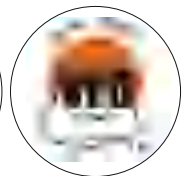


Vidarbha Vikas Manthan

A document on Vidarbha Development
Policy Interventions and Implementation
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Published By:

Vivek SPARC Foundation

557, Sadashiv Peth, Veerean Heights, Laxmi Road Pune 30

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Vidarbha Vikas Manthan

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9th September 2023

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PREFACE

Centralization is the core of integration between components. In the socio-economic sector, this method assures consistent decisions, systematic procedures, and defined vision. In diverse contexts 'decentralized approach' with a 'centralized system' could be a tool to proceed towards the goal. Maharashtra is a very crucial State in the National development. Despite its growth as a state, the regional imbalances continue to foster. Vertical infiltration through administrative framework and horizontal distribution through community participation are required for sustainable growth. The engagement of regional participation has a crucial role in planning-execution, thus responsible for infiltration and distribution. This not only values the contribution of every stakeholder but also forms an efficient system to transfer the designed facilities to the citizens.

The vision was to organize a series of symposiums to bring all the experts, grassroots, researchers, and all other stakeholders to brainstorm on the regional challenges, and hurdles to design or discover solutions for inclusive development of Vidarbha, Konkan, Khandesh, Marathwada and Western Maharashtra regions. The first symposium 'Vidarbha Vikas Manthan' was held in collaboration with Vidarbha Economic Development Council at Nagpur on 09th July 2023 at Vasant Rao Naik State Agriculture Extension Management Training Institute (VANAMATI). More than 150 experts from the sectors of Health, Education, Agriculture, Industry, Minerals, Social, Water, and Environment discussed the current challenges, interventions in the policies, and solutions for effective implementation; with a Vidarbha-centric approach. Hon. Deputy Chief Minister Shri. Devendra Fadnavis were also present at the review session of this symposium. We also express gratitude to the Shri. Balasaheb Chaudhary and Shri. Atulji Limaye for enlightening us. Distinguished personalities from IIM, NEERI, Retd. Government officials, Agrovision, social organisations etc. were also present for this symposium.

This report is the documentation of these inputs as well as discussion points which were further processed based on primary and secondary findings. Expert engagement helped us to identify the distinctive issues in the particular sector. There can be many other factors or necessary interventions in the respective sectors other than the particulars mentioned in this report. We have tried to make it very comprehensive yet crisp to trace the major lead specks which can be a path for channelizing the growth, development and addressing various challenges faced by the Vidarbha region. This will initiate a structured dialogue between the various stakeholders and Government framework for further guiding the action-oriented work in the identified areas. We intend that region-specific Expert Insights (EI) and Solution-Action-Oriented (SAO) work will lay the foundation for a brighter and more prosperous future for the region.

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CEO
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Agriculture

1. The area under crops and Cropping Pattern

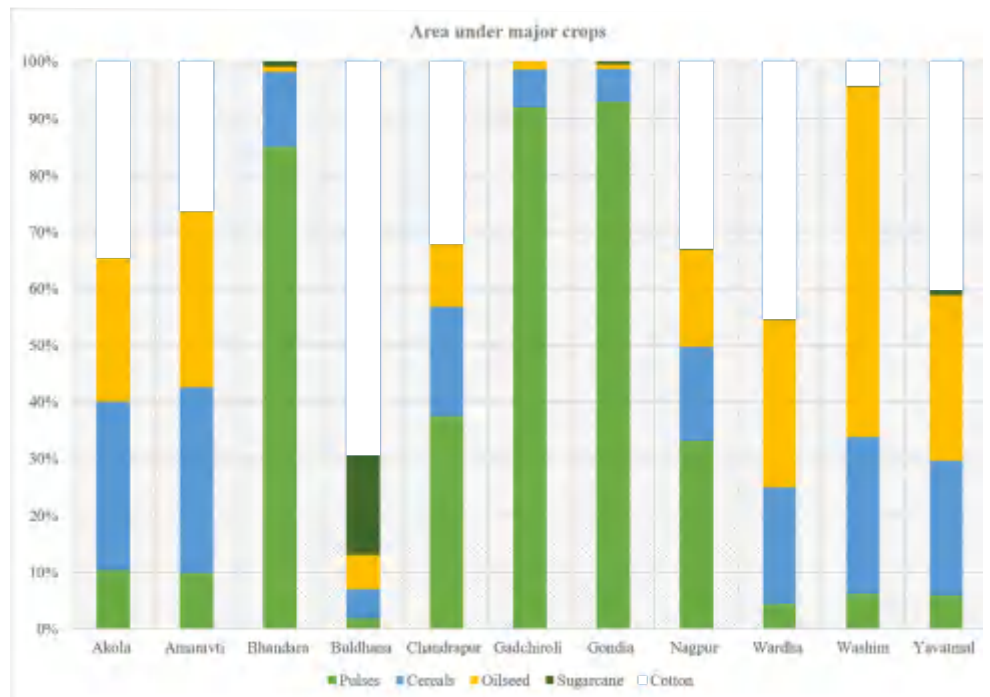
Soil in the Vidarbha Region:
Black Cotton Soil and Clay loam soil

Crops in Black cotton soil:
Cotton, sugarcane, banana, groundnut, oilseed, jowar, and wheat.

Crops in Clay loam soil: Rice.
Vidarbha has less percentage of fallow land.

Rainfall: Tropical climate with distinct wet and dry season

Areas receiving less rainfall:
Akola, Amravati, Buldhana, Nagpur and Wardha

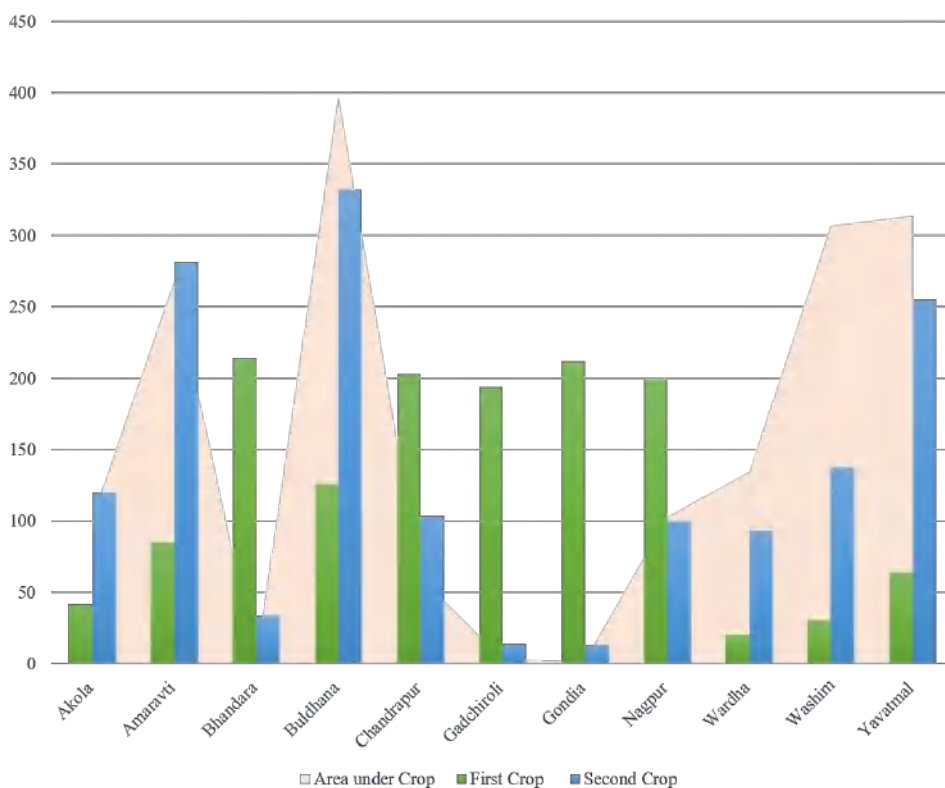


Graph 1.1: Area Under Major Crops

Provisions by the Government:
23 Schemes by the State Government
20 Schemes by the Central Government

Vidarbha has a favorable climate for agriculture with distinct seasons that support the cultivation of kharif, rabi, and summer crops.

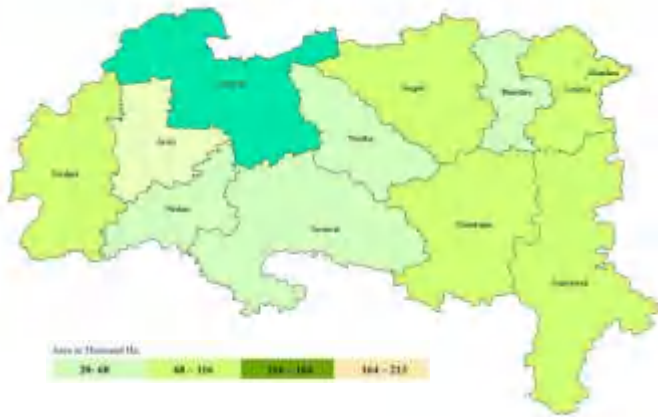
Districts of Gadchiroli and Gondia have the lowest share of area under the first and second crops. Despite the water crisis, the regions of Buldhana, Yavatmal, and Washim have the highest percentage of the area under the first and second crops.



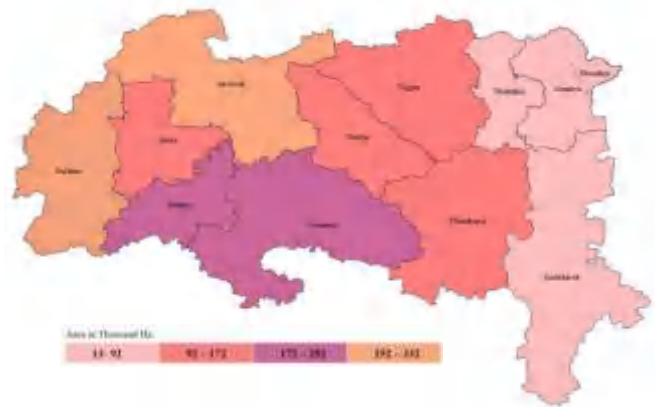
Graph 1.2: Cropping Pattern in Vidarbha

This region is primarily dependent on cotton cultivation which leads to reliance on a single crop and vulnerability to market fluctuations

Encouraging crop diversification through policy incentives as well as research-backed guidance will help farmers to explore new opportunities, reduce the risk, and ensure sustainable incomes. Complete diversion from the monocropping and cash crops seems infeasible in the case of Vidarbha. Hence there can be an adaptation of climate-resilient crops in these regions.



Map 1.1: District-wise area under the second crop



Map 1.2: District-wise area under the first crop

2.0 Interventions

1. Multi-cropping methods should be encouraged and focused on rather than monocropping methods.
2. Favorable climate and fertile soil provide opportunities for the expansion of horticulture and floriculture including the cultivation of oranges, mangoes, and various flowers.
3. Promoting sustainable agricultural practices such as water conservation, crop rotation, and integrated pest management can enhance long-term productivity.
4. A mechanism should be designed allied to the SMART (Maharashtra Agribusiness and Rural Transformation) to support farmers in the sectors of legal field and financial literacy.



Map 2.1: One District One Product in Vidarbha intervention of the Forest and Agriculture

5. A provision similar to the Prime Minister's Employment Generation Programme (PMEGP), there should be schemes for promoting agri-business.
6. The One District One Product (ODOP) (*Annexure I*) approach adopted under the Pradhan Mantri Formalization of Micro Food Processing Enterprises (PMFME) scheme should be farmer-oriented and it should be properly implemented.
7. Subsidy should be given to the export of cotton.
8. APMC tax should not be imposed on the products that are sold outside APMC.
9. Farmers refuse the plantation of some crops due to their destruction by forest hounds and wild boars; the Department will pave the way for this issue.

10. Dedicated Farmer counseling centers could be set up to assist them with agri-related activities. Training centres could also be established at the taluka level for training of low budget farming.
11. Agro-climatic conditions of the Vidarbha region can be suitable to explore the sector of Floriculture.

2.1 Implementation

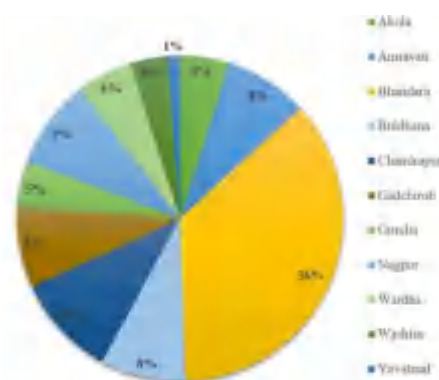
1. There is no center of Pradhan Mantri Fasal Bima Yojana (PMFBY) at the taluka level. A proper system should be designed for effective implementation and management of the PMFBY scheme.
2. The Asian Development Bank assisted Maharashtra Agribusiness Network (MAGNET) project is being implemented for the development of Integrated Value chains in the focused horticulture crops in Maharashtra. However, the number of farmer beneficiaries under MAGNET is very low in the Vidarbha region. Provisions could be made to increase the number of beneficiaries under MAGNET.
3. Skill development of farmers and strengthening of the Krishi Vigyan Kendra are essential at the implementation level for prosperous agriculture. The following are the key factors of the KVK at the functioning level that need to be addressed.
 - a. Vacant posts in the KVK centers and technical support
 - b. Infrastructural facilities
 - c. Delay in release of grant or necessary funds
4. Organic farming, vermicomposting, Animal husbandry, and Sericulture should be included in the EGS program.
5. Enabling the system of various working cooperative societies or co-operative and nationalized banks for easy credit supply. It will stop moneylenders and other private credit systems which will help to prevent the suicide of farmers due to this issue. It would be more beneficial if a Special Agricultural Credit Scheme is introduced for Vidarbha.
6. An authorized marketplace should be established for the marketing and purchase of medicinal plants or herbs.
7. Destruction of crop plantations by wild animals in search of food and shelter discourages farmers from further cultivation. With the coordination of the Department of Forest and Agriculture, some provisions could be made within the forest to provide these animals. Also, there should system to provide assistance after these unfortunate happenings.



2.2. Agricultural Infrastructure

1. Development in the quality and capacity of the 'Cold-Storage' could be proven strategic in boosting the Cold Chain sector of Vidarbha. Commodities like Onion could opt for cold chain interventions. The highest number of cold chain projects assisted by the MoFPI are in Maharashtra, the share of these projects is high in the other regions of Maharashtra, excluding Vidarbha and Marathwada. Five projects are in the Nagpur District, two are in the Amravati District, and one is in the Chandrapur District, whereas 28 projects are in Western Maharashtra, and 13 are approved for Mumbai, Thane, and Raigad Region.

2. Road connectivity for accessibility of the storage units as well as the agricultural resources is essential for the elevation of the Agri sector of Vidarbha.
3. Distribution of the nursery across the Vidarbha region also needs to be increased.
4. An export facility center should be developed at Nagpur under the Agriculture export policy facilitating the achievement of the targets defined in the policy.
5. The agriculture university which was announced to be established at Shindewadi in Chandrapur should be built and made operational.
6. The state can associate with the National Organic and Natural Farming for the Organic Product Certification.
7. The requirement of the proper infrastructure at the district level to store agricultural produce till it fetches a fair price which depends on storage arrangements and supplementary credit. E.g. Buldhana Urban Bank Storage



Graph 2.2.1 Area under Agriculture Activities in Vidarbha region

2.3. Rainfall trends in Vidarbha Further, CRIDA (of ICAR) has concluded

“The districts in Marathwada and Vidarbha face a very high risk of climate change”. Thus, there is a need to promote resilience or adaptation to current climate variability and climate change, especially in the rain-fed Marathwada and Vidarbha region of Maharashtra. In Maharashtra, rain-fed agriculture dominates and accounts for about 80% of the area under crops. The state of Maharashtra is influenced by the southwest monsoon and the state is facing water scarcity almost every year recently. It was observed that in 3 out of the 5 recent years, Marathwada and Vidarbha received less than 30% of long-term rainfall.

“A report by the National Bank for Agriculture and Rural Development (NABARD) recommends to the state government to initiate policies and measures to adapt to climatic changes, which would be detrimental to the agriculture sector in 14 districts affected by severe periodic droughts across Vidarbha and Marathwada.

Rain-fed farming generated financial issues for the livelihood of the farmers. To ensure sustainable income throughout the year allied activities should be encouraged. E.g., Goat and poultry farming, Cottage industry, Gram Udyog. A system needs to be channelized for forward and backward linkages for marketing these products.

