieve this goal by FY2028, Palghar district should target 42% growth in GDVA to reach ₹1,49,450 Crores, necessitating a CAGR target of 7.3%.

Figure 2.3 Sectoral GDDP Business as Usual for FY2028



Source: Directorate of Economics and Statistics (2022-2023); Maharashtra Economic Advisory Council (2023); *BAU: Business as Usual.

Further in order to take steps in the direction of this vision the next chapter undertakes the identification of relevant focus sub-sectors which will facilitate achieving of the outcomes.

Chapter 3: Identification of priority sub-sectors & BCG matrix

As Palghar was carved out of Thane on August 1, 2014, it carries many spillover effects on the sub-sectors in terms of the factualness of their contribution to the GDDP. For instance, according to the Directorate of Economics and Statistics, Planning Department, Government of Maharashtra, the GDDP figures of Palghar district are derived from the Thane district's economic profile; hence, the sub-sector contribution for Palghar is similar to the Thane district.

Agriculture and allied activities are the key primary activities in Palghar that provide livelihood for most of the population. Its contribution to GDVA has been consistent around 7% from FY2016 to FY2022. Palghar has a good presence of industries in the Tarapur, Boisar, and Vasai regions that manufacture iron and steel, pharmaceutical, chemical, textile and garment, and fisheries and marine production, among others. Though it has been a critical sector for the economy, its share to the GDVA has been consistently declining from 24% in FY2016 to 20% in FY2022. On the other hand, the Real Estate sector has seen consistent growth, with its share of GDVA going from 20% in FY2016 to 24% in FY2022. This growth can be attributed to its proximity to Mumbai and Thane and the ensuing demand for affordable housing in these regions.

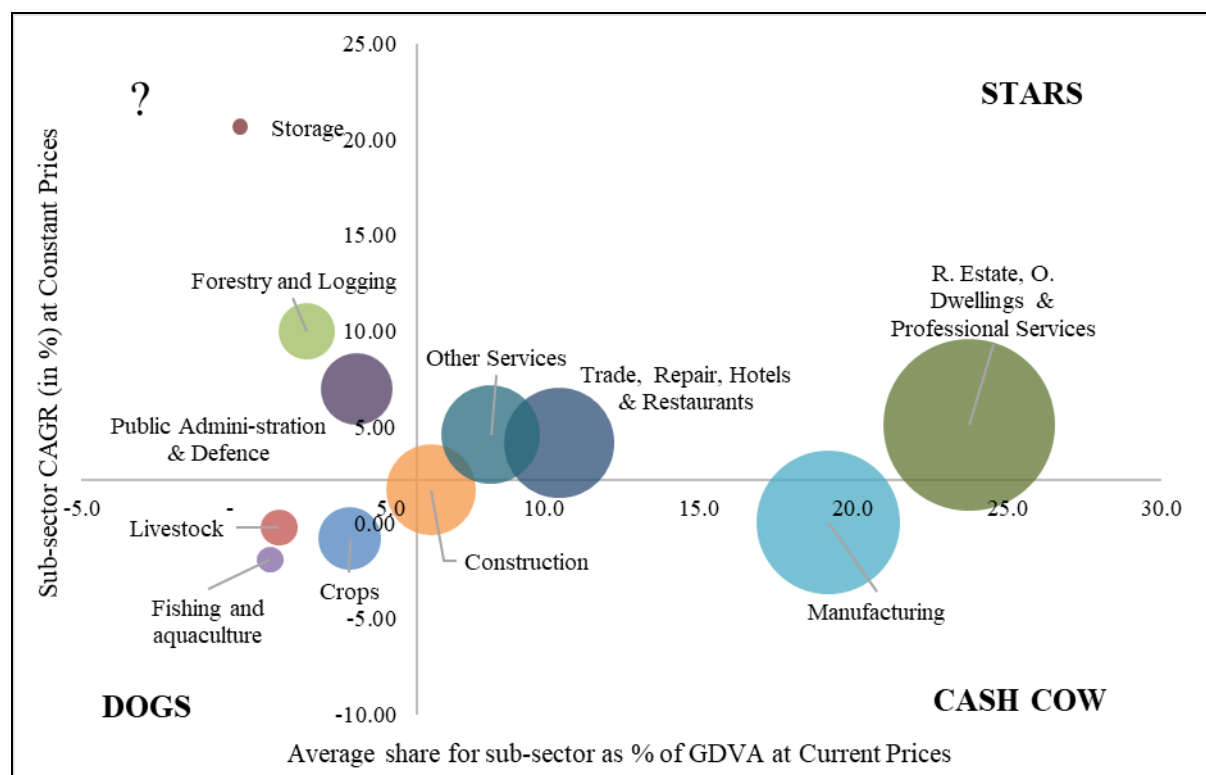
The priority sub-sectors were identified after triangulation of findings across three criteria: location on the BCG matrix, alignment with EAC report sub-sectors, and discussion with the stakeholders representing different sub-sectors.

Criteria 1: The relative location of the sector within the Boston Consulting Group (BCG) growth-share matrix. The BCG matrix considers two factors: share in GDDP (Current Prices) and growth rate (Constant Prices at base year 2012) for FY2016-2022 of the sub-sector. The BCG matrix is divided into four quadrants depending upon the specific combination of these two factors. These quadrants are STARS – High share in GDDP and high growth rate; CASH COWS – High share in GDDP and low growth rate; QUESTION MARKS – Low share in GDDP and high growth rate; DOGS – Low share in GDDP and low growth rate. Figure 3.1 shows the BCG matrix for Palghar, indicating all the sub-sectors relative positions.

Criteria 2: Alignment with the sub-sectors proposed by the Maharashtra Economic Advisory Council (EAC) 2023 report for the Thane district, including Palghar.

Criteria 3: Consultation with the District Planning Officer (Palghar) and various sector stakeholders across sub-sectors to provide their inputs on the priority of sub-sectors.

Figure 3.1 BCG Matrix for FY2016 to FY2022



Source: Directorate of Economics and Statistics (2022-2023)

Table 3.1 Priority sub-sectors in Palghar and their advantages

Sector	Sub-sector	BCG Matrix	District advantage
Primary	Agriculture a) Crops b) Livestock c) Forestry and Logging d) Fishing and Aquaculture	Question Marks (Low share in GDDP and high growth rate)	<ul style="list-style-type: none"> Proximity to high-demand markets like Mumbai ODOP: Gholvad Chikoo G.I.: Marine products and Wada Kolam Large Forest cover and scope for Forest-based economic growth Good fisheries infrastructure
Secondary	Manufacturing	Cash Cows (High share in GDDP and low growth rate)	<ul style="list-style-type: none"> The presence of established Industrial areas like Tarapur Multi-modal connectivity via mega projects Potential for processed meat, fisheries, and agro-processing
Tertiary	Real Estate, O. Dwellings & Professional Services	Stars (High share in GDDP and high growth rate)	<ul style="list-style-type: none"> Good connectivity to Mumbai & Thane via road and rail Land availability at low prices

	Trade, Repair, Hotels & Restaurants	Question Marks (Low share in GDDP and high growth rate)	<ul style="list-style-type: none"> • Locational advantage for becoming a warehousing hub • Rich natural landscape (coastal and forest) and cultural heritage • Balanced growth of Ecology and Economy with Human Development
	Other services (Health and Education)		
	Storage		

There is only one tertiary sub-sector, viz, Real Estate, O. Dwellings & Professional Services, identified as a Star with a high share in GDDP and a high growth rate. Its contribution to GDDP in FY2022 stood at ₹13402.6 Crores, accounting for 20.98% of the total GDDP. The real estate sector has great potential, given the proximity of Palghar to Mumbai and better connectivity via road and rail networks. The MMRDA jurisdiction has also been extended to include Palghar taluka and Vasai taluka to expedite the mega projects at various places in Palghar district (more details are covered in section 4.6 on the Real Estate sector). Manufacturing is identified as a Stable sub-sector with a high share in GDDP and a low growth rate. Its contribution to GDDP in FY2022 stood at ₹11955.73 Crores, accounting for 18.72% of the total GDDP. Palghar has maximum sub-sectors qualifying as Promising with a low share in GDDP and a high growth rate. These include Agriculture (Crops, Livestock, Forestry and Logging, and Fishing and Aquaculture), Tourism (Trade, Repair, Hotels & Restaurants), Construction, Storage, and Other services (Health and Education). A high growth rate for these sub-sectors offers an opportunity to push their contribution to GDDP further if given conducive policy support from the government.

There are a few sub-sectors with a moderate level of contribution to GDDP, such as Construction (5.37%), Financial Services (11.33%), Other Services (7.01%), Public Administration & Defence (3.6%), and Transport by means other than Railways (3.41%). However, while interacting with the Palghar district stakeholders, it was observed that the extent of these sectors' contribution to GDDP is lesser. We attribute this mismatch to the spillover effect of Thane district economic data that was used to calculate Palghar district GDDP calculations. For instance, the sub-sectors with a higher share of GDDP in Thane may not be contributing on the same levels to the Palghar GDDP owing to different resource endowments across each district. Therefore, we do not consider sub-sectors, namely Construction, Financial Services, Other Services, Public Administration & Defence, and Transport by means other than Railways, as focus sub-sectors for the strategic planning exercise.

Table 2.2 Inclusion of EAC Report Recommendations

Sector	Sub-sector	EAC Recommendations included for sub-sector
Primary	Crops	<ul style="list-style-type: none"> • <u>Driving farmer income growth</u>: Mechanization, crop mix, improved irrigation, and promoting horticulture • Strengthening FPOs and strengthening exports for ODOP • Improving post-harvest processing infrastructure
	Livestock	<ul style="list-style-type: none"> • <u>Dairy</u>: Improving average cattle yield • <u>Poultry</u>: Promoting contract farming for poultry collection and processing • Enhancing Goat, Sheep, and Piggery farming
	Fisheries and Aquaculture	<ul style="list-style-type: none"> • Promoting marine aquaculture • Promoting hatcheries and FPOs for shrimp exports • Exploring ornamental fishing
	Forestry and Logging	<ul style="list-style-type: none"> • Reforestation through community participation • Encouraging agroforestry and eco-tourism
Secondary	Manufacturing	<ul style="list-style-type: none"> • <u>Leveraging endowments (coastline and ports)</u>: Vadhvan Port (Dahanu) • <u>Enhancing multi-modal connectivity</u>: Railway, road network, and port. • Ensuring seamless connectivity to industrial and agriculture clusters • <u>Textile machinery manufacturing</u>: Incentivizing clusters to produce tech-based machinery • <u>Chemical industry</u>: Increase in concentration of Chemical hubs like Tarapur • <u>Pharmaceuticals</u>: Enhancing the capacity of pharma manufacturing and bulk drug clusters like Tarapur • <u>Textile and garment industry</u>: Investment opportunity • Processed meat and fisheries: Focus on the exports
Tertiary	Real Estate and allied	<ul style="list-style-type: none"> • Increase in penetration of Affordable Housing • <u>Leveraging central level schemes</u>: PMAY and Affordable Rental Housing Complexes. • <u>Warehousing real estate development</u>: Proximity to port; good rail and road network. • <u>Integrated Development</u>: Planning intertwined with the development of industry and service sector
	Tourism	<ul style="list-style-type: none"> • Developing tourism circuits • <u>Diversification of themes</u>: Agri and ecological tourism • MICE (Meetings, Incentives, Conferences and Exhibitions) OR Business Tourism: Proximity to Mumbai and Pune
	Storage	<ul style="list-style-type: none"> • <u>Warehousing sector development</u>: Proximity to port; good rail and road network.
	Others (Education)	<ul style="list-style-type: none"> • Improving Gross Enrolment Ratio and reducing Dropout Rates, especially among Tribal students • Imparting vocational training to students at higher secondary and

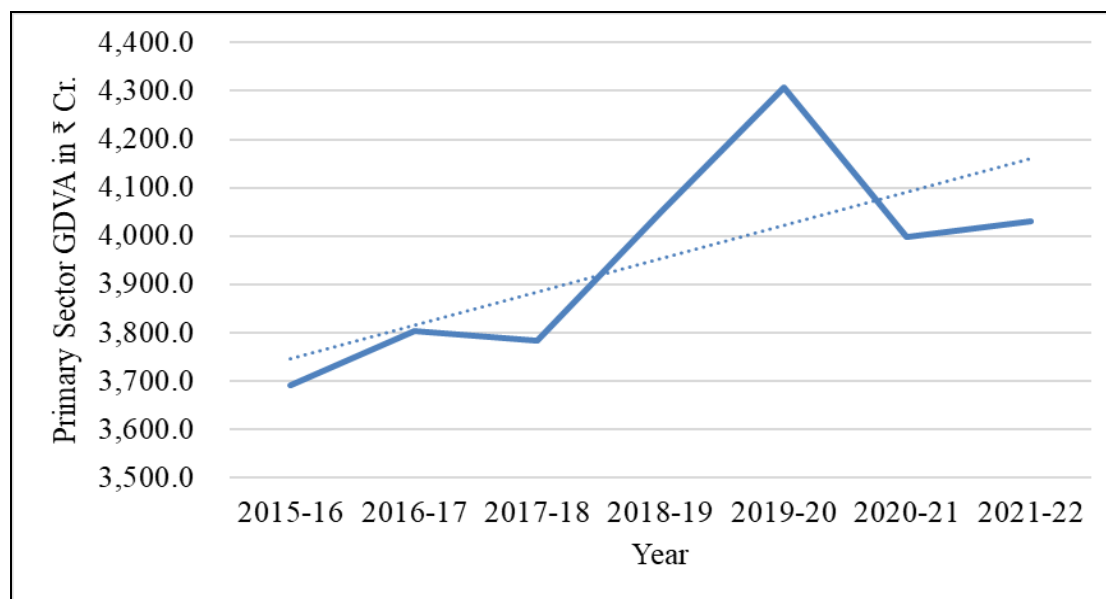
		higher education levels
	Others (Health)	<ul style="list-style-type: none"> • Upgrading district, mother-and-child and sub-district hospitals • Upgrading district and sub-district hospitals • Improving healthcare access and health scheme implementation

Chapter 4: Sub-sectors details and SWOT analysis

A) Primary sector – Agriculture and allied activities

Agriculture is a subsistence activity of Palghar that contributes 7% to the district GDDP and employs 60% of the workforce. Figure 4.1 presents sectoral growth from FY2016 to FY2022.

Figure 4.1 Primary sector GDVA FY2016 to FY2022



Source: Directorate of Economics and Statistics (2022-2023)

Palghar is primarily a rainfed agriculture district with an average rainfall of about 2458 mm with significant spatial variation in the normal rainfall ranging from less than 2000 mm/year to more than 2800 mm/year (Central Ground Water Board, 2022). As discussed in Section 1.2, calcareous soils found along the coast of Vasai, Palghar and Dahanu are suitable for the cultivation of paddy, fruits, and vegetables. Further, laterite soils found in Mokhada, Talasari, and other parts are suitable for growing millets and paddy. As shown in Table 4.1, the total area under cultivation is 147425 Hectares, and the percentage of total area under foodgrains to total gross cropped area is 75.98%. The district has a net sown area of 111255 Hectares, however, the net irrigated area is only 19200 Hectares as the agriculture is rainfed. The total number of farmers is 1,45,711, of which small and marginal farmers make up 80%.

Table 4.1 Agriculture sector details for Palghar

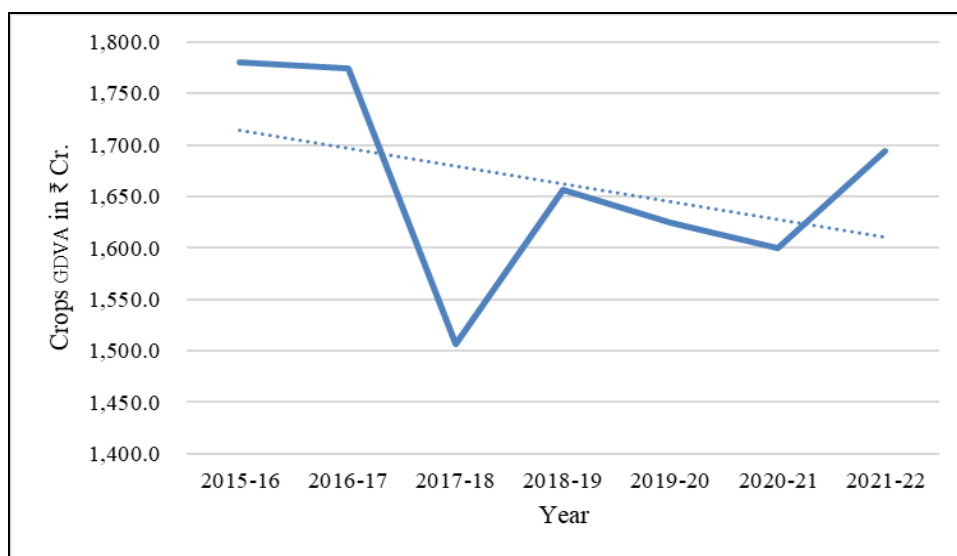
Sr No	Indicator	Details
1	Geographical area	469699 Hectares
2	Area under cultivation	147425 Hectares

3	Number of farmers	145711
4	Percentage of total area under foodgrains to total gross cropped area	75.8%
5	Per capita foodgrains production	49 Kgs
6	Average size of operational holdings (in Hectares) 2015-16	1.5 Hectares
7	Percentage classification by size class (in Hectares) of operational holdings 2015-16	
	Marginal (Below 1 hectare)	59%
	Small (1-2 hectare)	19.8%
	Semi-medium (2-4 hectares)	12.5%
	Medium (4-10 hectares)	7.1%
	Large (above 10 hectares)	1.6%
8	Tribal Land Holders	67427 (46 percent)
9	Area under Kharif season	110000 Hectares
10	Area under Rabi/Summer season	10555 Hectares
11	Area under Fruit and Vegetable	26870 Hectares
12	Area under Floriculture	513 Hectares
13	Average Rainfall	2458 mm.
14	Major Kharif Crops	Rice, Nagli/Ragi
15	Average productivity of Paddy	2404 Kg/Hectares
16	Average productivity of Nagli/Ragi	690 Kg/Hectares

Source: Directorate of Economics and Statistics (2022-2023)

4.1 Crops

Figure 4.2 Sectoral GDVA of Crops (FY2016 to FY2022)



Source: Directorate of Economics and Statistics (2022-2023)

Figure 4.2 depicts the decreasing annual growth trend for Crops. Kharif is the main season of agricultural activity, and rice is the major field crop cultivated, with the cultivation area of the rice crop being 79766 Hectares and a productivity of 2436 Kg/Ha. Nagli (ragi or finger millet) is the second major field crop with a cultivation area of 11923 hectares and a 926 Kg/Ha productivity. The cropping intensity is 119.60% (NABARD, 2022). In addition, barnyard millets, pulses, and oil crops are the other major crops in the district.

Table 4.2 Production details of Major Crops (2022-2023)

Sr. No.	Crop	Area (Hectare)	Production (Million tons)	Productivity (Kg/Hectare)
1	Rice	79766	1943	2436
2	Nagli/Ragi	11923	110	926
3	Barnyard Millet	8448	49	585
4	Pulses	7681	37	486
5	Oil Crops	1889	5	286
	Total	109706		

Source: Department of Agriculture Palghar (2023)

The Wada Kolam rice, Bahadoli Jamun, and marine products have a Geographical Indication (GI) tag. Under the One District One Product program, the Gholvad Chikoo has been identified for Sapota-based products for the Palghar district (Industries Department, Government of Maharashtra, 2022). The major horticulture crops, in addition to Chikoo, are Mango, Cashew, and Coconut. Table 4.3 presents the horticulture production scenario.

Table 4.3 Production details of fruits (2022-2023)

Sr. No.	Fruits	Production area in Hectares
1	Mango	10266.47
2	Cashew	3456.91
3	Chikoo	4413.00
4	Coconut	1627.47
5	Banana	292.48
6	Plum	48.63
7	Papaya	13.82
8	Guava	143.31
9	Jackfruit	22.74
10	Betel Nut	160.50
11	Betel Leaf	150.00
12	Other	116.69
	Total Fruit Production area	20712.02

Source: Department of Agriculture (2023)

Table 4.4 SWOT Analysis for Crops

STRENGTH	WEAKNESS
<ul style="list-style-type: none"> • Agriculture is the primary activity in the district. • Hot and Humid Climate with ample Rainfall suitable for agricultural growth. • Good connectivity by roads and railways. • Proximity to Mumbai and Thane. • A large number of Mango, Cashew and Chikoo processing units are present. • The district has agricultural income derived from geographical landmarks like Wada Kolam, Gholwad Chikoo, and Bahadoli Jamun. • High percentage of Organic Carbon supports higher productivity. • Rural-to-urban migration has been reduced due to self-employment in rural areas. 	<ul style="list-style-type: none"> • Lack of warehousing facilities and cold storage units. • Lack of mechanization in agriculture. • Lack of skilled workforce in agriculture. • 89% of farmers possess less than 2 Hectares of land. • Soil and water conservation works are limited due to the remoteness of the remote areas and hilly terrain. • A gradual decrease in the area under Paddy and Ragi/Nagli crops. • Gradual increase in the rates of labour and agricultural inputs leading to an increase in the cost of production.
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> • Collectivization of agriculture can increase crop productivity • Potential for automation and mechanization in Agriculture to increase productivity • There is scope for expansion of vegetable, flower and fruit orchards due to the proximity of a big market like Mumbai. • Fruit crops are cultivated on a large scale, and there is still room for cultivation. • Mangoes, Cashews and Chikoo yield huge amounts, so there is a huge scope for food processing industries. • Scope for organic farming in Rural areas. • Geographical Indication (GI) tag for Wada Kolam rice, Bahadoli Jamun, and marine products. • The Gholvad Chikoo has been identified for Sapota-based products for the Palghar district under ODOP. 	<ul style="list-style-type: none"> • Irregular weather and changing climatic conditions. • Most agricultural produce (fruits and vegetables) has a low shelf life. • Alternate bearing in Alphonso mangoes. • Tea mosquito bug in cashews and Spongy tissue in Mangoes. • Due to bad weather, heavy rains, floods, and storms, the agricultural products decrease, and the farmers suffer losses. Shortage of daily labour for agricultural business. • Agricultural mechanization is limited due to low land-holding capacity.

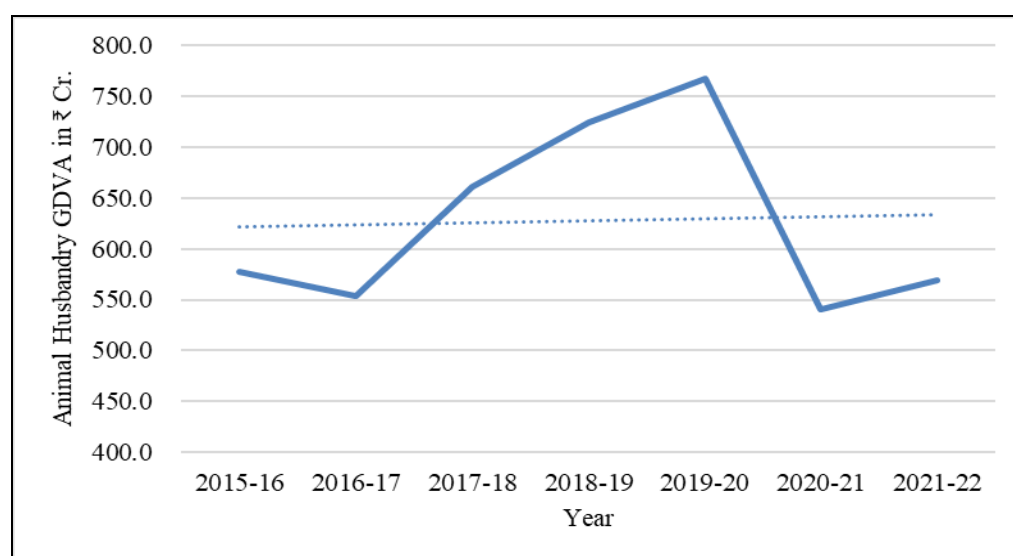
On the weaknesses front, the low proportion of irrigated areas is a major issue. Therefore, improvement in the irrigation infrastructure through the construction of micro/small/medium rainwater harvesting structures is imperative. Another area that needs focus is the promotion of Farmer Producer Organisations (FPOs) for collective farming and diversification to avoid mono-cropping of paddy. On the threats front, irregular weather and changing climatic conditions have

affected crop production patterns. Of particular concern is a steady decline in overall production that has a negative impact on the overall livelihood of farmers. There is a need to develop suitable crop varieties and strategies to counter the issues of changing climatic conditions.

