

Hatnur Dam



Waghur Dam

PRADHAN MANTRI KRISHI SINCHAYEE YOJNA

DISTRICT IRRIGATION PLAN

FOR JALGAON DISTRICT OF MAHARASHTRA STATE (INDIA)

UNDER PMKSY FOR THE YEAR 2016-2020



Girna Dam



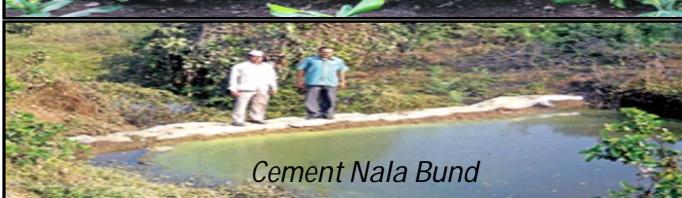
Hivra Project



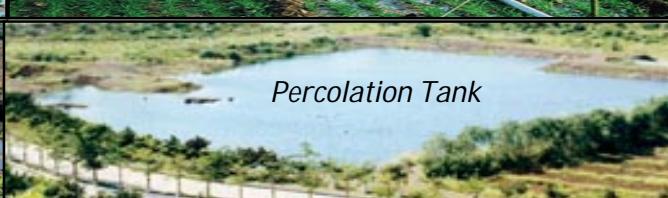
Drip Irrigation System



Sprinkler Irrigation System



Cement Nala Bund



Percolation Tank



Compartment bunding



Farm Pond



KT Weir



Check dam

CHAIRMAN,

**DISTRICT LEVEL IMPLEMENTING COMMITTEE (PMKSY) &
DISTRICT COLLECTOR, JALGAON, MAHARASHTRA**



महाराष्ट्र शासन



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Introduction

The major objective of PMKSY is to achieve convergence of investments in irrigation at the field level, expand cultivable area under assured irrigation, improve on-farm water use efficiency to reduce wastage of water, enhance the adoption of precision-irrigation and other water saving technologies (*More crop per drop*), enhance recharge of aquifers and introduce sustainable water conservation practices by exploring the feasibility of reusing treated municipal waste water for peri-urban agriculture and attract greater private investment in precision irrigation system.

PMKSY has been conceived amalgamating ongoing schemes viz. Accelerated Irrigation Benefit Program (AIBP) of the Ministry of Water Resources, Integrated Watershed Management Program (IWMP) of Department of Land Resources (DoLR) and the On Farm Water Management (OFWM) of Department of Agriculture and Cooperation (DAC). The scheme will be implemented by Ministry of Agriculture, Water Resources and Rural Development. Ministry of Rural Development is to mainly undertake rain water conservation, construction of farm pond, water harvesting structures, small check dams and contour bunding etc. MoWR, RD &GR, is to undertake various measures for creation of assured irrigation source, construction of diversion canals, field channels, water diversion/lift irrigation, including development of water distribution systems. Ministry of Agriculture will promote efficient water conveyance and precision water application devices like drips, sprinklers, pivots, rain-guns in the farm "*Jal Sinchan*", construction of micro-irrigation structures to supplement source creation activities, extension activities for promotion of scientific moisture conservation and agronomic measures.

Program architecture of PMKSY will be to adopt a 'decentralized State level planning and projective execution' structure that will allow States to draw up their own irrigation development plans based on District Irrigation Plan (DIP) and State Irrigation Plan (SIP). It will be operative as convergence platform for all water sector activities including drinking water & sanitation, MGNREGA, application of science & technology etc. through comprehensive plan. State Level Sanctioning Committee (SLSC) chaired by the Chief Secretary of the State with the authority to oversee its implementation and sanction of projects. The program will be supervised and monitored by an Inter-Ministerial National Steering Committee (NSC) will be constituted under the Chairmanship of Prime Minister with Union Ministers from concerned Ministries. A National Executive Committee (NEC) constituted under the Chairmanship of Vice Chairman, NITI Aayog to oversee program implementation, allocation of resources, inter ministerial coordination, monitoring & performance assessment, addressing administrative issues etc.

Components and responsible Ministries/ Departments-

- ✓ AIBP by MoWR, RD &GR

To focus on faster completion of ongoing Major and Medium Irrigation including National Projects.

- ✓ PMKSY (*Har Khet ko Pani*) by MoWR, RD & GR

Creation of new water sources through Minor Irrigation (both surface and ground water). Repair, restoration and renovation of water bodies; strengthening carrying capacity of traditional water sources, construction rain water harvesting structures (*Jal Sanchay*); Command area development, strengthening and creation of distribution network from source to the farm. Improvement in water management and distribution system for water bodies to take advantage of available source, which is not utilized to its fullest capacity. At least 10% of the command area to under micro/precision irrigation. Diversion of water from source of different location where it is plenty to nearby water scarce areas, lift irrigation from water bodies/rivers at lower elevation to supplement requirements beyond IWMP and MGNREGS irrespective of irrigation command.

- ✓ PMKSY (Watershed) by Dept. of Land Resources, MoRD

Water harvesting structures such as check dams, nala bund, farm ponds, tanks etc. Capacity building, entry point activities, ridge area treatment, drainage line treatment, soil and moisture conservation, nursery raising, afforestation, horticulture, pasture development, livelihood activities for the asset-less persons and production system & micro enterprises for small and marginal farmers etc. Effective rainfall management like field bunding, contour bunding/trenching, staggered trenching, land leveling, mulching etc.

- ✓ PMKSY (Per drop more crop) by Dept. of Agriculture & Cooperation, MoA

Program management, preparation of State/District Irrigation Plan, approval of annual action plan, Monitoring etc. Promoting efficient water conveyance and precision water application devices like drips, sprinklers, pivots, rain-guns in the farm (*Jal Sinchan*) Topping up of input cost particularly under civil construction beyond permissible limit (40%), under MGNREGS for activities like lining inlet, outlet, silt traps distribution system etc. Construction of micro irrigation structures to supplement source creation activities including tube wells and dug wells (in areas where ground water is available and not under semi critical /critical /over exploited category of development) which are not supported under PMKSY (WR), PMKSY (Watershed) and MGNREGS. Secondary storage structures at tail end of canal system to store water when available in abundance (rainy season) or from perennial sources like streams for use during dry periods through effective on-farm water management Water lifting devices like diesel/electric/ solar pump sets including water carriage pipes. Extension activities for promotion of scientific moisture conservation and agronomic measures including cropping alignment to maximize use of available water including rainfall and minimize irrigation requirement. Capacity building, training for encouraging potential use water source through technological, agronomic and management practices including community irrigation. Awareness campaign on water saving technologies, practices, programs etc. organization of workshops, conferences, publication of booklets, pamphlets, success stories, documentary, advertisements etc. Improved/innovative distribution system like pipe and box outlet system with controlled outlet and other activities of enhancing water use efficiency.