2.4. Water Resources

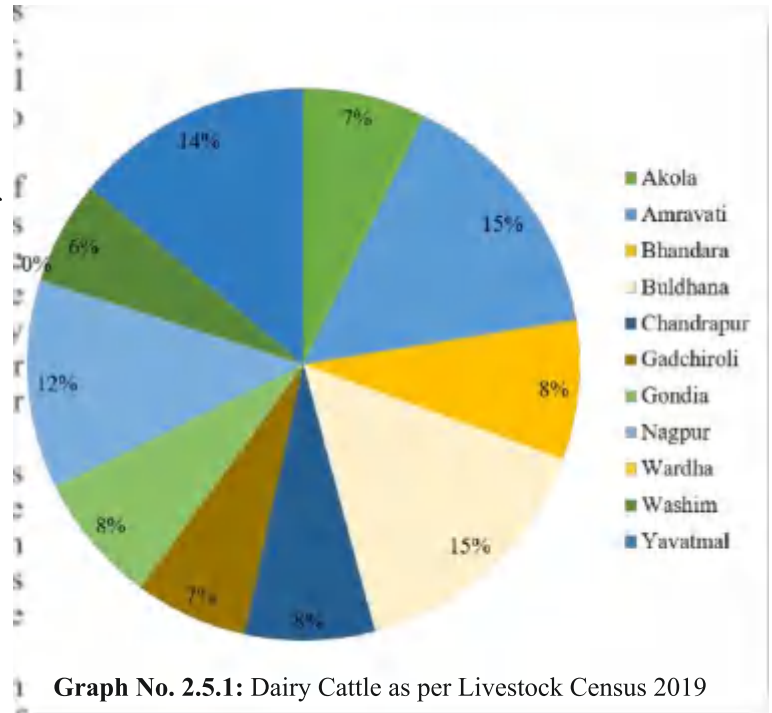
1. Accessing the existing potential of the irrigation projects and channelizing them as per the established capacity. The current scenario depicts that existing irrigation potential as well as establishments are underutilized. The rates for drip irrigation per acre should also be revised.
2. Irrigation facility should also be made available in the Rabi Season. Eastern Vidarbha should have a Rabi crop diversification program, which shall be jointly organized by the Water Resources Department and the Agriculture Department. This will ensure adequate use of water in the post-kharif season and which shall be financially beneficial to the farmers at large.
3. In Western Vidarbha, the water use in the Kharif season is low. The storage available in irrigation projects is mismanaged, which results in less utilization of water, thereby making these projects inefficient.
4. There is no policy for freshwater fishing. A policy/scheme should be designed for freshwater fishing.
5. Vihir Anudan Yojana is beneficial for farmers but it is necessary to make the electricity connection available.
6. Government administration should intervene to solve the issues of the farmers opposing the work of the canal

2.5. Interventions related to Animal Husbandry

1. The State Government has approved the implementation of the Vidarbha Marathwada Special Dairy Development Programme (VMDDP) in 11 districts of the Vidarbha Marathwada region.
2. The dairy research center at Wadsa in Gadchiroli should be made operational which will be also beneficial for this program.
3. Boost should be given to Goat rearing and Duck feed farming in Gadchiroli by schemes of Animal Husbandry to be a supplementary income source for the farmers.
4. The pending recruitments for the vacancies in the Animal Husbandry department should be completed.
5. Strengthening the veterinary institutions is necessary for Vidarbha.
6. A mechanism could be formed to address the issues related to diseases in the livestock.
7. The state government follows the policy of the Central Government for Livestock Insurance, but the state needs a dedicated mechanism, awareness, and aggressive implementation of these provisions.
8. Zudpi Jungle could be made available for the grazing facility.
9. The Vidarbha region is lacking in the development of animal husbandry/dairy as the availability of fodder is low during the post-rainy season. Fodder crisis generated during the summer months.



10. Water is available in irrigation projects, however, there is a lack of coordination between the Animal Husbandry Department and the Water Resources Department. Irrigation projects can deliver water to fodder crops like Jowar, Bajra, or grass during the summer. It will ensure adequate availability of fodder to milch animals.
11. As per the existing policy, the Department of Animal Husbandry and Water Resources does not undertake any joint campaign for the plantation of these crops. This shall ensure additional income to the farmers, so that they will not merely depend on a meager agriculture income, and this will reduce their financial hardship.
12. The water available in the irrigation projects is used in the kharif and rabi seasons because of which the land becomes available in submergence areas of the dams. These lands carry residual moisture and are suitable for the cultivation of fodder.
13. At present, there is no policy to grant such lands to farmers for cultivation of fodder. If there is a change in policy in this regard, it will ensure that the farmers get an opportunity to grow fodder on such lands. The cooperative dairies can have a preference in getting such lands for the short duration of the summer season, which will also generate additional employment.



Graph No. 2.5.1: Dairy Cattle as per Livestock Census 2019

Annexure I

List of ODOP by

Ministry of Food Processing Industries dated 21st July 2022 (FM/35/2021-FME)

District	Products
Akola	Pulse-based product (Pigeon pea, gram- Flour etc.)
Amravati	Mandarin Orange-based Products
Buldhana	Guava based Products
Chandrapur	Rice-based products
Gadchiroli	Minor Forest Produce (Mahua/ Honey/ Hirda/ Behda etc.)
Gondia	Rice-Based Products (Poha, Murmura etc.)
Nagpur	Mandarin Orange-based Products
Wardha	Spices (Turmeric etc.)
Washim	Oil-seed-based products (Soyabean, Flax Seed, Sesamum etc.)
Yavtmal	Spices (Turmeric etc.)

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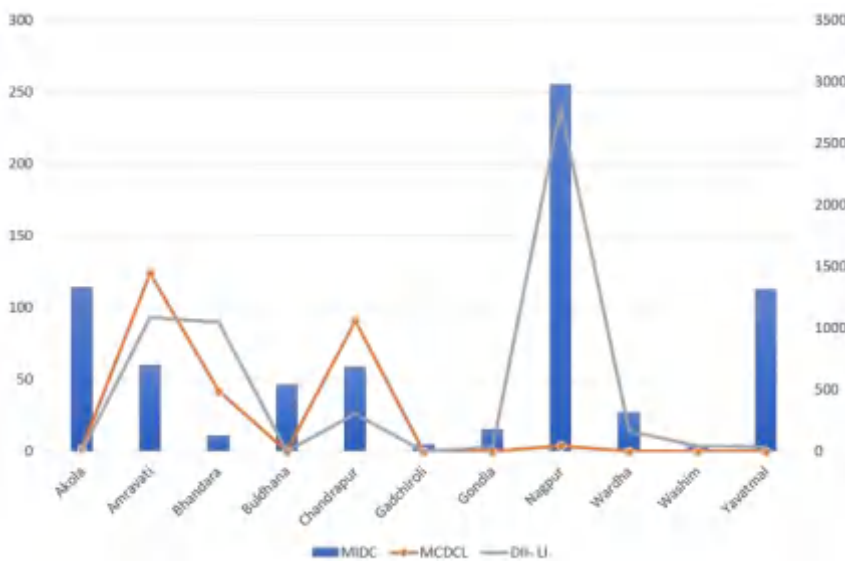
Industry & Employment

1. Overview

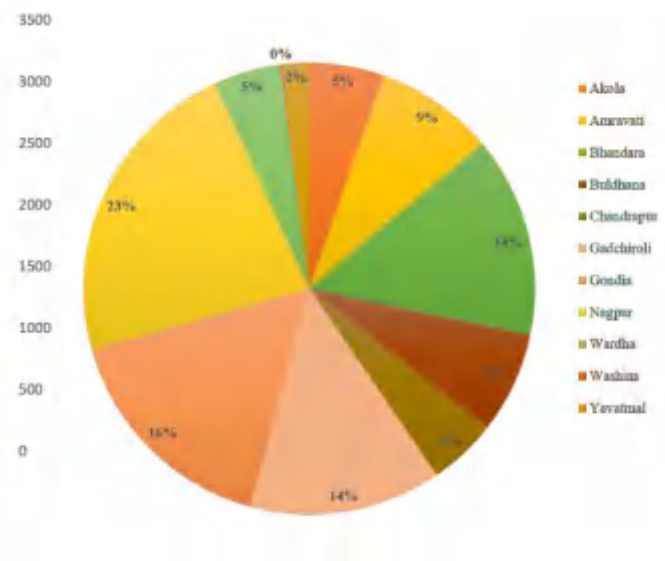
- A. Regional differences in economic development are becoming a major issue for both industrialized and developing nations. Maharashtra is one of those states which consists of both, inter-regional and intra-regional disparities. The primary determinant for industrial growth is based on the flow of private investment, which turns out to be uneven distribution among the regions.
- B. Nagpur has been considered the growth nucleus of the region. Other districts are comparatively backward in industrial development.
- C. This region has premier institutes like IIM, AIIMS, VNIT, NLU etc. are to enable constant supply to industries and service sectors. But they are concentrated in a specific region.

The Maharashtra Industrial Policy (2019):

Aims of the policy	Targets of the policy	Drivers of the policy
Make Maharashtra a part of the global supply chain, upgrade from traditional warehousing to provider of fully integrated value-added logistics services	To attain a manufacturing sector growth rate of 12% to 13%, to reach a Gross State Domestic Product (GSDP) share of 25% by 2023-24.	Relaxation of infrastructural norms. Single window clearance and more.
Improve the overall logistics infrastructure of the state to ensure last-mile connectivity.	Attract investment worth INR 10 lakh crore by 2023-24.	Fiscal support for buyers. Fiscal incentives for vehicle scrappage
	Create employment opportunities for 40 lakh people by 2023-24.	Linkage to PLI scheme State Electric Emission Vehicle Credit Program. State Electric funds with other allied parameters



Graph 1.1 District-wise distribution of industries in Vidarbha



Graph 1.2 District-wise MSME activities in Vidarbha

2.0. Interventions

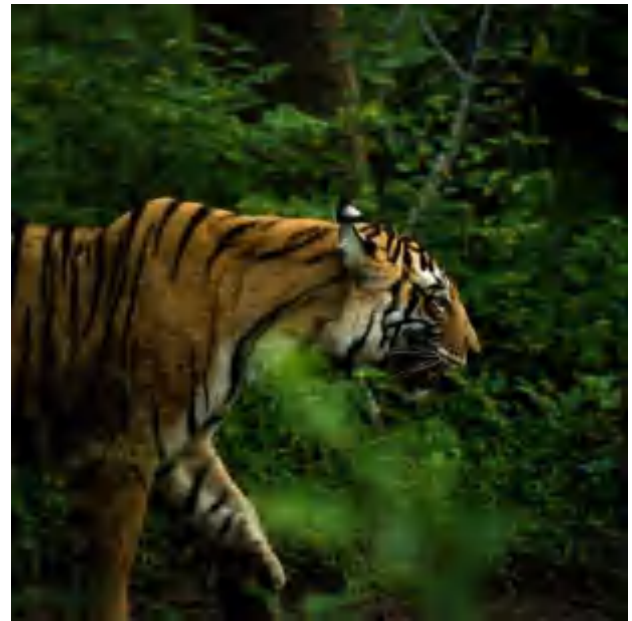
1. Chandrapur district has scope for becoming an industrial city apart from Nagpur as it is the highest revenue paying district by Minerals Royalty. However, there is a lack of implementation and intervention of some special packages as per the district condition.
2. Chandrapur, Bhandara, Yavatmal, Gadchiroli, and Nagpur can be a centre of MSME for derived mineral products.
3. Gadchiroli can be explored as a steel processing zone, Lloyds Steel is already executing a steel-making project of 20,000 crores there. Similarly, since iron ore is plenty in Gadchiroli, State-based steel manufacturers like Jindal, Essar etc. could be approached and invited to put up steel manufacturing units in Gadchiroli.
4. Bhandara can be a ferroalloy processing zone, and Yavatmal a lime dolomite processing zone.
5. To bridge the gap of industry and academia; an integrated policy could be developed to enhance the relations between industry and academia as well as build strong Industrial relations through skill training.
6. Industrial areas can have accessible centres where government officials or other authorities visit for faster redressal of queries. Regulatory bodies can also access this as the guidance centre for sustainable development.
7. Implementing the Package Scheme of Incentives by the Government of Maharashtra to encourage balanced regional growth and dispersal of industries in industrially less developed areas.
8. MSME has the potential to employ a higher percentage of the population than the Large-scale industries. Package Scheme incentives percentage can be increased for MSMEs. The delay in financial support regarding the PSI should also be resolved.
9. A single window system should be implemented effectively to boost industrial expansion.



Major Products in Districts of Vidarbha

2.1. Tourism

1. Implementation of Development of Special Tourism Districts/Zones as per the Maharashtra Tourism Policy, 2016.
2. Rural development through an Agro Tourism Policy 2020, by encouraging agriculture-related business as most of the districts are agriculture-dependent.
3. Development of the Hospitality sector infrastructure is necessary for flourishing tourism in this region.
4. There is a need for regulatory authority to assess and regulate the quality alongwith due diligence of the hospitality infrastructure.
5. Tiger Tourism can be promoted as there are four best Tiger sanctuaries with maximum tiger population Kisli, Kanha, Tadoba, and Nagzira.
6. Lonar Lake is one of only four known hyper-velocity impact craters in basaltic rock anywhere on Earth. It could be a global tourist destination; a detailed plan could be prepared for the same. Geologists, Scientists, and Bird Watchers visit this lake across the globe, it will also be an opportunity to locals of Buldhana district to generate revenue.
7. Factory visits have emerged as a niche mode of attracting tourists, Vidarbha being home to several logistics and manufacturing companies. Factory visits with such companies should be explored as it will drive tourism footfall in the city.
8. All Forts in Vidarbha depict our rich heritage and history with of interesting stories that foreign tourists want to know. All these forts with the best plans can attract tourists. DOT with public-private partnerships or by CSR must prepare a framework to develop such centres.
9. The Samruddhi Expressway and the interchanges to be constructed at 24 places will connect many tourist destinations in the state. This will boost tourism in the State. Specific spots from regions like Amaravati, Buldhana, and Chandrapur are included in these 24 places. Infrastructural development in these areas is essential.



Melghat Tiger Reserve



Lonar Lake



Samruddhi Mahamarg

10. There is a need to prepare a concise booklet of schemes by the State and Central Government for better accessibility of the provisions and facilities.

11. Giving more and better access to transportation for tourist spots and creating infrastructure in terms of roads, railways, etc. for enhanced connectivity resulting in tourist retention

2.2 Logistics



1. Despite logistics being in the forefront, it should still have an inclusiveness like the industry. The Logistics Policy of 2018 has evolved since then and the amended policy should be implemented at the earliest.
 - a. According to the Policy, the Special Planning Authority for logistic parks should be the MIDC whereas at present it is the NMRDA. The MIDC -Nagpur itself should be empowered to sanction the project.
 - b. Logistics trade should be given Industry status by the Govt. of Maharashtra so that PSI can be extended to them which are not there at present.

2. MIHAN (Multimodal International Hub Airport) can be a strategic place on international aviation routes, which will increase Vidarbha's importance as a logistic hub on the global map.
3. The introduction of the Samrudhi Highway has given a boost to logistics and transportation. Arrangements for adequate parking spaces could be facilitated.



MIHAN Nagpur

2.3. Textile

1. Capital subsidy for self-financed projects must be implemented as mentioned in the Textile Policy 2018. (Integrated and Sustainable Textile Policy 2023-28)
2. Scope for projects setup using non-conventional (solar, wind, etc.) of energy. The State Government's Energy Department will not levy charges other than 'transmission charges' on such projects as per the policy.
3. Karvath Kati Saree is GI-tagged and handcrafted using Tussar silk sourced from Bhandara, Gondia, and Nagpur. It could an opportunity for these districts in the area to explore the range of products by sourcing the silk.

2.4. Agro-Business

1. There is a Scope for Rice Milling Industries where the production of rice is on a large scale and the necessary Godowns for Rice Storage.
2. Fertiliser units will generate feasible business opportunities for agricultural-related businesses.
3. Several herbs are found in this region, but their storage, processing, etc. should be made available so that they can be commercially beneficial.
4. The Nalganga-Vainganga water project will boost the agricultural sector and open tremendous potential for the Agro-Processing Industry.