4.2 Livestock

In the Palghar district, a total of 86 veterinary institutes (hospitals and clinics) and three moving teams are actively working to provide technical services to cattle, buffaloes, goats, boars, chickens, other poultry birds, and other animals. They also organize animal health camps and implement various government schemes. Given the various challenges due to the different geographical conditions of Palghar district, such as sea, hilly, and urban conditions, the animal husbandry department needs to update itself with new technologies and methods constantly.

Figure 4.3 Sectoral GDVA of Livestock (FY2016 to FY2022)



Source: Directorate of Economics and Statistics (2022-2023)

Table 4.5 Livestock sector details

Sr. No.	Particulars	Quantity (in number/respective units)
1	Cattle population	238404
2	Buffalo population	70233
3	Sheep-Goat population	113538
4	Poultry population	131421
5	Milk production	65695633 Litres
6	Meat production	25690686 Kg.
7	Egg production	329059632
8	Number of cattle buffaloes used for work per 1000 hectares of net area sown in 2019	779

9	Number of milch cows and buffaloes per 1000 persons in 2019	20
10	Number of livestock per 100 persons in 2019	13
11	Livestock (bovine) per sq.km. of total geographical area in 2019	51

Source: Department of Animal Husbandry Palghar (2023); Directorate of Economics and Statistics (2022-2023)

Animal husbandry provides a reliable alternative of income to small and marginal farmers. Therefore, there is an increased interest in it as people consider it a long-term self-employment prospect. There is a huge potential for the milk processing capacity from the current 9 lakh litres per day in 2022, which comes from the adjoining regions (NABARD, 2022). Specifically, there is a need to focus on the dairy business, production and sale of milk from the rearing of native cattle breeds cows, goat rearing business of various species, domestic poultry rearing (for eggs and meat) on a commercial basis and meat poultry rearing business on a contract basis, etc. Owing to this, according to the Department of Animal Husbandry Palghar, animal husbandry is witnessing steady growth while providing excellent future prospects.

Table 4.6 Major sub-sectors of Livestock

Sr. No.	Name	Utility
1	Dairy	Milk production Meat production (carabeef)
2	Goatery	Male goat farming Goat breeding farms
3	Poultry	Backyard poultry Broiler poultry- integrated & commercial Layer poultry- integrated & commercial
4	Piggery	Tourist demand Developing pork industry

Source: Department of Animal Husbandry (2023)

Table 4.7 Livestock sector veterinary institute details

Sr. No.	Particulars	Numbers
1	Total Veterinary Institutes (clinics and hospitals)	86
2	District Veterinary Polyclinic	01
3	Taluka mini-Veterinary Polyclinic	03
4	District Artificial Insemination Centre	01
5	Total ZP VD grade I institute	41
6	Total ZP VD grade II institute	44
7	Total mobile veterinary clinics	01

Source: Department of Animal Husbandry Palghar (2023)

Table 4.8 SWOT Analysis of Livestock sector

STRENGTHS	WEAKNESS
<ul style="list-style-type: none"> • Livestock provides an alternative source of income. • In the past few years, there has been an increase in the business of rearing meat birds on a contract basis in the district, and this business is getting sustainable financial income. • The migration of people from rural areas to urban areas for jobs and business is decreasing due to self-employment and financial income in rural areas. • Animal husbandry business in rural areas was earlier termed an agricultural supplement, but in today's scenario, animal husbandry business is truly gaining the status of a major business. • Due to the increasing demand for the meat and eggs of native birds in the market, the commercial business of rearing native birds has been increasing in recent times. 	<ul style="list-style-type: none"> • Scarcity of manpower to provide veterinary services under the Animal Husbandry Department. • Increased rates of green weeds due to the decrease in the area under cultivation. • The area of crops such as Jowar and Bajri is decreasing due to an increase in the price of dry fodder, and the cost of milk production is increasing. • Due to the continuous increase in the price of fodder, the cost of all animal products is increasing. • Due to the lack of supply of quality day-old piglets for this business, farmers often suffer financial losses due to the death of piglets during the initial rearing period.
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> • New employment can be created by setting up milk processing units in the market to provide clean, pure, and quality milk. • Due to the higher recognition of native cow milk in urban areas and increased rates, there will be a huge business opportunity for the youth. • There is a great opportunity to produce moor grass with the help of the silage baler machines. • The demand for moor grass is increasing day by day, and there is room for the production of quality moor grass in the future. • The number of layer poultry farmers in the district is small, and there is little scope for egg production from layer birds. 	<ul style="list-style-type: none"> • In recent times, farmers have had to bear economic losses due to outbreaks of severe epidemics in livestock. • There is no independent government mechanism to enforce biosecurity regulations in farms, solve problems of poultry traders, or regulate the business.

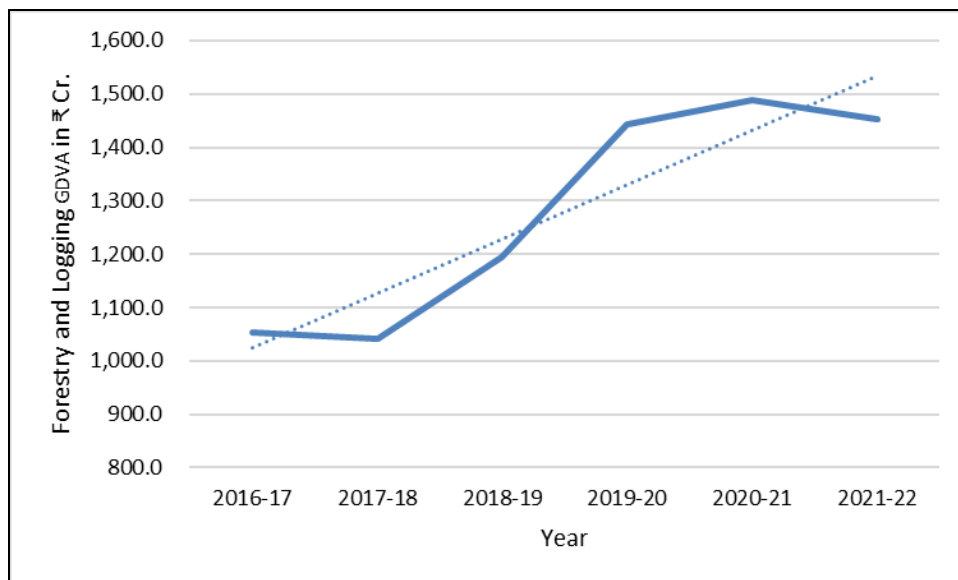
On the weaknesses and threats front, improvements in the existing livestock markets and promotion of livestock breeding through state and district support are imperative. Given the high demand for milk and allied products from neighbouring regions like Mumbai and Thane, clean and hygienic milk production supported by an efficient supply chain is needed. Further, consumers are also sensitive to quality, so emphasis on quality and hygiene factors is a must. The promotion of backyard poultry, commercial piggery, and stall-fed goat-rearing activities in tribal areas offers a lucrative and efficient alternative or additional income for the tribal population.

4.3 Forestry and Logging

Forest Division in Palghar governs approximately 38.38% of the district's geographical area, making it an important sub-sector. After the passage of the Forest Rights Act 2006, the rights of the tribal community over the local resources have been formally recognized in the form of Individual Forest Rights (IFR) and Community Forest Rights (CFR). The tribal community's development and growth are directly linked with the sustainable preservation of the forests. Any conservation activity and economic development prospect of the region has to consider the recognition of the rights of the tribal community.

Based on the agro-climatic profile of Palghar district, the region is well-suited for cashew cultivation. By providing local communities with quality planting material, establishing primary processing units, and imparting necessary skills, the region can emerge as a hub for cashew nut processing. This would not only create employment opportunities but also contribute to the overall economic growth of the area.

Figure 4.4 Sectoral GDVA of Forestry and Logging (FY2016 to FY2022)



Source: Directorate of Economics and Statistics (2022-2023)

The Forest Department's vision for the development of the Palghar district centres around empowering local communities for sustainable forest management and economic development. By blending modern scientific forestry practices with traditional knowledge and cultural practices, the department aims to create a harmonious balance between conservation and economic prosperity. Through training, market linkages, bamboo cultivation, and cashew cultivation, the Forest Department strives to unlock the potential of Palghar district, ensuring a prosperous and sustainable future for the tribal communities and the region as a whole. Agroforestry can be considered as a key avenue in Palghar. Following steps will foster its growth:

Awareness and Training Programs: Conduct awareness and training programs for local farmers to highlight the economic benefits of agroforestry and the importance of adopting modern conservation practices. These programs should emphasize the negative impacts of outdated practices on the environment and showcase successful case studies of agroforestry initiatives.

Financial Incentives: Provide financial incentives to encourage farmers to adopt agroforestry practices. This can include subsidies for purchasing tree saplings, implementing conservation measures, and establishing agroforestry systems. Financial support should be tailored to the specific needs of the region, taking into account the hilly terrain and high rainfall.

Access to Quality Planting Material: Ensure the availability of quality tree saplings suitable for the agroclimatic conditions of the hilly region. Establish nurseries or collaborate with existing nurseries to provide a steady supply of diverse tree species that are beneficial for agroforestry systems. Work with local agricultural universities and research institutes to develop improved varieties of trees suitable for the region.

Technical Support and Extension Services: Strengthen extension services provided by the Forest Department to offer technical guidance on agroforestry practices. This includes assistance in site selection, tree planting techniques, maintenance, and intercropping strategies. Conduct regular field visits and organize workshops to address farmers' queries and provide hands-on training.

Knowledge Sharing and Networking: Facilitate knowledge sharing among farmers engaged in agroforestry by organizing farmer-to-farmer learning sessions, workshops, and study tours. Encourage the formation of farmer cooperatives or associations to promote collective learning, resource sharing, and marketing of agroforestry products.

Market Linkages and Value Addition: Facilitate market linkages for agroforestry products, including timber, fruits, nuts, medicinal plants, and non-timber forest products. Collaborate with local industries, government agencies, and NGOs to develop value-added products and establish fair trade practices that benefit both farmers and consumers.

Monitoring and Evaluation: Establish a robust monitoring and evaluation system to assess the effectiveness of agroforestry interventions. Monitor the ecological impact, economic benefits, and adoption rates of modern conservation practices. Use this data to refine and improve future agroforestry programs and policies.

By implementing these action points, the Forest Department can effectively promote agroforestry in Palghar District, providing economic incentives for local farmers to grow more trees and adopt sustainable practices while safeguarding the region's natural resources and biodiversity. Further, the Joint Forest Management (JFM) initiative has the potential to significantly contribute to forest conservation while unlocking economic opportunities. By adopting a participatory approach, JFM committees can be reinvigorated through training and funding, enabling them to actively engage in primary production activities. These primary products can then be linked to Van Dhan Kendras, thereby creating market connections and fostering tribal enterprises. This report explores the market potential and success stories of other states to guide the implementation of similar strategies in Palghar District, Maharashtra.

Training and Funding for JFM Committees: To strengthen the JFM committees, providing them with adequate training and funding is crucial. Training programs should focus on capacity building, enabling committee members to manage and engage in primary production activities effectively. Financial support should be allocated to assist with infrastructure development, purchase of necessary equipment, and operational expenses, ensuring the smooth functioning of the committees.

Linking Primary Products to Van Dhan Kendras: The Van Dhan Kendras play a pivotal role in facilitating market access for tribal enterprises. Palghar District can leverage the existing Van Dhan Kendras network to connect primary products from JFM committees to larger markets.

Various products such as fruit candy, jams, juices, spices, pickles, and processed herbs can be processed and packaged at Van Dhan Vikas Kendras. These products can then be marketed through platforms like TribesIndia.com and Tribes India outlets.

Table 4.9 SWOT Analysis of Forestry and Logging

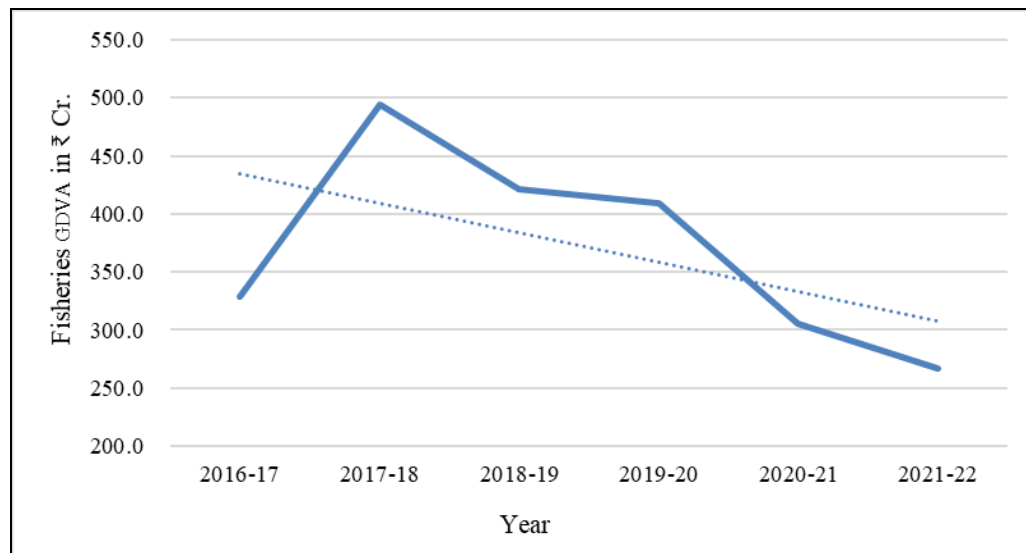
Strengths	Weakness
<ul style="list-style-type: none"> • <u>Rich tribal heritage</u>: The presence of tribal communities in the hilly areas provides an opportunity to leverage their knowledge and expertise in sustainable forest management and conservation. • <u>Diverse geographical regions</u>: The department has access to hilly, plain, and coastal areas, allowing for a variety of ecosystems and biodiversity. • <u>Tourism potential</u>: The coastal area offers significant economic opportunities through tourism development, capitalizing on the cultural background of tribal kingdoms and attracting visitors interested in exploring the region's natural beauty. 	<ul style="list-style-type: none"> • <u>Water scarcity</u>: The area faces water scarcity issues, particularly in summer, which can affect the health and growth of forests and wildlife. • <u>Infrastructure and connectivity challenges</u>: Basic infrastructure and connectivity-related issues might hinder the department's ability to efficiently manage and protect the forests. • <u>Limited resources</u>: The department may face limitations in terms of financial resources, manpower, and equipment necessary for effective forest management and conservation.
Opportunities	Threats
<ul style="list-style-type: none"> • <u>Agroforestry potential</u>: The region presents opportunities for implementing agroforestry practices, which can promote sustainable land use and provide economic benefits to local communities. • <u>Monsoon tourism</u>: With higher rainfall during the monsoon season, the Forest Department can explore and promote tourism activities that focus on showcasing the beauty and ecological significance of the region during this period. • <u>Proximity to major cities</u>: The connectivity to Mumbai, Nashik, and other areas presents an opportunity to attract nature enthusiasts and eco-tourists from these urban centres. 	<ul style="list-style-type: none"> • <u>Environmental degradation</u>: Factors such as deforestation, habitat loss, and improper land use practices can pose a threat to the forests and biodiversity in the region. • <u>Competition for resources</u>: As the coastal area develops its tourism sector, there may be increased pressure on natural resources, including forests, which need to be managed sustainably to avoid depletion. • <u>Climate change impacts</u>: Climate change can lead to unpredictable weather patterns, including changes in rainfall distribution and temperature, which can affect forest ecosystems and wildlife.

4.4 Fisheries

Given the 112 km of linear sea rays and an 85 km long coastline with 18 creeks in Palghar, fisheries acquire prominent importance in terms of livelihood and employment generation. There

are 74 fishing villages and 18203 active fishermen in the district. The total fish production in the year 2022–2023 is 43069 Metric Tons. There are 60 Cooperative Societies with 49400 members. There is one Fishermen Cooperative Union in the district. Currently, there are around 2030 fishing vessels (1999 mechanized and 31 non-mechanized) on the Palghar Sea coast.

Figure 4.4 Sectoral GDVA of Fisheries (FY2016 to FY2022)



Source: Directorate of Economics and Statistics (2022-2023)

Table 4.10 Fisheries production in last three years

Sr. No.	Year	Fish production (Metric Tons)
1	2020–2021	43220
2	2021–2022	25252
3	2022–2023	43069

Source: Fisheries Department Palghar (2023)

There are five main fishing centres and 24 fish landing centres. Fishing ports are spread across Palghar taluka (Satpati, Dativare, Murabe, Navapur, Dandi, Alevadi, and Nandgaon), Vasai taluka (Naigaon, Pacu port, Castle harbour, and Arnala), and Dahanu taluka (Bordi, Chinchani & Dahanu). The fish varieties include Pomfret, Surmai, Rohu, Katla, Bombil, Mrugal, Javla, and Prawns. Specifically, Pomfret and Surmai fish are in high demand from Mumbai, Palghar, and Vasai markets, accounting for the highest trade in terms of quantity and value (Fisheries Department Palghar, 2022).

Table 4.11 Fisheries sector details

Sr. no.	Particulars	Numbers
1	Total length of the coastline of the district	85 km
2	Fish production landing centres	24
3	Fishing villages	74

4	Active Fisherman	18203
5	Fish Production	43069 Million Ton
6	Number of Registered Fishing Boats	1999
7	Fisherman's Cooperative union	1
8	Cooperative Societies	60
9	Members of the Societies	49400
10	Ice factory/ Cold storage	NA
11	Government Khajan land area	3856.60 Hectare
12	Total distributed area	1973.00 Hectare
13	Number of Ponds of Fishery Department	3
14	Ponds transferred to Gram Panchayats under PESA	15
15	Number of Ponds of ZP	349
16	Number of Ponds given by Agriculture	1000
17	Individual fish ponds	50
18	Land water cooperative societies	12

Source: Fisheries Department (2023)

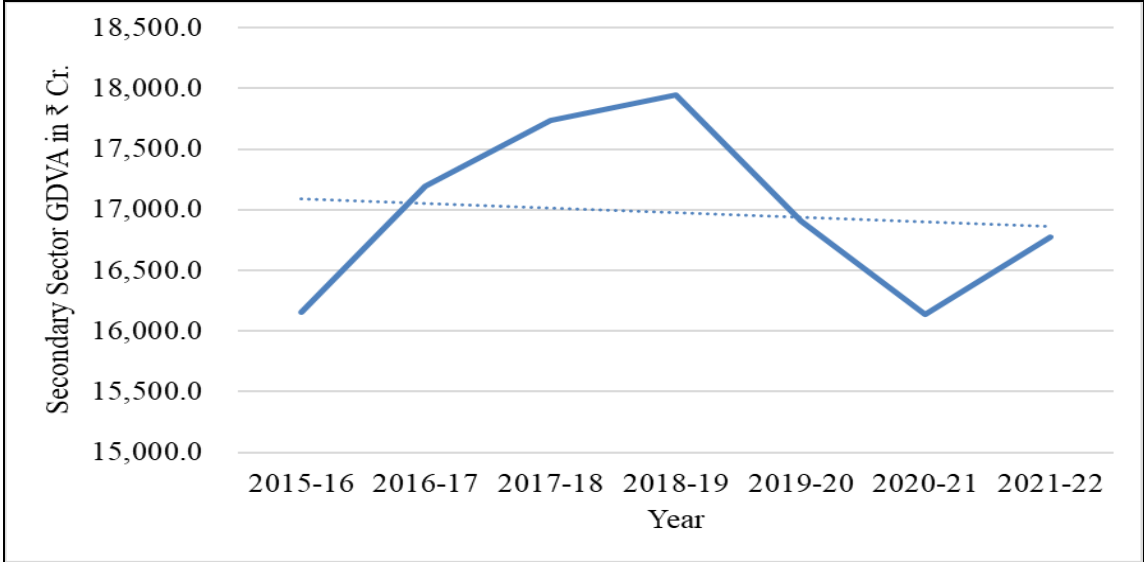
Table 4.12 SWOT Analysis of Fisheries sector

Strengths	Weakness
<ul style="list-style-type: none"> • The district has an 85 km long coastal zone with 18 creeks. • A total of 1999 technical boats and 31 non-technical boats. • Fisheries has two training centres and eight cold storages. • District has a total of three Prawns production projects. 	<ul style="list-style-type: none"> • Basic infrastructure is not available at production landing centres. • Lacking modern technology in fishing boats. • Lacking technical manpower.
Opportunities	Threats
<ul style="list-style-type: none"> • Increased export potential for fisheries and allied products. • Local employment generation. • Women-led growth of the sector. 	<ol style="list-style-type: none"> 1. Cyclone and natural calamities. 2. Man-made garbage/ Plastic and Industrial waste. 3. Rapid Coastal erosion. 4. Overflow of dams in rainy seasons.

On the weaknesses and threats fronts, urgent revamping of the existing infrastructure at fish landing centres and adoption of modern technology for fishing is imperative. Given the rising demand by the surrounding regions like Mumbai and Thane, there is a huge untapped potential for ornamental fisheries and marine processing. However, the government needs to urgently invest in mitigating the threats posed by natural calamities, industrial pollution to the sea, and coastal erosion to ensure the sustainable development of the marine industry.