Objectives:

- The broad objectives of PMKSY will be:-
- ✓ Achieve convergence of investments in irrigation at the field level (preparation of district level and, if required, sub district level water use plans).
 - ✓ Enhance the physical access of water on the farm and expand cultivable area under assured irrigation (*Har Khet ko pani*).
 - ✓ Integration of water source, distribution and its efficient use, to make best use of water through appropriate technologies and practices.
 - ✓ Improve on-farm water use efficiency to reduce wastage and increase availability both in duration and in extent.
 - ✓ Enhance the adoption of precision-irrigation and other water saving technologies (*More crop per drop*).
 - ✓ Enhance recharge of aquifers and introduce sustainable water conservation practices.
 - ✓ Ensure the integrated development of rainfed areas using the watershed approach towards soil and water conservation, regeneration of ground water, arresting runoff, providing livelihood options and other NRM activities.
 - ✓ Promote extension activities relating to water harvesting, water management and crop alignment for farmers and grass root level field functionaries.
 - ✓ Explore the feasibility of reusing treated municipal wastewater for peri-urban agriculture.
 - ✓ Attract greater private investments in irrigation.

This will in turn increase agricultural production and productivity and enhance farm income.

The above objectives will be conceived through the central and state government schemes namely,

- ❖ AIBP (*Accelerated Irrigation Benefit Programme*)
- ❖ IWMP (*Integrated Watershed Management Programme*)
- ❖ MGNREGA (*Mahatma Gandhi National Rural Employment Guarantee Act*)
- ❖ RKVY (*Rashtriya Krishi Vikas Yojana*)
- ❖ NRDWP (*National Rural Drinking Water Programme*)
- ❖ *Jalyukt Shivar Abhiyaan (DPC)*
- ❖ CSR activities
- ❖ *Mahatma Phule Jal Bhumi Sandharan Abhiyan*
- ❖ *Adarsha Gram Yojana*
- ❖ *Pradhan Mantri Krishi Sinchayee Yojana*
- ❖ *Sub-Mission on Agricultural Mechanization*

Departments involved

- Irrigation (State, local sector, Zilla Parishad)
- Agriculture (State, Zilla Parishad)
- Zilla Parishad
- Forest/ Social Forestry
- GSDA
- NGOs, Banks (CSR)
- Agricultural Universities/ KVK

3.0 District Profile

Jalgaon district is one of the districts of *Khandesh* region situated in North Western part of Maharashtra and lies between north latitudes 20°15' and 21°25' and east longitudes 74°55' and 76°28'. The total area of the district is 11,765 sq.km. covering 3.82 % area of Maharashtra and falls in parts of Survey of India degree sheets 46 K, 46 L, 46 P, 55 C, 55 D, and 56 O. The district is bounded on the north by Madhya Pradesh, on the east by Buldhana, on the west by Nashik and Dhule districts and on the south by Aurangabad district. Tapi, Girna, Waghur and Agnavati are major rivers in Jalgaon flowing 160 Km, 130 Km, 88 Km and 107 Km respectively through district. Besides this Anjani, Bori, Mor, Aner, Suki, Hivra, Bahila and Manyad are some minor rivers flowing in Jalgaon district. The district has 1501 villages divided in 7 revenue sub divisions and 15 blocks.

(Source- Jalgaon Collector website : www.jalgaon.nic.in)

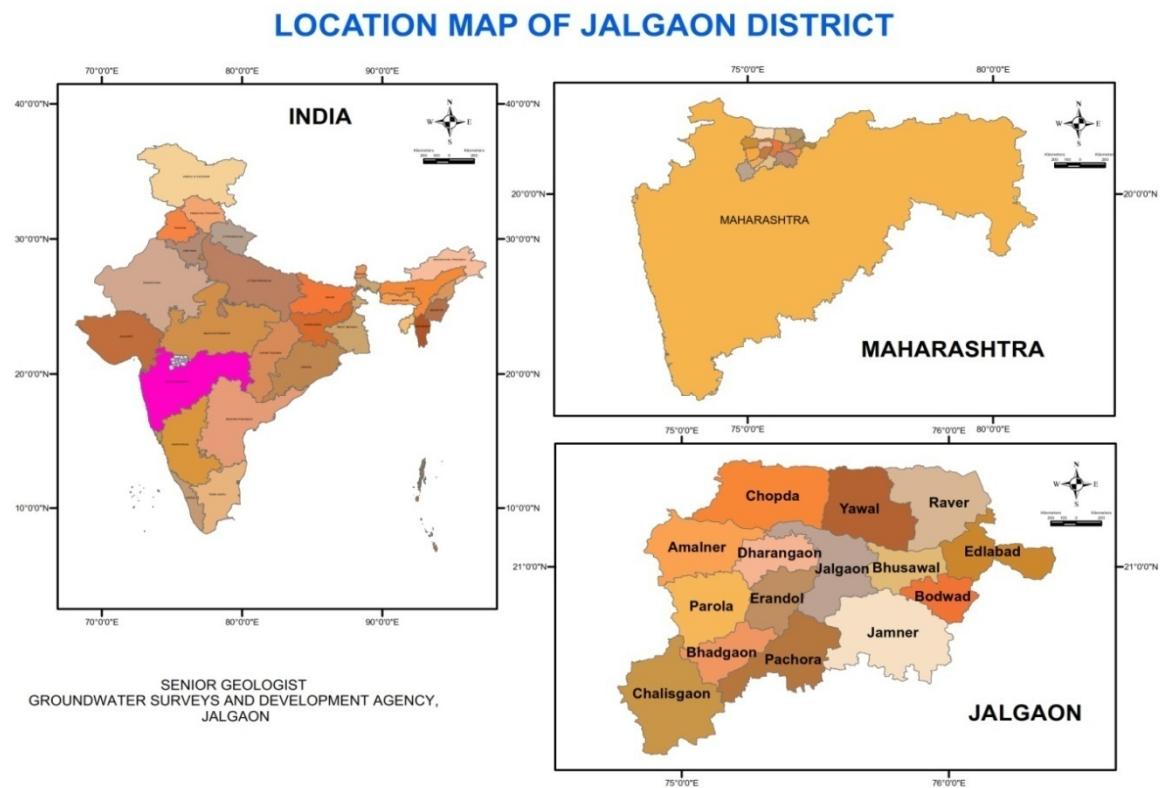
3.1 District Profile

Sr. No.	Name of the District	District Code	Latitude	Longitude
1	Jalgaon	499	20°15' N-21°25' N	74°55' E -76°28' E