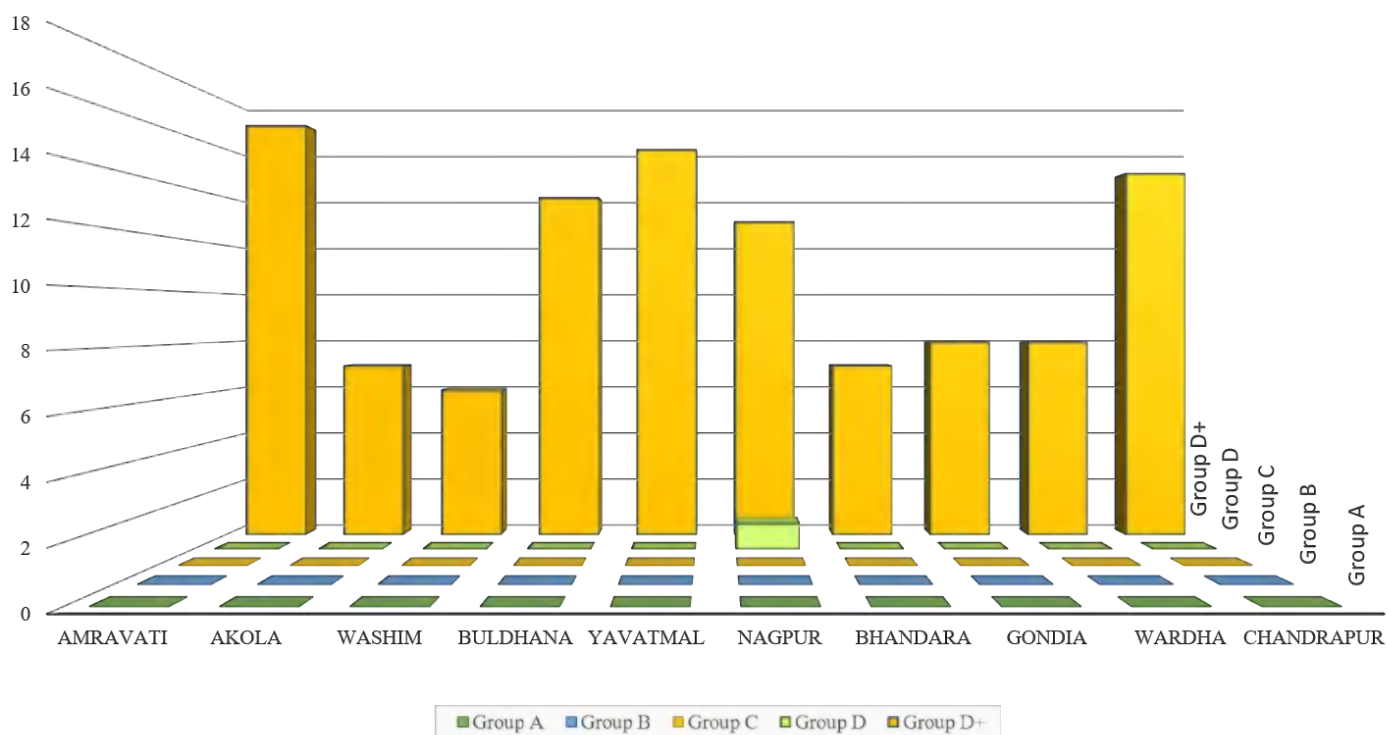
Forest Based Products

5. Floriculture needs to be explored where raw material and processed products both can be beneficial for the region.
6. 80% of the forest produce of the State is in Vidarbha and the FP profits should go to the tribal people and the local communities, formed mostly by such people.
7. Furthermore, several herbs are found in this region, but their storage, processing etc. should be made available. A study of the successful modus operandi of Chhattisgarh could be done for implementing the same model in Vidarbha.

2.5. IT/ITES

1. Direct government intervention may be a necessary condition to divert industry from industrially developed to lagging regions regarding IT-related hubs.
2. According to the IT/ITES Policy 2014, 100% Stamp Duty exemption for the following transactions to new IT/ITES units and expansions of the existing units in C, D, D+, No Industry district areas and Naxalism affected areas of the State. These provisions should be availed in those particular zones in the Vidarbha.
3. Accelerating the implementation of this policy will be beneficia to be competent with the global standards.





Graph 2.5.1 Classification of Talukas/Areas of the region

Group A: Denotes industrially developed areas

Group B: Denotes areas where some industrial development has taken place, but are less developed than the areas under Group A.

Group C: Denotes areas, which are less developed than those covered under Group B.

Group D: Denotes the lesser-developed areas of the State, not covered under Group A/ Group B/ Group C.

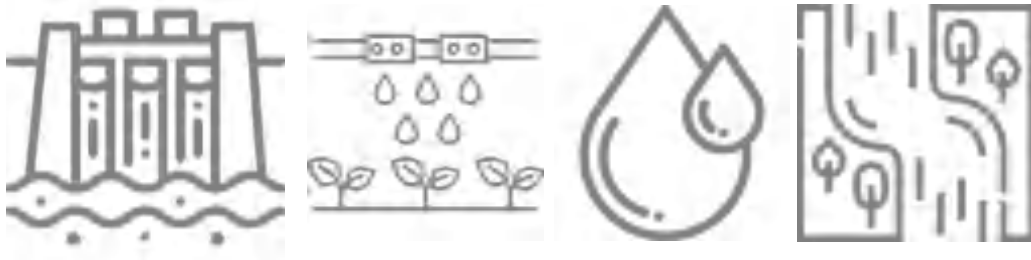
Group D+: Denotes the least developed areas, not covered under Group A/ Group B/ Group C/ Group D.

3.0 Other Interventions

1. 80% of the forest produce of the State is in Vidarbha and the FP profits should go to the tribal people and the local communities, formed mostly by such people.
2. Furthermore, several herbs are found in this region, but their storage, processing etc. should be made available. A study of successful modus operandi at Chhattisgarh for implementing the same model in Vidarbha.
3. It is observed that the sanctioning process in Nagpur Municipal Corporation (NMC) and Nagpur Improvement Trust (NIT) for layouts, buildings, logistics parks, Fire NOC, TDR processing, etc. takes 3-6 months and often the BPMS software crashes and remains closed for 15 days or more, inconveniencing everyone.
4. The entire system is bureaucratic involving too much red tape thereby delaying projects, which results in hardships to the common man, and loss of employment and money. Ahmedabad has devised a software system whereby the process takes only one month to complete. A delegation may be sent to study this system and replicate and implement it here.
5. Gas Authority of India (GAIL) is in the process of laying a gas pipeline from Dahej (Gujarat) to Nagpur to transport natural gas. The government can approach various fertilizer companies like Rashtriya Chemicals and Fertilisers Limited (RCF) and Indian Farmers Fertilizer Cooperative Limited (IFFCO) etc. to set up fertilizer units in Butibori.
6. Orange waste could be used to produce the ethanol as per the academic research findings. Industry could explore this area as an opportunity.

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Water Management

1. Overview

Lakes & Reservoirs in Vidarbha:

Lakes are important sources of freshwater for drinking, irrigation, and industrial purposes. They support industries such as fishing, tourism, and transportation. The Amravati division has 438 lakes/reservoirs whereas the Nagpur division has 349 lakes/reservoirs. Thus, the Vidarbha region has 787 lakes. Conservation of these lakes is crucial for the overall development of the region.

Major schemes/programmes for conservation & restoration of lakes are as follows:

National Plan for Conservation of Aquatic Eco-systems

- Repair, Renovation and Restoration of Water Bodies (RRR of WBs) component of Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)
- Rejuvenation of water bodies component under the water supply sector of the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) scheme.
- Jal Shakti Abhiyan: Catch The Rain Campaign
- Mission on Amrit Sarovar

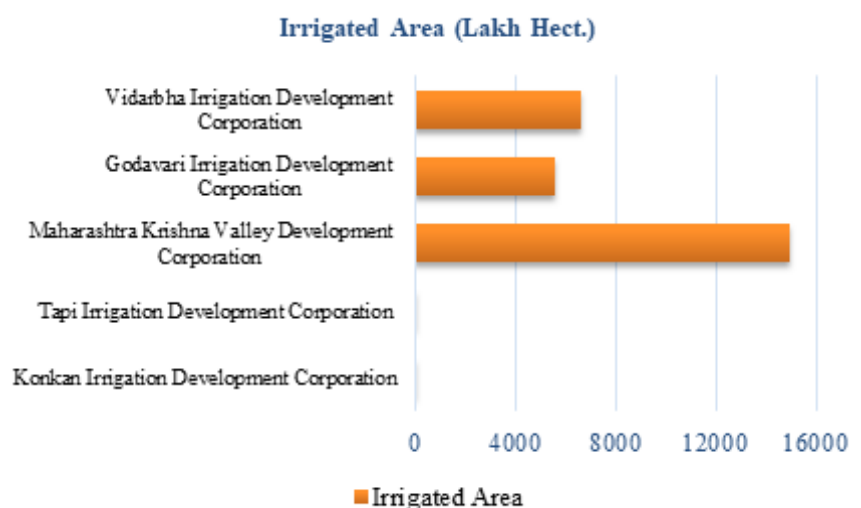
Dams In Vidarbha:

There are 369 dams in Vidarbha region. Most of these dams are utilized for the purpose of irrigation. A few of these dams are also utilized for hydroelectric projects. These dams are situated in the Godavari and Tapi basins.

2.0 Interventions

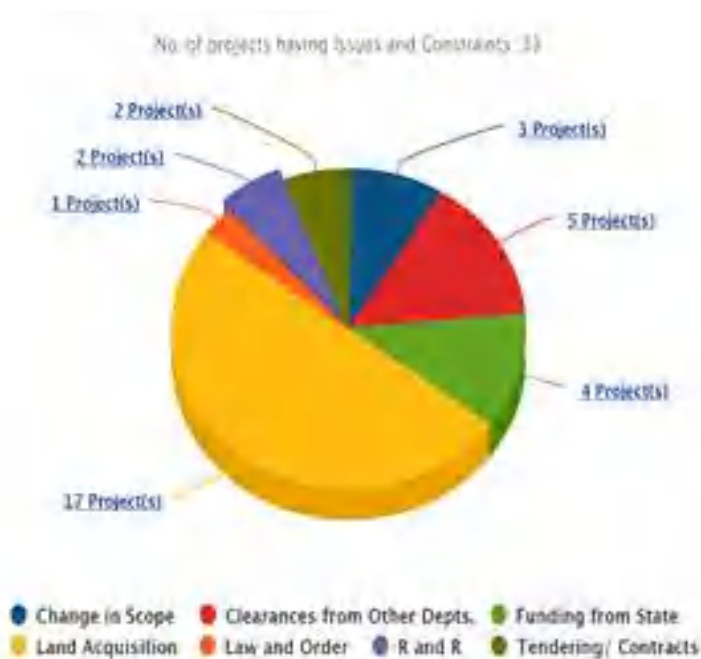
2.1 Water Distribution

- Water management needs to be executed with both supply-side & demand-side management. While there are multiple initiatives being taken for supply-side management, there is a need to promote Micro-irrigation to manage the demand side.
- As per the present policy, any non-irrigation water use needs the approval of the Cabinet. This process is tedious, time-consuming, and cumbersome, and involves a lot of monetary inputs.
- In the present scenario, the industrial development of the Vidarbha and Konkan regions is very low. It has been observed that these two regions are water-surplus. The Konkan region and the Wainganga valley of Vidarbha are water-surplus, but the water is flowing away either into the sea or to the Telangana State. It is necessary to control the non-irrigation use as a policy. However, the water surplus regions need some relaxation in this regard.
- It is proposed that the Industries in these water-surplus regions need the approval of the diversion of water at a faster pace. If we consider the water use of small and medium-scale industries, it is mostly less than 5 million cubic meters/year. Hence, the permission for water use up to 5 mm cube shall be granted at the local level, i.e. at the level of Irrigation Development Corporations of the respective regions. The powers shall be vested to the Executive Directors of the Irrigation Development Corporations for resolving the issue. Hence, we have to categorically mention this in our proposal.
- In the Coal mining area of Nagpur & Chandrapur districts management of water remains a major concern. The water used in the collieries is wasted and there is a pressing need to devise a policy for its reuse.
- Need to change the cropping pattern as well as irrigation practices as cotton crop is not sustainable in dry



land due to variable and inadequate monsoon rainfall.

- The forest cover in Vidarbha is posing as one of the major hurdles in the establishment of adequate irrigation infrastructure. There are 76 irrigation projects from the region that are incomplete due to pending environmental and forest clearances. There is a pressing need to formulate a policy for such projects so that the projects are completed on time and within budget.



As of June 2021, 33 irrigation projects in Vidarbha region under the Accelerated Irrigation Benefit Programme (AIBP) were facing various issues and constraints that created hindrances in the progress of these projects.

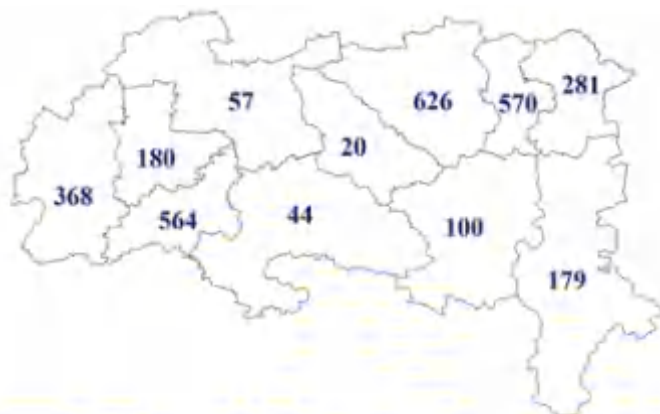
Land acquisition, clearances from other departments, funding from the state, tendering/contracts, change in scope, law & order, R & R were the reasons that constrained the irrigation projects.

8. The Stakeholder approach is an inclusive approach that can create a sense of ownership of the irrigation assets and process. Hence it is highly recommended that the approach should be adopted right from the planning stage of any irrigation project. There is also a need for the convergence of efforts of multiple departments working in the areas of Water Resources, Soil Conservation, Forest Management, Agriculture, fisheries, Zilla Parishad, etc.

9. Revision of the formula for distribution of irrigation funds with the regions of Maharashtra remains a grave concern for regions like Vidarbha and Marathwada.

2.2 Water Management

- There is a need for a separate policy for groundwater management
- In the Urban water scenario adaptation of the Integrated water management approach remains the only solution to do away with problems like Non-Revenue Water (NRW), Water Quality issues, and Wastewater Management issues.
- Lift-irrigation schemes consume a lot of electrical power, thus the water tariff of such schemes includes a sizable amount of electric bills. The water tariff of lift-irrigation schemes is much higher than the water tariff of flow-irrigation schemes. The Head-Works of such schemes are always surrounded by surplus acquired land, and at present such lands are idle.
- It is proposed that such lands be used for the erection of solar-power infrastructure, which will generate green power, which can be readily used for running the schemes. The execution of such solar-power projects shall be carried out as per the present policy framework. In fact, such an initiative may even generate carbon credit for the Water Resources Department.



Map 2.2 Drinking Water scarcity in the villages in Vidarbha

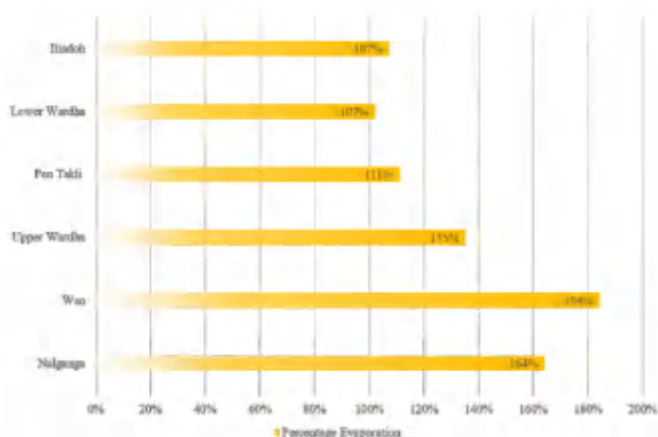
2.3 Water Conservation

1. The issue of recharging of borewell – Since the strata is categorized into different categories, there is a need to have separate strategies for such individual strata. This needs to be incorporated in the Jal Yukt Shivar program
2. In some major projects there is large variation in actual evaporation compared to projected evaporation are listed below. Field authorities are advised to review the actual evaporation that occurred as compared to projected evaporation and do needful. (As per the 19th Annual Report Water Auditing of Irrigation Projects in Maharashtra State Year 2021-22)
3. Another important intervention can be regarding the utilization of old and depleted structures like check dams under the Jal Yukt Shivar.
4. There are more than 7,000 Malguzari Lakes in the eastern Vidarbha region and there are multiple issues jeopardizing their existence. The special repair program of Malguzari Lake in East Vidarbha was undertaken by the government since 2008. Accordingly the rest of the works were taken up, however the program was discontinued after 2019 due to some major reasons.