B) Secondary sector

Figure 4.5 Secondary Sector GDVA (FY2016 to FY2022)



Source: Directorate of Economics and Statistics (2022-2023)

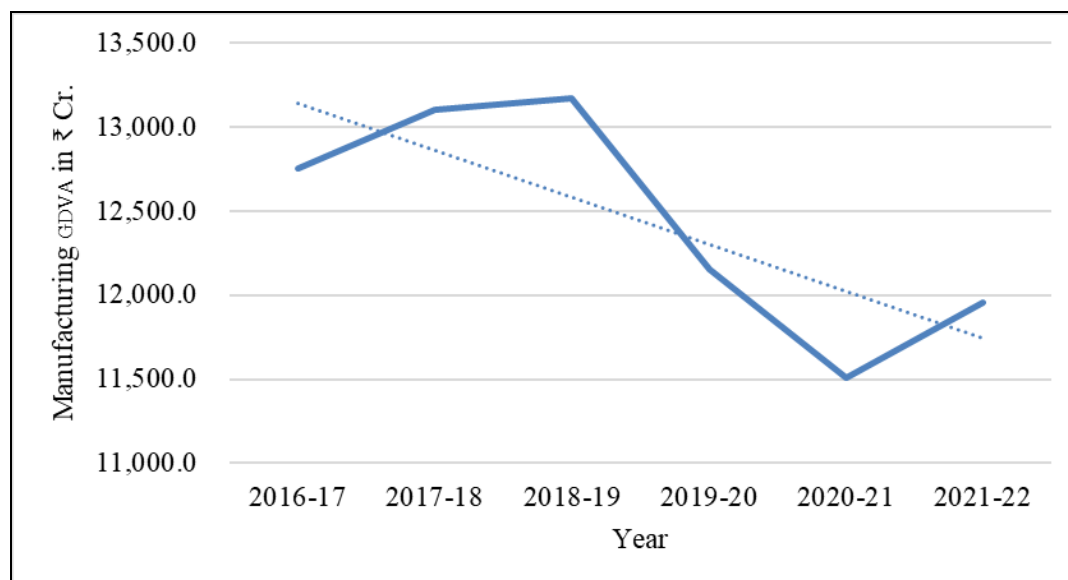
4.5 Manufacturing

Manufacturing contributes 18.7% to Palghar's GDDP, and it is only second to the real estate sector in terms of contribution to GDDP. However, the growth rate is negative at -1.82%. (Figure 4.5). In 2021-2022, Palghar contributed ₹26218.03 Crores to the total exports of Maharashtra, standing at ₹545083 Crores, accounting for 4.8% of the state's exports. Palghar district contributes (21.71%) of total exports from the Konkan region. The top 10 exporting products from the district contribute ₹13,250.24 crore (50.53%) of the total exports from the district. The top 10 exporting countries from the district contribute ₹12,221.95 crore, around (46.61%) of the total exports from the district. (Ernst & Young, 2023)

Palghar district's strategic location, proximity to major cities in Maharashtra and Gujarat, and improved infrastructure have attracted various industries. It has three Industrial areas for development and expansion of industries, namely the Palghar Taluka Cooperative Limited Industrial Colonies (8.8 Hectares), the Vasai Taluka Cooperative Limited Industrial Colonies (25.6 Hectares), and Tarapur MIDC (1028.54 Hectares). The industries in these areas are

engaged in the production of Iron and Steel, Pharmaceutical, Chemical, Textile and Garment, and Fisheries and Marine production.

Figure 4.6 Sectoral GDVA of Manufacturing (FY2016 to FY2022)



Source: Directorate of Economics and Statistics (2022-2023)

Table 4.13 Industries in Palghar

Sr. No.	Industries type	Total Units	Investment (in INR crore)	Employment Generation
1	Large Scale Industries	302	6820.42	35312
2	Small and Medium Scale Industries	6802	125733.57	139957

Source: Ernst & Young (2023)

Table 4.14 Industrial Clusters in Palghar

Sr. No.	Name of Cluster	Location	Speciality of Cluster	No. of SPV	No. of units	No. of Employment
1	Varli Painting and Farming	Jawhar, Palghar	Varli painting and farming	40	40	55
2	Chikoo	Talasari, Palghar	Chikoo	40	48	828
3	Furniture	Tarapur	Furniture	51	51	600
4	Fish cluster	Vikramgad	Fish products	51	51	2500

Source: Ernst & Young (2023)

Table 4.15 shows the top ten exported products in 2021-2022 from Palghar district and the major markets they cater to. The important industries are as follows:

- 1) **Manufacturing Industries:** Palghar district hosts a diverse range of manufacturing industries, including chemicals, pharmaceuticals, engineering, textiles, and plastics. The district's proximity to the Mumbai Metropolitan Region and excellent connectivity via roads and railways has fuelled the growth of these industries.
- 2) **Food and Agro Processing:** The district is also known for its food processing sector, including seafood processing and fruit processing (notably the Gholvad Sapota/Chikoo). The district's coastal location provides a natural advantage for seafood processing, and the overall climate is favourable for growing various varieties of produce. Another factor that induces the need for food and agro-processing facilities is the high demand from nearby markets like Mumbai and Thane, which are densely populated with high purchasing capacities. There is a good scope for the canning industry as the district produces good volumes of raw produce. However, there is a dearth of units needed for agro-processing, both for food-grain and horticulture produce. Contrastingly, the district has a good number of milk processing units for milk from other states and districts, but the overall milk production within the district stood at only 125670 Tonnes in 2021-2022 (Ministry of Fisheries, Animal Husbandry & Dairying, 2023). This indicates an increased potential for milk production and processing in the district. NABARDs Potential Linked Credit Plan (2023-2024) for Palghar suggests increased involvement of FPOs that link farmers and the processing industry. The report also suggests that the district can explore value-addition avenues by establishing clusters by encouraging SHGs to take up micro enterprises like pickle making, tomato soup, banana wafers making, etc.
- 3) **Pharmaceuticals:** Palghar has emerged as a pharmaceutical hub, with numerous pharmaceutical companies setting up manufacturing units. The pharmaceutical sector has been a major contributor to the district's economy and employment generation.
- 4) **Engineering and Auto Components:** The engineering and auto component industries have been growing steadily, capitalizing on the district's skilled workforce and improved infrastructure.

Table 4.15 Top 10 products exported from Palghar

Sr. No.	List of top 10 exporting products	Export value (in ₹ crore)	Major importing countries of the product
1	Iron And Steel Products	9,136.43	Turkey, Netherlands, Italy
2	Other Screws and Bolts	803.50	Netherlands, Italy, Germany
3	Flanges Of Stainless Steel	780.09	Netherlands, Belgium, Canada

4	Other Medicine put up for Retail Sale	673.40	Philippines, Nigeria, Chile
5	Other Household Article of Stainless Steel	422.39	USA, UAE, Senegal
6	Aluminium Ingots Alloyed	358.44	Japan, China, Bangladesh
7	Beamschannels, Pillars and Girders Prepared For In Structure	329.69	USA, Australia, Spain
8	Other, Containing Antimalarial Active Principles Described	291.88	Nigeria, Kenya, Ghana
9	Caffeine and its Salts	244.60	USA, Russia, Puerto Rico
10	Other Diloxanide Furoate, Cimetidine, Famotidine	209.82	Brazil, Russia, Bangladesh

Source: Ernst & Young (2023)

One District One Product for Palghar

According to the Maharashtra One District One Product (ODOP) Booklet published by the Directorate of Industries (Export Division), Industries Department, Government of Maharashtra in March 2022, there are three products identified for the Palghar district, namely Dahanu Gholvad Chikoo (Sapota), Varli Painting, and Fisheries and Marine Products.

1. Dahanu Gholvad Chikoo (Sapota): Palghar district produces around 36% of total Chikoo production from Maharashtra state. There are around 48 units operating in the Dahanu Chikoo cluster across the district hubs at Dahanu, Bordi, Talasari, and Gholvad. Gholvad Chikoo is GI-tagged, and compared to other varieties, its sweetness is much better. The export value for Gholvad Chikoo in 2021-2022 stood at ₹ 0.26 Crores across markets like UAE, Bahrain, UK, Oman, Qatar, Saudi Arab, Canada, Kuwait, Singapore, and Germany. There is a huge opportunity for market expansion in nations like the USA, China, the European Union, Hong Kong, China, Japan, and Russia. (Ernst & Young, 2023).
2. Fisheries and Marine Products: Palghar has Maharashtra's largest fishing port at Satpati. The export value for marine products in 2021-2022 stood at ₹120.83 Crores across markets like Taiwan, Belarus, Russia, South Korea, Japan, Singapore, Thailand, Malaysia, Lithuania, and China. There is a huge opportunity for market expansion in nations like the USA, Spain, the Dominic Republic, Poland, France, Bangladesh, the Philippines, and Italy. (Ernst & Young, 2023)
3. Varli Painting: The Varlis (indigenous tribe in Palghar), who are Varli painting makers, are known for preserving the cultural tradition of painting stretching back to 2500 or 3000 BCE. Varli paintings got a GI tag in 2014 and offer a promising avenue for income. Varli paintings are tribal art mainly done by the women folk, and these paintings are drawn for special

occasions such as festivals, harvest, marriage, etc. The most important aspect of the painting is that it does not depict mythological characters or images of deities but depict social life pictures of human beings and animals, along with scenes from daily life are created in a loose rhythmic pattern.

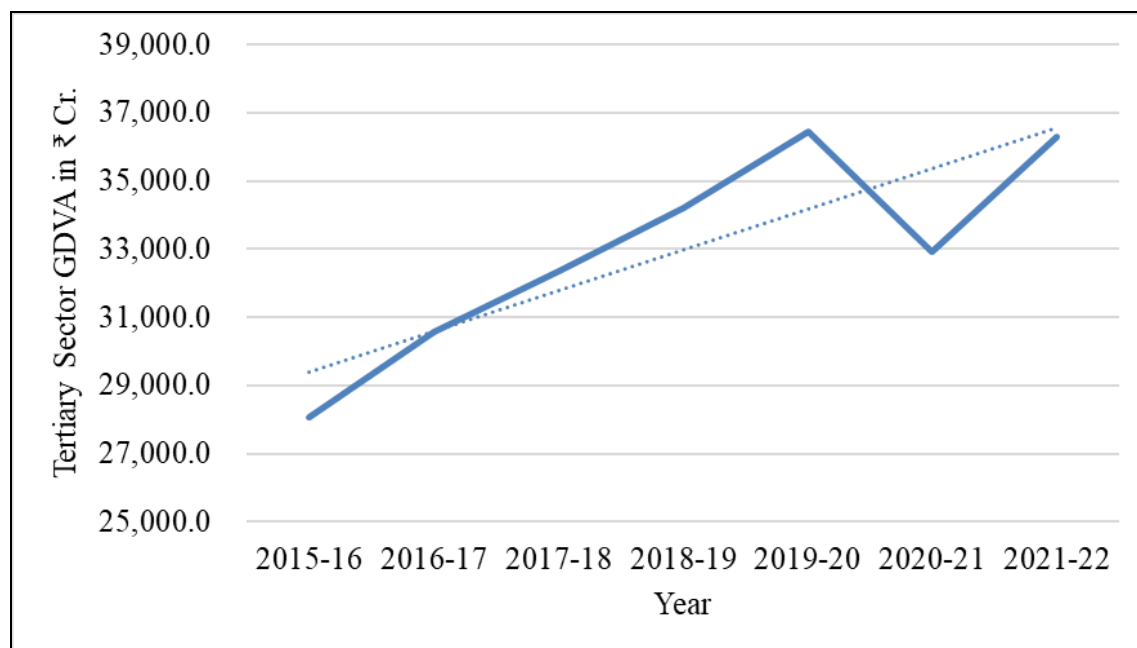
Table 4.16 SWOT Analysis of Manufacturing sector

STRENGTHS	WEAKNESS
<ul style="list-style-type: none"> • Infrastructure: Vadhvan Port, Coastal Zone, Railway Line connecting Mumbai and Gujarat Market, Delhi Market • Economic Drivers are agri-based and agro-processing Industries. • Excellent connectivity for Vasai, Palghar, Dahanu, and Talasari. • Institutional Support is available through banks, Financial Institutions, and NABARD. • The district has emerged as a significant iron, steel, pharmaceutical, chemical, textile, garment, fisheries, and marine production hub in Maharashtra. • Investment opportunities in the Palghar district are in the below-mentioned sector: Export, Engineering Equipment, Sheet Metals Industry, etc. • The district has emerged as a commercial hub for iron and steel, fisheries, and marine products due to the high availability of sector-specific infrastructure, such as 112 km linear sea rays. 	<ul style="list-style-type: none"> • Relatively low education level. • Limited options for higher education. • Insufficient health infrastructure. • Poor telecommunication network. • There is no operational airport. • Lack of ESIC Facility. • Lack of Cold Storage & Warehouses. • Lack of skilled, trained manpower. • Lack of Jawhar-Mokhada connectivity with District Headquarters.
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> • Palghar District has a large scope for urbanization. • Ease of living • Scope for Innovation in value-added products. • Tourism and service-based industries. • Large Scope for Export 	<ul style="list-style-type: none"> • Mokhada, Jawhar, and Vikramgad talukas in the Palghar District are comparatively backward areas in terms of industrial development and infrastructure. • Eco-Sensitive and Eco Fragile Zones in Dahanu and adjoining Taluka have arrested the industrial development.

On the weaknesses and threats fronts, there are a number of challenges that need urgent attention. For instance, there is an urgent need to set up nodal centres for the Pollution Control Board, Industrial Safety and Health Office, and Labour Commissioner office, among others, to ensure stable manufacturing sector growth. Further, the skilling of manpower and arterial connectivity needs to be urgently addressed to ensure balanced growth across the district.

C) Tertiary Sector

Figure 4.7 Tertiary Sector GDVA (FY2016 to FY2022)



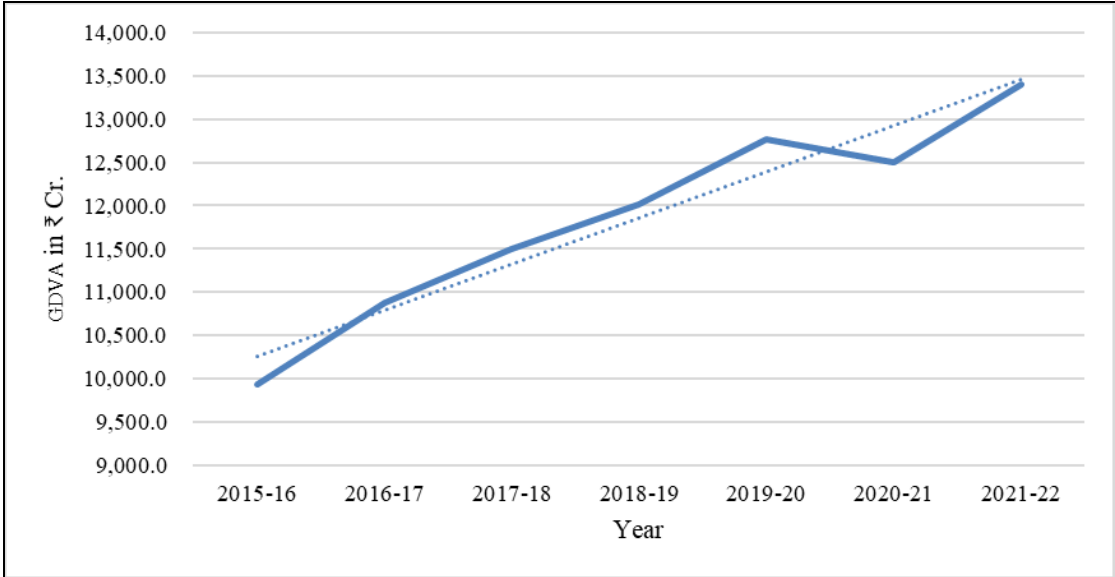
Source: Directorate of Economics and Statistics (2022-2023)

4.6 Real Estate and Allied Activities

Palghar district offers immense opportunity to become an affordable housing hub given its proximity to Mumbai and Gujarat, ease of accessibility, and ample available land parcels, enabling the affordability of housing. Specifically, the Mumbai Local Train line to Dahanu station and the National Highway (NH-8) provide fast connectivity to Mumbai city, making four Talukas, viz., Vasai, Palghar, Dahanu, and Talasari a preferred destination for housing.

As per Figure 4.8, the Real Estate and allied sector has been growing consistently from FY2016 onwards. From the Real Estate market perspective, the Palghar district is divided into two regions, namely Vasai-Virar and the rest of Palghar. According to the MMR Housing Year End Analysis CY 2022 report by CREDAI-MCHI and CRE Matrix, the total number of housing units sold in the year 2022 in the Vasai-Virar region was 11403, and for the rest of the Palghar region was 4048. This information stands out because the Vasai-Virar region accounts for 75% of the total housing sales in 2022, indicating its strategic importance. There is one more aspect making the Vasai-Virar region distinct from the rest of the Palghar region: the year-on-year housing sales from 2021 to 2022 increased by 24% for Vasai-Virar and at the same time, decreased by 17% for the rest of the Palghar region (CREDAI-MCHI CRE-Matrix, 2023).

Figure 4.8 Real estate and allied sector GDVA (FY2016 to FY2022)



Source: Directorate of Economics and Statistics (2022-2023)

The affordability of housing is an important aspect in the Palghar district. In the third quarter of 2022, the average housing price for the MMR region was ₹16890 per square foot, while for the Vasai-Virar region, it was ₹8024 per square foot, and for the rest of the Palghar region, it was ₹4820 per square feet. The house prices (in square feet) are a percentage of the MMR house prices for the Vasai-Virar region and the rest of the Palghar region, which are approximately 50% and 25%, respectively. Accessibility coupled with affordability makes Palghar district an important affordable housing destination in the MMR region.

Major infrastructure projects

In addition to the Mumbai Local Line and NH-8, the district is witnessing several mega infrastructure projects that will have a long-term implication on the Real Estate sector. These projects include:

- 1) **Mumbai–Ahmedabad High-Speed Railway (HSR) Corridor (Bullet Train):** The approximately 508 km long HSR line will be connecting Mumbai in Maharashtra with Ahmedabad in Gujarat. It will pass through three districts in Maharashtra, namely Mumbai, Thane and Palghar, and eight districts in Gujarat, namely Valsad, Navsari, Surat, Bharuch, Vadodara, Anand, Kheda and Ahmedabad. Even though the HSR line passes along existing railway and road highways, some parts of Palghar pass through tribal-dominated areas. Further, the HSR line has four stops, viz. Mumbai (Bandra Kurla Complex), Thane, Virar, and Boisar. With two stations in the Palghar district at Virar and Boisar, the HSR line gains strategic importance from the perspective of the Real Estate sector.

Figure 4.9 HSR Line (Bullet train route map)



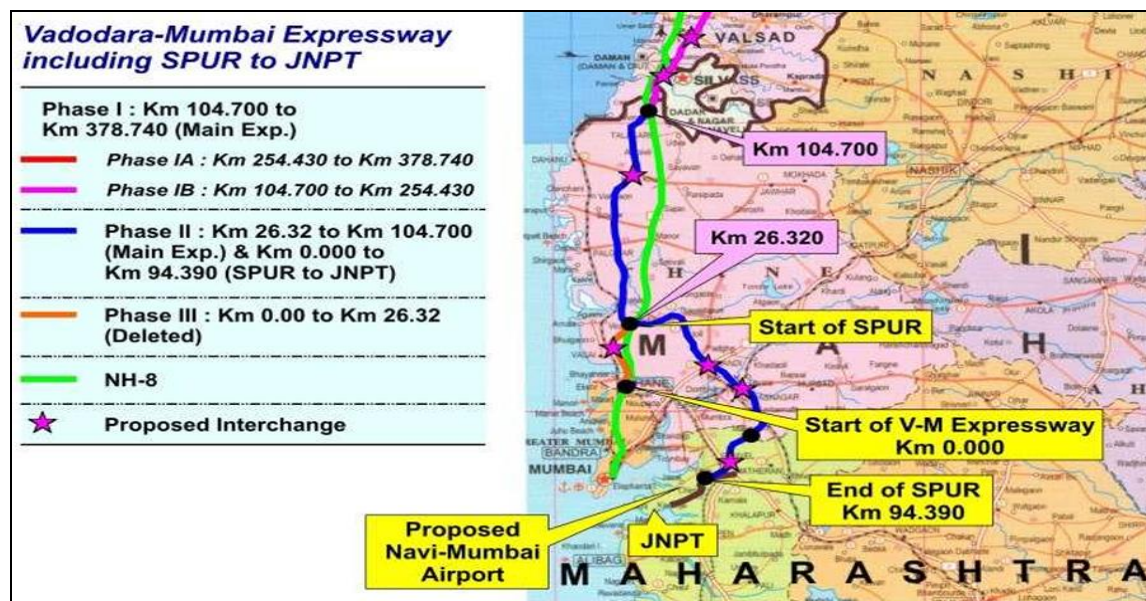
Source: National High Speed Rail Corporation Limited (NHSRCL) (2023)

The high-speed connectivity between multiple business centres and residential regions stimulates overall economic growth in the region. Cohen (2023) reviewed literature on the economic impact of HSR and categorized these impacts into five types as follows: a) improvement in job creation and economic output (including direct, indirect, and induced effects); b) improvement in tourism; c) enhancing housing and affordability aspects; d) enabling station area and regional development, and e) other economic benefits. In a similar study, Ahlfeldt and Feddersen (2010, p.1) analyzed a case study of the German high-speed rail track connecting Cologne and Frankfurt and observed that: “high-speed rail systems, by bringing economic agents closer together, sustainably promote economic activity within regions that enjoy an increase in accessibility”. Further, the study also revealed a direct correlation between increased market access through HSR connectivity and a rise in GDP – for every 1 per cent increase in market access, there is a 0.25 per cent rise in GDP. In the context of the Mumbai–Ahmedabad High-Speed Railway (HSR), a recent study by IIT Bombay researchers examined the HSR-induced regional inequity in accessibility and found that HSR reduces inter-regional travel times by 45% but increases the inequity in accessibility by 19% (Karamarkar et al., 2024). Further, the study suggests that HSR’s integration with conventional rail results in a 53% reduction in travel time and only an 8.5% increment in inequity.

Rapid accessibility to the two stations in Palghar at Virar and Boisar can effectively lead to an increase in direct and indirect employment, a boost in tourism and business, and overall improvement in the socio-economic status of residents. Specifically, Boisar being an industrialized area, the presence of HSR station can positively impact the region's labour mobility.

2) **Mumbai-Vadodara Expressway:** The proposed expressway passes through 51 villages across four talukas (Vasai, Palghar, Dahanu and Talasari) of Palghar district in the state of Maharashtra.

Figure 4.10 Vadodara-Mumbai Expressway route map



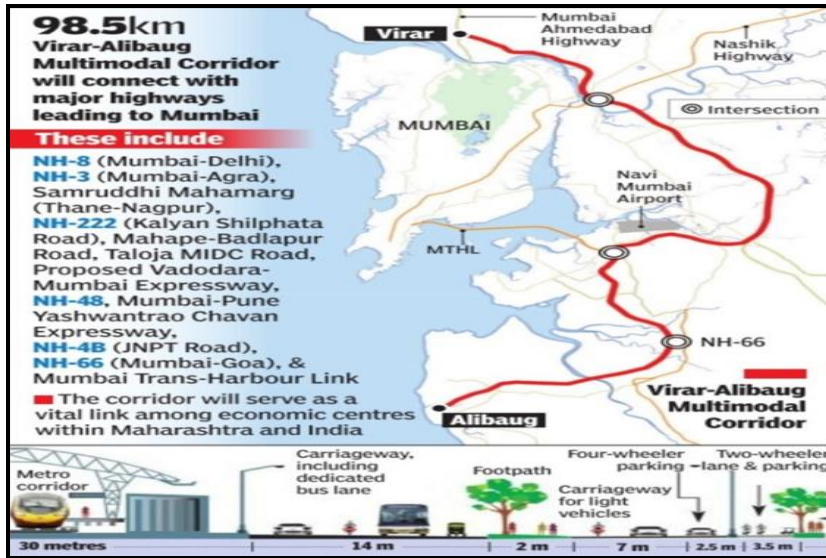
Source: National Highways Authority of India (2019)

It crosses Palghar-Manor-road, Boisar Road, Tarapur, Masvan, and Pulachapada roads, which connects these 51 villages with NH-48 (old NH-8). Broadly, this expressway will enable real estate and industrial growth in the Palghar district.

3) **Virar-Alibaug Multi-Modal Corridor (VAMMC):**

The 98.5 km long MMC envisages providing connectivity to existing and future growth centres in the MMR by linking Virar to Alibaug. The route passes through the Thane and Raigad district of Maharashtra and runs parallel to Bassien Creek (Vasai Creek) up to Ulhas River (near Kalher). It is envisaged that the MMC will lead to improved connectivity to major roads such as NH-8, Bhiwandi bypass, NH-3, NH-4, NH-4B, Mumbai Pune Expressway, NH-17, among others. It will enable the growth of seven Growth centres identified by MMRDA, such as Virar, Bhiwandi, Kalyan, Dombivali, Panvel, Uran and Taloja MIDC in the MMR Region.