Source - Census Report - 2011

Table No. 3.2
Administrative setup of Jalgaon District

Sr. No.	Name of Revenue Sub Division	Name of Tehsils involved
1	Jalgaon	Jalgaon, Jamner
2	Bhusawal	Bhusawal, Bodwad, Muktainagar
3	Faizpur	Yawal, Raver
4	Erandol	Erandol, Parola, Dharangaon
5	Chalisgaon	Chalisgaon,
6	Pachora	Pachora, Bhadgaon
7	Amalner	Amalner, Chopda



Location Map Of Jalgaon District

(Courtesy- GSDA, Jalgaon)

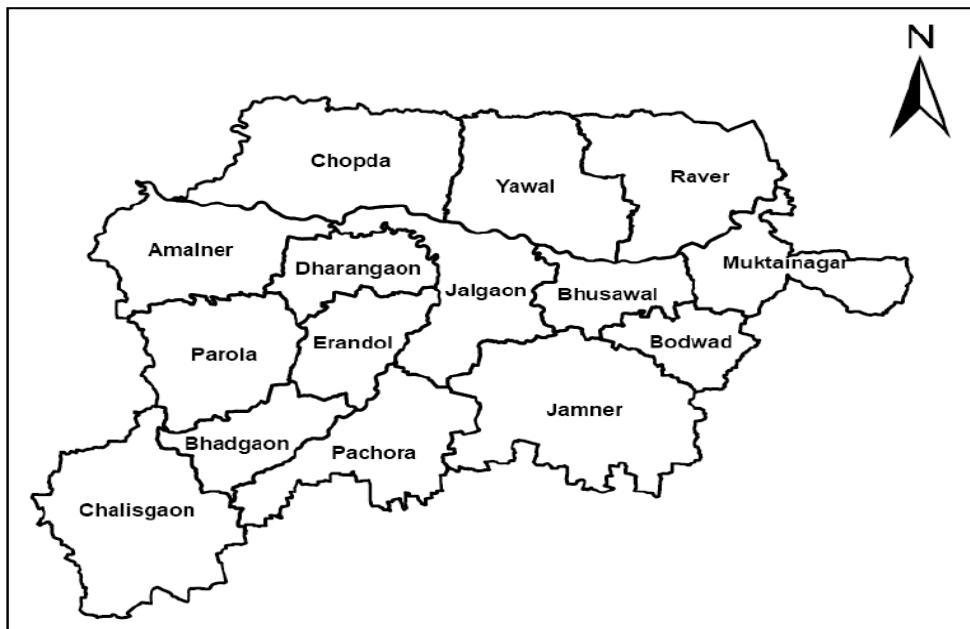


Fig 1.1 Tehsils of Jalgaon District

The district has a total population of 42,29,917 which is 3.76 % of total population of Maharashtra state and density of population is 359 Sq. Km⁻¹. Out of total population; 52.40 % are males while 47.60 % are females. About 5,32,005 are the children's in the age group of 0 to 6 years. Population of scheduled caste is 9.14 % while that of scheduled tribe is 14.05 % whereas remaining 76.82 % population belongs to general category. Jalgaon tehsil has the maximum number of scheduled caste population while Chopda tahsil has maximum number of scheduled tribe population. Whereas Chopda tehsil has the minimum number of scheduled caste population while Bodwad tahsil has minimum number of scheduled tribe population. There are total of 9,03,643 numbers of households in Jalgaon district. Jalgaon tehsil has maximum number of household *i.e.* 1,46,342 while Bodwad tehsil has minimum number of households *i.e.* 91,799. Out of total population in Jalgaon district; 31.70 % population is urban while remaining 68.30 % is rural population.

According to population census, 2011 the decadal growth rate of population in Jalgaon district has slowed down from 15.53 % in 2001 to 14.86 % in 2011. Out of total geographical area of 11,76,768 ha; cultivable area is 7,96,000 ha , forest area is 2,18,302 ha and area under non agriculture use is 33,204 ha. There is also reduction in sex ratio of Jalgaon from 933 to 925. Sex ratio in rural area is 924 while in urban area it is 927. The category wise population and household numbers are shown in table no 1.2.