On the occasion of 350 years for the coronation of Chhatrapati Shivaji Maharaj. The 'Chhatrapati Shivaji Maharaj Jaladayini' program can be initiated. In the said program, activities should be undertaken to repair about 350 Malguzari ponds this year. The remaining lakes will be rejuvenate in phases.

2.4 Water Users Association

1. The Water Resources Department is working in the formation of Water-Users Associations. Some of the Water-Users Associations have already ventured into the formation of Farmers Producers Organization (F.P.O.).



Jalyukta Shivar

2.3.1 Evaporation from irrigation projects

These FPOs are facing the problem of inadequate storage facilities for their agro-produce. The Water Resources Department good percentage of unused storage facilities/godowns, which are idle (remain unused). WRD also needs to invest its resources to provide a watch and ward to avoid any pilferage of steel sheets, iron angles etc.

2. There is a provision in the Maharashtra PDW Manual for offering Govt. assets on short-term leases, this procedure is well laid down and can be adopted for such proposals of short-term leases. It is incurring expenditure on upkeep without any financial return from these assets, hence it is proposed that such storage facilities/stores/godowns can be given on lease to these FPOs.



3. The present staff available for water management works of the projects is inadequate, to be more precise, it is less than 20%. The manpower/staffing pattern has been approved by the Finance Department,

however, adequate efforts are not made to fill these vacancies. The earlier policy was against recruiting vacant positions, but after a change in the Govt. at the State level, there is a special drive to recruit and distribute offer letters to newly appointed staff. It is now proposed to fill 80% vacant staff positions in the Water Management Wing of the Water Resources Department.

4. There are multiple issues with the collection of Pani Patti, its deposition in the right place, and then its redistribution to the WUAs. This is a serious governance issue and needs to be solved immediately otherwise it will defeat the very purpose of the WUAs.

5. A Training needs assessment activity needs to be undertaken to assess the training needs of all the stakeholders in the WUA ecosystem.

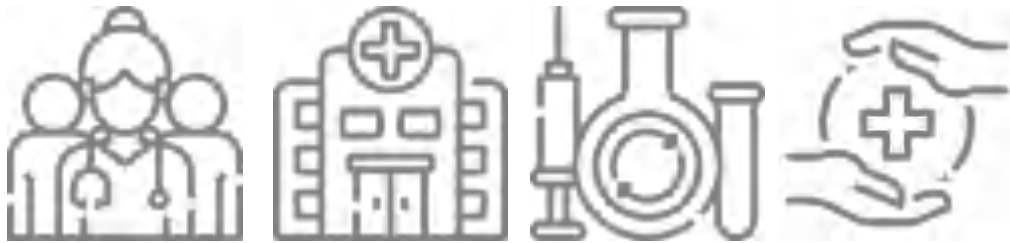


6. One important and pathbreaking initiative that needs to be taken is the linking of FPOs with Water User Association. Since the two entities are under two different bodies, currently there is no convergence between the two. Secondly, the linking of the two will make the WUAs more powerful and effective.



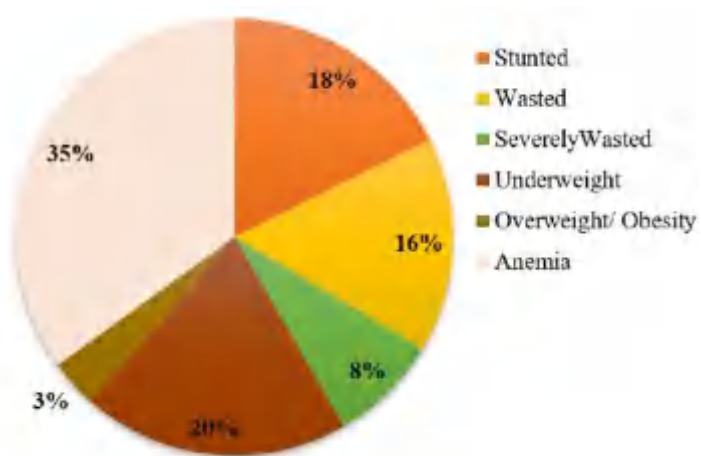
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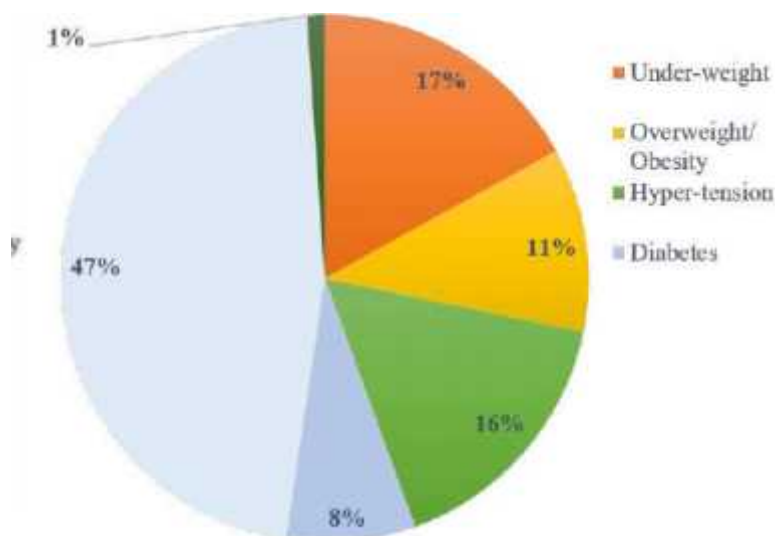


Health

1. Nutrition distribution among Children and Women in Vidarbha Region:



Graph 1.1 Nutrition among children below 5 years in Vidarbha Region



Graph 1.2: Nutrition among women (15-49) in Vidarbha Region

The core area of concern has been the Anemia section for both nutrition in Children and Women having a range of 30% to 40%, in the case of women the share goes on the higher side which is up to 50%. The percentage of Underweight and Stunted growth share almost equal proportions in terms of nutrition, it accounts for nearly 38% (~ 40%). Range in Lakhs

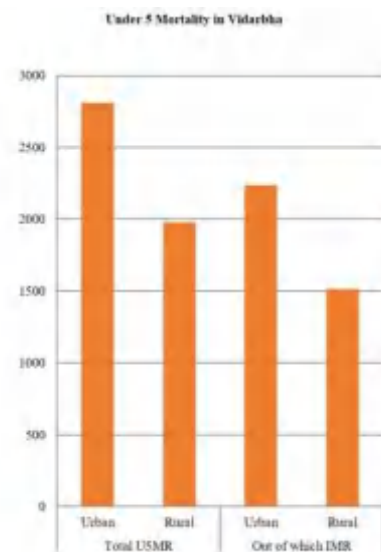


Map .1: District-wise distribution of Anemia in Vidarbha Region

The District Nutrition Profiles published by NITI Aayog reveal that the cases of anemia among women aged 15 to 49 are four times the cases of anemia among children under 5 in the Vidarbha region. It emphasizes the importance of providing nutritional counselling to women of reproductive age, conducting health awareness campaigns, and effectively implementing government schemes.

2.0 Interventions

1. A big thrust should be given to appoint nutritionists at various medical colleges and hospitals. Observations state that there are insufficient nutritionists across various hospitals. An elaborate policy can be made for the recruitment and posting of nutritionists
2. A Nutrition and Dietetics Council can be established at the State level with Statutory backing. It will go a long way in creating an organized manpower in this field. It will also be a great initiative for the prevention of various diseases in the long run.
3. The Centre of Excellence for Sickle Cell Anemia and Thalassemia should be established in the Vidarbha region. The existing facilities need to be upgraded. The Centre of Excellence will catalyze the process of controlling and eradicating the disease.



- The Sickle Excellence Centre was sanctioned for Nagpur but due to a lack of willingness shifted to Chandrapur as the regional ICMR centre; but it's very difficult for other districts to connect with the institution like Bhandara Gondia and Nagpur and other districts in rest of Vidarbha.
- Similarly, a Centre of Excellence for tackling Malnutrition needs to be established either in Gadchiroli or Melghat.
- Preventive health awareness camps related to mental and physical health should be organized in schools and colleges. This will help in the diagnosis of diseases at an early stage. It could be made mandatory for schools to organize such programmes. Necessary interventions of the voluntary organizations can support early identification.

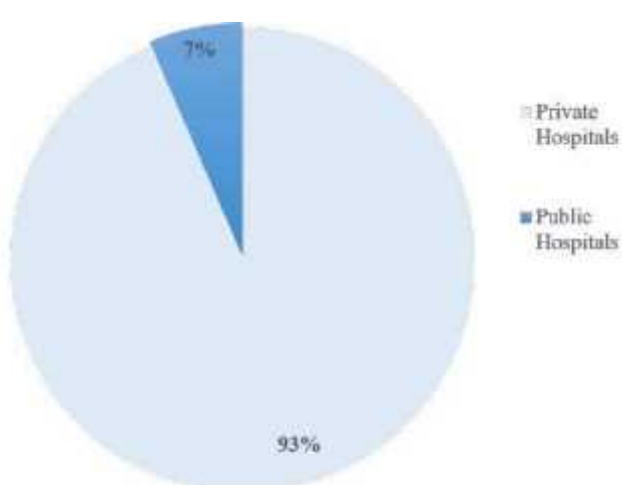
2.1. Health Infrastructure:

Relatively, the chain of private hospitals is much larger than the public hospitals in the Vidarbha region.

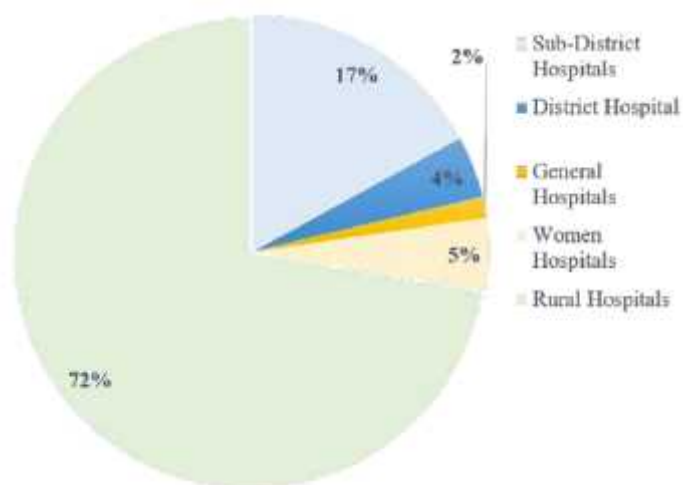
- Need for health planning in tribal and urban slum areas.
- Periodic qualitative check of the government and private hospitals in terms of infrastructure and services is essential.
- According to the finding's infrastructure at the medical college, District Hospital, and sub-district Hospital is satisfactory but lacking in terms of quality. Rural hospitals, PHC's & Sub-centre level infrastructure which includes Buildings, Quarters, and pathology facilities are poor. A system at Rural hospitals can be explored or established based on proper studies, whereby the patients can be referred to Charitable, Government or private hospitals as per the needs of the patient. This system can be implemented on a pilot basis and after proper study and review can be replicated at other places.
- 2:1, One PHC for a population of 20,000, if the population in that area increases the proportion of the PHCs should be maintained. Rural Hospitals (RH) co-ordinate with 4-5 PHC. Sub-districts Hospitals for 4 RH and District Hospitals for 4 Subdistrict Hospitals.

2.3. Healthcare Resources

- Lack of human resources including the number of Doctors, ANM, specialists, etc. are facing shortages for the last 10 years. There is a shortage in the category of medical teachers and Medical Officers. The MPSC exam for recruiting Medical Officers is conducted every 5 years. Considering the requirements and vacancies, the exam can be conducted every year or at any other frequency to compensate this shortage.
- Yavatmal, Chandrapur, Gondia, and Akola have around 30 % vacancies in the health sector. An exhaustive study of vacant posts in the health sector of Vidarbha region should be undertaken in order to resolve this issue.



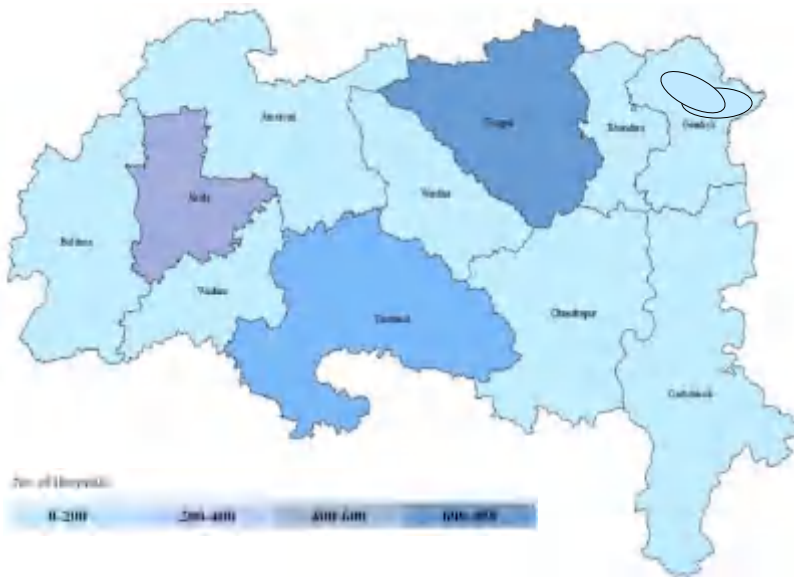
Graph 2.1.1: Percentage share of Private and Public Hospitals



Graph 2.1.2: Percentage share of Public Hospitals

504 Primary Health Centres

3058 Sub Centres



3.Map .1 Distribution of the Health infrastructure in the Vidarbha Region

3. There is a need for effective implementation of the National Prime Minister Apprenticeship programme to address the issue of manpower shortage.

It is observed that due to some procurement issues, there is a shortage of medicines at PHCs, Medical colleges, District hospitals etc. The procurement process should be streamlined to ensure the availability of medicines at all places.

It is observed that the medical staff from the Cities are not willing to go to rural areas due to various reasons. A program for the recruitment of staff from the local places can address this issue.

District hospitals should have Doctors from various pathies, this will facilitate the type of treatment the patient is willing to opt for its further treatment. Protocols can be devised for this facility and it will also give a boost to the Ayurveda and Homeopathy in the diverse areas.

7. Rural hospitals must have one Gynecologist one Pediatrician and one Anesthetist. If possible dentist should also be made available.

1.4. Skill Development

1. The bond completion process post qualification should be streamlined to the skills acquired by the Medical professional. For example, a person who has qualified as a surgeon should not be required to undergo a process where he is administering basic medicine. His bond completion period and the process should be aligned with the skills acquired by him.
2. Skill Simulation Labs should be established in every Government Medical College. This will enhance the learning and practice abilities of the students and medical professionals in a big way. They can upgrade and practice their skills regularly and it will go a long way to a robust medical education system for professionals.
3. A collaborative Research Centre for various forms of medicines can be planned in the districts of Vidarbha region. This will pave the way for useful research and reference material for the entire State.
4. Nursing-related skill training should be provided allied to the medical colleges. This may also facilitate necessary human resources to fulfill the necessity. A foreign language skill section can also provide an opportunity to work on global platforms; giving coverage to the NEP 2020 goals.

1.5. Process Oriented interventions

1. Rules and regulations for the hospitals should be standardized. An ideal set of rules can be framed to have proper coordination between the Corporation's rules, medical department, and District administration. Frequent changes are made in the rules which causes problems.
2. There is a lack of coordination between the Medical Education & Drug Department and the Public Health Department. Either the minister for both departments should be the same or the Principal Secretary for both departments should be the same to have proper coordination for the various issues.