Figure 4.11 Virar-Alibaug Multi-Modal Corridor route map



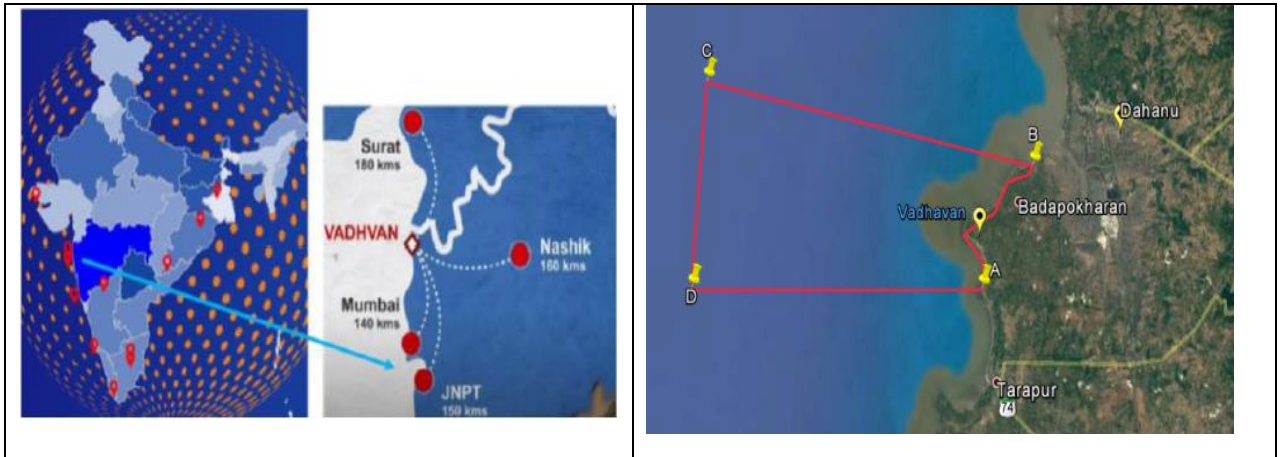
Source: Times of India (2023, June 28)

Further, the MMC will provide faster access to JNPT, the proposed Navi Mumbai Airport, the Mumbai Trans Harbour Link (MTHL), and the Dedicated Freight Corridor (DFC). (Ministry of Environment, Forest and Climate Change Government of India, n.d.)

4) Vadhvan port (वाढवण) :

It is a mega port being developed under the Government of India initiated the ambitious SAGARMALA project developed by JNPT (Jawaharlal Nehru Port Trust) and MMB (Maharashtra Maritime Board) as a Joint Venture Project with an equity share of 74% & 26% respectively. Located near Dahanu, in Palghar District and 150 Km from Mumbai, the Vadhvan Port has the potential to cater to states like Maharashtra, Gujarat, Western parts of Madhya Pradesh, and North Indian states. The Vadhvan port benefits from a pre-existing network with the Mumbai-Delhi western railway line located at a distance of 12 km, NH-8 located at about 34 km, and the Mumbai-Vadodara Expressway at about 18 km. It is envisaged that the port will be linked by dedicated Rail and Road. The Vadhvan Port will add a container capacity of 15 million Twenty-Foot Equivalent Units (TEUs) in the year 2035, which will increase to 23.9 Million TEUs by 2040. (Jawaharlal Nehru Port Authority, n.d.)

Figure 4.12 Location map of Vadhvan port



Source: Jawaharlal Nehru Port Authority (JNPA) (n.d.)

The proposed Vadhvan port is strategically important for Palghar's growth. It will impact every aspect of the ecosystem, ranging from marine life to the population residing near the port, businesses, and industry in Palghar.

5) **Delhi-Mumbai Industrial Corridor:**

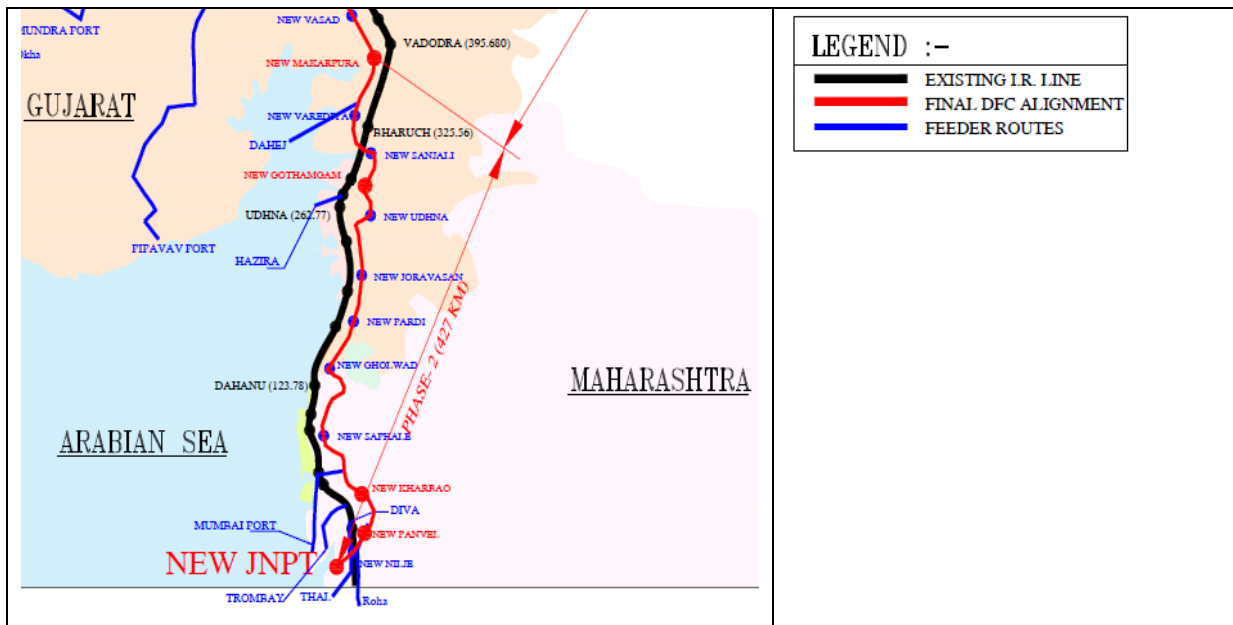
The Delhi-Mumbai Industrial Development Corridor (DMIC) is proposed as a new dedicated freight railway. The corridor has identified 24 growth regions comprising of industrial regions and industrial areas of 100-200 sq km. In addition to providing improved freight transport services, the DMIC also envisages building a world-class industrial region with a large export market which can attract FDI. According to the Perspective Plan DMIC (2009), the growth regions in Maharashtra include Nandurbar, Dhule, Nashik, Thane, Mumbai (Suburban), Mumbai, Raigad, Pune, Ahmednagar, and Aurangabad. Further, the plan report also identifies potential growth sectors such as Textile and Apparel, Food products and Beverages, and Chemicals, including petrochemicals, plastics and pharmaceuticals, among others (National Industrial Corridor Development Corporation, 2009).

Surprisingly, even though Palghar already has a substantial manufacturing base for textiles and apparel, chemicals, pharmaceuticals, and food processing, Palghar's industry region does not figure in the DMIC plan. This fact assumes added significance given the upcoming Vadhvan port in Dahanu (Palghar), which is considered to handle approximately 15 million TEUs by the year 2025.

In addition to these mega projects, there are some local infrastructure development projects that will have direct effects on the real estate sector's growth. For instance, currently, a double line exists between Virar and Dahanu that severely inhibits people's seamless movement. Considering this bottleneck, the Mumbai Rail Vikas Corporation

(MRVC), through Phase – III of MUTP has plans to commission regular suburban rail services up to Dahanu Road and accordingly quadrupling of tracks between Virar to Dahanu Road. As a result, the connectivity from Virar to Dahanu and six stations in between will be enhanced enabling easy accessibility for daily to and fro traveling for people. According to the authorities, this project will be completed by the year 2025 (Mumbai Rail Vikas Corporation, 2013).

Figure 4.13 Routes and Stations of Western Corridor



Source: Dedicated Freight Corridor Corporation of India Ltd (DFCCIL) (n.d.)

Another project is the Versova-Virar Sea Link executed by the Mumbai Metropolitan Region Development Authority (MMRDA), which is planned to be extended to connect the Palghar coastal region as well. After completion, this project will act as a bypass route for commuters travelling from South Mumbai to Vasai, Virar, and onward locations. The enhanced connectivity will directly boost the Tourism potential of the Palghar district. In addition, a satellite airport at Dapchari village near Vadhvan port has been announced, and the land acquisition process has already been initiated in 2023.

Overall, these major infrastructure projects with varying completion timelines will have a combined effect on Palghar's economy. Therefore, it is essential to conceive a strategic development plan for the Real Estate sector to make the most of this opportunity. However, it is also important to look at various challenges, such as unauthorized urbanization and lack of local infrastructure, which are holding back the Real Estate sector's growth potential. The SWOT analysis presented in the next section presents a comprehensive review of the sector.

Table 4.17 SWOT Analysis of Real Estate sector

STRENGTH	WEAKNESS
<ul style="list-style-type: none"> • Proximity to Mumbai and Gujarat. • Multimodal connectivity to business centres (rail and road) at Mumbai and Thane. • Proximity to the Industrial area around Tarapur, Palghar, and Vasai. • Long coastline (112 km) with beaches and seashore. 	<ul style="list-style-type: none"> • Poor internal road connectivity (e.g. From the east to the west side of the railway track). • Poor infrastructure for health, education, power, entertainment, sanitation, and sewage. • Major forest land and eco-sensitive zone. • Lack of availability of big (>25 acres) land parcels for development.
OPPORTUNITY	THREATS
<ul style="list-style-type: none"> • A lot of scope for greenfield development. • Land prices are low compared to those in Mumbai and Thane. • Upcoming mega projects like Bullet Train, Mumbai Vadodara Expressway, and others will drive the real estate sector. • Big scope for Tourism industry development. 	<ul style="list-style-type: none"> • Unauthorized and unplanned development. • Coastal area regulations limiting vertical growth. • Competition from Thane real estate market in terms of project launches. • Lack of investment of large players in the sector.

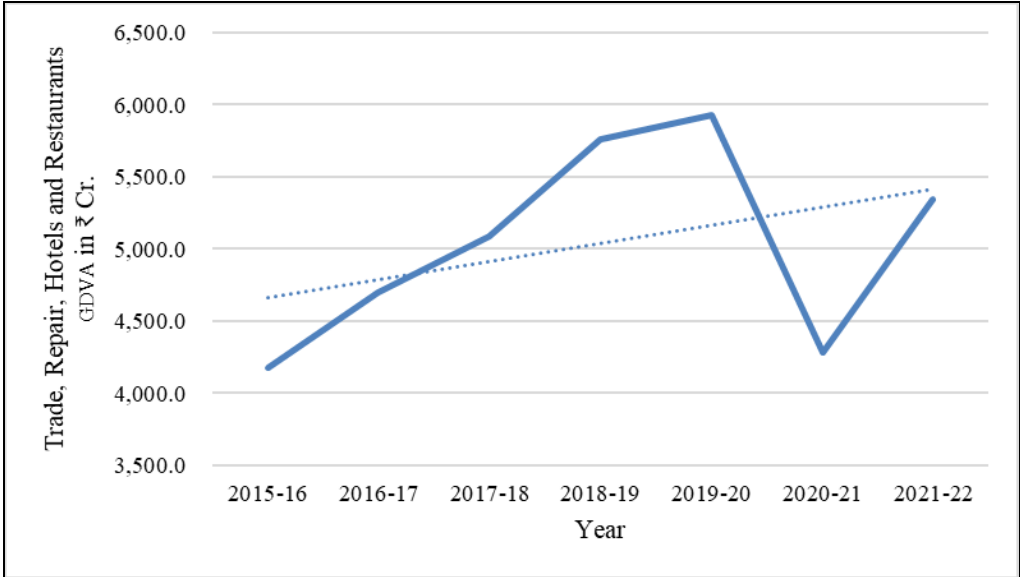
Key Enablers for the Real Estate sector development:

- Need to focus on Vadhvan port area development
- Need to review Coastal Regulation Zone and Eco-Sensitive Zone norms in Industrial areas like Tarapur.
- Provision of single window clearance policy for Real Estate projects to promote affordable housing.
- Complementing mega projects with improvement in local infrastructure, otherwise, the development will not benefit the local people.
- Improved coordination between different departments of the government.
- Improvement in Health and Education infrastructure.

4.7 Trade, Repair, Hotels & Restaurants (Tourism)

Palghar being a coastal district is endowed with tourist attractions like beaches (Dahanu-Bordi, Shirgaon-Kelva, Rangaon-Bhugaon), palace and forts (Jaivilas Palace Jawhar Rajwada, Kaldurg, Tarapur, Gambhirgad, Shirgaon, Kelva, Vasai), lakes (Vandri), and pilgrimage places like Jivdani temple and Mahalakshmi temple Dahanu. However, given the proximity to Mumbai, the potential for tourism remains underutilized.

Figure 4.14 Sectoral GDVA of Trade, Repair, Hotels & Restaurants (FY2016 to FY2022)



Source: Directorate of Economics and Statistics (2022-2023)

Palghar district possesses significant untapped tourism potential, including beaches, forts, rivers, dams, waterfalls, treks, and temples. However, this potential remains largely unexplored due to limited awareness. Recognizing the economic benefits, there is an urgent need to address hindrances and actively promote tourism in the area. The absence of essential amenities, such as low maintenance, public toilets, and convenient transportation, can discourage adventurous travellers. This deficiency not only results in negative social impacts, like conflicts with local communities but also contributes to a decline in traditional employment. Tourism infrastructure, encompassing transportation, healthcare, waste management, and recreational facilities, plays a vital role in tourism success. The lack of such amenities compromises accessibility, overall tourist experience, and satisfaction, potentially diminishing revenue. Paradoxically, insufficient amenities can lead to overcrowding in specific areas, posing threats to local culture and heritage and hindering economic development and job creation in the tourism sector.

Difficulties in understanding, unreliability, and safety concerns can discourage visitors, leading to a decline in tourist numbers. Inadequate transportation infrastructure can result in longer travel times, discomfort, and reduced accessibility to attractions, affecting the overall tourist experience. This dissatisfaction may lead to an overall decrease in tourism potential and hinder the destination's growth and job creation potential. Insufficient community involvement in tourism development can lead to conflicts between tourists and locals, negatively affecting the overall tourist experience. To ensure the long-term success of the tourism industry, it is crucial to promote sustainable practices and raise awareness about the potential impacts on the environment and local communities.

Similarly, coastal erosion poses a significant threat to India's beaches, leading to the loss of coastline and putting millions at risk. Challenges include shoreline management, sustainable design for beach resorts, and pollution issues, especially from plastic litter. Strategic coastal planning, sustainable design, and effective waste management are essential for long-term sustainability. Inequalities exist in the development of heritage sites, affecting infrastructure, accessibility, and promotion. Inadequate transportation connectivity and infrastructure can deter tourists. Challenges during restoration include identifying historic materials and employing creative restoration techniques.

Training of local governing bodies and innovative restoration approaches are crucial to overcoming challenges. High visitor numbers at waterfall sites can lead to overcrowding, landscape exploitation, and degradation of natural resources. Comprehensive approaches involving sustainable tourism management, visitor education, and preservation of natural and cultural heritage are needed. Managing visitor impact and promoting sustainable practices are key to realizing the potential of waterfall tourism while preserving natural wonders. Maximizing the usage and availability of river waters and resources is a primary challenge for river-based tourism. Balancing nature-based recreation with ecological functioning is crucial for responsible management. Developing river tourism resources, such as dams, requires careful analysis of social, economic, and environmental impacts. Addressing water pollution concerns and managing environmental, social, and economic challenges are vital for sustainable river and dam tourism.

Neglecting religious tourism hampers the development and promotion of sites, hindering their tourist appeal. Inadequate infrastructure and limited community involvement pose obstacles to growth and sustainability. Successful management is crucial to addressing environmental, social, and economic challenges, ensuring benefits for both local communities and the natural environment. India's current approach to tourism emphasizes sustainability through responsible behaviour, resource conservation, and protection of the environment and culture. The National Strategy for Sustainable Tourism, Ministry of Tourism (2022), focuses on pillars like environmental, biodiversity, economic, and socio-cultural sustainability. The goal is to make tourism resilient, inclusive, and resource-efficient while empowering local communities. The government is actively promoting sustainable tourism to create economic opportunities, minimize negative impacts, and contribute to the achievement of Sustainable Development Goals. The expected vision for sustainable tourism development involves considering factors such as supporting local communities economically and socially, protecting the environment by minimizing impact, and promoting cultural understanding and respect. This includes supporting local businesses, minimizing environmental impact, and appreciating and respecting the

traditions of host communities. Specifically, developing tourism circuits will be critical to promoting Palghar as a tourism hub. For instance, the Fort and dam circuit at Jawhar (Bhupatgad, Jai Vilas Palace, Shirpamal, Jai Sagar Dam, Hanuman Point, Sunset Point) and Beach and religious circuit at Vasai-Virar connecting beaches (Suruchi and Kalamb) and religious spots (Jivdani Temple, Tugeshwar temple, Agashi Jain Temple, St. Peter Church, St. James Church).

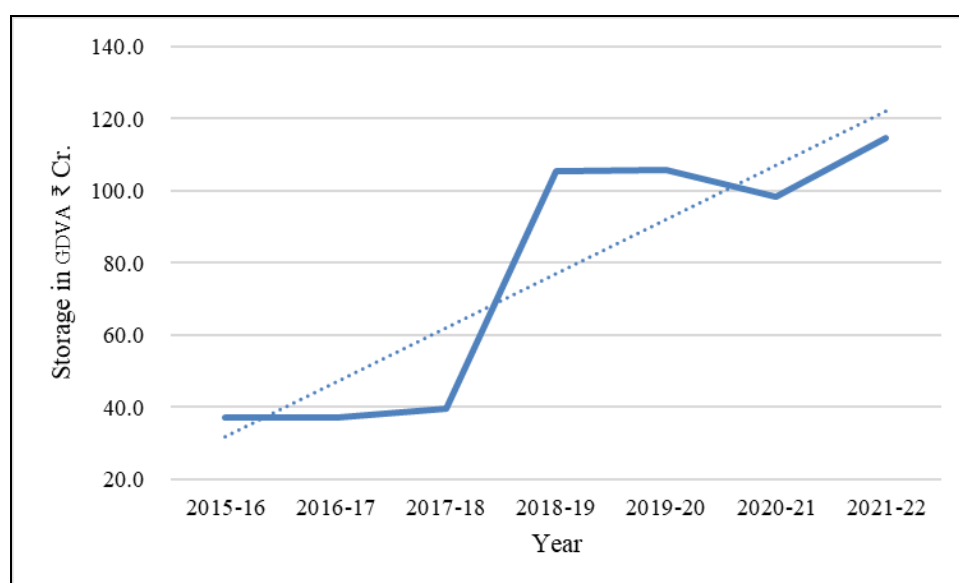
Table 4.18 SWOT Analysis of Tourism

STRENGTH	WEAKNESS
<ul style="list-style-type: none"> • Infrastructure: Maharashtra boasts a significant coastal length of 720 km, with 112 km falling under the Palghar district. The Mumbai-Ahmedabad National Highway and upcoming projects like the Mumbai Baroda Expressway enhance connectivity. • Connectivity: The district enjoys excellent connectivity, with the presence of a Bullet Train track and Mumbai International Airport located approximately 70 km from its boundary. Local trains provide further connectivity between Mumbai and Dahanu. • Institutional Support: The collaborative efforts of the Department of Tourism and the District Planning Committee contribute to the district's tourism development. • Local Support: The local population is known for being tourism-friendly, actively participating in initiatives to enhance the quality of tourist destinations. Also, the Associations of Tourism playing vital role for organizing the festivals like Chiku Festival, Beach Festival etc. • Divers Tourism Sectors: Agro-tourism, Eco Tourism, and the coastal areas significantly contribute to the district's GDP. • Local Varli Painting and Culture: The unique Varli paintings and rich local culture add to the district's appeal. 	<ul style="list-style-type: none"> • Internal Connectivity: Insufficient road and transport facilities to reach various internal tourist destinations pose a challenge. • Low Publicity and Awareness: Despite its proximity to Mumbai and Thane, the district faces a lack of awareness and publicity regarding its tourism potential. • Undeveloped Forts: Many forts in the district, with great tourist potential, cannot be developed due to government restrictions. • Inadequate Facilities: The lack of proper stay, food, and security facilities hampers the overall tourist experience.
OPPORUNITY	THREATS
<ul style="list-style-type: none"> • Divers Tourism Potential: Palghar district offers immense tourism potential with its hilly areas, coastal zones, and extensive forest coverage. • Investment Attraction: With good road connectivity, an international airport, and rail links, the district can attract investors for upscale accommodations, such as 5-star and 7-star hotels and resorts. 	<ul style="list-style-type: none"> • Air Pollution: The significant industrialization in the region poses a threat, leading to increased air pollution. • Safety Concerns: Tourist hotspots, especially waterfalls and hilly areas, are accident-prone, and the lack of safety equipment exacerbates the risks.

<ul style="list-style-type: none"> • Pilgrimage Circuit: Establishing a circuit for pilgrimage places like Chandika Mata Mandir, Jivdani Temple, Khanivade Mahaluxmi Temple, Edvan Ashapuri, Sheetla Devi Temple, and Dahanu Mahaluxmi Temple can boost religious tourism. • Heritage Circuit: Develop a circuit encompassing heritage sites like Tungareshwar, Sopara Caves, and various forts (Vasai, Arnala, Bhawangad, Tandulwadi, Khoj) to attract heritage enthusiasts. • Varli Painting Hub: Promote the district as a hub for Varli paintings, capitalizing on its unique cultural heritage. Also, district has proposed the Varli Bhavan for popularizing the art, craft and culture of the community. 	<ul style="list-style-type: none"> • Natural Calamities: Heavy rainfall and the potential for landslides, earthquake pose seasonal threats to tourism activities.
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4.8 Storage

Figure 4.15 Sectoral GDVA of Storage Sector (FY2016 to FY2022)



Source: Directorate of Economics and Statistics (2022-2023)

The estimates for logistics cost in India, as per the Ministry of Commerce & Industry (2023), vary from 8-14% of GDP. According to Knight Frank's report (2022), the logistic cost in India accounts for 13-17% of the GDP, which is nearly double (6-9%) the logistics cost-to-GDP ratio in developed nations. This difference of around 7-8% is mostly attributed to the absence of efficient intermodal and multimodal transport systems (Knight Frank, 2022) while presenting us the opportunity to bridge this gap. The storage and warehousing sector in Palghar district has a high growth opportunity as it is already an industrial district with high export potential. The

industry cluster, export clusters, and Fisheries sectors need storage and warehousing for development. Also, the proximity to Mumbai, Nasik, Gujarat, Dadra and Nagar Haveli entails opportunity for warehousing. Similarly, Bhiwandi (Thane) is already considered a warehousing hub adjacent to Wada taluka. This has enabled some warehousing industries to shift to Wada owing to the saturation of units in Bhiwandi, which presents a huge opportunity in terms of gauging the sentiments of investors and making Palghar more attractive to them to invest. The demand for a warehouse inside a Palghar district is determined by a variety of factors, including the economic situation in the area, the population density, industrial activities, its strategic location and logistics requirements. Specifically, the need for warehousing arises from several factors, such as storage and distribution of goods, improvement in the logistics and supply chain efficiency, absorbing the shocks generated by seasonal demand variations, the need for cold storage facilities, employment, and job creation, among others.