1.2 Demography

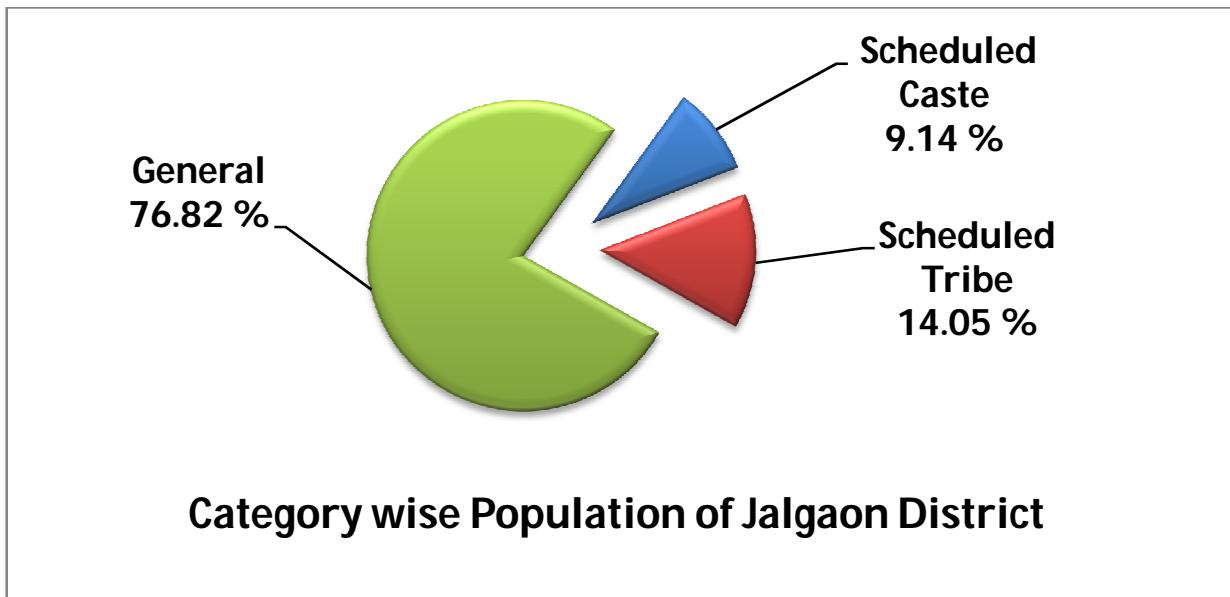
Source : Census of India

Name of the State- Maharashtra

Name of District- Jalgaon

Sr . N o.	Name of the District	No. of Villages Covered	Code of taluka	Population				SC		ST		General		No. of Member s	
				M	F	CH*	Total	No. of House holds	No. of Members	No. of Households	No. of Members	No. of Households	No. of Members		
1	Jalgaon	92	03966	310785	284228	81028	676041	13463	49195	20912	68075	111967	558771	146342	676041
2	Bhusawal	54	03965	166022	153283	40156	359461	7121	51582	11061	23100	59225	284779	77407	359461
3	Bodwad	51	03964	41602	38649	11548	91799	1904	12180	2958	664	15835	78955	20697	91799
4	Yawal	84	03961	122022	115484	34736	272242	5592	25996	8686	68248	46503	177998	60781	272242
5	Raver	121	03962	140730	131588	39764	312082	6313	36864	9806	53512	52504	221706	68623	312082
6	Muktainagar	81	03963	73301	68315	21828	163444	3389	22159	5265	28849	28188	112436	36842	163444
7	Amalner	154	03969	131667	123419	32763	287849	5588	21748	8680	41883	46471	224218	60739	287849
8	Chopada	117	03960	155139	115904	41772	312815	5974	21110	9279	96521	49681	195184	64934	312815
9	Erandol	65	03967	74938	69435	22148	166521	3241	10415	5034	24604	26952	131502	35227	166521
10	Dharangaon	89	03968	79606	72561	21280	173447	3390	13682	5265	29524	28190	130241	36845	173447
11	Parola	114	03970	89938	81872	25053	196863	3694	13117	5738	27119	30725	156627	40157	196863
12	Chalisgaon	136	03972	189315	171411	54153	414879	7943	41613	12337	45800	66052	327466	86332	414879
13	Bhadgaon	63	03971	89386	82971	20532	192889	3215	15901	4994	22712	26736	154276	34945	192889
14	Pachora	128	03973	131406	120986	37236	289628	5681	23161	8824	28754	47242	237713	61747	289628
15	Jamner	152	03974	157709	144240	48008	349957	6626	30550	10292	39019	55107	280388	72025	349957
Total		1501	00000	1953566	1774346	532005	4229917	83134	389273	129131	598384	691378	3272260	903643	4259917

* - 1-14 Years Age Bracket



Jalgaon Rural/Urban Demographic Data

Description	Rural	Urban
Population (%)	68.30	31.70
Total Population	28,87,206	13,42,711
Male Population	15,00,514	6,96,851
Female Population	13,86,692	6,45,860
Sex Ratio	924	927
Child Sex Ratio (0-6)	842	841
Child Population (0-6)	3,75,676	1,56,329
Male Child(0-6)	2,03,933	84,894
Female Child(0-6)	1,71,743	71,435
Child Percentage (0-6)	0	11.64%
Male Child Percentage	0	12.18%
Female Child Percentage	0	11.06%
Literates	18,77,562	10,14,320
Male Literates	10,80,250	5,48,973
Female Literates	797,312	465,347
Average Literacy	74.76%	85.50%
Male Literacy	83.32%	89.71%
Female Literacy	65.63%	81.01%

Jalgaon Demographic Data

Description	2011	2001
Actual Population	42,29,917	36,82,690
Male	21,97,365	19,05,493
Female	20,32,552	17,77,197
Population Growth	14.86%	15.53%
Area Sq. Km	11,765	11,765
Density/km2	360	313
Proportion to Maharashtra Population	3.76%	3.80%
Sex Ratio (Per 1000)	925	933
Child Sex Ratio (0-6 Age)	842	880
Average Literacy	78.2	75.43
Male Literacy	85.36	85.91
Female Literacy	70.56	64.3
Total Child Population (0-6 Age)	5,32,005	5,25,668
Male Population (0-6 Age)	2,88,827	2,79,551
Female Population (0-6 Age)	2,43,178	2,46,117
Literates	28,91,882	23,81,376
Male Literates	16,29,223	13,96,860
Female Literates	12,62,659	9,84,516
Child Proportion (0-6 Age)	12.58%	14.27%
Boys Proportion (0-6 Age)	13.14%	14.67%
Girls Proportion (0-6 Age)	11.96%	13.85%

Jalgaon District at a Glance

1	Geographical Area	11,76,827
2	Forest Area	2,18,567
3	Population (as per 2011)	42,29,917
A	Male	21,97,365
B	Female	20,32,552
4	Live Stock Population	19,12,242
5	No. of Tehsils	15
6	No. of Villages	1501
7	Total Culturable Area (ha)	8,24,133
8	Average Annual Rainfall (mm)	756
Details Of Surface Storage Projects		
9	Type	
	Major Irrigation Projects	7
	Medium Irrigation Projects	19
	Minor Irrigation Projects	116
	Minor Structures	482
	Total	624

1.3 Biomass and Livestock

Name of the State: Maharashtra

Name of the District : Jalgaon

Sr. No.	Name of Taluka	Small Animals					Large Animals				Draft Animals	
		Poultry (No.)	Ducks (No.)	Pigs (No.)	Goats (No.)	Sheep's (No.)	Indigenous Cow (No)	Hybrid Cow (No)	In descriptive Buffalo (No)	Any other Milch	Buffalo	Bulls
1	Jalgaon	30754	1062	1128	33592	1079	9957	35301	23750	0	1153	10749
2	Bhusawal	17165	593	2032	28733	156	4927	17479	17032	0	827	5319
3	Bodwad	5955	205	66	11102	109	4883	17311	9429	0	458	5271
4	Yawal	25772	890	782	33055	1150	9151	32445	26107	0	1267	9879
5	Raver	21876	756	234	36074	3168	8588	30450	30043	0	1459	9272
6	Muktainagar	19385	669	1192	28944	20702	8896	31540	21359	0	1037	9604
7	Amalner	25343	875	2621	27616	271	10476	37142	21068	0	1023	11309
8	Chopada	17110	591	2822	24425	184	11660	41340	20603	0	1000	12588
9	Erandol	15208	525	1229	18656	171	6456	22889	16496	0	801	6969
10	Dharangaon	27158	938	1530	23234	141	7762	27521	16680	0	810	8380
11	Parola	14448	499	901	20936	2551	9341	33119	22489	0	1092	10084
12	Chalisgaon	38004	1313	4546	65382	15590	24298	86147	34795	0	1689	26231
13	Bhadgaon	14229	491	2231	18802	2242	8278	29351	19757	0	959	8937
14	Pachora	24931	861	1955	34457	762	12562	44538	30028	0	1458	13561
15	Jamner	32677	1129	1604	41177	938	18025	63905	27096	0	1316	19458
Total		330015	11397	24873	446185	49214	155260	550478	336732	0	16349	167611

Biomass and Livestock-

The total number of livestock in Jalgaon district is 2088114. Out of which 330015 number of poultry birds 11397 and 11397 ducks are present in the district. Whereas 446185, 49214 and 24873 is the number of goats, sheep's and pigs are present in Jalgaon district respectively. The total population of indigenous cow in the district is 155260 while that of hybrid cow is 550478. Number of buffalo in the district is 336732 whereas total number of draft animals is 183960 which include 167611 bulls and 16349 buffalo bulls. The taluka wise details of Biomass and livestock status of Jalgaon district is given in table no 1.3.