3. A grid of Charitable hospitals can be established in Vidarbha either through a website or some other medium. Many times, it is observed that medical facilities that a patient needs in a hospital are available at a different hospital.
4. The Primary Health Centre should be linked to the district hospitals/ Government Medical colleges through telemedicine or other medicine. The patient can get a consultation from those places without traveling, saving both his time and money. This can be scaled up to make maximum use of resources for effective treatment of the patients.
5. The budget for the medical and health sector should be increased especially for the Vidarbha region.
6. It is observed that due to some procurement issues there is shortage of medicines at PHC's, Medical colleges, District hospitals etc. The procurement process should be streamlined in such a manner that there is always availability of medicines at all places



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Environment

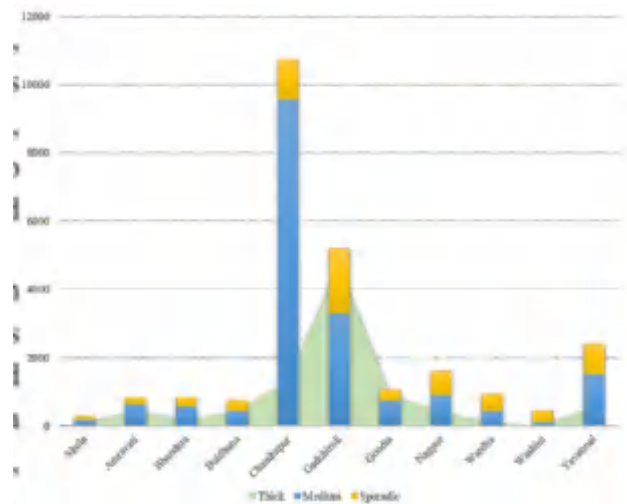
1.0 Biodiversity

Flora: The Region has a wide variety of plant species, including both native and exotic plants. The region's forests contain a mix of deciduous and evergreen trees such as teak, bamboo, sal, tendu, mahua, and Sheesham. The area also has several medicinal plants that have traditional and medicinal importance

Fauna: Some of the prominent wildlife species found in Vidarbha include tigers, leopards, sloth bears, wild dogs (dholes), Indian gaur (bison), deer species like sambar and chital, various primates like langurs and macaques, and a wide range of bird species including peafowls, vultures, owls, and migratory birds during certain seasons.

Protected Areas: Notable sanctuaries in the region include Pench

Tiger Reserve, Tadoba Andhari Tiger Reserve, Melghat Tiger Reserve, Bor Wildlife Sanctuary, and Nagzira Wildlife Sanctuary.



Map 1.1 Classification of Forest in Vidarbha

Interventions

1. As per the stipulations of the Ministry of Environment Forest and Climate Change (MoEF) in the 'National Forest Policy' it is mandatory for the state to maintain the 33% of green cover. Maharashtra has a share of 17% of the green cover. The forest is concentrated in three prominent areas of which two lie in Vidarbha (Satpura-Melghat zone and Eastern Vidarbha Hill Zone). Provisions should also be made as a policy of maintaining the 33% green cover at village, taluka, and district levels so that they can also contribute to national goals besides maintaining the green cover in the respective areas.
2. Land is a major resource for agriculture, commercial and industrial activities. Reduction in its fertility and bearing capacity generates an adverse impact on agricultural as well as industrial activities. 49 products detrimental to land are banned but are still in use. Rigorous measures should be taken to curb the usage of these products.
3. Reduction in forest cover/green cover had a subsequent effect on food resources for the animals residing in the nearby areas. Animals trespass the boundary of farms linked to the destruction of the cultivation.
 - a. Live fencing methods; plantation of thorny and non-grazing plants will be a natural obstruction for these animals.
 - b. The Ribosome and microbes are vital for land to be transferred through these animals.

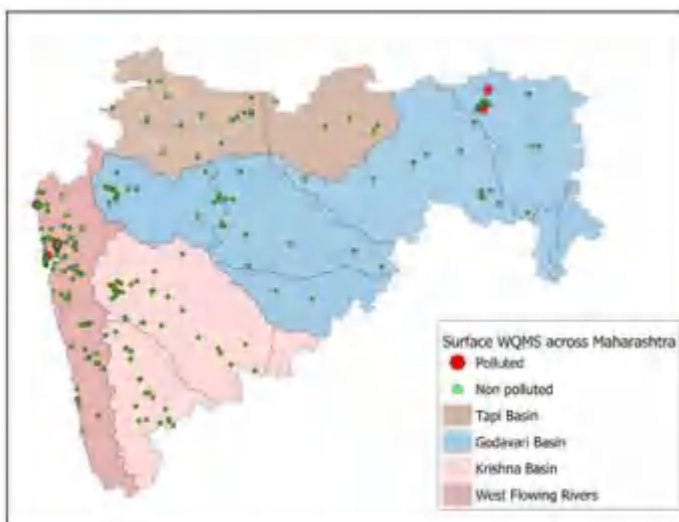


Figure 2.1: Spatial representation of Surface WQMS which recorded WQI as polluted for more than 50% of the observations

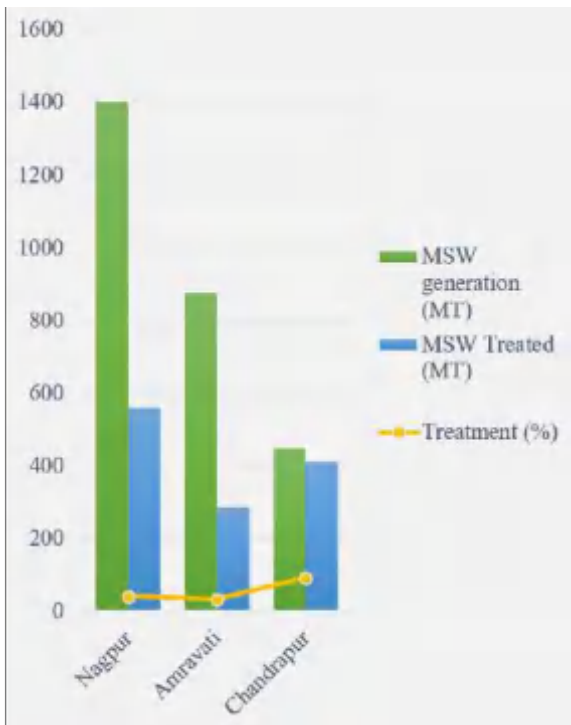
2.0 Water Resources

The second-highest rainfall is recorded in the Vidarbha Region. Highest green cover contribution of Gadchiroli; where 74% of the total area is under forest followed by Chandrapur (36.1%).



Interventions

1. Water body rejuvenation is very difficult due to the reduction in the self-cleansing capacity of the bodies and trapped catchment areas.
2. Clear the blockages of the natural drains is one of the solutions for keeping the water bodies clean.
3. Plantation and preservation of those plantations in the catchment areas of the rivers and banks.
4. Water Body Census should be conducted to analyze the size, condition, status of encroachments, use, storage capacity, and status of filling up of storage.
5. Identification of the Watershed areas in the Vidarbha region is also necessary. Water conservation methods need to be implemented in these areas. Jalyukt Shivar is a method for recharging but other methods should also be implemented.
6. In 2016, the Maharashtra government banned boring well below 200 Feet due to acute water crisis. To



Graph 3.1 Distribution of MSW Generation & Treatment

Region	Treatment Capacity of CETP	Total Industrial Effluent Received (Year- 2020-21)
Amravati	5 MLD	1.5 MLD
Nagpur	5 MLD	4.5 MLD
Chandrapur	No CETP	Industries are treating their effluent individually within the premises.

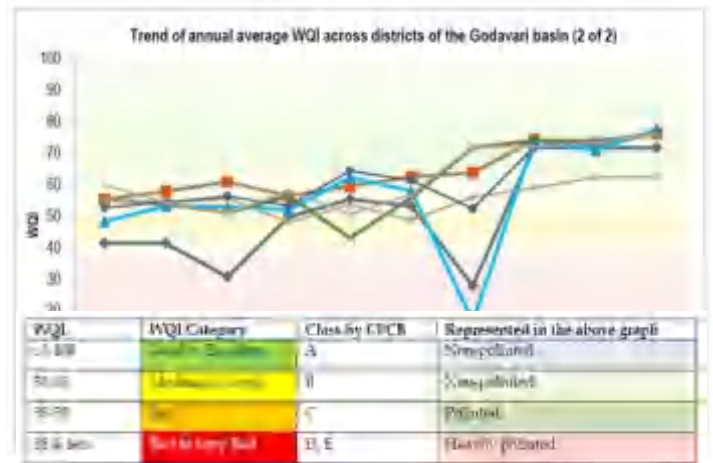


Figure 2.2: Trend of Water Quality Index across Godavari Basin

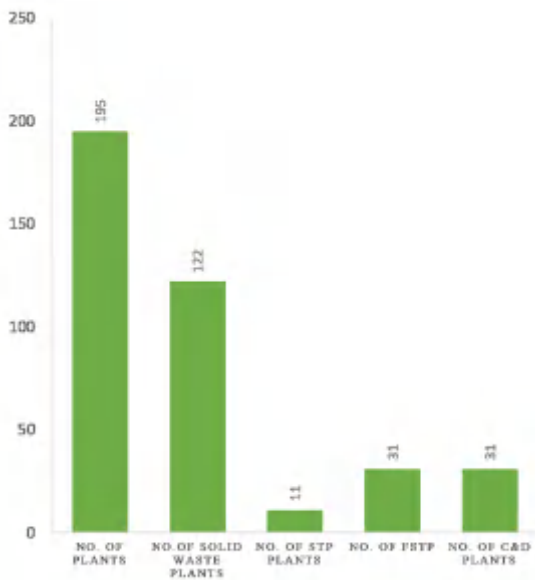
control the water drawn from the ground the 'Maharashtra Groundwater Development and Management Act' was implemented. Despite this Act; there is no control over the amount of water being pumped.

7. The projected increase in rainfall may not really benefit the region due to the low proportion of conservation and higher runoff. Run-off is a substantial issue in the rural and urban areas which may vary with intensity in both areas. Plantation of local species in open spaces and highways can help in
 - a. Restraining the flow of the top layer of soil in rural areas
 - b. Decrease in the use of blocks or impervious materials in urban areas, which is a source of runoff in these area
 - c. Preservation of local species; particularly in Tribal Areas

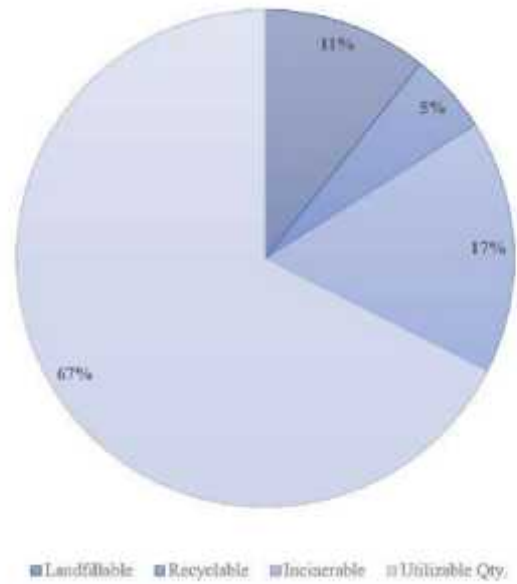
3.0. Waste Management

1. Every industrial, agricultural, commercial, and domestic activity generates by-products or waste products. It is necessary to have appropriate ways of the decomposition of waste or reduction at the source of the pollutants. Two key pollutants in the current scenario irrespective of the region are plastic and E-Waste. CPCB, MPCB, Centre, and State government has policies, and regulations to manage toxic waste; 'Solid Waste Management Rules 2016', E-waste (Management) Amendment Rules, 2018.

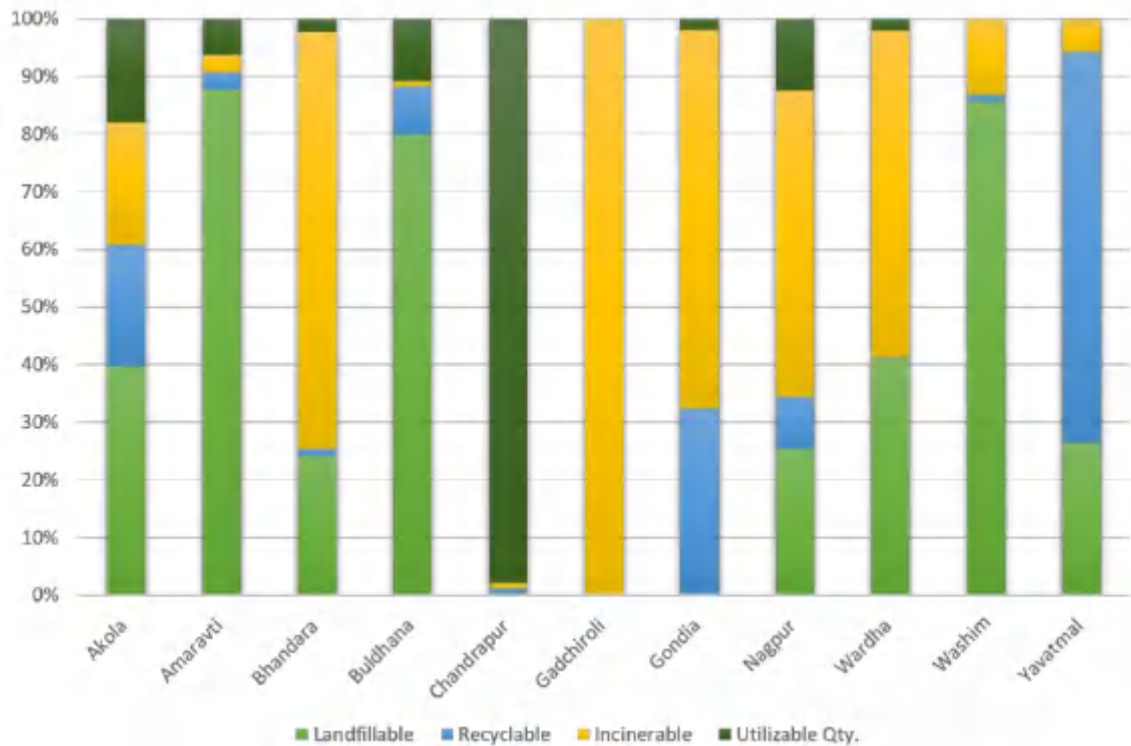
2. It is essential to strictly follow these rules for consumers, producers, and bulk consumers as per the regulations. The following solutions could be implemented for this issue.



Graph 3.2: Waste processing units in Vidarbha



Graph 3.3 Type of waste generated during the Year 2020-21 for Vidarbha



Graph 3.4 Type of waste generated during the Year 2020-21 (District-wise)

- a. Lack of awareness & lethargy are the factors responsible for poor implementation of these regulations.
- b. Hence, collection centers at rural and urban levels could be established with the interventions of voluntary organizations.
- c. This will generate employment at local/village levels.
- d. Concise information from collecting agencies should be prepared for implementation.

3. Industrial pollution and waste are very hazardous for water and land resources. A major issue in this area is the Sub-Regional Officer (SRO) and Regional Officer (RO) are monitoring 500 to 1000 industries in the specific region, which creates a load as well as efficiency in monitoring. Necessary intervention should be done in this area with the participation of voluntary organisations for monitoring purposes.

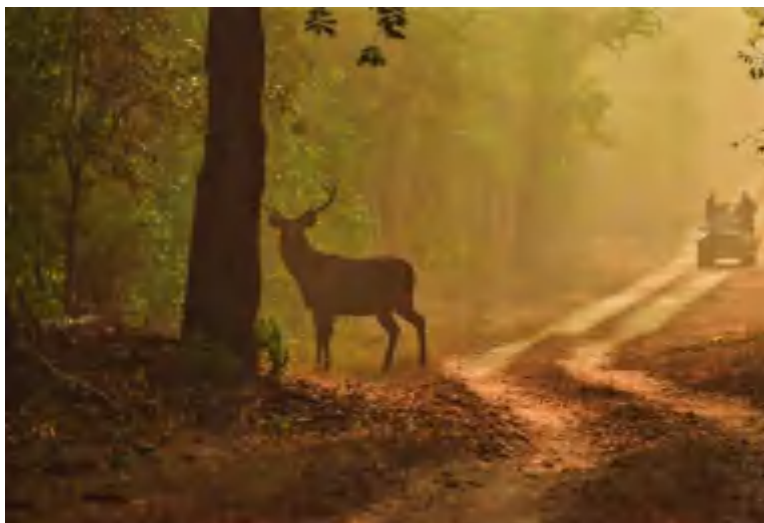
4. Strict implementation of the STP (Sewage Treatment Plant) is crucial for managing the hazardous waste effluent discharged from the industries. It has often been seen that industries manage to overcome these regulations. They discharge untreated water into the water and land resources resulting in the
- Reduction of the self-cleansing capacity of water
 - Degradation of land quality and reduction in land fertility

4.0 Other necessary interventions

- Gram Sabha is a decision-making body at the village level. Strengthening and ensuring regular Gram Sabha is imperative at the village level for the effective implementation of the policies.
- Discussion on CER; On 1st May 2018, the Ministry of Environment, Forest & Climate Change issued an Office Memorandum to suggest a common principle for affixing corporate environmental responsibility for Greenfield as well as Brownfield projects. It also involves projects which are not governed by Section 135 of the Companies Act, 2013, or have yet to make any net profit. A greenfield project with an investment of Rs 100 crore will have to pay up 2% as CER and 1% for a brownfield project.
- Vidarbha should have an accessible environment-related institution which can work synergistically with the institutions like National Bureau of Soil Survey & Land Use Planning, Central Citrus Research Institute, Dr. Panjabrao Deshmukh Krishi Vidyapeeth is an agricultural university that will integrate all these subjects; a pathway for policy along with research areas.
- Conservation of soil especially in the catchment areas remains a grave area of concern. There needs to be an integrated policy/scheme provision for soil as well as water conservation in Vidarbha.