Also, the upcoming Vadhvan port will add a container capacity of 15 million TEUs in the year 2035, which is going to be coupled with a satellite airport at Dapchari near Vadhvan port. Additionally, their integration with other mega projects like DMIC, VAMMC, and the Mumbai-Vadodara expressway is bound to create tremendous economic opportunities in this region. Setting up a warehouse near a port has various advantages due to its strategic location and closeness to maritime transportation hubs. In addition, the necessity for a warehouse near Vadhvan port stems from its ability to increase efficiency, lower costs, improve connectivity, and simplify access to global and local markets, making it a vital asset for enterprises involved in international trade and logistics. Therefore, taking a proactive approach and putting the Palghar district on its way to becoming a warehousing hub is imperative to tap the opportunity created by these mega projects.

4.9 Others (Health and Education)

This section presents a brief understanding of status and challenges faced by the vital social indicators like Health and Education. We cover the health sector overview and SWOT analysis followed by similar overview for the education sector.

As per the Health Department Palghar, currently, the district has 46 government Primary Healthcare Centres (PHCs), 313 Sub-Centres (SC), 18 Primary Health Units (PHUs) and nine Zilla Parishad (ZP) Dispensaries spread across the district. Further, there are three sub-district hospitals and nine rural hospitals in rural areas. Interestingly, there are a total of 615 private facilities (65 registered hospitals and 530 private clinics), highlighting a good presence of private health infrastructure.

Around 51 National level Health programs are being implemented at the level of each community from the age of zero to eighty years. There is easy availability of diagnosis of illnesses such as malaria, dengue, tuberculosis, and non-communicable diseases like cancer. While these facilities are available, some serious concerns need to be flagged here. For instance, a concerning issue is that the number of beds in public/Government-aided, local bodies, and trust medical institutions per lakh population in 2020-2021 was only 12 as compared to the 604 average number for Maharashtra. Similarly, the number of registered deaths by all diseases per lakh population in 2020-2021 was 1645 compared to the Maharashtra state average of 631. According to the discussions with the Health Department Palghar representative, there is a higher prevalence of sickle cell disease and leprosy than the state average. Also, the district suffers owing to the low budgetary allocation for health, which shows the neglect of the state towards it. The infrastructure problems persist in catering to the population in Palghar. No tertiary care and full-fledged secondary care hospitals are available in the district to serve the population. There are vacancies of doctors and staff to be filled to provide better services. Moreover, the National Highway and state highways are witnessing an increased number of road accidents and fatalities owing to increased traffic on these roads. Accordingly, the Health Department Palghar representatives have appealed to the State Department as well as private industry associations for immediate interventions regarding hiring of specialists like radiologists, gynaecologists, and surgeons, among others, to address the issues.

Table 4.19 SWOT Analysis of Health sector

STRENGTH	WEAKNESS
<ul style="list-style-type: none"> • Regular and contractual manpower: Good Network of Community Health officers, Multi-Purpose Workers, Auxiliary Nurse Midwife, and Accredited Social Health Activists (ASHA) at sub-centre and village level. • Around 51 National programmes about health are being implemented • Availability of diagnostic facilities like Tru-NAAT, CB-NAAT, Mahalab network and outsourced X-Ray, Ultra Sonography (for pregnant women) at free of cost. • Under the Navsanjeevani Scheme, additional human resources like rescue medical officers and Dai and Pada swayamsevak are appointed for tribal areas. 	<ul style="list-style-type: none"> • No Tertiary Care Hospital in the district: No DH and Govt. Medical college functioning in the district. • Vacancies of specialist doctors and staff: Posts of Physician, Paediatrician, Gynaecologist, Pathologist, and Anaesthesiologist are vacant. • Accessibility and road connectivity problems, especially for interior areas. • Prevalence of tropical diseases: Sickle Cell Anaemia and Leprosy are more prevalent in the district than the state average.

OPPORTUNITY	THREATS
<ul style="list-style-type: none"> • Use of new technologies like telemedicine, health ATMs, etc. • New Government Medical College and 50-bed Ayush Hospital sanctioned recently. • Private Medical College–Vedanta is functional at Dhundalwadi. • CSR funds and NGOs such as Lupin foundation, Gramin First foundation, Samta Foundation and many more NGOs are working in the health sector. 	<ul style="list-style-type: none"> • Teenage marriages and unmarried pregnancies: Nearly 20-25% of pregnancies are teenage. • Cultural practices of tribal people: for instance, they don't like to consume white during pregnancy and lactation; they have faith in local healers. • The industrial area at Boisar heavily contributes to air pollution.

As shown in Table 4.20, Palghar fares better regarding select education indicators than other districts. However, per a 2017 report by the Centre for Budget and Policy Studies (CBPS), for Maharashtra and Palghar district, a critical issue pertains to the continuing educational inequalities in terms of tribal populations faring poorly compared to other groups. Further, the gaps on various axes of literacy across urban and rural tribal populations, as well as tribal males and females, continue to remain high. This factor gets amplified in the case of Palghar, where there is a considerable Tribal population in specific districts like Jawhar, Mokhada, Vikramgad, Dahanu, Talasari, and Wada.

Table 4.20 Select Education Indicators for Palghar (2020-2021)

Sr. No.	Indicator	Palghar	Maharashtra
1	Number of educational institutions per lakh population	102	87
2	Number of students per teacher in primary schools	39	30
3	Number of students per teacher in secondary schools	26	22
4	Number of pre-primary to higher secondary school students enrolment per thousand population excluding pre-primary	236	174
5	Percentage of trained teachers to total teachers in pre-primary to higher secondary schools excluding pre-primary	97.6	98.7

Source: Department of Economics and Statistics (2020-2021)

According to the Ministry of Human Resource Development (MHRD), Palghar with a 19.7% Dropout Rate, stands second out of the five districts in Maharashtra owing to the seasonal migrations. Around 90% of families in Palghar are seasonal migrants, and 20% of such families take their children when they leave. Other reasons for dropout include household work, failure in

examinations, lack of guidance and interest in studies. Similarly, the lack of accessibility to interior areas is a big challenge in Palghar due to its geographical nature, which makes it difficult to travel and transport during the monsoon season. An article that appeared in the newspaper Mid-Day in August 2021 quotes challenges reported by students, such as travelling long distances, navigating dangerous roads, seasonal rivers, treacherous weather, and snakebite fear, among others. These factors already act as a deterrent for school education coverage. Table 4.21 presents a swot analysis of the Education sector in Palghar.

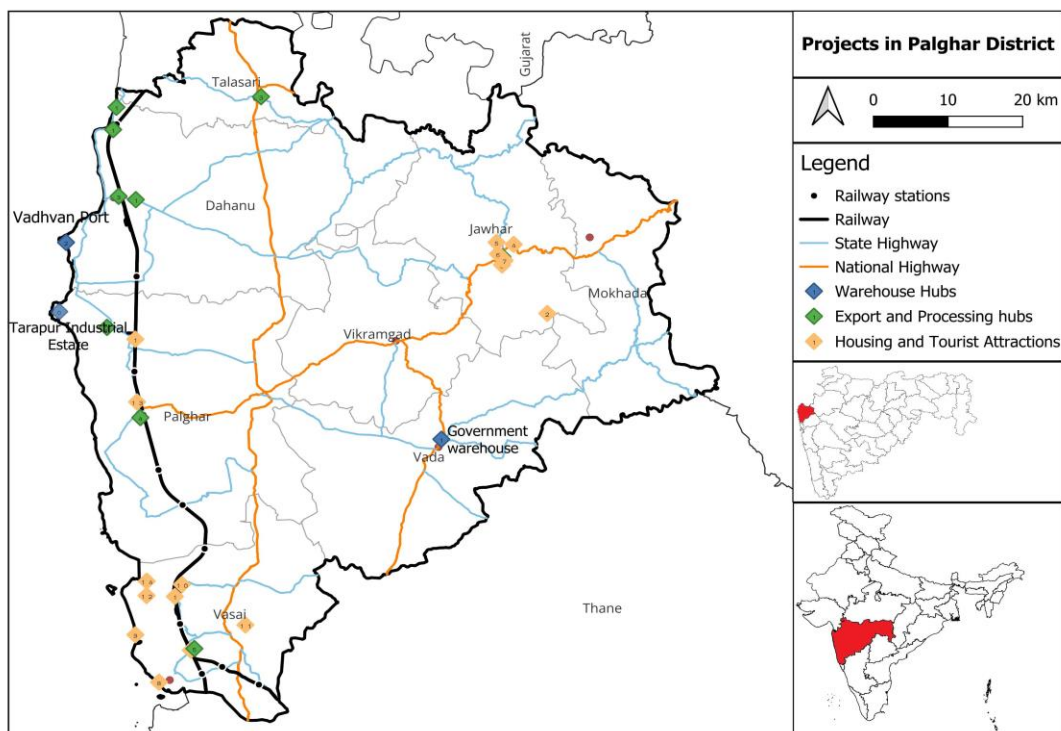
Table 4.21 SWOT Analysis of Education Sector

STRENGTH	WEAKNESS
<ul style="list-style-type: none"> • Zilla Parishad teachers are well-trained. • Drinking water has been provided in all the schools. • Educational materials are supplied to all schools through the government and NGOs to ensure 100% student enrollment and retention. • Educational and assistive devices are provided to students with special needs. • There are free boarding schools with all facilities for approximately 250 students each under Kasturba Gandhi Balika Vidyalaya (KGBV Type II & IV) in five talukas of Palghar district. • Active NGOs in providing raincoats, sweaters, school dress, and other material for students. 	<ul style="list-style-type: none"> • The ratio of science/mathematics teachers in schools is low. • Lack of teachers for students belonging to Varli, Katkari and Konka communities. • Students from remote areas find school access difficult, therefore a bicycle or transport facility is needed.
OPPORTUNITY	THREATS
<ul style="list-style-type: none"> • Various activities are organized to improve the enrolment and retention of 100% of students in school. • Under the Nipun Bharat Basic Literacy and Numeracy Mission, parent groups have been established in all primary schools, and parent groups are also involved in school activities. 	<ul style="list-style-type: none"> • Children also migrate with their parents due to the high migration rate from the district for employment. Therefore, children are not consistently sustained in the education stream. • Since Zilla Parishad schools are not available in urban areas, the number of students in Zilla Parishad schools is decreasing due to the pressure of parents to teach their children in private English medium schools. • The anaemia rate is high among students from rural and urban areas, causing absenteeism.

4.10 Growth clusters identified across Sub-sectors

To realise the long-term objective of establishing Palghar as a Warehousing Hub, Affordable Housing Hub, and Food and Agro-processing Hub (including marine products), we identify growth clusters for focused development. Figure 4.16 depicts the geographical locations of growth clusters spread across the Palghar district.

Figure 4.16 Locations of the growth clusters



Source: Author(s)

As discussed in section 4.6, Palghar district is witnessing a number of upcoming mega projects such as the country’s first mega port – Vadhvan (वाढवण) Port, Delhi-Mumbai Industrial Corridor (DMIC), High-Speed Rail (HSR), East West Dedicated Freight Corridor (EWDFC) and Virar-Alibaug Multi-Modal Corridor (VAMMC). Accordingly, two locations are identified for warehousing, namely Wada adjacent to Bhiwandi (Thane) for enhancing warehousing activity, and Tarapur due to mega projects like Vadhvan (वाढवण) Port, Delhi-Mumbai Industrial Corridor (DMIC), and others. Similarly, export and processing hub growth centres are identified at the Furniture, Chemical, and pharmaceutical clusters at Tarapur; Chikoo and agro-processing clusters at Bordi, Dahanu, Gholvad; Varli painting and bamboo clusters at Jawhar, Dahanu, Talasari; Fish, marine, and processed meat cluster near fish centres in Palghar; Engineering and crockery cluster in Vasai industrial area. Additionally, Palghar has a huge potential for developing affordable housing and tourism sectors owing to its connectivity to Mumbai and

Thane. Accordingly, the growth centres identified for affordable housing are at Vasai, Virar, and Boisar due to current connectivity via road and rail and at Virar and Boisar bullet train station areas; for tourism through developing a fort and dam circuit at Jawhar (Bhupatgad, Jaivilas Palace, Shirpamal, Jai Sagar Dam, Hanuman Point, Sunset Point); and Beach and religious circuit at Vasai-Virar: Beaches (Suruchi and Kalamb) and Religious (Jivdani Temple, Tugeshwar temple, Agashi Jain Temple, St. Peter Church, St. James Church). In sum, a concerted focus on developing these identified clusters will usher in the next phase of development.

Depending on the sub-sector-wise SWOT analysis and the discussion, a broad district-level SWOT analysis is presented in Table 4.22.

Table 4.22 SWOT Analysis for Palghar district

STRENGTH	WEAKNESS
<ul style="list-style-type: none"> • Geographical location and natural resources (marine, forest, hill and plateau) • Cultural Heritage (World famous Varli Art and 600-year-old Jayvilas Palace) • Geographical Indication of agricultural products such as Wada Kolam and Gholwad Chikoo (Sapodilla). • The district accounts for 4.80% of the state's total exports. 	<ul style="list-style-type: none"> • Malnutrition and infant mortality • Migration • Illiteracy • Rural connectivity • Limitation of water conservation due to hilly areas
OPPORTUNITY	THREATS
<ul style="list-style-type: none"> • Proposed Vadhvan (वाढवण) Port and other mega projects • Increasing industrialisation and urbanization will improve employment opportunities. <p>Proximity to Mumbai, Thane, and Nashik presents an opportunity for</p> <ul style="list-style-type: none"> • Vegetable, orchard, and flower farming • Tourism development. 	<ul style="list-style-type: none"> • Heavy Rainfall in the district • Encroachment on government land due to unplanned urbanization • Pollution and Traffic congestion • Prone to Natural calamities

Chapter 5: Action Plans (Five-Year and Annual)

The Action plans (Five-year and Annual) for each sub-sector broadly capture detailed pathways of growth and the support needed from the state government to achieve them. For a Five-year Action plan, the objectives or goals determine the state support needed for efficient implementation and further the investment required and employment generated. The annual plan is a rejoinder to the Five-year plan, which essentially breaks down the long-term objectives into annual ones.

Table 5.1 Snapshot of Five-year plans for all sub-sectors

Sub-sector	Objective	Specific intervention required	EoI	Physical Target	Cumulative Cost (in ₹ Cr)	SDG linkage
Crops	To increase: Farm Mechanization levels, Agri-processing and storage facility, area under crop and irrigation	Enhancement of subsidy by 15 to 25% New irrigation facilities Training and technology support	2	Area and equipment units	93.31	1, 3, 5, 8, 9, 10
Livestock	To improve: Livestock productivity, Sheep-Goatery-Piggery scenario, logistic support, poultry infrastructure	Enhancement of subsidy by 15 to 25% Encouraging SHG involvement Free deworming and Artificial Insemination Recruitment of Pashumitra's	2	Livestock population	144.76	2, 3, 5, 8
Forestry & Logging	To promote: Bamboo cultivation, NTFP production, Ecotourism	Integrating budgetary system of State plans CAMPA, and DPC funds Strengthening Van Dhan Kendras Developing Bamboo collection and processing centres	2	Area and collection centres	238	6, 8, 12, 15
Fisheries & Aquaculture	To improve: Value-added fish production Low-value fish processing Ornamental fisheries Cold storage facilities	Establishing Local fish market facilities Improving the existing fish landing centre facility Establishing fisheries processing plants Cold chain development Promoting SHG based fisheries	2	Storage facilities, Processing plants	88.69	2, 3, 5, 6, 8, 12
Manufacturing	To increase production across pharmaceutical, chemical, steel and metals, and other industries To promote clusters for: Chikoo, Furniture, Fish, Varli, Bamboo, Agro-processing, Baloon, Crockery, etc.	Promoting industry and private participation through different events Upgradation of infrastructure supporting the industry infrastructure	2	Addition of new factories and clusters	15092.6	8, 9
Tourism	Promoting Palghar as a tourist destination Establishing tourist circuits Improving current infrastructure	Dedicated Tourism development unit is needed at the District level Efficient implementation of Regional Tourism Development Scheme	2	Promotion and marketing activity	289.10	8, 9, 17

Real Estate	Promoting Palghar as an affordable housing hub	Encouraging MHADA and SRA to develop housing schemes near various station areas Appealing to builders and developers to develop townships under the Affordable Housing Complexes Scheme.	2	Housing units	2565	6, 8, 9, 11
Health	Enhancing the Health infrastructure across the district	Enhancing current health facilities Improving access to Health facilities for people	2	Number of beds and dispensaries	482.92	1, 2, 3
Education	Enhancing the Education outcomes across the district	Enhancing current education infrastructure and improving access to education	2	School infrastructure	13.01	1, 4

Table 5.2 Snapshot of Annual plans for all sub-sectors

Sub-sector	Objective	Specific intervention required	Financing Gap (in ₹ Cr)	Cumulative Cost (in ₹ Cr)	SDG linkage
Crops	To increase: Farm Mechanization levels, Agri-processing and storage facility, area under crop and irrigation	Enhancement of subsidy by 15 to 25% New irrigation facilities Training and technology support	4.84	Department of Agriculture	1500
Livestock	To improve: Livestock productivity, Sheep-Goatery-Piggery scenario, logistic support, poultry infrastructure	Enhancement of subsidy by 15 to 25% Encouraging SHG involvement Free deworming and Artificial Insemination Recruitment of Pashumitra's	28.67	DPC and state-level AHD	630
Forestry & Logging	To promote: Bamboo cultivation, NTFP production, Ecotourism	Integrating budgetary system of State plans, CAMPA, and DPC funds Strengthening Van Dhan Kendras Developing Bamboo collection and processing centres	9.8	DPC, Eco-Tourism board, Massive Afforestation scheme	750 and 2.5 lakhs man-days
Fisheries & Aquaculture	To improve: Value-added fish production Low-value fish processing Ornamental fisheries Cold storage facilities	Establishing Local fish market facilities Improving the existing fish landing centre facility Establishing fisheries processing plants Cold chain development Promoting SHG-based fisheries	8.14	DPC, PMMSY, Dhadak Karyakram scheme	107
Manufacturing	To increase production across pharmaceutical, chemical, steel and metals, and other industries. Promote clusters for Chikoo, Furniture, Fish, Varli, Bamboo, Agro-processing, Baloon, Crockery, etc.	Promoting industry and private participation through different events Upgradation of infrastructure supporting the industry infrastructure	9241.92	Private investment, MSCIDP scheme	103
Tourism	Promoting Palghar as a tourist destination Establishing tourist circuits	A dedicated Tourism development body is needed at the District level Efficient implementation of the	1.75	DPC, Regional Tourism Development Scheme	700

	Improving current infrastructure	Regional Tourism Development Scheme			
Real Estate	Promoting Palghar as an affordable housing hub	Encouraging MHADA and SRA to develop housing schemes near various station areas Appealing to builders and developers to develop townships under the Affordable Housing Complexes Scheme.	Proportional to Five-year plan	Private investment, PMAY scheme	12820
Health	Enhancing the Health infrastructure across the district	Enhancing current health facilities Improving access to Health facilities for people	164.5	NHM, DPDC	760
Education	Enhancing the Education outcomes across the district	Enhancing current education infrastructure and improving access to education	NA	Nipun Bharat Abhiyan	NA

Table 5.3 Employment generation through Five-year and Annual Plan

Sub-sector	Five-year Cumulative Cost (in ₹ Cr)	Sources of Funds (Central / State / District Planning Committee / Private) (in ₹ Cr and %)				Five-year Employment Potential	Annual Cumulative Cost (in ₹ Cr)	Annual Employment Potential
		Central	State	DPC	Private			
Crops	93.31	31.98 (34.29%)	21.32 (22.84%)	40 (42.87%)	NA	7500	4.84	1500
Livestock	144.76	0.2 (0.13%)	117.1 (80.89%)	27.46 (18.96%)	NA	1655	28.67	835
Forestry & Logging	238	NA	218 (91.60%)	20 (8.40%)	NA	1205	9.8	127
Fisheries & Aquaculture	88.69	22.94 (25.80%)	16.09 (18.10%)	48.40 (54.45%)	1.46 (1.65%) Beneficiaries share	1755200 Man-days	8.14	250750
Manufacturing	15092.6	15.62 (0.10%)	63.78 (0.44%)	NA	15009 (99.46%)	35370	9241.92	10195
Tourism	289.10	NA	5 (1.72%)	284.1 (98.28%)	NA	1775	1.75	1000
Real Estate	2565	NA	2065 (80.50%)	NA	500 (19.50%)	64100	NA	12820
Health	482.92	45.61 (9.45%)	391.7 (81.10%)	45.61 (9.45%)	NA	0	164.5	0
Education	13.01	1.02 (7.8%)	1.98 (15.2%)	7 (53.8%)	3 (23.05%)	0	NA	0
TOTAL	19007.39 (100%)	117.37 (0.61%)	2903.57 (15.27%)	472.57 (2.48%)	15513.46 (81.61%)	111605 and 1755200 Man-days	9459.63	26477 and 250750 Man-days

As depicted in Table 5.3, the Five-year cumulative cost stands at ₹19,007.39 Crores and Annual cumulative cost ₹9,459.63 Crores. Private investment is the highest source of funds, accounting for 81.16% of total cumulative costs, followed by state government investment, which stands at 15.27%. Overall, the Primary Sector involving the Agriculture and Allied sectors (Crops, Livestock, Forestry & Logging, and Fisheries & Aquaculture) need intervention with regards to

the enhancement of subsidies by 15 to 25% under various schemes. The Crops sub-sectors are critical for the district's economy as they also double up as a sustenance activity that provides livelihood to the majority of households. Additionally, as agriculture is primarily rainfed with 2800 mm average rainfall, it is important to focus on improving the irrigated area coverage. The livestock sub-sector needs to focus on the Sheep-Goatery-Piggery scenario, logistic support, and poultry infrastructure by encouraging SHG involvement and other policy support for free deworming and improving Artificial Insemination coverage. The Forestry & Logging sub-sector needs to focus on Bamboo cultivation, NTFP production, and Ecotourism through developing Bamboo collection and processing centres, integrating a budgetary system of State plans and CAMPA and DPC funds, and strengthening Van Dhan Kendras. The Fisheries sub-sector needs a specific focus on improving the value-added fish production, low-value fish processing, ornamental fisheries, and cold storage facilities for fish produce. This is envisaged to be achieved through establishing local fish market facilities, improving the existing fish landing centre infrastructure, establishing fisheries processing plants, developing cold chains, and promoting SHG-based fisheries. Broadly, the Primary sector requires subsidy enhancement across the schemes and increased focus on SHG-based business models for further growth.

The Secondary Sector growth, mainly involving the Manufacturing sector, requires increased production across pharmaceutical, chemical, steel and metals, and other industries and the promotion of dedicated clusters for Chikoo, Furniture, Fish, Varli, Bamboo, Agro-processing, Baloon, and Crockery, among others. This is primarily envisaged through the promotion of industry and private participation through different events and the upgradation of infrastructure supporting the industry infrastructure. According to the manufacturing industry association representatives, the most important factor affecting the growth of industries is the inadequate local infrastructure, such as roads, that determines the accessibility and movement of goods. Moreover, the lack of health facilities and proper implementation of ESIC must also be rectified to attract investments into the sector.