Agro-ecology, Climate and Hydrology-

The total district area is divided into 7 agro-ecological zones. The first zone with low rainfall and heavy soil i.e. scarcity zone covers 141219 ha (12%) of district area. The second zone include DPAP area with medium to light soil covers 129451 ha (11%) of the district while third zone include DPAP area with heavy soil covers 14% of the district area. Fourth zone is assured rainfall zone with medium to heavy soil covers 364816 ha (31%) of the district area while fifth zone is the assured rainfall zone with light soil which covers 176524 ha (15%) of the district area whereas sixth zone includes hilly terrain with assured rainfall having light to medium soil covering 129451 ha (11%) of the district. Seventh zone includes command area with heavy soil which covers 70610 ha (6%) of the district area. The details of agro-ecological zones of the district; their average rainfall, rainy days, maximum rainfall and average weekly temperatures is given in the table no. 1.4.

Geomorphology and Physiography-

Geologically, Jalgaon is a part of the basaltic Deccan Uplands, distinguished from the rest of the upland districts by its westward facing aspect and different directional drainage. While the rest of the upland region is drained by the major rivers toward the east, the Tapi and its tributaries drain the Jalgaon region to the west towards Arabian Sea. The landscape is typically that of the Deccan lavas with residual hill ranges and broad valleys, with trap dykes introducing sharp local contrast as small chains of hillocks.

Jalgaon includes varied topographical features and landscapes, consisting of wild hills and forests, rich gardens and groves, stretches of barren plain, low rolling rocky hills and intensely gullied (bad land) topography near major river banks. Regionally, there are three well-marked belts of landscapes stretching from east to west parallel with the Tapi: in the center is the rich Tapi valley; in the north is the high and wild Satpuda hill range; and in the south and south-west there are bare ridges and rich well-watered valleys flanked by the Ajanta hill range. Jalgaon district can be divided into three main physiographic divisions i.e., Satpuda hill ranges in Northern Part with dense forest; Tapi valley consisting of Alluvial plain in central part of the district and Ajanta hill ranges flanking the hill ridges and small valleys in southern part of the district.

Out of total 11,76,827 ha area of the district 6,21,121 ha area has been surveyed by Department of Agriculture. Out of which 205002 (33 %) area is having slope of 0-3%, 260912 ha (42 %) area is having slope of 3-8% while 130438 ha (21%) area is having slope of 8-25% and remaining 24848 ha (4%) area falls in the category of above 25 % slope. Taluka wise land slope in Jalgaon district is shown in table no. 1.5

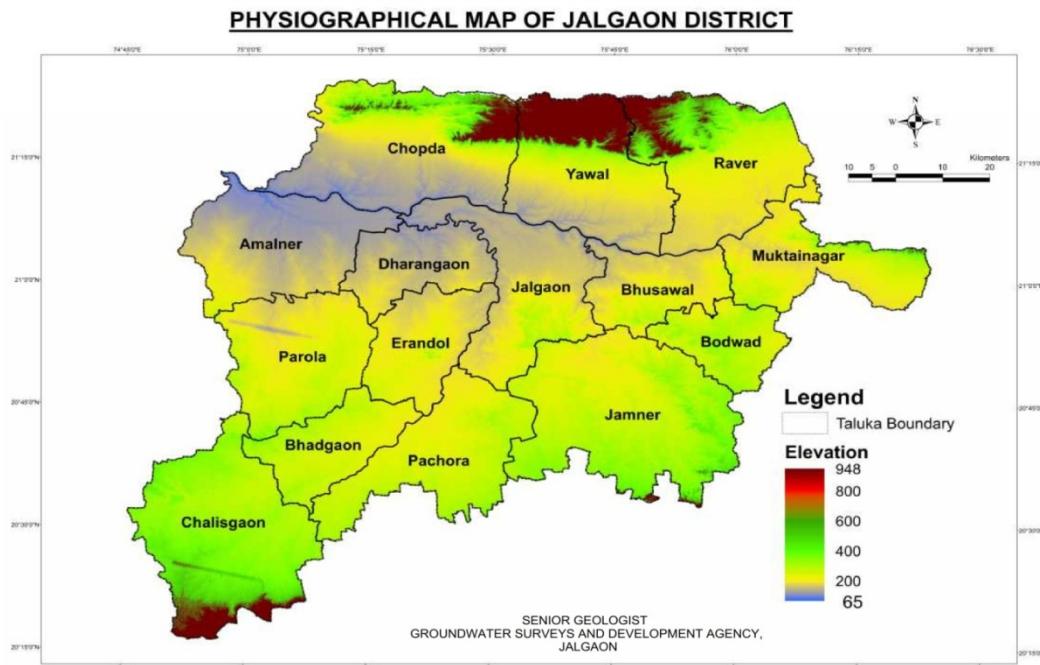


Fig. Physiographical Map of Jalgaon District

(Courtesy- GSDA, Jalgaon)

Out of total surveyed area of 621121 ha; very good cultivable land i.e. class-1 soil is nil in the district. Good cultivable land (class-2) is 168436 ha (27.12%) while moderately good cultivable land (class-3) is 207474 (33.40%) whereas fairly good land suited for occasional cultivation (class-4) is 165310 (26.61%). Nearly level land not suitable for cultivation because of stoniness, wetness, etc. (class-5) is 2179 ha (0.35%) while steep slopes highly erosion prone with shallow soils (class-6) 76969 ha (12.39%) whereas land with steep slopes with severe soil erosion resulting in eroded stony and rough soil surfaces with shallow soil depth (class-7) is 753 ha (0.12%). The detailed land capability classification of Jalgaon district is given in table no. 1.5.