5.0 Involved risk due to environmental damage

- Increased fire risk in savanna woodlands of Northern Vidarbha due to higher temperatures and arid conditions. Increased aridity and reduced fodder supply in Vidarbha.
- Degradation of Local species along with depletion of the natural resources.
- Lonar Lake, Buldhana district, Navegaon Notified Wetland, Gondia district (Important Wetland in Maharashtra) needs to be conserved.
- Affecting the agricultural potential and productivity of the region.



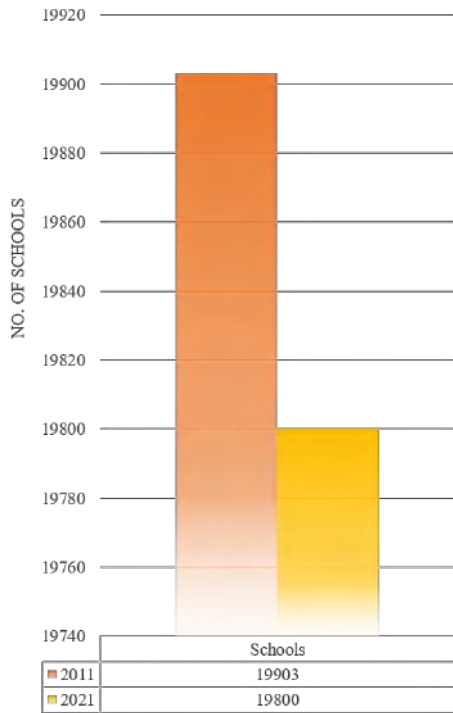
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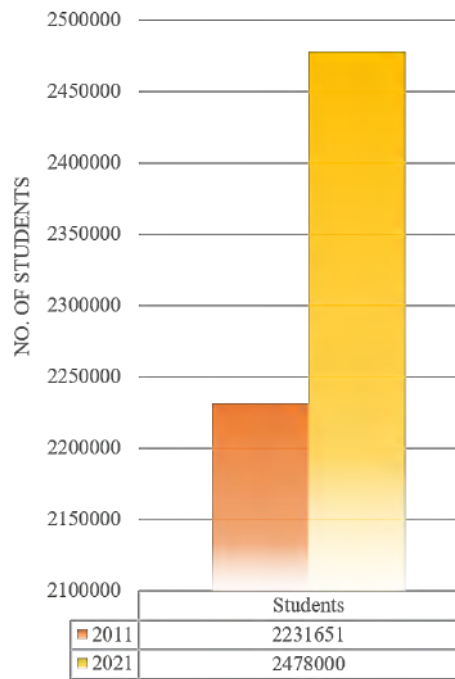


Education & Skill

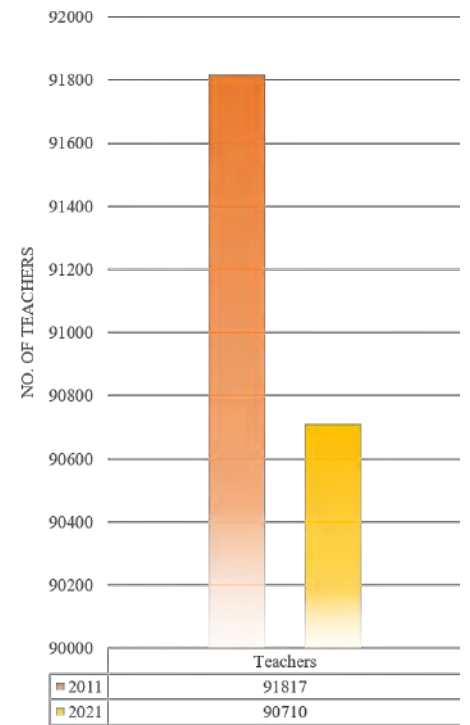
I.School Education:



Graph 1.1 Number of schools in Vidarbha (2011- 2021)



Graph 1.2 Number of students in Vidarbha (2011- 2021)



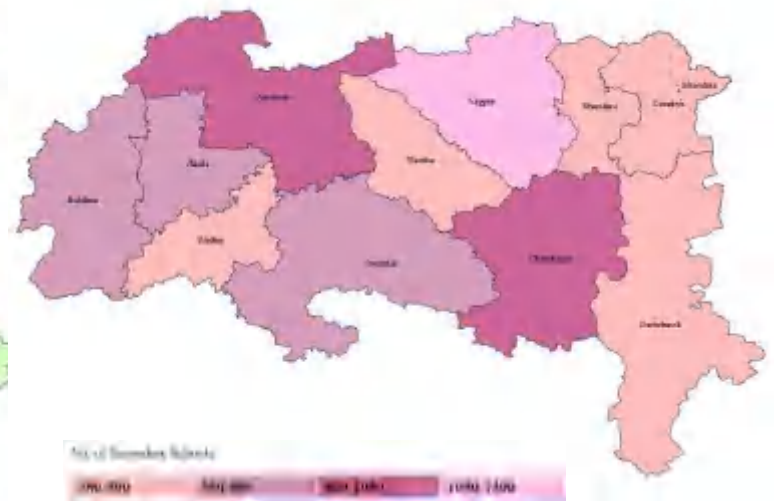
Graph 1.3 Number of Teachers in Vidarbha (2011- 2021)

The number of schools and teachers in this region have been decreased in the period of ten years, whereas the number of students have been increased by 11%

The highest number of schools and students learning is in the Nagpur region, whereas the lowest number of schools is in Bhandara. The least students learning is in the Washim region



Map 1.1 Distribution of Primary Schools in Vidarbha



Map 1.2 Distribution of the Secondary Schools

1.0. Interventions

National School Education Policy covers all essential factors needed for holistic development from Early Childhood Care to the revamping of the original structure to integrate Arts, Sports and experimental learning

1.1. Lack of Human Resources at the school level

1. A significant number of schools across Vidarbha have no presence of teachers, nearly more than 1,00,000 such schools are in these regions.
2. Maharashtra has approximately 13 districts under the PESA Act; According to this act the local from the tribal community needs to be appointed on the vacant post but due to the non-availability of eligible candidates the post remains vacant. This issue needs to be resolved.
3. The percentage of educated unemployed youth is high and he is willing to serve in the education sector on the basis of honorarium, but the State Government has rules for teachers to pass the TET qualifying exam. If some separate provisions are made in this rule, we could recruit them even if it is on a temporary basis.

1.2 Enrollment at School Level

1. The condition of the government schools needs to be elevated as the number of students enrolling in government schools is also decreasing.
2. The Gross Enrolment Ratio (GER) of Gadchiroli is the lowest among the districts of Maharashtra. It needs to work to increase the enrollment in these areas.
3. School dropout rate increases from the transition of Secondary to Higher Secondary further increasing among the students after completing 12th standard. These dropout rates need to be curbed through systematic interventions. GER is highest in the Primary schools and the dropout rate is highest in the Secondary Schools.
4. Lack of literacy among the children studying in the primary schools of rural areas of Vidarbha. Only 10% of students from rural areas can read and write.
5. 60-70% of students don't have knowledge of English when they enter 11th standard.



Performance Grading Index (2021-22)

	Highest Score (in %)	Lowest Score (in %)
Outcome	Washim (58.28)	Gadchiroli (46.55)
ECT	Amravati, Buldhana (95.56)	Washin (91.11)
IF&SE	Gondia (94.12)	Buldhana (70.59)
SS&CP	Akola, Amravati, Bhandara, Buldhana, Chandrapur, Gadchiroli, Nagpur, Wardha, Washim (100)	Gondia (94.29)
DL	Akola, Amravati, Chandrapur, Wardha (44)	Gadchiroli (30)
GP	Yavatmal(75)	Gadchiroli (67.86)

1.3. Infrastructure

1. Centralized Experiential Learning Centres could be built so that children will get exposure and practical knowledge. The city students should get rural experience and vice-versa.
2. A framework should be prepared for the formation of school clusters. A study should be conducted to assess the viability and access factor for the same.
3. Aggressive implementation of Continuous Professional Development (CPD) as per the NEP 2020 at the School and Anganwadi levels is essential.
4. Even though there are ample facilities at the school level, there are still issues need to be resolved. While there is a provision that 25 percent of the funds of the Gram Panchayat Finance Commission should be spent on education and health, it is not actually spent in that manner. It is necessary to regulate the Gram Panchayat in this matter.
5. Electricity payments to schools are at commercial rates. There could be allowances and household rates be permitted and the cost of electricity bills can be borne by the local body. Despite having the proper infrastructure at schools due to the non-availability of electricity the utilities and technology are unable to work.

1.4. Schools in sparsely populated areas:

1. In view of the universalization of education, the slum schools were removed as per the government decision of the School Education Department dated 8th April 2000. Earlier to this, to establish a primary school following criteria of at least 200 population and one a distance of one & half km from primary schools was essential.
2. In remote areas, these criteria were slightly relaxed. But due to this, many Wadis, Wasti, Pol, Tande were deprived of education facilities as they did not fit within this criteria. As a solution unemployed locals were appointed to these slum-schools to initiate education in every Wadi, Vasti, Tanda, Pol.
3. These schools naturally have fewer enrollments. Therefore, low-enrollment schools are not financially affordable to the government. The process of connecting/merging these low-enrollment schools to the nearest school is underway based on the provisions of the Right to Child Education Act based PTR and distance. Thus the of education that has reached these small settlements will be permanently closed and it will generate new problems.

II. Higher Education



There are three Universities in Vidarbha; Nagpur University, Gondwana University, and Amravati University

Vidarbha's performance in the National Institution Ranking Framework was reduced this year. Eminent institutes maintained the bar but regional and local institutions still fail to maintain the benchmarks for quality education. There are more than 500 Colleges affiliated with RTMNU of which only 120-130 colleges are accredited to the NAAC. The highest number of colleges are situated in the Nagpur region. Accounting with both Nagpur and Amravati Region there are more than 900 colleges in the Vidarbha Region; nearly 30% of colleges are in

this region.

NEP has comprehensive provisions to elevate Higher Education through credit-based multiple entry and exit options, Academic Credit Bank, internationalization of education, research-based university, integration of sports, AI-based education. Effective penetration of these factors at the regional level will boost the quality of higher education.

1.0 Intervention

1. The Infrastructural issues at the rural level are both in quantitative and qualitative terms. The higher distribution of educational institutes is in Nagpur and the lowest distribution is in the Washim region. Similar is the pattern for the teaching faculties in these regions. There is a concentration of esteemed institutions in the Nagpur Region like NLU, IIM, AIIMS, MAFSU, KKSU, VNIT etc. Proportionate and need-based distribution is essential.

2. The administrative framework of the universities should be restructured for better knowledge and connectivity of expertise.

3. There is a need for a mechanism for quick Appointment (Ad-Hoc 5 Years) of qualified faculty members on lines of NEP

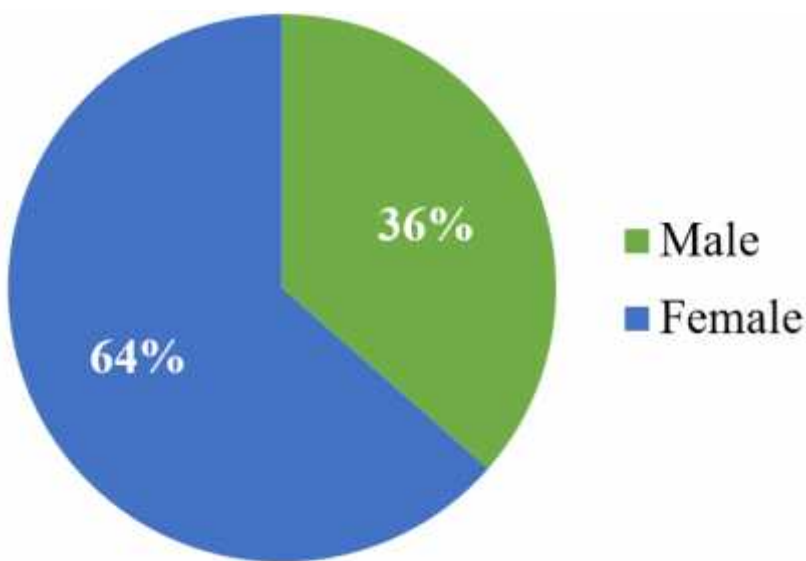
4. The PTR of HEIs is very high which needs to be significantly reduced by planning targeted interventions

5. The students from the Vidarbha region should be encouraged and motivated to join the Indian Armed Forces. Currently, the number of students joining the Indian Armed Forces is very low compared to the rest of the regions.



Map 1.1 Distribution of Higher Educational Institutes in Vidarbha

2.0 Skill development



Graph 2.1 : Skill Development Beneficiaries in Vidarbha

1. Need-based skill identification units: The need of industry in the particular region also should be taken into account while imparting skill-based courses. The lack of academic and industry interaction creates an unbalance in the number of specific skills labor acquires and academic learnings through the State Government Skill Development mechanism.

2. Textile and fabric-related skill training programs could be introduced aligning to the newly emerging textile hubs in Vidarbha mainly in Yavatmal and Amaravati.

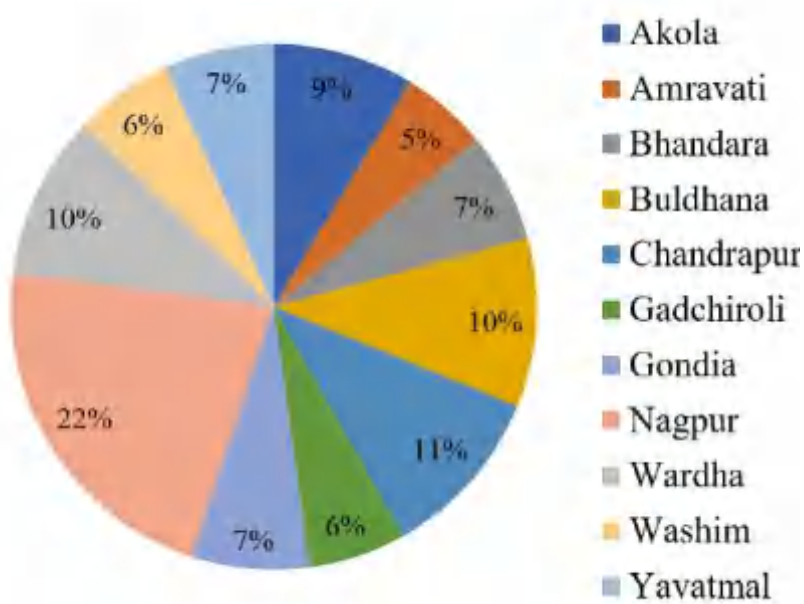
3. New technology-oriented courses should be promoted in the region which

will align with the IT/ITES 2015 Policy which attracts the industries in the Animation, VFX , Supportive IT services in Business/Commercial sectors.

4. The tourism and Hospitality sector is another flourishing sector in the Vidarbha region based on the local tourist guide, skills regarding hospitality should be imparted to the youth.

5. Entrepreneurship has been the aspiration of youth since early age , but the students at rural levels as well as urban levels are unaware of the actual process that needs to be followed to set up a unit, comply with product management, etc. A specific network or centers could be established under the State Government Scheme.

6. Rural-level skill development centres need to strengthen and enrollment in these areas also needs to be increased. These centres should be connected to local industries for employment generation.