Finally, the Tertiary Sector needs to focus on Tourism, Health, and Real Estate sub-sectors. To promote Palghar as a tourist destination, it is important to emphasize improving the current tourism infrastructure and reorienting the focus on enhancing the overall tourist experience by establishing tourist circuits. To achieve these outcomes, it is critical to ensure efficient implementation of the Regional Tourism Development Scheme and, most importantly, to set up a Dedicated Tourism development unit at the district level. For the Health sector, it is important to improve the health infrastructure across the district to make health facilities accessible to all. It is envisaged that partnering with NGOs and increasing the CSR activities in the health sector will contribute to improve overall health scenario in the district. For real estate,

which is the highest contributor to the GDDP, the proximity of Palghar to Mumbai and Thane provides a huge opportunity to become an affordable housing hub catering to the demand of low-income households. To realise this, it is important to attract big players in the real estate sector to invest in Palghar and develop townships. The district and state machinery can provide policy and regulatory support by making the land acquisition process easy through a single-window clearance system. Further, key interventions will be encouraging MHADA and SRA to develop housing schemes near various station areas and appealing builders and developers to develop townships under the Affordable Housing Complexes Scheme.

Table 5.1.a Five-year Action plan for Agriculture (Crops) Sector

Objective	Specific intervention required	State-level support desired	*EoI	Physical target (in no. of units)	Cumulative estimated cost (in ₹ Lakhs)	SDG linkage	Employ. Potential
To increase Farm Mechanization levels	Increase provision of: 1. Agriculture machinery 2. Self-propelled machinery 3. Tractor/power tiller driven equipment. 4. All manual / Animal driven equipment 5. Horticulture machinery 6. Post-harvest machinery (Rice mill, Dal mill, etc.)	Following policy changes are required: 1. Provision for including GST Cost in subsidy amount should be included. 2. Enhancement of subsidies by 25% in all schemes for all components.	1	5000 units Of various Implements used for agriculture purpose.	2500 (Central share- 60% and State share- 40%)	3,5,8,9, 10	**
To increase Primary Agriculture Processing and Storage facilities	Increase provision of: 1. Credit-linked capital subsidy to New/Existing individuals, SHG & FPO enterprises. 2. SEED Capital 3. Capacity building and Training	Following policy changes are required: 1. Enhancement of Subsidy by 15 to 25% 2. Making Credit Linked Capital Subsidy optional to beneficiaries who are financially capable of implementing the scheme by using their own funds. 3. Expertise and knowledge sharing are needed for guidance. 4. Exposure visits to KVK, Industrial areas, R&D Centres, etc., for increasing awareness and technical knowledge regarding how to run primary food proceeding units	2	750 units of Primary Agriculture Processing units.	1500 (Central share- 60% and State share- 40%)	1,2,3,8,9, 10,12	7500
To Provide Irrigation Facilities	Increase provision of: 1. Drip irrigation unit, Sprinkler set, Pump set. 2. Farm Ponds of various sizes as per the requirement of farmers (30*30*3 m, 25*25*3 m, etc.). Plastic lining to without inlet	Following policy changes are required 1. Enhancement of Subsidy by 15 to 25% 2. Increasing additional storage capacity of 149.55 Mcum 3. Lottery system for funds allocation needs to improve with the addition of a predesignated quota for Palghar.	1	1500 units	4335 (Central share- 60% and State share- 40%)	2,3,5,6,7, 12,13	**

	outlet farm ponds. 3. Micro-irrigation and Canals						
Transfer of Agriculture Technologies	1. To transfer technologies to field level 2. Crop demonstration 3. Certified seed distribution 4. Farmer Field Schools 5. Study tours 6. Formations of SHG/FPO 7. Identification and registration for Geographical Indication 8. Rainfed area development programme 9. Protected Cultivation (Shednet, Nursery)	1. Enhancement of subsidy by 15 to 25%	2	10000 Ha	900 (Central share- 60% and State share- 40%)	1,2,3,5,10,12,13,15	**
Area Expansion	Subsidy as per cost of production /ha for crops: 1. Spices crop 2. Fruit crops 3. Flower crops 4. Vegetable crop 5. Plastic mulching	Cost norms for production/ha should be revised	2	600 Ha	96	1,2,3,5,10,12,13,15	**
				TOTAL	9331		7500

*EoI: Ease of Implementation/Completion on a scale of (on a 1-2-3 Rating Scale: 1 = High (i.e. easy to implement), 2 = Medium, 3 = Low (i.e. difficult to implement))

**The objectives and interventions are targeted at improving the productivity of the crops and do not directly generate employment

Table 5.1.b Annual Action plan for Agriculture (Crops) Sector

Objective	Specific intervention required	Mapping of existing and approved Schemes/ Programmes that may address the specific intervention required	Estimated budget for intervention (in Lakhs)	Current FY Budget allocation (in Lakhs)	Average budget utilization in last 3 FYs (in %)	Financing Gap estimated for interventions (in Lakhs)	Financing source(s) for the gap estimated	Employ. Potential
To Increase Farm Mechanization	Increase in subsidy part in all schemes for all component	1. Sub-mission on farm mechanization 2. State Agriculture Farm Mechanization Mission for integrated development of agriculture 3. National Food Security mission 4. Rashtriya Krushi Vikas Yojana	500	294.9	100	205.1	Dept. of Agriculture	**
To Increase Primary Agriculture Processing	Credit-linked capital subsidy should be optional for farmers	1. Prime Minister Formalisation of Micro Food Processing Enterprises Scheme (PMFME) 2. Chief Minister Agriculture Food Processing Scheme (CMFPI)	300	220	100	80	Dept. of Agriculture	1500
To Provide Irrigation Facilities	Increase in subsidy part	1. Pradhan Mantri Krushi Sinchan Yojana 2. Chief Minister Krushi Sinchan Yojana 3. Magel Tyala Shettale 4. Mission for integrated development of agriculture 5. Rashtriya Krushi Vikas Yojana-Plastic lining	1149	1013	100	136	Dept. of Agriculture	**
Transfer of Agriculture technologies	Increase in subsidy part	1. National food security mission 2. Mission for integrated development of agriculture 3. Rashtriya Krushi Vikas Yojana	180	134.08	100	45.92	Dept. of Agriculture	**
Area Expansion	Cost norms for production per Hectare should be revised	1. Mission for integrated development of agriculture	19.2	1.95	100	17.25	Dept. of Agriculture	**
					TOTAL	484.27		1500

Table 5.2.a Five-year Action plan for Livestock

Objective	Specific intervention required	State-level support desired	EoI	Physical target (in no. of units)	Cumulative estimated cost (in Lakhs)	SDG linkage	Employ. Potential
To increase the productivity of livestock in the district	1. Development of Private Public Partnership Poultry Industry in the district (Existing / Completely New) 2. 40 units in total across the district	Policy changes needed: 1. Extending the scheme to SHG's in addition to individuals 2. More than one per block should be allowed as the existing scheme is limited to 1 Unit/block.	2	40 units PPP poultry units	210 (State)	5, 8	800 (400-Direct and 400-Indirect)
	Deworming programs in the district	Free deworming of all large and small animals should be provided.	1	422175 animals	600 (DPC)	2, 3	**
	Tick eradication program	Free supply of Ectoparasiticides depending upon livestock population with the farmer be provided	1	422175 animals	1000 (DPC)	2, 3	**
	1. Artificial insemination (AI) with sex-sorted semen for goats - 5000 2. Capacity building of technicians 50 3. Awareness generation about AI in all villages	1. Free Goat AI and provision of free hands-on training for Goat AI as a Pilot study and 2. Create awareness about the importance of AI in Goats for a year through IEC and training for technicians.	3	5000 goats	20 (DPC)	2, 3	Direct – 50 Indirect - 90 to100
Reduce the death of piglets during the initial rearing period.	1. Deworming of pigs and piglets 2. Vaccination of Pigs and piglets	Free deworming of all pigs and piglets	1	15233 Swine	20 (Central)	2, 3	**
To improve Sheep-Goatery-Piggery scenario	Stall-fed goat rearing for tribal livelihood (300) -Already Existing Scheme	The scheme should be implemented with the local purchase of animals without demanding the beneficiary's share. Now, it is implemented through vendors, and a beneficiary share of 25% needs to be deposited with AHD in advance	3	300 beneficiaries	176 (DPC)	2, 3	**
	Common facility centre – 4 nos. (Jawhar, Mokhada, Vikramgad, Talasari)	Since there are no Govt. referral institutes in these blocks. There is a need to create permanent posts and arrange funds for salary for the staff to be deputed as per Govt. norms and infrastructure.	2	4 Common centres	500 (DPC)	2, 3	20

		Provision of land Grants for the construction of buildings and strengthening of centres					
	Mobile labs (4)	For the creation of permanent posts and arrangement of funds for salary for the staff to be deputed as per Govt. norms and infrastructure. Availability of equipped vehicles.	2	4 Mobile labs	150	2, 3	20
	Veterinary Dispensary (4 Taluka Mini Veterinary Polyclinics-Talasari, Jawhar, Vikramgad, Mokhada and 25 new Grade-1 Veterinary Dispensaries can be proposed as per Govt guidelines in reference to Livestock Population) LIVESTOCK Market (Governed by APMC as of now) one is existing at Palghar Breeding farms – As of now, no recognised breed of Palghar exists even if started now may take another 10-15 years for establishment of new breeds	For creation of permanent posts and arrangement of funds for salary for the staff to be deputed as per Govt. norms and infrastructure. Provision of land Grants for the construction of buildings and strengthening of centres	3	4 Taluka Mini Veterinary Polyclinics 25- Veterinary Dispensaries Gr-1	10000 (State)	2, 3	150
To improve the provision of logistic support for existing schemes and programs	1. Provision of vehicles to the veterinary hospitals (5)	Permission to hire local vehicles for a stipulated time frame for completing deworming, ectoparasites eradication, vaccination programmes in shadow areas, surveillance during epidemics, publicity and assistance for implementation of the existing scheme	2	5 Vehicles	300 (DPC)	5, 8	15
	Provision of services of first aid, vaccination, and artificial insemination at the village level through recruitment of the Pashu Mitra at the village level		1	500 Pashumitra	1500 (State)	5, 8	500
				TOTAL	14476		555

*EoI: Ease of Implementation/Completion on a scale of (on a 1-2-3 Rating Scale: 1 = High (i.e. easy to implement), 2 = Medium, 3 = Low (i.e. difficult to implement))

**The objectives and interventions are targeted at improving the productivity of the crops and do not directly generate employment

Table 5.1.b Annual Action plan for Livestock

Objective	Specific intervention required	Mapping of existing and approved Schemes/ Programmes that may address the specific intervention required	Estimated budget for intervention (in Lakhs)	Current FY Budget allocation (in Lakhs)	Average budget utilization in last 3 FYs (in %)	Financing Gap estimated for interventions (in Lakhs)	Financing source(s) for the gap estimated	Employ. Potential
To increase the productivity of livestock in the district	Development of Private Public Partnership Poultry Industry in the district (Existing / Completely New) Existing target - 7	No scheme exists as of date.	41	NA	NA	41	DPC Now State level funding from AHD is received	80 Direct-40 and Indirect-40
	Free deworming of all large and small animals should be provided.	No scheme exists as of date.	120	1.5	100	119	DPC	**
	Free supply of Ectoparasiticides depending upon livestock population with the farmer be provided	No scheme exists as of date.	200	1.5	100	199	DPC	**
	As of now, no skilled Goat AI technicians are traced, so Free hands-on training for Goat AI Technicians (50) To create awareness about importance of AI-free Goat AI	No scheme exists as of date.	4	NA	NA	4	DPC	50
Reduce the death of piglets during initial rearing period	Deworming of pigs and piglets Vaccination of Pigs and piglets		4	NA	NA	4	Central	**
To improve Sheep-Goatery-Piggery scenario	Stall-fed goat rearing for tribal livelihood (300) -Already Existing Scheme	The scheme should be implemented with the local purchase of animals without demanding the beneficiary's share. Now, it is implemented through vendors, and a	3	30	NA	NA	DPC	0

		beneficiary share of 25% needs to be deposited with AHD in advance						
	Common facility centre – 4 nos. (Jawhar, Mokhada, Vikramgad, Talasari)	Since there are no Govt. referral institutes in these blocks. There is a need to create permanent posts and arrange funds for salary for the staff to be deputed as per Govt. norms and infrastructure.	2	NA	NA	100	DPC	20
	Mobile labs (4)	For creation of permanent posts and arrangement of funds for salary for the staff to be deputed as per Govt. norms and infrastructure. Availability of equipped vehicles.	2	NA	NA	40	DPC	20
	Veterinary Dispensary (4) Taluka Mini Veterinary Polyclinics-Talasari, Jawhar, Vikramgad, Mokhada and 25 new Grade-1 Veterinary Dispensaries can be proposed as per Govt guidelines in reference to Livestock Population)	For creation of permanent posts and arrangement of funds for salary for the staff to be deputed as per Govt. norms and infrastructure. Provision of land Grants for the construction of buildings and strengthening of centres	3	NA	NA	2000	State	150
To improve the provision of logistic support for existing schemes and programs	Provision of vehicle to the veterinary hospitals (5)	Permission to hire local vehicles for a stipulated time frame for completing deworming, ecto parasites eradication, vaccination programmes in shadow areas, for surveillance during epidemics, publicity and assistance	60	NA	NA	60	DPC	15
	Provision of services of first aid, vaccination, and artificial insemination at village-level through recruitment of the Pashu Mitra at village-level	No village-level assistance is available as of today due to vacant staff positions and also a smaller number of dispensaries in accordance with Livestock Population. So, guidelines for hiring the Pashu Mitra at village-level	300	NA	NA	300	DPC	500
					TOTAL	2867		835

Table 5.3.a Five-year Action plan for Forestry and Logging

Objective	Specific intervention required	State-level support desired	*EoI	Physical target (in no. of units)	Cumulative estimated cost (in Lakhs)	SDG linkage	Employ Potential
To increase Afforestation from the current 32% to 37% in the next five years.	Mapping of the plantation areas under afforestation working circle for the next five years, i.e. 1200 Ha. Participation of the Communities under Community Forest Management (CFR) through CFR-Management Committees by integrating them with Schemes like MGNREGS. This way, CFRMC can become an independent entity.	1. Integrated budgetary system of State Plan, CAMPA funds along with the DPC Funds. 2. Carbon Storage of Plantations as per the policy guidelines of the Central Government dated October 25, 2023 3. Market-based mechanisms for the incentivization of NDC Norms and Central Government Policy Dated October 25, 2023	2	1200 Ha	15000	Goal 15	750000 man-days
To promote Bamboo Cultivation in Bamboo Cultivation in CFR (Community Forest Rights) and IFR (Individual Forest Rights) Areas	1. Development of 16 bamboo collection centres 2. Capacity building of the Local Communities regarding bamboo cultivation and marketing. Training of artisans and processing unit: 50 Individuals per processing unit. Therefore, for 16 units, the collective training requirement will be 800 Individuals 3. Training artisans for bamboo-based art forms.	Policy support needed to: 1. Develop the support structures from start to end for bamboo promotion. This involves the integration of the processing units with training institutions like Bamboo Research Training Centre, Chinchpali (Chandrapur) 2. Develop Bamboo collection and processing centres on the line of Cooperative Societies and integrate these societies with the larger market. At the institutional level, there is BRTC integration for training, and policy level is procurement level support by declaration of MSP and assured procurement. Market linkage like: Biodiesel Unit, Paper Industries linkages, etc.	2	1000 Ha for IFR and CFR Areas. 16 Bamboo processing centres (2 Per Taluka)	6600	Goal 12 Target 12.2	2500 man-days
To promote sustainable harvesting of non-timber forest products (NTFPs) and market-based	1. Comprehensive area-wise survey of the resources. (Toal forest area of the Palghar 80,000 Ha) 2. Better market linkages with large corporations.	1. Strengthen the existing van Dhan Kendra and link it with the Community Forest Right Management Committees. 2. Capacity building of the. Community in terms of collection, storage, processing and market linkages.	2	40 NTFP collection centres (5 per Taluka)	200	Goal 8 Target 8.1, 8.3	NA

mechanisms for NTFPs		3. Establishing MoU with the Major Corporations requiring NTFPs as their primary requirement with assured procurements.					
To promote Soil and Moisture Conservation Measures	1. Introduction of Light Detection and Ranging (LiDAR) for developing the comprehensive Watershed Planning. 2. Adoption of Watershed Planning and Decentralized Surface-Based Storage Solutions	1. Expertise from the state regarding the use of Modern Technology like LiDAR. 2. Funding support and integration with the various schemes of the government like CAMPA, Jalayukta Shivar, DPC and State Plan to promote the coordinated effort to have the 'Landscape Based Watershed Management Approach'. 3. Technical support 4. Institutional Support: Technical Expertise from the Forest Survey of India, Indian Institute of Remote Sensing (Latest Topographic Survey).	2	50000 Ha	1000	Goal 6 Target 6.1, 6.2	1000000 man-days
To explore Ecotourism Potential	1. Development of the Basic infrastructure at the Eco-tourism sites. This includes connectivity, solid waste disposal, stay amenities, skill development centres, etc. 2. Training and capacity building of the local communities in Hospitality and Management for 300 Individuals.	1. Relaxation of norms under Forest Conservation Act for the development of Eco-tourism sites. 2. Promotion of Ecotourism with the help of PPP model on lines of Jungle Lodges and Resorts (JLR), Karnataka States 3. Promotion of eco-tourism as a forest activity, thereby exempting it under FCA Rules. 4. Policy-level Support from the Eco-tourism Board of Maharashtra regarding technical assistance in planning/designing the Eco tourism.	3	8 eco-tourism destinations	800	Goal 8 Target 8.1, 8.3	1500 man-days
To promote Conservation Activity	1. Creation of Jawhar, Dhamani and Asherigad Conservation Reserve. 1. Developing the infrastructure and recruitment of staff for the governance of the Conservation Reserves. (Tentative Staff requirement 200)	1. Administrative support for Implementing management prescriptions 2. Development of the Incentive Mechanism for the Participation of the local communities in the protection of the conserve reserves	2	3 conservation reserves	200	Goal 15 Target 15.1	1200 Man-days
				TOTAL	23800		1755200

*EoI: Ease of Implementation/Completion on a scale of (on a 1-2-3 Rating Scale: 1 = High (i.e. easy to implement), 2 = Medium, 3 = Low (i.e. difficult to implement))

**The employment potential has been derived by taking into account the number of working days over five years for given data on man-days.

Table 5.3.b Annual Action plan for Forestry and Logging

Objective	Specific intervention required	Mapping of existing and approved Schemes/ Programmes that may address the specific intervention required	Estimated budget for intervention (in Lakhs)	Current FY Budget allocation (in Lakhs)	Average budget utilization in last 3 FYs (in %)	Financing Gap estimated for interventions (in Lakhs)	Financing source(s) for the gap estimated	Employ Potential
To increase Afforestation	1. Mapping of the plantation areas 350 Ha per year 2. Mapping the Areas under Afforestation and Improvement Working Circle of the Working Plan. 3. Proposing the areas for plantation under State plan and DPC as well as MGNRES.	1. Massive Afforestation Programme, Afforestation under Compensatory Afforestation Programme (CAMPA) 2. Employment Guarantee Scheme	1000	720	100%	280	State Government under Massive Afforestation Scheme, Labor Component under MGNREGS.	250000 Man-days)
To promote Bamboo Cultivation in Bamboo Cultivation in CFR and IFR Areas	1. Development of 3 in two forest divisions bamboo collection centres 2. Capacity building of the Local Communities regarding bamboo cultivation and marketing. 3. Training artisans for bamboo-based art forms.	1. National Bamboo Mission/ Atal Bamboo Mission	150	0	0	150	State Government	150
To promote sustainable harvesting of Non-timber forest products (NTFPs) and market-based	1. Comprehensive area wise survey of the resources. 2. Better market linkages with large corporations.	1. Van Dhan Yojana	50	0	0	50	State government	300

mechanisms for NTFPs								
To promote Soil and Moisture Conservation Measures	1. Demarcation of areas of 10000 Ha. 2. Introduction of Light Detection and Ranging (LiDAR) for developing the comprehensive Watershed Planning. 3. Adoption of Watershed Planning and Decentralized Surface-Based Storage Solutions	1. District Planning Committee (DPC) 2. CAMPA	100	0	0	100	DPC	NA
To explore Ecotourism Potential	1. Development of Two Eco-Tourism Sites: Kasatwadi in Jawhar Division and Asherigarh in Dahanu division 2. Development of the Basic infrastructure at the Eco-tourism sites. 3. Training and capacity building of the local communities in Hospitality and Management.	1. DPC 2. State Plan Ecotourism Initiatives	500	100	0	400	DPC and Eco-tourism Board	300
To promote Conservation Activity	Currently in the final Stage of Development 1. Creation of Jawhar, Dhamani and Asherigarh Conservation Reserve. 2. Developing the infrastructure and recruitment of staff for the governance of the Reserves.	Conservation Reserves are in the final State of Development. Yet to be finally recognized by the state government	NA	NA	NA	0	NA	NA
					TOTAL	980		250750

Table 5.4.a Five-year Action plan for Fisheries

Objective	Specific intervention required	State-level support desired	*EoI	Physical target (in no. of units)	Cumulative estimated cost (in Lakhs)	SDG linkage	Employ. Potential
To improve production and marketing of Value Added Fish Products	2 projects for production units Production-related details Fish/Prawn Pickle, Jawala Chutney, Fried Bombil, etc. Marketing-related details, Popularization of fish value-added products, Promoting fish eating in urban and rural populations, Promotion of fish consumption in different forms	1. Linkage with Self Help Group registered under UMED 2. Support for Marketing in different exhibitions, kiosks, Small Shops, etc.	1	2 projects for production units 1 marketing team	140 (Central – 60% and State – 40%)	2, 3	Direct - 20
Improve low-value fish Processing	Solar dryers for women's - 4 solar dryers	NA	2	4 solar dryers	60	1,3,5,7,13	Direct - 50
To speed up Basic Facilities at Fish Landing Center	Providing infrastructure facilities for safe landing, berthing, and unloading of fish catches from mechanized fishing vessels, traditional fishing craft, and deep-sea fishing vessels. Repair and renovation of the existing facilities.	Funding is lacking. Minimum 25 Crore per Year required.	1	24 landing Centres	4000 (DPC)	6,7,8,9	NA
To enable unexplored Deep-Sea fishing like Tuna Fishing	Provision of deep-sea fishing vessels (4 Deep Sea Fishing Vessels)	Training for fishermen in deep sea fishing, navigation, hygienic operations, etc.	2	4 Deep Sea Fishing Vessels	720 (Central – 60% and State – 40%)	2, 8, 14	90
To Increase seaweed production	Promotion of Seaweed, Seaweed Culture – 20 rafts	Linkage with Medicine Company Buyback Policy	3	20 rafts	4 (Central – 60% and State – 40%)	3, 5, 14	NA
To promote open sea cage culture	Marine Fish Farming in Cages under Control Condition – 30 Cages	Permissions for Land development near shoreline for Feed, Medicine storage, vehicle parking, Washrooms, and office.	2	30 cages	210 (Central – 60% and State – 40%)	2, 8, 12, 14	Direct – 60
To promote	Establish Ornamental Aquarium Fish	NA	2	2 projects	70 (Central – 60%	5, 8	Direct –

ornamental fisheries	Production & Rearing Unit - 2 Units				and State – 40%)		20
To increase Fish Seed Production	Establish Freshwater Culturable Fish Seed Production Unit - 2 hatcheries Freshwater Culturable Fish Seed Rearing Unit – 20 ha area	Promotion of Fish Seed Availability in Locally	2	2 hatcheries & 20 Ha Area	340 (Central – 60% and State – 40%)	8, 12, 14	Direct – 70
To increase Fish Production as well as culture area	Establish Freshwater Culturable Fish farming tanks Establish Freshwater Culturable Fish farming tanks under MREGS (60 Ha)	Local Fish Market Facility Cold Chain Development – Motorcycle with Icebox, Three-Wheeler with Icebox, Insulated Vehicles, Ice Factory, Cold Storage etc.	2	60 Ha	480 (Central – 60% and State – 40%)	2, 8, 12, 14	Direct – 120
To measure Risk assessment of Soil, Water, and Fish Health	Establish a Soil & Water Testing Lab for Testing of Different parameters of Soil & Water required for Fish Farming - 1 Lab	Support for Lab Registration Promotion of Benefits of Soil & Water Testing Lab	2	1 lab	35 (Central – 60% and State – 40%)	3,4,6,14	Direct – 10
To ensure utilization of secure & Proper creek area for Fish Farming	Cage culture in creeks, Brackishwater Fish Farming in Cages under Control Condition	Innovative project	3	25 cages	125 (Central – 60% and State – 40%)	2, 8, 12, 14	Direct – 60
To increase Aquaculture Accessories Retails Units	1. Provide two units of Fish Farming Accessories Unit (Accessories - Aerator, Pump, Generator, Pipes, Feeders, Filters, etc	Support for Shop Registration	1	2 Shopa	60 (Central – 60% and State – 40%)	5, 8	Direct – 10
Brackish water fisheries	Farms Allotment, CAA Permissions, Lease Amount Formula	Brackish water Policy Updation required	2	NA	120 (Central – 60% and State – 40%)	2, 8, 12, 14	20
To Increase the number of Ice water factories	Establishment of Ice Factories & Cold Storages – 5 Ice Factory – 30 MT Capacity	NA	2	5 Ice Factory – 30 MT Capacity	600 (Central – 60% and State – 40%)	9	Direct – 150
Promoting Processing units	Establishment of Fish Processing Plant in Boisar, MIDC	Inviting Industry players to Establish Fish Processing Plants	3	NA	NA	8, 9	Direct – 500
Support to Fisheries Coop. Soc. in Electricity Bill	Electricity Charges of Fisheries Co-op Societies	Need to Increase Subsidy Amount. The current Subsidy is INR 0.40 per Unit	1	12.50 Lakh Units for 10 Ice Factory	150 (DPC)	7	0
To increase Fish	Construction, Strengthening &	NA	1		5	8,12,14	Direct -