1.4 Agro Ecology, Climate Hydrology and Topography

Name of the state : Maharashtra

Name of the District : Jalgaon

Sr. No.	Agro Ecological Zone Type	Type of Terrain	District Area (ha)	Normal Annual Rainfall (mm)	Average monthly Rain fall (mm)	No of Rainy Days (No)	Maximum Rain fall Intensity			Average Weekly Temprature (c)								
							Upto 15 min	Beyond 15 But up to 30 Min	Beyond 30 But up to 60 Min	Period								
										Summer (April-June)			Winter (Oct-Mar)			Rainy (June-Sept)		
							Min	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean
1	AES-1	Low Rainfall, Heavy Soil, Scarcity Zone	141219	669	134	54	15	28	35	32	47	39	9	32	20	19	36	27
2	AES-2	DPAP Area with Medium to Light Soil	129451	690	138	58	12	25	40	33	48	39.5	9	31	21	19	36	27
3	AES-3	DPAP Area with Heavy Soil	164756	695	139	60	15	26	45	32	47	39	8	32	21	18	35	26
4	AES-4	Assured Rainfall, Medium to Heavy Soil	364816	765	153	70	12	35	52	30	46	38	9	31	21	17	35	26
5	AES-5	Assured Rainfall, Light Soil	176524	765	153	72	12	32	50	30	46	38	9	31	21	17	35	26
6	AES-6	Assured Rainfall, Hilly Terain, Light to Medium Soil	129451	785	157	75	20	35	55	27	45	36	9	30	20	17	34	27
7	AES-7	Heavy Soil Command Area	70610	745	149	68	15	28	47	29	46	38	9	31	21	17	35	26
Total			1176827	731	146	65	14	30	46	30	46	38	9	31	21	18	35	26

Source: IMD, regional ICAR Control-SAU's, KVK's etc

1.5 Soil Profile

Name of the State : Maharashtra

Name of the District : Jalgaon

Soil Type		Land Slope			
Major Soil Classes	Area (ha)	0 - 3 % (ha)	3 - 8 % (ha)	8 - 25% (ha)	>25% (ha)
Very Good Cultivable Land Class-1	0	0	0	0	0
Good Cultivable Land Class-2	168436	55584	70743	35372	6737
Moderately Good Cultivable Land Class-3	207474	68466	87139	43570	8299
Fairly Good Land Suited for Occasional Cultivation Class-4	165310	54552	69430	34715	6612
Nearly Level Land not Suitable for Cultivation because of Stoniness, Wetness, etc. Class-5	2179	719	915	458	87
Steep Slopes Highly Erosion Prone with Shallow Soils Class-6	76969	25400	32327	16163	3079
Steep Slopes with Severe Soil Erosion Resulting in Eroded Stony and Rough Soil Surfaces with Shallow Soil Depth Class-7	753	248	316	160	30
Steeper Slopes with Severe Soil Erosion Resulting in Eroded Stony and Rough Soil Surfaces with Shallow Soil Depth Class-8	0	0	0	0	0
Total	621121	204969	260870	130438	24844

Source : LUS & NBSS, Indian Institute of Soil Science, Department of Land Resource

Note- Out of total area of 1176827 ha of the district, only 621121 ha area has been surveyed.

Climate and Rainfall-

The climate of the district is characterized by a hot summer and a general dryness throughout the year except during the south west monsoon season, which is from June to September while October and November constitute the post monsoon season. The winter season commences towards the end of November when temperatures begin to fall rapidly. December is the coldest month with the mean maximum temperature of 34.7° C, while the minimum temperature is 12.2°C. From the beginning of March, the daily temperature increases continuously. May is the hottest month with the mean maximum temperature of 41.9°C and the mean minimum temperature of 21.6° C. With the onset of the south-west monsoon by about the second week of June, the temperature falls appreciably. However the onset of monsoon is getting delayed to 3rd or 4th week of June. Except during the southwest monsoon season, when the relative humidity is high, the air is generally dry over the district. The summer months are the driest when the relative humidity is generally between 20 and 25 % in the afternoon. Winds are generally light to moderate with increase in speed during the latter half of the hot season and in the monsoon season. The winds flow predominantly from directions between west and north during the hot season. They are mostly from directions between south west and northwest during the south west monsoon season. They blow mostly from the directions between northeast and southeast during the rest of the year becoming southwesterly to north westerly in January and February. The normal annual rainfall of the district is 730.0 mm with average of 54 rainy days; which over the district varies from about 642.3 mm (In Amalner tehsil) to 826.1 mm (In Pachora tehsil). Normally onset of monsoon in Jalgaon district is during 2nd week of June while it ceases in 3rd week of October month. The average annual rainfall data of last ten years shows that most of the rainfall occurs from the month of July to mid of September. Rainfall pattern of Jalgaon district in last 10 years is shown in following table.

Rainfall pattern of Jalgaon district for last 10 years (2006 to 2015)

Sr. No	Year	January			February			March			April			May			June			July		
		Normal Rain	Actual Rain	Rainy Days	Normal Rain	Actual Rain	Rainy Days	Normal Rain	Actual Rain	Rainy Days	Normal Rain	Actual Rain	Rainy Days	Normal Rain	Actual Rain	Rainy Days	Normal Rain	Actual Rain	Rainy Days	Normal Rain	Actual Rain	Rainy Days
1	2015	6.6	4.1	1	2.7	5	1	3.8	49.6	7	2	28.7	3	10.9	23.1	2	130	114.1	11	206.8	42.9	7
2	2014	6.6	0	0	2.7	23.7	1	3.8	0	0	2	-	-	10.9	0	0	130	20.4	2	206.8	260.6	14
3	2013	6.6	0	0	2.7	0	0	3.8	10.6	1	2	-	-	10.9	50.7	3	130	195.4	15	206.8	249.9	23
4	2012	6.6	0	0	2.7	0	0	3.8	0	0	2	0.1	0	10.9	7.8	1	130	20.8	3	206.8	181.5	18
5	2011	6.6	0	0	2.7	0	0	3.8	2.7	0	2	-	-	10.9	1	0	130	29.7	3	206.8	208.4	17
6	2010	6.6	3.9	1	2.7	0	0	3.8	3.1	0	2	-	-	10.9	1.6	0	130	94.6	10	206.8	296.8	24
7	2009	6.6	0	0	2.7	0	0	3.8	0	0	2	-	-	10.9	-	-	130	58.8	4	206.8	224.4	16
8	2008	6.6	0	0	2.7	0	0	3.8	0	0	2	-	-	10.9	-	-	130	57.3	6	206.8	137.2	14
9	2007	6.6	0	0	2.7	0	0	3.8	0	0	2	-	-	10.9	-	-	130	97.7	11	206.8	254.7	19
10	2006	6.6	0	0	2.7	0	0	3.8	25.4	3	2	-	-	10.9	4.1	1	130	119.6	11	206.8	344.8	15
Average		6.6	0.8	0.2	2.7	2.87	0.2	3.8	9.14	1.1	2	14.4	1.5	10.9	12.6	1	130	80.8	7.6	207	220	16.7

Table- Rainfall pattern of Jalgaon District for last 10 years (2006 to 2015)