Name of Sub-sector Estimated incremental employment (2019-2023)

- A. Agriculture and Allied: 1,090,318
- B. Construction: 123,402
- C. Registered Manufacturing: 1,754,688
- D. Services: 4,437,417

Map 2.2 Vocational Training Providers in Vidarbha

Skill Mapping:

As per NSDC, sectors where skilling interventions are required in the districts of Vidarbha are shown below:

High Growth Sectors identified by NSDC	Akola	Amravati	Bhandara	Buldhana	Chandrapur
Agriculture and allied					
Auto and Auto component					
Banking and Financial Services Insurance					
Building, Construction industry and Real Estate services					
Chemicals & Pharmaceuticals					
Construction Materials and Building Hardware					
Education and Skill Development Services					
Electronics and IT hardware					
Food Processing					
Soya Processing					
Manufacture of Food Products					
Furniture and Furnishings					
Gems and Jewellery					
Healthcare Services					
IT & ITES					
Leather and Leather goods					
Media and Entertainment					
Organised Retail					
Textile and Clothing					
Cotton Ginning & Spinning					
Transportation, Logistics, Warehousing and Packaging					
Tourism, Travel, Hospitality & Trade					
Unorganised sector					
Other Manufacturing (mainly machine manufacturing for the textiles sector)					
Energy (Power)					
Fly Ash Cluster					
Mining					
Fabrication Industry (Engineering Units)					

Table 2.2 (a): Required Skilling Interventions in Vidarbha

High Growth Sectors Identified by NSDC	<u>Gadchiroli</u>	<u>Gondia</u>	<u>Nagpur</u>	<u>Wardha</u>	<u>Washim</u>	<u>Yavatmal</u>
Agriculture and allied						
Auto and Auto component						
Banking and Financial Services Insurance						
Building, Construction industry and Real Estate services						
Chemicals & Pharmaceuticals						
Construction Materials and Building Hardware						
Education and Skill Development Services						
Electronics and IT hardware						
Food Processing						
Soya Processing						
Manufacture of Food Products						
Furniture and Furnishings						
Gems and Jewellery						
Healthcare Services						
IT & ITES						
Leather and Leather goods						
Media and Entertainment						
<u>Organised Retail</u>						
Textile and Clothing						
Cotton Ginning & Spinning						
Transportation, Logistics, Warehousing and Packaging						
Tourism, Travel, Hospitality & Trade						
<u>Unorganised sector</u>						
Other Manufacturing (mainly machine manufacturing for the textiles sector)						
Energy (Power)						
Fly Ash Cluster						
Mining						
Fabrication Industry (Engineering Units)						

Table 2.2 (b): Required Skilling Interventions in Vidarbha

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Minerals & Mining

Introduction:

Statute relating to the regulation and development of mines and minerals is covered under the Central List of the Constitution and therefore only Parliament and the Central Government is authorized to frame rules relating to mines and minerals including rules for grant of mineral concessions. However, under section 15 of MMDR Act-1957, the Parliament has delegated authority to the State Government to frame rules for the grant of minor minerals.

The State Government of Maharashtra previously approved the 'State Mineral policy' in 1999. Re-examination and framing of the new State Mineral Policy can be a driving force after the Central Government further declared 31 minerals under its control as minor minerals on 10.02.2015. These 31 minerals are found in inadequate quantity in the State (as against black stone (basalt), murrum and sand); all of these minerals are an important source of raw materials used in the manufacturing of steel, sponge iron, Ferro-Alloys, granular Fertilizer, paint industries, etc. and hence also crucial for Revenue Ministry.

Suggestions made in this draft are addressed to the Ministry of Industries (for major minerals only to the extent the Central Government delegates discriminatory power to the states in the process of granting mineral concessions) and the Ministry of Revenue (for framing of rules for the grant of minor minerals).

Issues considered while drafting present Mineral Policy

(i). Mineral deposition of the State.

According to data available on the website of DGM of the State Government, 70% of likely mineral-bearing area of Maharashtra falls under Vidarbha Region. Division-wise distribution of mineral bearing area of Maharashtra is Nagpur-60%, Amravati-10%, Kokan-20%, Aurangabad-5 %, Pune- 3% and Nashik-2%. According to website of DGM-Government of Maharashtra (updated till 31.03.2014) major Mineral deposits in Maharashtra (in million tons) are as under:

(a) Manganese ore: (20.8). Iron ore (260.8). Zinc ore: (8.3). Bauxite ore: (133.1).

(b) Mineral deposit (in million tons) which falls under both categories (of minor and major mineral): Limestone ore: (1371.3).

© Mineral deposit (in million tons) which falls under Minor minerals: Dolomite ore: (61.3) Quartz: (3.00), Silica sand: (7.4), Decoration building stone – Granites (207.866 Million Cubic Meters).

(ii) Forest area and Ecological Sensitive Area of Vidarbha, wherein 'commercial mining operations' are completely prohibited.

Vidarbha Region has more than 31 % forest area including Ecological Sensitive Area, as declared by the Ministry of Environment, Forest and Climate change. Total area under Vidarbha Region, total forest area in Vidarbha and outside Vidarbha is as under:

The total area under Vidarbha Region is 97,321 sq.km. out of which area under forest is 22,508 Sq. Km., whereas the total area under Eco Sensitive Zone in Vidarbha Region is 7776 Sq. Km (includes 1088 villages of Vidarbha). Mineral depositions in revenue or agricultural land are almost exhausted. Hence, there is a necessity to explore the areas where possible mineral deposition can be found.

A. Under the prevailing scenario and numerous amendments made in mineral law during the past 22 years, we suggest as under:

In making suggestions in draft of State Mineral Policy-23, current statues of existing quarry leases, difficulties in acquiring mineral concessions, and problems faced by holders of quarry leases in procuring statutory clearances required for undertaking quarry operations are considered. Thus while making the suggestions background of each case is also considered.

(a) Statutory Clearance required for undertaking mining operation's

Background: All statutory clearance required for undertaking mining operations takes long time more than prescribed in mining law. Resulting in the lapsing of order of grant / Letter Of Intent (LOI) issued by the State Government in favor of the applicant. Important statutory clearances are as under:

Suggestions:

- (i) Forest clearance:** Before issuing order of grant / LOI, the State Government should procure “stage-1 forest clearance” which is “in-principle clearance” from forest department. Any payment/compensation to forest department are not required at the time of issuing state-1 forest clearance.
- (ii) Environment clearance:** During the public hearing for grant of EC, only residents of village up to 5 km in radius should be allowed, as per guidelines of Ministry of Environment and Forest. Others including NGOs should be allowed to lodge there grievance through the appropriate portal (If any). Further while considering the proposal of EC for the 'B-2 category of mines' where a public hearing is not mandatory and such proposal should be disposed within period of 45 days from the date of receipt of the project.
- (iii) Consent of occupant of land for entering his land to undertake mining operation:** For purpose of undertaking mining operation, applicant / lessee is not required to purchase the land or to acquire said land. Under provisions of MMDR Act (which is a special law) and Rules made there under only compensation as prescribed in Rule 52 and 53 of MCR is required to deposit in account of occupant of land. The State Government should appoint District Collector instate of District Mining Officer so that matter can be disposed of in a transparent and time-bound manner. Similarly to undertake mining operation on land belonging to tribal is not prohibited even under provisions (under section 36A) of Maharashtra Land Revenue Code-1966. The State Government should direct the District Collector to forward said proposal to the Environment Ministry within 60 days from receipt of application for such request.
- (iv) The State Government should insure that appropriate authorities are making available a minimum five mineral blocks per year with pre-embedded clearance, for auction, as per directives issued by the Central Government under Section 20 A of MMDR Act-1957.**

(b) Incentives for value addition mineral industries:

Background: As on today most of the mineral produced in state is moved out of State for value addition or for using said mineral for manufacturing high value products. After value addition, value (sale price) of such products, raises multifold and thus fetches additional GST for the Government, where such value addition is made. Entrepreneurship should be encouraged to start value addition units near the source of mine. If manufacturing units are started near the mine, it will be value addition of which some share of such additional GST collected, can be returned back to manufacturer/ mineral processing units in the form of 'incentives'. Vidarbha region is blessed with rich and good quality of coal, iron ore, Dolomite, Lime stone, Manganese ore, Quartz etc. If mineral consuming industries are promoted to start manufacturing high value products within state, this not only will give better revenue to the State Government but also give employment in rural and remote areas. To motivate these units, incentives policy should be included in State Mineral Policy-2023. Some of incentives could be as under:



Suggestions:

(i) Regular supply of electricity at subsidies rate is most important incentives to attract new Industries in the area.

(ii) Secondly uninterrupted and regular supply of raw material should be assured to new and existing industries in the State. Regular supply of minerals to “mineral based industries” can be assured by the State Government by invoking “pre-emption clause” of mining lease agreement under which every lessee is under obligation to sale some part of minerals so produced from his mine to the State Government and the State Government in turn re-sale said minerals to mineral consuming units of the State.

(iii) Entire amount of mineral royalty or part of mineral royalty so paid by purchaser to the State Government through lessee can be refunded to such manufacturing unit (purchasers), who established new mineral consuming industries within state, after period of 5 years.

(d) Allotment of blocks for minor minerals:

Background: The Central government introduced new method of allotment of mineral blocks of major minerals through auction from 12.01.2015. It is pertinent to note allotment of mineral blocks through auction is not constitutional mandate (refer judgment of Hon'ble Supreme Court where clarification on this issue was asked for, commonly known as “petition of Presidential reference”). The State Government is competent to frame rule regarding grant of “minor minerals” under section 15 of MMDR Act-1957. At present the state Government is allocating quarry leases for minor minerals on land owned by applicant without auction but quarry lease over land owned by third party and Government are allotted only through auction. It is matter of record that allocation of mineral blocks (for notified 31 minerals) through auction is not at all successful. Old quarry leases granted under non-auction regime are either expired or going to expire very soon. Under such circumstances, in near future there will not be any quarry leases, particularly for 31 notified minerals.

Suggestions:

(i) Ministry of Revenue- Government of Maharashtra may recommend the council of ministers of Maharashtra state to amend rule 9 of Maharashtra Minor Mineral Rules- 2013 so that quarry leases for 31 notified minerals, up to 20 hect. of land, (irrespective to class of land whether owned by applicant or by third party or by Government) may be allotted to general public in accordance to provisions of Maharashtra Minor Mineral Rules-2013 as it existed prior date of amendment i.e 12.01.2018

(ii) Period of existing quarry leases, mineral of which is used in captive “mineral consuming units', should be extended for period of 50 years (as in case of major minerals).

(iii) Mining industries including extraction of mineral should be recognize as ' industrial activity'.

(iv) Stamp duty and registration charges for registering mining / quarry lease agreement should be minimize

(e) Utilization of District Mineral Foundation fund (DMF):

Background: At present lessees of major mineral are required to pay 30% of royalty (cases where mining leases which were allotted without auction) whereas quarry lease holders are required to pay 10 % of mineral royalty in account of DMF. Under Section 9 B (2) of MMDR Act-2015, this fund should be utilized for the interest and benefit of person and area affected by mining related operations. Despite of this clear mandate, in absence of clear guidelines, fund under this head is utilized for some other purpose or even outside mining effected area.

Suggestions:

- (i) The State Government should specify the fields, in State Mineral Policy, where this funds shall be utilized in interest or benefit of person affected by mining operation.
- (ii) Trust created by district authority (DMF) should include at least one member from mining industries
- (iii) The amount collected under this head should be utilized for construction / maintenance of public road / village road which is frequently used for transportation of mineral extracted from mine.
- (iv) Medical insurance of labours engaged in mining Industries.
- (v) Supply of clean drinking water to villagers residing close to mines.



Vidarbha Vikas Manthan

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Social Justice & Development

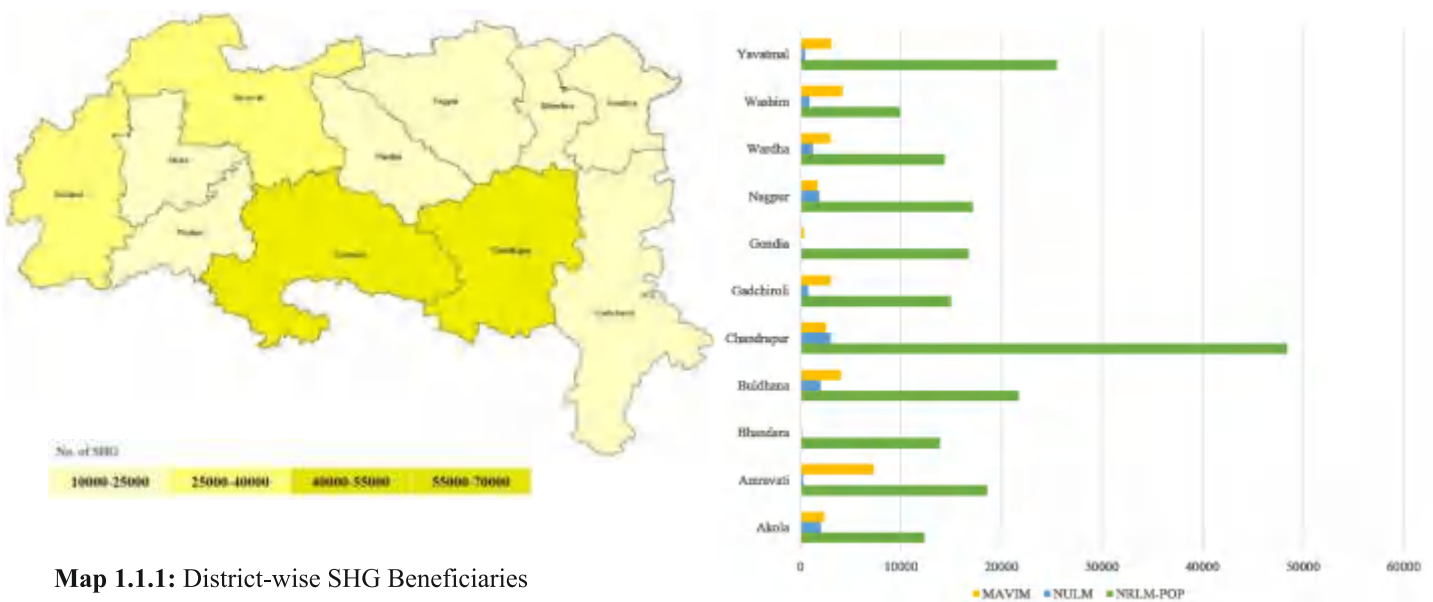
I. Introduction

As per the State Government, the social sector comprises education, health & nutrition, housing and employment, poverty, social justice, women & child welfare, water supply and sanitation, and environment conservation. Activities in this sector contribute to human capital formation and human development. Implementation of various schemes/programs in this sector aids in distributing benefits and opportunities evenly and thereby helps in achieving sustainable development. Acknowledging the importance of various sub-sectors of social welfare, the primary focus has been on women and child development and related parameters.

1.0 Intervention

1.1. Women Development

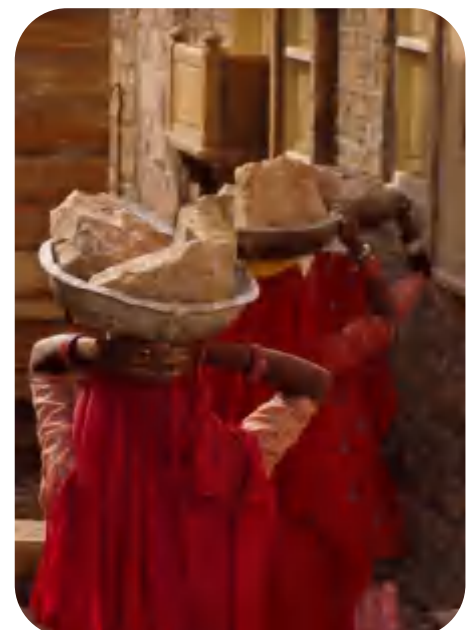
Vidarbha region has a vast network of self-help groups. There is a need to provide skill development training to the women in the self-help groups. Efforts should be taken to provide social and financial security to the women residing within the limits of urban local bodies of the Vidarbha region by providing them with stable jobs.



Map 1.1.1: District-wise SHG Beneficiaries

Graph 1.1.1: SHGs under various schemes

1. Temporarily employed women in the Bidi factories of Vidarbha should get a nearly similar pay scale as that of permanent employees. A separate record should be kept of such women.
2. A structure should be prepared to provide information on government schemes to the organizations working in these sectors.
3. There is a need for building restrooms and washrooms for the female employees of MSRTC and Traffic department. At many places, there is no such sanitary infrastructure while on the other hand the available sanitary infrastructure for the same is not in good condition.
4. Safety and amenities audits should be conducted in the offices where women employees are working in large numbers.
5. A special initiative should be made to officially register the women laborers as construction laborers working at the construction sites on the government portal so that they can avail the benefits of various schemes.
6. Women work at farms with their male counterparts parts in the agri-



related activities. Most of the physical work has been done by the women and they remain underpaid. After the death of their husband the land is not directly owned by the women. This causes dependency on external factors which may lead to isolation and denying the right to possess. Provisions can be made to safeguard these women and make them self-reliant.

1.2. Sanitation

Nagpur city has toilets ranging from 100 to 140, including public and community toilets which is disproportionate for the population of Thirty Lakhs. Similar is the pattern in the other cities of the Vidarbha Region. Infrastructural development and quality maintenance is necessary, as these basic amenities improve the ease of traveling for both locals as well as tourists.