Seed Production	Modernization of Fish Seed Farm				(DPC)		25
Support to Fishermen for Fishing Net	Assistance for purchase of Fishery Requisite	NA	1	625 Fishing Vessels	500 (DPC)	1,8	NA
To explore the Deep Sea to increase fish production	Assistance for Deep-sea Fishing Craft Mechanization	NA	2	25 Fishing Vessels	1250 (DPC)	2,14	NA
				TOTAL	8869		1205

*EoI: Ease of Implementation/Completion on a scale of (on a 1-2-3 Rating Scale: 1 = High (i.e. easy to implement), 2 = Medium, 3 = Low (i.e. difficult to implement))

Table 5.4.b Annual Action plan for Fisheries

Objective	Specific intervention required	Mapping of existing and approved Schemes/ Programmes that may address the specific intervention required	Estimated budget for intervention (in Lakhs)	Current FY Budget allocation (in Lakhs)	Average budget utilization in last 3 FYs (in %)	Financing Gap estimated for interventions (in Lakhs)	Financing source(s) for the gap estimated	Employ. Potential
To improve production and marketing of Value Added Fish Products	01 projects for production units Production-related details Fish/Prawn Pickle, Jawala Chutney, Fried Bombil, etc. Marketing-related details, Popularization of fish value-added products, Promoting fish eating in urban and rural populations, Promotion of fish consumption in different forms	PMMSY	70	50	100%	20	Beneficiary Share	Direct - 10
Improve low-value fish Processing,	Solar dryers for women's - 1 solar dryers	Suggested schemes	15	0	0	15	DPC Scheme	Direct - 15
To speed up	Providing infrastructure	DPC	800	838.85	100%	0	Dhadak	NA

Basic Facilities at Fish Landing Center	facilities for safe landing, berthing, and unloading of fish catches of mechanized fishing vessels, traditional fishing craft, and deep-sea fishing vessels, as well as repair and renovation of the existing facilities.						Karyakram Scheme	
To enable unexplored Deep-Sea fishing like Tuna Fishing	Provision of deep-sea fishing vessels (1 Deep Sea Fishing Vessels)	PMMSY	120	0	0	120	PMMSY Scheme	Direct – 15
To Increase seaweed production	Promotion of Seaweed, Seaweed Culture – 02 rafts	PMMSY	0.4	0	0	0.4	PMMSY Scheme	Direct – 04
To promote open sea cage culture	Marine Fish Farming in Cages under Control Condition – 5 Cages	PMMSY	35	0	0	35	PMMSY Scheme	Direct -
To promote ornamental fisheries	Establish Ornamental Aquarium Fish Production & Rearing Unit - 1 Unit	PMMSY	35	0	0	35	PMMSY Scheme	Direct – 10
To increase Fish Seed Production	Establish Freshwater Culturable Fish Seed Production Unit - 1 hatcheries Freshwater Culturable Fish Seed Rearing Unit – 04 ha area	PMMSY MREGS	98	0	0	98	PMMSY Scheme	Direct – 23
To increase Fish Production as well as culture area	Establish Freshwater Culturable Fish farming tanks MREGS Establish Freshwater Culturable area	PMMSY MREGS	120	0	0	120	PMMSY Scheme	Direct – 20
To Increase the number of Ice	Establishment of Ice Factories & Cold Storages – 1 Ice Factory	PMMSY	120	0	0	120	PMMSY Scheme	Direct - 30

water factories	– 30 MT Capacity							
Support to Fisheries Coop. Soc. in Electricity Bill	Rs.0.40/- per unit subsidy on Electricity Charges of Fisheries Co-op. Societies Ice Factory / Cold Storage - 10 Ice Factory / Cold Storage	DPC	30	30	100%	0	DPC Scheme	NA
To increase Fish Seed Production	Construction, Strengthening & Modernization of Fish Seed Farm - 1 Fish Seed Center, Dapchari Tal.Dahanu	DPC	1	1	0	1	DPC Scheme	NA
Support to Fishermen for Fishing Net	Assistance for Purchase of Fishery Requisite	DPC	54	54	100%	0	DPC Scheme	NA
To explore the Deep Sea to increase fish production	Assistance for Deep Sea Fishing Craft Mechanisation - 5 Vessels	NCDC	250	0	0	250	NCDC Scheme	Direct - 40
					TOTAL	814.4		127

Table 5.5.a Five-year Action plan for Manufacturing

Objective	Specific intervention required	State-level support desired	*EoI	Physical target (in no. of units)	Cumulative estimated cost (in Lakhs)	SDG linkage	**Employ Potential
To increase overall investment in the Industries sector	Attracting investments in Industries and enabling the establishment of 250 industries across Chemical, Pharmaceutical, Packaging, Steel, and other sectors.	MoUs are signed for 37 units and under process for others	2	250 units	1500000 (Private)	8, 9	25000
To increase contribution in exports up to 8% of Maharashtra state by establishing clusters	1.Chikoo cluster		1	1 Cluster	598.35 (State)	8, 9	40
	2.Furniture cluster		1	1 Cluster	1953.67 (Central and State)	8, 9	60
	3.Varli Craft Cluster		1	1 Cluster	57.56 (State)	8, 9	30
	4.Agro-processing cluster		1	1 Cluster	500 (State)	8, 9	40
	5.Fish cluster		1	1 Cluster	500 (State)	8, 9	40
	6. Chemical Cluster		1	1 Cluster	500 (State)	8, 9	40
	7. Pharmaceutical Cluster		1	1 Cluster	500 (State)	8, 9	40
	8. Crockery Cluster		1	1 Cluster	500 (State)	8, 9	40
	9. Baloon Cluster		1	1 Cluster	100 (State)	8, 9	40
To increase self-employment for 10000 Candidates (approximately)	To increase self-employment in Palghar District, DIC will incorporate the current running State Scheme - Chief Ministers Employment Generation Program (CMEGP) scheme (up to 9000 employment)	Modification in CMEGP schemes such as Poultry and Sheep and Goatery and fish farming is not included in the current Scheme. Also, to include Expansion in the current unit like the PMEGP Scheme	2	9000	As CMEGP Scheme is state level scheme in which candidate gets 15-35% subsidy according to social category and location of	8, 9	9000

					business. DIC office gets physical target every year from head office which does not include any monetary targets. (State)		
	For another 1000 self-employment, DIC will incorporate the current running Central Scheme Prime Ministers Employment Generation Program (PMEGP) scheme	Modification in PMEGP policy at the central level Target set by the central government should be increased so that the number of beneficiaries can be increased	2	1000	PMEGP is central scheme. DIC only gets physical targets to achieve every year (Central)	8, 9	1000
	Organizing various camps or job melas for unemployed youth in ITI Collage, Engineering Collage, etc.	N.A.	1	30 per year.	For awareness of schemes/program s DIC office and ITI colleges arrange lectures which do not require any funding.	4	NA
	Providing Skill development training through MCED and MITCON institutes.	N.A.	1	40 per year.		4	NA
	Promotional event organised by Skill Development Department.	N.A.	1	2 per year.		4	NA
To improve infrastructure facilities at MIDC	To improve A) Road network B) Water supply network C) Street Lights D) Power E) CFC F) Fire station	1) Reservation from the Irrigation department for making availability of raw water 2) Fast land acquisition procedure for possession of land from SLRO.	2	Improve facilities for 185.60 Ha of land	4000	8, 9	NA
				TOTAL	1509260		35370

*EoI: Ease of Implementation/Completion on a scale of (on a 1-2-3 Rating Scale: 1 = High (i.e. easy to implement), 2 = Medium, 3 = Low (i.e. difficult to implement))

**Employment potential is derived on the basis of capital expenditure and land acquisition costs, wherever applicable

Table 5.5.b Annual Action plan for Manufacturing

Objective	Specific intervention required	Mapping of existing and approved Schemes/ Programmes that may address the specific intervention required	Estimated budget for intervention (in Lakhs)	Current FY Budget allocation (in Lakhs)	Average budget utilization in last 3 FYs (in %)	Financing Gap estimated for interventions (in Lakhs)	Financing source(s) for the gap estimated	*Employ Potential
To set up various industrial units across the industrial areas	Attracting investments in Industries and enabling the establishment of 37 industries across Chemical, Pharmaceutical, Packaging, Steel, and other sectors.	Private investment	922300	0	0	0	Private	7903
To increase contribution in exports by establishing clusters	1.Chikoo cluster	Maharashtra State Industrial Cluster Development Programme (MSICDP)		0	0	119.67	NA	10
	2.Furniture cluster	Maharashtra State Industrial Cluster Development Programme (MSICDP)		0	0	390.734	NA	12
	3.Varli Craft Cluster	Maharashtra State Industrial Cluster Development Programme (MSICDP)		0	0	11.512	NA	10
	4.Agro-processing cluster	Maharashtra State Industrial Cluster Development Programme (MSICDP)		0	0	100	NA	10
	5.Fish cluster	Maharashtra State Industrial Cluster Development Programme (MSICDP)		0	0	100	NA	10
	6. Chemical Cluster	Maharashtra State Industrial Cluster Development Programme (MSICDP)		0	0	100	NA	10
	7. Pharmaceutical Cluster	Maharashtra State Industrial Cluster Development Programme (MSICDP)		0	0	100	NA	10
	8. Crockery Cluster	Maharashtra State Industrial Cluster Development Programme (MSICDP)		0	0	100	NA	10

	9.Baloon Cluster	Maharashtra State Industrial Cluster Development Programme (MSICDP)	20	0	0	100	NA	10
To increase Self-employment for 10000 Candidates (Approx)	To motivate these 10000 candidates, DIC will help them through the Entrepreneurship Development Training Programme (EDTP) Scheme, through which they will get ideas for their business.	EDTP	10	0	0	50	EDTP	0
To improve infrastructure facilities at MIDC	To improve A) Road network B) Water supply network C) Street Lights D) Power E) CFC F) Fire station	MIDC	800	0	0	800	MIDC corporation fund	600 man-days
To increase Self-employment for 10000 Candidates Approx	To increase self-employment in Palghar District, DIC will incorporate the current running State Scheme - Chief Ministers Employment Generation Program (CMEGP) scheme (up to 9000 employment)	NA	0	0	0	0	NA	2000
	For another 1000 self-employment DIC will incorporate current running Central Scheme Prime Ministers Employment Generation Program (PMEGP) scheme	NA	0	0	0	0	NA	200
					TOTAL	924192		10195 and 600 man-days

Table 5.6.a Five-year Action plan for Tourism

Objective	Specific intervention required	State-level support desired	EoI	Physical target (in no. of units)	Cumulative estimated cost (in Lakhs)	SDG linkage	Employ. Potential
Promoting the district as a tourist destination.	Fam Tours, Social Media Marketing, Influencer Marketing, Conclaves, TTM/OTM, Festivals, Webinars, Virtual Reality, Local Food Culture, Tracking tourist footfall data. District-wise separate tourism office.	It should be included in DPC/Tourism Fund GOM	2	NA	500 (DPC)	17	1200
Skill training for hospitality stakeholders.	Training to Hoteliers, Small Restaurants, Arranging training by renowned institutions of hospitality	DPC/Tourism Fund GOM	2	10 Training (One day to two-day training)	100 (DPC)	17	1500 candidate register
Empowerment of Women in the tourism industry.	Interest reimbursement on Loan capital up to 15 lakhs.	Tourism Fund (GOM)	2	500 Applications	1280 (DPC)	5	100
Providing an Alternate source of income to farmers.	Providing Subsidy to Farmers in Agro-Tourism	DPC	3	100 Registrations	500 (State)	8, 17	75
To generate local employment	To develop beach shacks at various beaches	DPC/Regional Tourism Development Scheme GOM	3	4 beach Shacks	1500 (DPC)	8, 17	200
Spread awareness about tourism amongst youth.	25000 per college/10000 per school per year	Tourism Fund (GOI/GOM)	1	200 Yuva Tourism Clubs	30 (DPC)	17	NA
Infrastructure development for tourist industry.	Provision of basic Tourist Amenities. Sign Boards, Gardening and Beautification. Restoration of existing structures. Approach roads. Strengthening the water and transport system in the district	Regional Tourism Development Scheme GOM	3	NA	25000 (DPC)	8, 9, 17	200
				TOTAL	28910		1775

Table 5.6.b Annual Action plan for Tourism

Objective	Specific intervention required	Mapping of existing and approved Schemes/ Programmes that may address the specific intervention required	Estimated budget for intervention (in Lakhs)	Current FY Budget allocation (in Lakhs)	Average budget utilization in last 3 FYs (in %)	Financing Gap estimated for interventions (in Lakhs)	Financing source(s) for the gap estimated	Employ. Potential
Promoting the district as a tourist destination	Fam Tours, Social Media Marketing, Influencer Marketing, Conclaves, TTM/OTM, Festivals, Webinars, Virtual Reality, Local Food Culture, Tracking tourist footfall data. District-wise separate tourism office.	Grants for basic facilities for tourism development and at various places.	100	100	4.5	75	Fund will be allocated in next financial year for this objective	200
Infrastructure development for the tourist industry.	Provision of basic Tourist Amenities. Sign Boards, Gardening and Beautification. Restoration of existing structures. Approach roads. Strengthening the water and transport system in the district	Grants for basic facilities for tourism development and at various places.	500	500	NA	0	NA	500 indirect one time
Spread awareness about tourism amongst youth.	25000 per college/10000 per school per year	Innovative Scheme	10	NA	NA	0	NA	100
Skill training for hospitality stakeholders.	Training to Hoteliers, Small Restaurants, Arranging training by renowned institutions of hospitality	Employment and entrepreneurship skill development programme, Entrepreneurship development provided by skill development officer, training programme by DIC	10	NA	NA	0	NA	1000
Empowerment of Women in the tourism	Interest reimbursement on Loan capital up to 15 lakhs. (T & C)	Women's Empowerment and Child Development	256	156 L.	NA	100	NA	200 Applications

industry.								(SHGs linked)
Providing an Alternate source of income to farmers.	Providing Subsidy To Farmers in Agro Tourism	No separate schemes are available for individual farmers for development in the agro-tourism (CMEGP)	100	NA	NA	0	NA	25 Registration
To generate local employment	To develop beach shacks at various beaches	Basic infrastructure development scheme and regional grant from DOT	300	NA	NA	0	NA	200
					TOTAL	175		1000

Table 5.8.a Five-year Action plan for Real Estate

Objective	Specific intervention required	State-level support desired	EoI	Physical target (in no. of units)	Cumulative estimated cost (in Lakhs)	SDG linkage	** Employ. Potential
Construction of new real estate project	Godrej Properties to build project on 50-acre land parcel in Palghar's Manor project	NA	2	2000 housing units	50000	6, 8, 9	12500
To establish Palghar as an affordable housing destination	CIDCO to develop new township of 337.2 Hectares over 10 years Improvement in local infrastructure like roads, water, electricity, sewage, education, and health to improve the liveability of the district along the local rail and highway network	NA	2	Residential area in 151.74 Ha	206500	6, 8, 9	51600
To mitigate unauthorized and illegal construction	Efficient implementation of UDCPR In the MMR region, to arrest the unauthorized construction growth	NA	1	0	0	11	0
				TOTAL	256500		64100

*EoI: Ease of Implementation/Completion on a scale of (on a 1-2-3 Rating Scale: 1 = High (i.e. easy to implement), 2 = Medium, 3 = Low (i.e. difficult to implement))

**Employment potential formula = Cumulative cost/Budget x deduced capital expenditure x 25 (estimated employment potential per crore for manufacturing-construction)

Table 5.8.b Annual Action plan for Real Estate

Objective	Specific intervention required	Mapping of existing and approved Schemes/ Programmes that may address the specific intervention required	Estimated budget for intervention (in Lakhs)	Current FY Budget allocation (in Lakhs)	Average budget utilization in last 3 FYs (in %)	Financing Gap estimated for interventions (in Lakhs)	Financing source(s) for the gap estimated	*Employ Potential
Construction of new real estate project	Godrej Properties to build project on 50-acre land parcel in Palghar's Manor	NA	NA	NA	NA	0	Private	2500
To establish Palghar as an affordable housing destination	CIDCO to develop new township of 337.2 Hectares over 10 years Improvement in local infrastructure like roads, water, electricity, sewage, education, and health to improve the liveability of the district along the local rail and highway network	NA	NA	NA	NA	0	NA	10320
					TOTAL	NA		12820

* Employment potential for Annual Plan is derived by dividing the Five-year Action plan numbers by 5.

Table 5.8.a Five-year Action plan for Health

Objective	Specific intervention required	State-level support desired	*EoI	Physical target (in no. of units)	Cumulative estimated cost (in Lakhs)	SDG linkage	**Employ Potential
To provide/make available Health Infrastructure & Facilities as per Population Norms	<p>New Health Institute CS Side: Women Hospital, Palghar (100 bed), Women Hospital, Jawhar (100 bed), Sub District Hospital, Wangaon (50 bed), Sub District Hospital, Boiser (50 Bed), Sub District Hospital, Kasa (100 bed), Sub District Hospital, Talasari (100 bed), Rural Hospital, Khodala (30 bed), Tarapur (30 bed), Poman (30 bed) & Sakharshe (30 bed) are proposed.</p> <p>New Health Institute DHO Side: As per population norms, additional 17 New Primary Health centres and 193 Subcentres are required.</p>	<p>New Health Institute CS Side</p> <p>New Health Institute DHO Side Sanctioning of proposed primary health centres and sub-centres along with manpower is needed. 16 New Primary Health centres and 84 Sub centres already proposed need sanction from the state.</p>	2	As per specific intervention column	33088	3	***
Health Infrastructure development	<p>Construction of already sanctioned 07 and 02 buildings, fewer primary health centres, and 26 sub-centres. Repair of old Primary Health centre buildings. New Health Institute CS Side District Hospital, Palghar (200 bed), General Hospital, Manor (200 bed), Sub District Hospital Mokhade (50 bed), Vikramgad (50 bed), Palghar (50 bed) & Rural Hospital, Khaniwade (30 bed) Land Availability for new health institutes. General Hospital, Jawhar</p>	<p>New Health Institute CS Side</p> <p>Issues to be solved on both CS and DHO side 1. Land availability problems -forest department permission and CRZ permission. 2. Budgetary allocation for construction of sanctioned institutes. State Fund & NHM Fund. 3. DPDC grants.</p>	2	As per the specific intervention column	15204	3	3800

	(200 bed), Sub District Hospital, Wada (100 bed), Sub District Hospital, Vasai (100 bed), Rural Hospital, Saphale (30 bed) & Rural Hospital, Parali (30 bed).						
To Reduce Out of pocket expenditure of people on health	To provide free-of-cost health services. 1. Distribution of Golden cards to all eligible families Ayushman Bharat and Mahatma Jotiba Phule scheme cards. 2. Almost 32% of families have been covered, and the remaining 68% will be covered in coming years	1. Empanelment of maximum private hospitals in PMJAY and MJPJY. To date, only 16 hospitals empanelled needs to be increased with state approval. 2. All departments, such as revenue, Grampanchayat, etc., should be involved.	2	Out of total 1956167 eligible families 32% i.e. 624040 families have been distributed Ayushman Golden cards	0	1, 3	***
To reduce Maternal Mortality Rate (MMR) and Infant Mortality Rate (IMR)	Ensuring Implementation of Various national programmes in a timely and outcome-oriented manner. 1. Quality improved health services along with training and retraining of health staff. 2. Availability of good tertiary health care centre and secondary health care centres at each block.	1. Improved Multisectoral Coordination 2. Experts' consultation 3. Deputation of specialists on a temporary basis 4. Fulfilment of vacancies at the institute level. 5. Improved livelihood opportunities	2	At present MMR of Maharashtra is 38 per one lack live birth. At present IMR of Maharashtra is 16 per 1000 live birth.	0	3	***
To reduce malnutrition and related outcomes in district	Ensuring the Implementation of Various national programmes in a timely and outcome-oriented manner Upgradation of NRC/CTC at all institute levels (6 exiting & 6 will be proposed), Decrease teenage marriages and pregnancies, Improve Institutional deliveries, Improve Birth weight of newborn with good Antenatal and prenatal services, Education and remove misbelieves about nutritive foods and feeding habits, Increase faith	1. Improved Multisectoral Coordination like education, livelihood, ICDS, 2. Experts' consultation 3. Deputation of specialists on a temporary basis 4. Fulfilment of vacancies at the institute level.	2	To reduce the number of SAM and MAM beneficiaries 2-3 years	0	2	***

	on government facilities than traditional healers.						
				TOTAL	48292		***

*EoI: Ease of Implementation/Completion on a scale of (on a 1-2-3 Rating Scale: 1 = High (i.e. easy to implement), 2 = Medium, 3 = Low (i.e. difficult to implement))