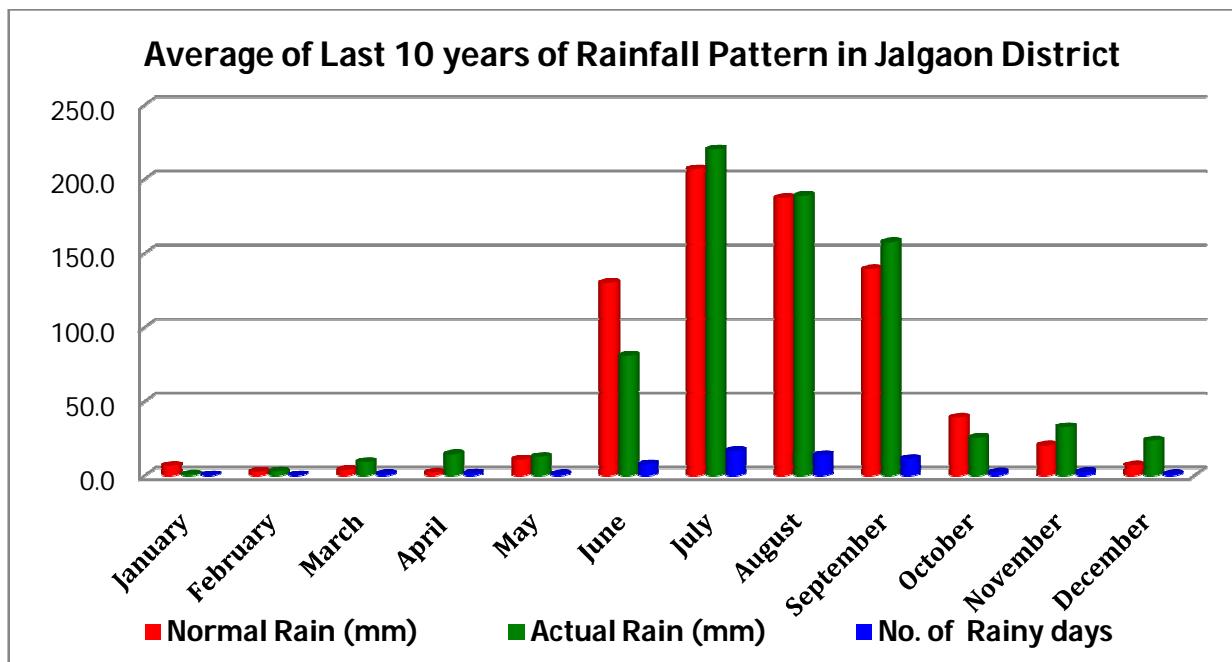
(Source : Department of Agriculture, Maharashtra website- www.mahaagri.gov.in)

Rainfall pattern of Jalgaon district for last 10 years (2006 to 2015)

Sr. No	Year	August			September			October			November			December			Total Rain for Year		
		Normal Rain	Actual Rain	Rainy Days	Normal Rain	Actual Rain	Rainy Days	Normal Rain	Actual Rain	Rainy Days	Normal Rain	Actual Rain	Rainy Days	Normal Rain	Actual Rain	Rainy Days	Normal Rain	Actual Rain	Rainy Days
1	2015	187.3	127.9	10	139.2	134.1	8	39.1	1.8	0	20.3	1.5	0	6.9	-	-	755.6	532.8	50
2	2014	187.3	131.2	13	139.2	199.1	12	39.1	1.5	0	20.3	19.4	3	6.9	58.2	2	755.6	714.1	47
3	2013	187.3	208.8	14	139.2	182.2	10	39.1	66.2	9	20.3	0	0	6.9	-	-	755.6	963.8	75
4	2012	187.3	102.5	10	139.2	86.2	9	39.1	15.3	2	20.3	0	0	6.9	-	-	755.6	414.2	43
5	2011	187.3	259.6	21	139.2	110.4	11	39.1	4.4	1	20.3	0	0	6.9	-	-	755.6	616.2	53
6	2010	187.3	238.5	19	139.2	118.3	9	39.1	22.3	2	20.3	79.8	8	6.9	0	0	755.6	858.9	73
7	2009	187.3	113.7	8	139.2	117.2	6	39.1	69.2	3	20.3	128.2	6	6.9	12.5	1	755.6	724	44
8	2008	187.3	96.3	15	139.2	235.8	16	39.1	17.1	2	20.3	-	-	6.9	-	-	755.6	543.7	53
9	2007	187.3	132.9	11	139.2	156.9	16	39.1	0	0	20.3	-	-	6.9	-	-	755.6	642.2	57
10	2006	187.3	476.6	17	139.2	233.9	16	39.1	56.6	2	20.3	-	-	6.9	-	-	755.6	1261	65
Average		187	189	13.8	139	157	11.3	39.1	25.4	2.1	20.3	32.7	2.43	6.9	23.6	1	756	727	56

Table- Rainfall pattern of Jalgaon District for last 10 years (2006 to 2015)

(Source : Department of Agriculture, Maharashtra website- www.mahaagri.gov.in)