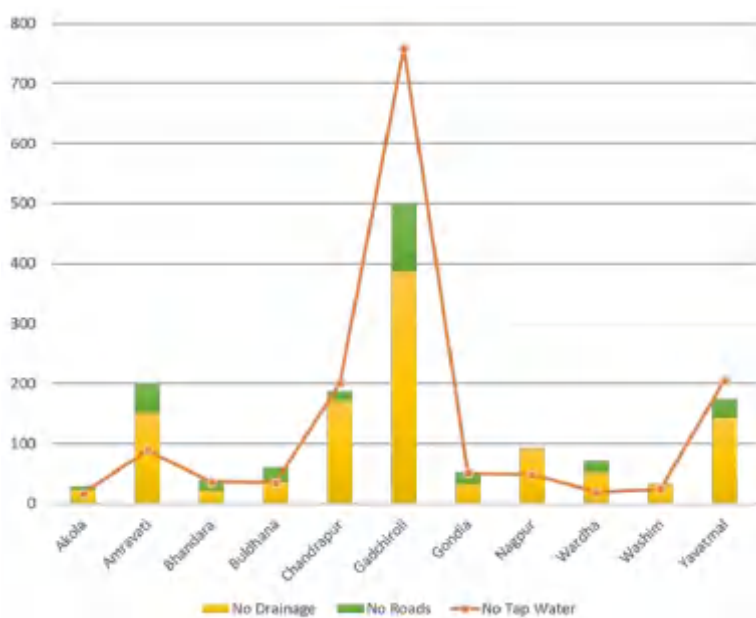


Graph 1.2.1: Public & Community toilets in Vidarbha

1.3. Tribal Development

The tribal population is concentrated in the eastern forest districts of Chandrapur, Gadchiroli, Bhandara, Gondia, Nagpur, Amravati, and Yavatmal.

Tribal residents get a collective 7/12 extract document of the land. This is an issue while getting loans and in other dealings. Provision or amendment can be made to get independent 7/12 extract documents to the tribal residents.



Graph 1.3.1: Villages in Vidarbha without drainage, roads & tap water facilities as well as resources for the aspirants, it should be channelised at the implementation level.

A quarterly review of the expenditure of the tribal development department should be done under the chairmanship of the

Hon Governor. A quarterly distribution of at least 25% of funds from the annual budget should be made mandatory. This will ensure the timely implementation of the government schemes.

There should be an increase in the representation tribal population in the State and Centre Services Examinations.

TRTI has initiated to provide preparatory

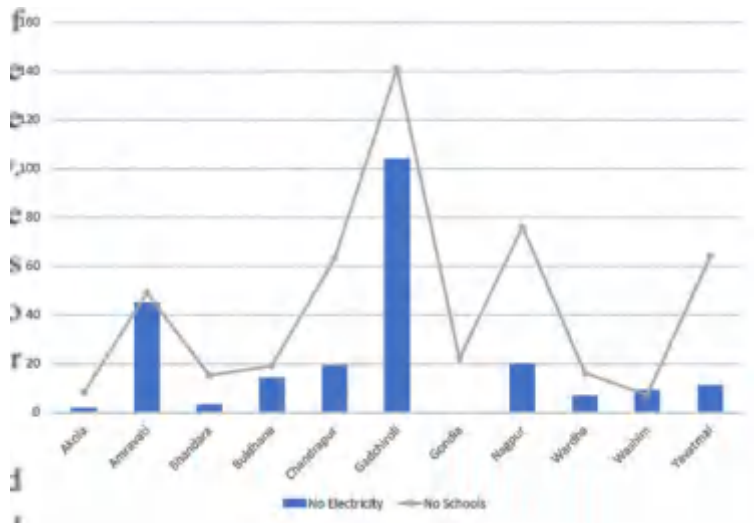
An independent Talathi should be appointed in every village of Vidarbha.

Forest products are collected from the tribal areas on a large scale, lack of marketing and sales of these products offers less scope to these products. A scheme/strategy should be formed for marketing of the forest produce made by the tribal people.

The people residing in the remote tribal areas of Vidarbha follow the cultural practice where the deliveries of pregnant women are conducted in the traditional way rather than institutional delivery. The women and the newborn are kept outside the house for the first five days which poses a serious hazard to their health. Hence there is a need to establish shelter homes in the remote tribal areas or at taluka level for such women and their infants.

The tribal youth from Gadchiroli, Chandrapur and Gondia are generally a little shorter in height and physical capacity than other youth from Maharashtra. Thus, they fail in physical tests conducted in the police recruitment drives. Earlier in 1991, the government had taken a decision to provide some relaxation in the physical criteria for these tribal youths. This decision should be implemented during the police recruitment drives.

A significant percentage of the tribal population is not aware of the schemes and benefits for them by the State Government, necessary intervention should be made to include them in these provisions.



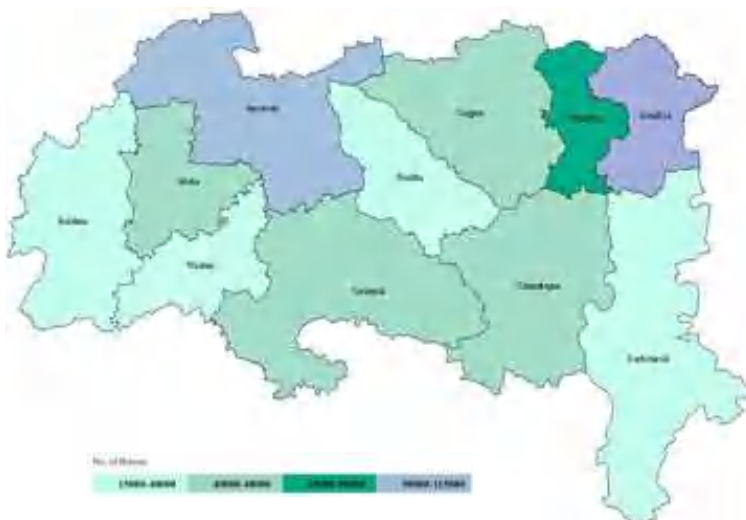
Graph 1.3.2: Villages in Vidarbha without electricity & schools

1.4. Housing

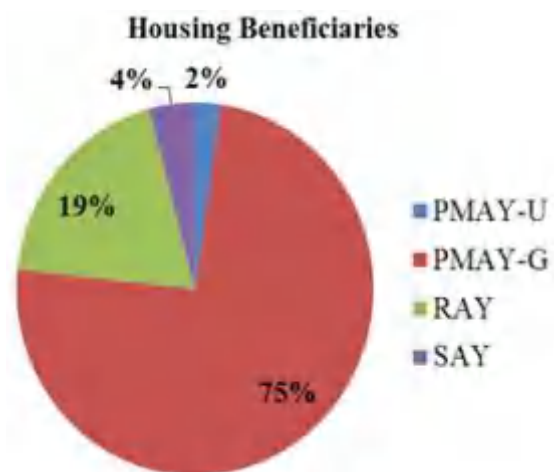
Food, shelter and clothing are the basic as well as essential needs of human beings. As per Maslow's Hierarchy of Needs theory, these physiological needs of human beings needs to be fulfilled so that they can proceed towards achieving their higher needs. A house is one of these needs which provides physical safety and a sense of security to us. The district-wise beneficiaries in Vidarbha under various housing schemes of the central and state government is shown in the map.

A permanent house should be built for the family of Pardhi community which has been residing for a minimum 20 years in the same village and could avail other benefits. A special scheme should be prepared and implemented for the same.

1.5. Other Interventions:



Graph 1.4.1: District wise housing Beneficiaries



Graph 1.4.1: Housing Beneficiaries under various schemes



1. There is a need for providing scientific fisheries training in the villages (under PESA) which are permitted to conduct fishing in the lakes. This will pave the way for the villagers to access information on the production of fish seeds, fisheries, and fishing which will help in increasing their income.

2. Youth residing in the villages are trained as tourist guides and employed in various wildlife sanctuaries in Vidarbha, still their income is not sufficient. Some provisions should be prepared to provide annual remuneration to these tourist guides.

3. Every industrial zone in Vidarbha should have an ESIC (Employees' State Insurance Corporation) health clinic.

4. The Fase-Pardhi community should be registered at the revenue divisional level so that they can avail the benefits of the schemes. The habitats of these communities should receive revenue status.

5. There are skilled development programs for the Disabled people but unfortunately, they are unable to avail the benefits as per the desired targets

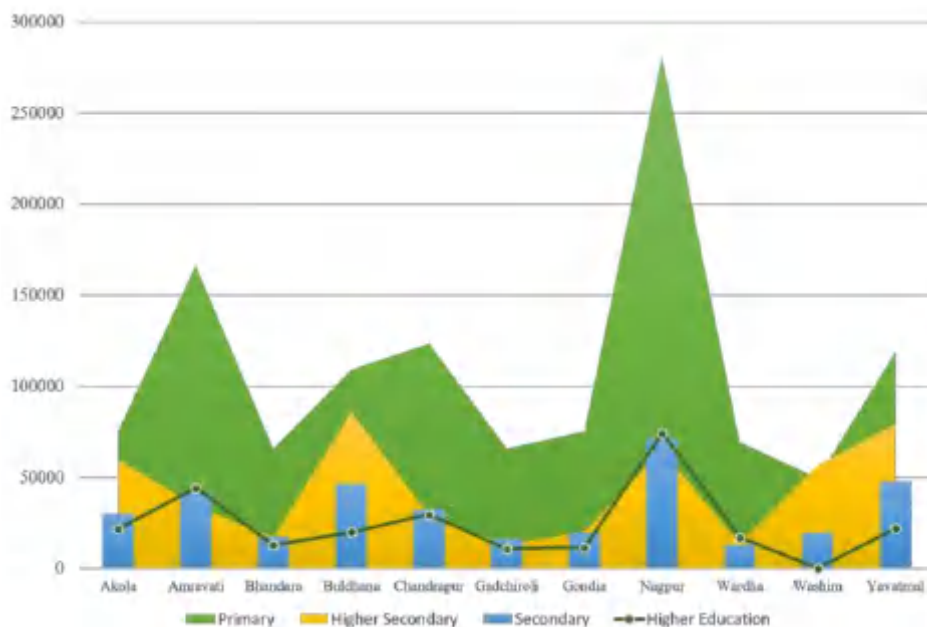
6. Manual scavenging has not been fully abolished in the

state. A Particular community still engages in these activities without following proper regulations. Strict implementation of the laws and appropriate measures need to be taken in this direction.

7. Nomadic tribes have no identity due to their periodic displacements, some identity cards should be issued to them to get them the benefits of the government schemes.

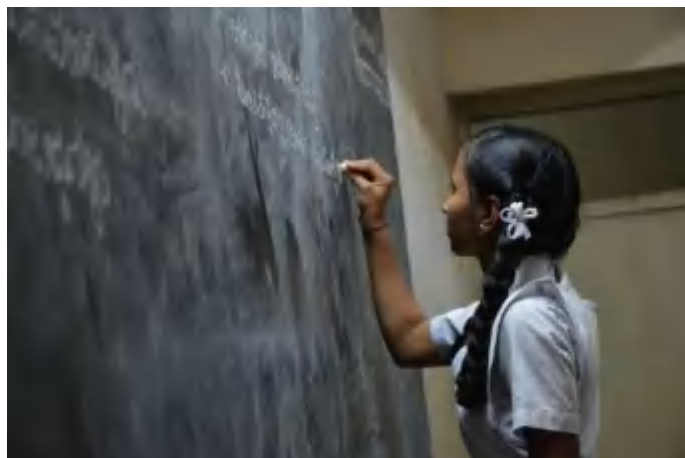
8. Scheduled tribes migrated from Madhya Pradesh and other nearby states have issues regarding caste validity certificates. Precise identification of their areas of residence is in Amravati, Nagpur and Buldhana. Some provisions should be made for them.

1.6. Education among Girls



Graph 1.2.1: Girls enrolled in various levels of education

Education is a very powerful tool that holds the potential of transforming countless lives leading to sustainable development. Women being the central personality of the family system, it is important that more and more girls get enrolled in schools and obtain quality education in order to achieve sustainable development goals. The following graph depicts the current scenario of the girls enrolled at the various levels of education in Vidarbha region:



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Abbreviations

AIBP	Accelerated Irrigation Benefit Programme
AIIMS	All India Institute of Medical Sciences
AMRUT	Atal Mission for Rejuvenation and Urban Transformation
BPMS	Business Process Management Software
CER	Corporate Environment Responsibility
CETP	Common Effluent Treatment Plant
CPCB	Central Pollution Control Board
CSR	Corporate Social Responsibility
DII-LI	District Industrial Investment - Large Industries
DL	Digital Learning
DoT	Directorate of Tourism
ECT	Effective Classroom Transactions
EGS	Employment Guarantee Scheme
ESIC	Employees' State Insurance Corporation
E-Waste	Electronic Waste
FDI	Foreign Direct Investment
FPO	Farmers Producers Organization
FSTP	Faecal Sludge Treatment Plant
GAIL	Gas Authority of India Limited
GER	Gross Enrollment Ratio
GP	Governance Processes
GSDP	Gross State Domestic Product
HEI	Higher Education Institution
ICAR-CRIDA	Indian Council of Agricultural Research - Central Research Institute for Dryland Agriculture
IF&SE	Infrastructure, Facilities, Student Entitlements
IFFCO	Indian Farmers Fertilizer Cooperative Limited

IIM	Indian Institute of Management
INR	Indian Rupee
ITES	Information Technology Enabled Services
KKSU	Kavikulaguru Kalidas Sanskrit University
KVK	Krishi Vigyan Kendra
MAFSU	Maharashtra Animal and Fishery Sciences University
MAGNET	Maharashtra Agribusiness Network
MAVIM	Mahila Arthik Vikas Mahamandal
MCDCL	Maharashtra Cooperative Development Corporation Limited
MIDC	Maharashtra Industrial Development Corporation
MIHAN	Multi-modal International Hub Airport of Nagpur
MLD	Minimal Liquid Discharge
MoEF	Ministry of Environment, Forest and Climate Change
MoFPI	Ministry of Food Processing Industries
MPCB	Maharashtra Pollution Control Board
MPSC	Maharashtra Public Service Commission
MSME	Micro, Small & Medium Enterprises
MSRTC	Maharashtra State Road Transport Corporation
MSW	Municipal Solid Waste
MT	Metric Tonnes
NABARD	National Bank for Agriculture and Rural Development
NEP	National Education Policy
NIT	Nagpur Improvement Trust
NITI	National Institution for Transforming India
NLU	National Law University
NMC	Nagpur Municipal Corporation
NMRDA	Nagpur Metropolitan Region Development Authority
NOC	No Objection Certificate

NRLM	National Rural Livelihood Mission
NRW	Non-Revenue Water
NULM	National Urban Livelihoods Mission
ODOP	One District One Product
PESA	Panchayats Extension to Scheduled Areas
pH	Potential of Hydrogen
PHC	Primary Health Centre
PLI	Production Linked Incentive
PMAY-G	Pradhan Mantri Awas Yojana-Gramin
PMAY-U	Pradhan Mantri Awas Yojana-Urban
PMEGP	Prime Minister's Employment Generation Programme
PMFBY	Pradhan Mantri Fasal Bima Yojana
PMFME	Pradhan Mantri Formalization of Micro Food Processing Enterprises
PMKSY	Pradhan Mantri Krishi Sinchayee Yojana
PSI	Package Scheme Incentives
PTR	Pupil Teacher Ratio
PWD	Public Works Department
RAY	Ramai Awas Yojana
RCF	Rashtriya Chemicals and Fertilizers Limited
RRR	Repair, Renovation and Restoration
RTMNU	Rashtrasant Tukadoji Maharaj Nagpur University
SAY	Shabari Awas Yojana
SEZ	Special Economic Zones
SHG	Self-Help Group
SS&CP	School Safety and Child Protection
STP	Sewage Treatment Plant
TRTI	Tribal Research & Training Institute
VMDDP	Vidarbha Marathwada Special Dairy Development Programme

VNIT	Visvesvaraya National Institute of Technology
WB	Water Bodies
WQI	Water Quality Index
WRD	Water Resources Department
WUA	Water Users' Association



“The ethos of the Indian Ocean is a consultative one and in the long run, it is the people-centric initiatives and projects that are likely to be more sustainable.”

From : *The India Way: Strategies for an Uncertain World*
Dr. S. Jaishankar, Minister of External Affairs of India

Vidarbha Vikas Manthan
An initiative by PARC

Published by :



Vivek SPARC Foundation | Vidarbha Economic Development Council