**Derived based on the estimated employment potential through construction activity

***The Employment numbers for these objectives cannot be determined

Table 5.8.b Annual Action plan for Health

Objective	Specific intervention required	Mapping of existing and approved Schemes/ Programmes that may address the specific intervention required	Estimated budget for intervention (in Lakhs)	Current FY Budget allocation (in Lakhs)	Average budget utilization in last 3 FYs (in %)	Financing Gap estimated for interventions (in Lakhs)	Financing source(s) for the gap estimated	Employ. Potential
To provide/make available Health Infrastructure & Facilities as per Population Norms	Increasing bed facilities at different hospitals across the district	NA	26450	10000	100	16450	NA	760
To Reduce Out of pocket expenditure of people on health	Availability of health services free of cost & To provide free-of-cost health services. 1. Free of cost, all services in all government institutes have already started from 15h Aug 2023. 2. Distribution of Golden cards to all eligible families Ayushman Bharat (PMJAY) and Mahatma Jotiba Phule	PMJAY and MJPJY.	NA	NA	NA	0	State and Centre fund	NA

	scheme cards. A maximum of up to 60-70% of beneficiaries will be covered this year.							
To reduce Maternal Mortality Rate (MMR) and Infant Mortality Rate (IMR)	Ensuring the Implementation of Various national programmes in a timely and outcome-oriented manner	1. Improved Multisectoral Coordination 2. Experts' consultation 3. Deputation of specialists on a temporary basis 4. Fulfilment of vacancies at the institute level.	Cannot be measured in amount	NA	NA	0	State, NHM & DPDC fund	NA
To reduce malnutrition and related outcomes in the district	Ensuring the Implementation of Various national programmes in timely and outcome-oriented manner 1. Upgradation of NRC/CTC at all institute levels (6 exiting & 6 will be proposed)	2. Improved Multisectoral Coordination 3. Experts' consultation 4. Deputation of specialists on a temporary basis 5. Fulfilment of vacancies at the institute level.	Cannot be measured in amount	NA	NA	0	State, NHM & DPDC fund	NA
					TOTAL	16450		0

Table 5.9.a Five-year Action plan for Education sector

Objective	Specific intervention required	State-level support desired	Ease of Implementation	Physical target (in no. of units)	Cumulative estimated cost (in Lakhs)	SDG linkage	Employment Potential	Fund Required from
To bring 100% of students from 1st to 8th grade under Basic Reading and Writing (FLN) by 2027.	1. Training and capacity building teachers. 2. Providing educational materials to teachers.	1. Arrange workshops of FLN. 2. Providing educational materials. 3. Allotment of teachers. 4. Vocational Training The performance is low- Expert guidance is needed from state-level.	2	6840 teachers	102.60 Approximate value NA because schemes are funded fully by Centre	4.2	NA	Centre
To prepare each and every student to attend	1. To impart education based on learning outcomes. 2. Enrich reading and	1. Providing educational materials. 2. Subject experts. 3. Preparation and distribution of question booklets.	2	2125 school	106.25	4.1.4	NA	State

minimum competency of his respective age and standard.	writing skills. 3. Emphasis on competitive exams							
To improve School infrastructure.	1. Creating Digital Schools 2. To provide a library and laboratory 3. Providing play materials	1. Total 2125 Providing projectors 2. Providing library facilities to 2125 schools 3. Total 2125 Providing sports materials to schools	2	2125 schools	1050		NA	Z.P. – 300.00 State – 50.00 DPC – 700.00
To reduce dropout rates to zero.	1. Out-of-school student survey 2. Parents counselling .	1. Residential School. 2. Vocational Training.	2	2125 schools	21.25	4.1.4	NA	State
To increase literacy rate.	1. To increase literacy rate for reading, writing & speaking skills. 2. To increase Maths skills	1. Arrange workshops for TLM-based education. 2. Reading & Writing programme.	2	2125 schools	21.25	4.1.4	NA	State
				TOTAL	1301			

*EoI: Ease of Implementation/Completion on a scale of (on a 1-2-3 Rating Scale: 1 = High (i.e. easy to implement), 2 = Medium, 3 = Low (i.e. difficult to implement))

Table 5.9.b Annual Action plan for Education sector

Objective	Specific intervention required	Mapping of existing and approved Schemes/ Programmes that may address the specific intervention required	Estimated budget for the intervention (in Lakhs)	For Existing and Approved Schemes		Financing Gap estimated for interventions (in Lakhs)	Financing source(s) for the gap estimated	Beneficiary numbers
				Current FY Budget allocation (in Lakhs)	Average budget utilization in last 3 FYs (in %)			
To bring 100% of all students from 1st to 8th grade under Basic Reading and Writing (FLN) by 2027	1. Training teachers. 2. Providing educational materials to teachers. 3. Capacity building of teachers.	Nipun Bharat Abhiyan	42.50	42.50	60.00 %	0	NA	7400 Teachers
To increase the level of academic performance of these students by giving them the necessary tools and training to advance them in their academic performance.	1. Training teachers. 2. Providing educational materials to teachers. 3. Capacity building of teachers.	Teachers capacity building.	80.00	80.00	60.00 %	0	NA	3.5 lakhs Students
Every student in every class to achieve the academic results of his class.	1. To impart education based on learning outcomes. 2. Enrich reading and writing skills. 3. Emphasis on competitive exams.	Quality Education	60.00	60.00	20.00 %	0	NA	3.5 lakhs Students
To improve	1. Creating Digital Schools	Digital Schools.	160.00	160.00	50.00 %	0	NA	1240 Schools

School infrastructure.	2. To provide a library and laboratory 3. Providing play materials							
To reduce dropout rates to zero.	1. Out-of-school student survey	Household Surveys.	22.25	22.25	Fund not received	0	NA	2700 Child Protector
To increase literacy rate.	1. To increase literacy rate for reading, writing & speaking skills 2. To increase Maths skills in multiplication & division.	Nipun Bharat Abhiyan	22.25	22.25	60.00 %	0	NA	.35 Students
To bring 100% of all students from 1st to 8th grade under Basic Reading and Writing (FLN) by 2027	1. Training teachers. 2. Providing educational materials to teachers. 3. Capacity building of teachers.	Teachers capacity building.	42.50	42.50	60.00 %	0	NA	7400 Teachers

Chapter 6: Implementation / Monitoring support required

The district strategy plan has aimed to provide a roadmap for the district of Palghar by building on its strengths while also protecting its rich biodiverse ecology. The report focuses on the developmental aspects from a growth perspective, and the existence of two diverse faces of Palghar has been recognized at the outset and needs to be addressed explicitly.

In order to implement and monitor effectively the different strategies proposed in the action plan, the district would require the following support:

- **Inclusion as a Growth Centre in the Delhi-Mumbai Industrial Corridor (DMIC):** Presently, the industry region of Palghar has not been explicitly identified as a growth region in the DMIC plan. Given the upcoming mega projects in Palghar along with DMIC, it is imperative to identify it as a growth centre.
- **Extension of Versova-Virar Sea Link till Dahanu:** It will lead to enhanced accessibility by road to coastal areas in Palghar and help in the growth of Coastal tourism.
- **Lowering of power tariffs, especially for industry:** The high transmission (HT) power tariffs in Maharashtra are higher than those in the adjoining state. There is a need to lower power tariffs to incentivize the industry. For instance, the high transmission (HT) power tariffs in Maharashtra are ₹8.4 per unit, which is almost double that of neighbouring Gujarat.
- **Increased role of MIDC in industrial area development:** MIDC's development of new industrial areas will help attract more investments in Palghar.
- **Incentivising warehousing sector:** Facilitating coordination with Maharashtra State Warehousing Corporation for expansion and developing a plan for the warehousing hub. These efforts should be aligned with the National Logistics Policy (NLP) 2022 to realise the benefits of the mega projects and other infrastructure projects.
- **Special package for ensuring arterial connectivity to interior areas, especially Tribal regions:** The landlocked Palghar and Tribal regions still face issues with road connectivity. Enhanced focus and extra funds are needed to improve the connectivity to the interior areas. To realize the benefits of the mega projects and other infrastructure projects, it is important to improve the arterial road network connecting the landlocked Palghar to the coastal Palghar, as well as connectivity to major neighbouring urban centres.
- **Single window clearance system for Manufacturing and Real Estate:** The warehousing sector needs an immediate push to be future-ready for mega projects. Real Estate projects and manufacturing (specifically for agro-processing) also need this policy support.

- **Comprehensive database dashboard for warehouses:** The database for existing public and private warehouses needs to be compiled, and a single dashboard needs to be developed.
- Ensuring effective implementation of UDCPR (Unified Development Control and Promotion Regulation) for planned development of the district.
- **Integrated Townships & Growth Centres:** Expedite and develop integrated townships and growth centres in an orderly manner - supported by the appropriate town planning department.
- **Developing and capitalizing on sustainable tourism:**
 - To engage proactive support from the MTDC & Tourism Department in collaboration with the Forest Department to prepare a comprehensive plan to develop sustainable and revenue-generating tourism. This will enable Palghar District to make the most of the rising demand for tourists from neighbouring urban areas of Mumbai, Thane, Nashik, and Gujarat.
 - State support is required to help the district regulate the entry of tourists to formulate a ‘sustainable development fee’ (SDF) similar to that imposed by the Government of Bhutan to preserve and protect the ecological balance and biodiversity.

These are some of the implementation and monitoring needs of the district in order to implement the plan effectively. While these implementations and monitoring actions are suggested, the need to recognise the tremendous human and ecological capital as is highlighted in the two faces of urban Vs. tribal, and coastal Vs. land-locked Palghar brings the dichotomy of economy Vs. ecology to the forefront.

It is necessary to ensure that the growth that Palghar is pursuing to become a warehousing, agro-processing and affordable housing hub, should also be able to protect the social and ecological capital in terms of its large tribal population and massive forest area. If this is not accounted for, Palghar may grow at the expense of its large tribal population and forest cover. The forest cover provides the means to ensure that the carbon footprint remains low despite the development of the district, while the tribal population provides the wherewithal/rationale to protect the land under the 5th Schedule (identified as Scheduled Areas), which gives Palghar the unique distinction of being able to legally protect its land resources from excessive exploitation. In addition, the PESA Act provides additional powers to local self-government for the management of natural resources in their jurisdiction.

In order to ensure that Palghar does not turn into another version of its rapidly unplanned urbanised neighbours, the district needs to focus on providing and implementing sustainable solutions for development. Thus, the proposed actions, interventions and support may be

considered under four distinct categories of growth interventions, preventive interventions, remedial interventions and sustainable interventions.

In the rapidly urbanizing state of Maharashtra (45.3% of the urban population) there are select pockets remaining that have preserved the forest area. In this context, it is imperative that Palghar's strategic planning takes a sustainable approach towards further growth as laid out in this report, appealing to the balance of economy and ecology.

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Annexure A-I Stakeholder Identification

Stakeholder Institution	Government/ Private	Name of the institute/ Body	Name and contact details of the single point of contact
Collector	Government	Collectorate of Palghar	Shri. Govind Bodke 9730684666
Resident Deputy Collector	Government	Collectorate of Palghar	Shri. Subhash Bagde 9423043030
District Zilla Parishad CEO	Government	Zillha Parishad Palghar	Shri. Bhanudas Palve 7350266713
Sub Divisional Magistrate	Government	Collectorate of Palghar	Shri. Sunil Mali 9763000696
District Planning Officer	Government	District Planning Office, Palghar	Shri. Prashant Bhamre 9892665762
Educational Institution	Government	IIT Bombay	Dr. Aditi Chaubal 9969040851
Administrative Training Institute	Government	Yashwantrao Chavan Academy Of Development Administration(YASHADA)	Smt. Pradnya Dasarwar 9923155594
R&D Institutes	Government	Krushi Vidnyan Kendra	Shri. Vilas Jadhve 8552882712
Industry Associations	Private	Tarapur Industrial Manufacturers' Association (TIMA)	Shri. Velji Gogri 9371750282 Shri. Birendra Thankur 7045043853
Industry Representative	Government	Maharashtra Industrial Development Corporation (MIDC)	Shri. Mukesh Lanjewar 7798322907
Non-Government Organization/ Civil Society Organizations	Private	Bhartiya Agro Industries Foundation (BAIF)	Shri. Gorakshnath Bhor 9730765387
Expert	Government	Maharashtra State Khadi and Village Industries Board (MSKVIB)	Smt. R. Vimala 9869019900
Expert	Government	Town Planning	Smt. Deepali Sarode 9769400675

Annexure A-II Summary of stakeholder consultations held

Sr. No	Dates of Meetings/ Workshops held	Name of the Meetings/ Workshops held	Stakeholder Institutions participated	Key points discussed & incorporated in DGS	Mode
1	30/08/2023	Discussion on PPT	YASHADA & IIT Bombay Team, District Planning Office	Key Points Discussed- 1) Palghar current profile and Scenario 2) SWOT 3) Growth Ratio	Offline
2	02/09/2023	Discussion on PPT	YASHADA & IIT Bombay Team, District Planning Office, Collector Office, District Health Officer, PWD, Social Welfare, Commissioner of Vasai Virar MC, Project Officer Adivasi Prakalp, Forest Department, District Surgeon, Fisheries, DIC, DSAO, Directorate of Town planning and Valuation, CEO Women and Child Department, Animal Husbandry Office, MIDC.	Key Points Discussed- 1) GDDP 2) District strategic plan initiation. 3) Context of and Expectations of Palghar DDS	Offline
3	11/09/2023	Discussion on PPT	YASHADA & IIT Bombay Team, District Planning Office		Online
4	12/09/2023	Discussion on PPT	YASHADA & IIT Bombay Team, District Planning Office		Online
5	27/09/2023	Online Consultation.	YASHADA & IIT Bombay Team and District Planning Office	Key Points Discussed- 1) Revised Framework was shared and explained.	Online
6	27/09/2023	Meeting with Primary Sector Stakeholders	Yashada & IIT Bombay, District Planning Office, Deputy Conservator of Forests (Jawhar and Dahanu), Fisheries, Animal Husbandry, DSAO, Jal Jeevan Mission, KVK (Kosbad), BAIF (Jawar), Watershed Department.		Online
6	05/10/2023	Focus Sub Sectors	Yashada & IIT Bombay Team and District Planning Office		Online
7	20/10/2023	Consultation with stakeholders for finalization of focus subsectors	YASHADA & IIT Bombay Team, District Planning Office, DIC, Deputy Conservator of Forests (Jawhar), KVK Kosbad, Livestock Office, BAIF Palghar, Commissioner office of Animal Husbandry, MIDC Tarapur,		Online
8	07/11/2023	Meeting with Stakeholder to discuss Action Plan	YASHADA & IIT Bombay Team, District Planning Office, Collector Office and Deputy Conservator of Forests (Jawhar), DSAO, Animal Husbandry Department, Department of Fisheries, DIC.		Online

9	08/11/2023	Discussion with Stakeholders for Action Plan	Yashada & IIT Bombay Team and District Planning Office		Online
10	01/12/2023	Meeting on Current Status of DSP	Yashada & IIT Bombay Team and District Planning Office		Online
11	20/12/2023	Meeting on Gaps in Action Plan and Report	Yashada & IIT Bombay Team and District Planning Office		Online
12	15/01/2024	Meeting With DPO and Palghar Team	Yashada & IIT Bombay Team and District Planning Office		Online
13	16/01/2024	Validation meeting with Stakeholder for corrections in Action Plan (Primary Sector)	IIT Bombay, District Planning Office, Deputy Conservator of Forests (Jawhar and Dahanu), Fisheries, Animal Husbandry, DSAO, District Primary and Secondary Education Officer, District Health Officer, District Surgeon, MIDC (Boisar), DIC.		Online
14	24/01/2024	Meeting with Health sector for corrections, suggestions and verification of Action Plans	DHO Dr. Salunkhe, CH Dr. Bodhade, Project Coordinator Mr Manav Khaire and Resource Consultant Akshay Mere	Key Points Discussed- 1) Five years and Annual Plan 2) Future plans of the sectors. 3) New projects and Major investments in the district	Online
15	25//01/2024	Meeting with Fisheries for corrections, suggestions and verification of Action Plans	Technical officer Vinod Lahare, Project Coordinator Mr Manav Khaire and Resource Consultant Akshay Mere	Key Points Discussed- 1) Five years and Annual Plan 2) Future plans of the sectors. 3) New projects and Major investments in the district	Online
16	25//01/2024	Meeting with Agriculture sector for corrections, suggestions and verification of Action Plans	Technical officer Pradeep Baramate, ADPO Ranpise, Project Coordinator Mr Manav Khaire and Resource Consultant Akshay Mere	Key Points Discussed- 1) Five years and Annual Plan 2) Future plans of the sectors. 3) New projects and Major investments in the district	Online
17	29/01/2024	Meeting with DIC for corrections, suggestions and verification of Action Plans	Assistant Manager Vikky Khirale, Assistant Manager Digvijay Pol, Project Coordinator Mr Manav Khaire and Resource Consultant Akshay Mere	Key Points Discussed- 1) Five years and Annual Plan 2) Future plans of the sectors. 3) Export Scenario in the district	Online
18	30/01/2024	Meeting with Education	Secondary Education Technical officer Mr. Daware, Project Coordinator Mr Manav	Key Points Discussed- 1) Five years and Annual Plan	Online

		Department for corrections, suggestions and verification of Action Plans	Khaire and Resource Consultant Akshay Mere	2) Future plans of the sectors. 3) Challenges faced by the sector	
19	06/02/2024	Meeting with Industries for corrections, suggestions and verification of Action Plans.	IIT Bombay Team, District Planning Office, DIC, MIDC, Tarapur Industrial Manufacturer Association, Palghar Taluka Industry Associations, District Marketing Officer, Asst. Commissioner, District Skill Development, Employment & Entrepreneurship Guidance Center, Palghar.	Key Points Discussed- 1) Five years and Annual Plan 2) Future plans of the sectors. 3) Impact of Proposed Wadhwan Port. 4) ODOP and GI Tag products. 5) Overall Export plan and sectoral enhancement. 6) Required state support.	Offline
20	06/02/2024	Meeting with Construction for corrections, suggestions and verification of Action Plans.	IIT Bombay Team, District Planning Office, PWD, Irrigation Department, PMGSY Palghar, Executive Engineer Pathbhandare Manor.	Key Points Discussed- 1) SWOT 2) Infrastructure relating to Tourism. 3) Required state support.	Offline
21	28/02/2024 to 02/03/2024	DSP Pune-Palghar Workshop to finalize the District Strategic Plan Report	YASHADA Team, IIT Bombay Team and District Planning Office	Key Points Discussed- 1) Finalization of the District Strategic Plan	Offline
22	5/3/2024	Final presentation	District Collector, District SP, YASHADA Team, IIT Bombay and District Planning office team	Key points 1) Executive Summary 2) Structure of the Plan	Online
23	7/3/24	Meeting-Action Plan Budget Correction	District Industries Center, Animal Husbandry, Fisheries and District Planning office	Key Points 1. Budget segregation (state, DPC and Central) 2. Action Points for state support	offline
24	11/03/24	DSP - Palghar presentation	IIT Bombay, Yashada, District Collector, Palghar Planning team, Agriculture Superintendent, Asst. Commissioner Fisheries, Asst. Engineer Irrigation Manor, Asst. Commissioner Animal Husbandry, DFO Dahanu, DFO Jawhar, DIC GM U.K Sangle, District Education Officer, CS Palghar, Asst. District Health Officer, District Statistics Officer, MIDC, Water Conservation Kalva, Agri Development Officer	Key Points 1) Transformative Action Plans 2) Support Needed from the State 3) Mega Projects in the district	hybrid

Annexure B Gaps in Data and Evidence

Sr. No.	Data/ Information gap identified	Relevant Chapter/ Section No	Sector/ Sub-sector (if applicable)
1	All numbers of Economic profile of Palghar district	Chapter 1	Introduction
2	Human Development Index	Chapter 1	Introduction
3	Existing Carbon Footprint	Chapter 1	Introduction
4	Existing Green Bonds/ Climate Bonds	Chapter 1	Introduction
5	Air Quality	Chapter 1	Introduction
6	Deforestation Rate	Chapter 1	Introduction
7	Women Labor Force Participation Rate	Chapter 1	Introduction
8	Existing Social Impact Bonds	Chapter 1	Introduction
9	Credit available	Chapter 1	Introduction
10	Purchasing Power Parity	Chapter 1	Introduction
11	Sector-wise workforce in Primary, Secondary, Tertiary Sectors	Chapter 1	Introduction
12	Details on Employment and Unemployment rate	Chapter 1	Introduction
13	Effects of climate change on different crops	Chapter 4	Agriculture
14	Exact export numbers and potential for ODOP (Gholvad Chikoo)	Chapter 4	Crops
15	Details of Dairy (part of animal husbandry) are yet to be received	Chapter 4	Animal Husbandry
16	Quantity of fish consumed locally and exported	Chapter 4	Fisheries
17	Ice factory/ Cold storage for fisheries	Chapter 4	Fisheries
18	Private storage and warehousing numbers pertaining to storage sector	Chapter 4	Storage
19	Approximate income from tourism	Chapter 4	Tourism
20	Number of tourists visiting Palghar (International and domestic)	Chapter 4	Tourism
21	Real estate projects launched (absolute numbers and value)	Chapter 4	Real Estate
22	Specific industry like chemical, pharmaceutical, etc. action plan inputs	Chapter 5	Industry
23	Future investment needed for the Industry sector	Chapter 5	Industry
24	Specific inputs for the storage sector - private warehousing status	Chapter 5	Storage
25	Future investment needed for the Real Estate sector	Chapter 5	Real Estate
26	Details of residential and commercial real estate numbers and values	Chapter 5	Real Estate

Annexure C Case studies

Case Study 1: Vrindavan Pushpa Utpadak Sangh (VPUS)

It is one of the Farmer Producer Organization (FPO) located across the tribal pockets of Jawhar, Vikramgad, Dahanu, and Talasari in Plaghar. It uses the Fulsheti (Floriculture) model, which is suitable for small and marginal farmers and successfully provides alternative sources of income for farmers. VPUS FPO was formed by the coordinated efforts of the Maharashtra Institute of Technology Transfer for Rural Areas (MITTRA), a development organization promoted by the Bharatiya Agro Industries Foundation (BAIF). It includes the cultivation of jasmine plants and the collective marketing of flowers through common interest groups to reach the flower market. VPUS FPO has created a supply chain for the seamless integration of all the activities of farmers, right from the production of the flowers to the end customers at the market. More details can be found on the following links:

[http://www.agritech.tnau.ac.in/farm_association/pdf/Krishi-Sutra\(Version2\).pdf](http://www.agritech.tnau.ac.in/farm_association/pdf/Krishi-Sutra(Version2).pdf) (Page number 8)
<https://www.carnegiecouncil.org/media/series/policy-innovations/policy-innovations-digital-magazine-2006-2016-innovations-buds-of-hope>

Case Study 2: The Satpati Fishermens Sarvodaya Sahakari Society Limited

It is one of the oldest co-operatives in Maharashtra, and it acts as a mediator between the fisherfolks and fish traders (mainly exporters). A collective representation in the form of a cooperative ensures a fair price for the fishermen and eliminates price speculation. The cooperative has created a value chain through which all the export quality fish produce lands at the society for sorting and grading according to weight. The whole process is undertaken in the presence of the traders, who eventually buy the fish stock in real time to close the negotiations. The transactions with the fisherfolks enrolled in the cooperative get settled on the same day, and the cooperative also allows for various credit activities for its members. Recently, the cooperative has witnessed increased activity by women fisherfolks in the form of active participation while running the cooperative. More details can be found on the following links:

<https://core.ac.uk/download/pdf/33720653.pdf>

Annexure D Existing plans used

Sr No	Plan Name
1	Maharashtra - One District One Product (ODOP) Booklet - Detailed District Export Action
2	Off-Site Disaster Management Plan
3	MAHARASHTRA Agriculture Contingency Plan for District
4	Dedicated Freight Corridor Corporation of India Ltd (DFCCIL). (n.d.). Corporate Plan
5	National Industrial Corridor Development Corporation (NICDC)
6	National Logistics Policy 2022