Graph- Average of last 10 years of rainfall pattern in Jalgaon District

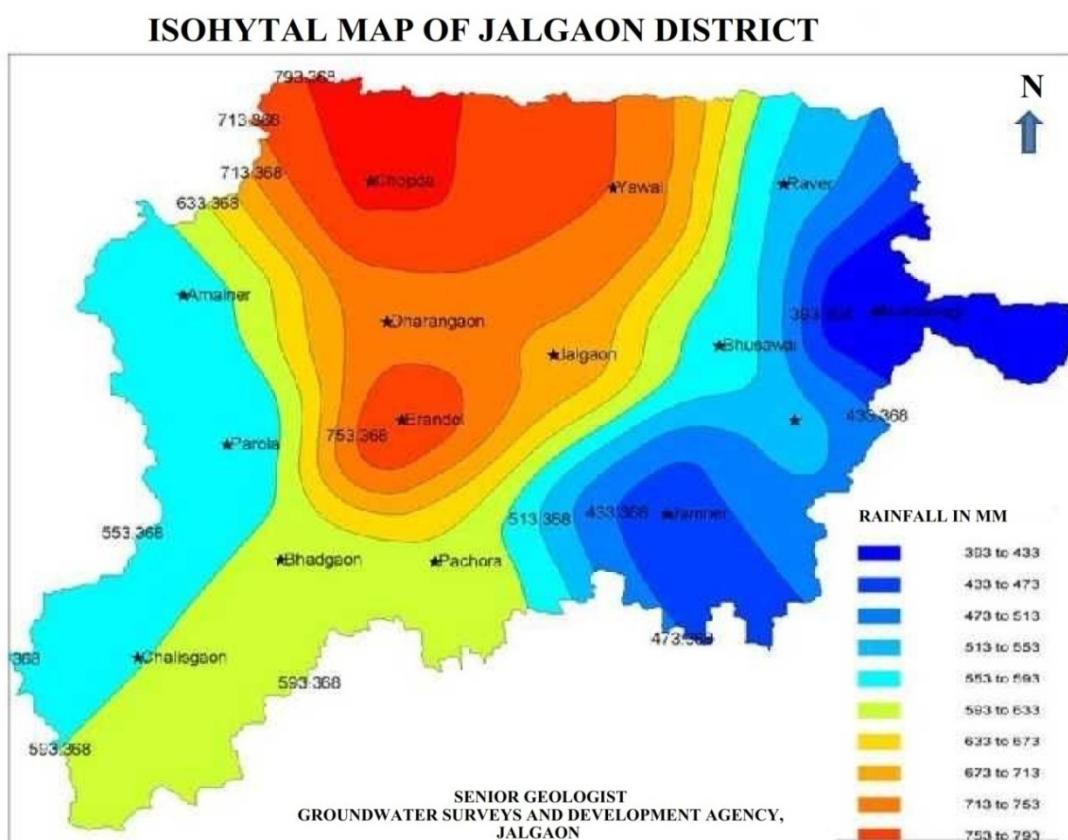
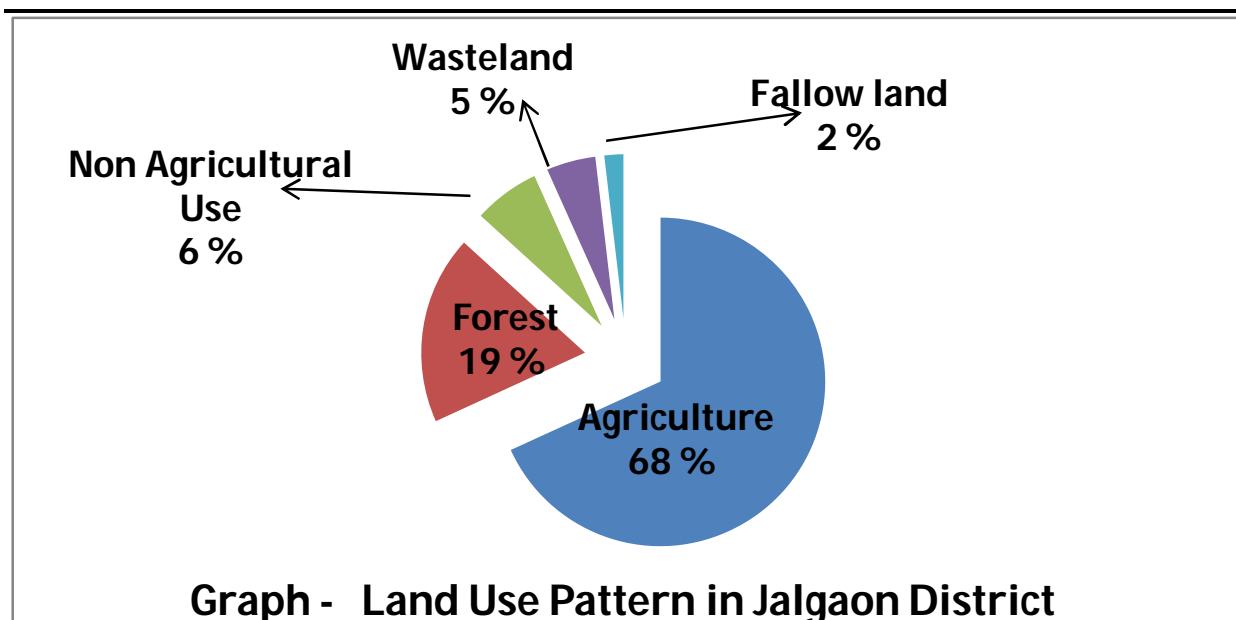


Fig. Isohytal Map of Jalgaon District

(Courtesy- GSDA, Jalgaon)



7.0 Land use pattern in Jalgaon district-

Out of total geographic area (11,76,827 ha.) of the district net cultivated area is 8,04,465 ha whereas gross cultivated area is 9,81,137 ha. Area under forest is 2,18,302 ha and area under wasteland and other use is about 43,747 ha. and 1,10,048 ha. respectively.

(Source : Department of Agriculture, Maharashtra website- www.mahaagri.gov.in)

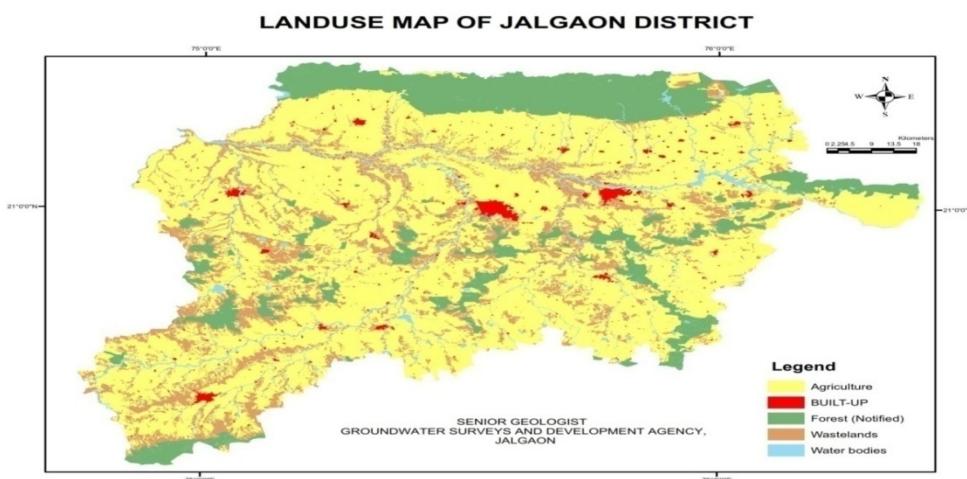


Fig. 7.1 Landuse Map of Jalgaon District

(Courtesy- GSDA, Jalgaon)

1.7 Land Use Pattern

Name of the State : Maharashtra

Name of the District : Jalgaon

Area in ha

Sr. No.	Name of the Taluka	No. of Villages Covered	Total Geographical Area	Area under Agriculture				Area under forest	Area under wasteland	Area under other uses
				Gross Cropped Area (1)	Net Sown Area (2)	Area sown more than once (1-2)	Cropping Intensity (%)			
1	Jalgaon	92	95436	75660	62306	13354	121.4	17015	3791	12324
2	Bhusawal	54	47470	34802	28304	6498	123.0	13513	4064	1589
3	Bodwad	51	35545	31039	26639	4400	116.5	6475	852	1579
4	Yawal	84	95438	67797	52324	15473	129.6	33293	5224	4597
5	Raver	121	93570	82055	61120	20935	134.3	26017	832	5601
6	Muktainagar	81	55611	47983	39768	8215	120.7	12150	2452	1241
7	Amalner	154	84415	73876	63355	10521	116.6	2170	3597	15293
8	Chopada	117	95436	87110	61456	25654	141.7	21839	2303	9838
9	Erandol	65	49442	40927	33687	7240	121.5	3765	1215	10775
10	Dharangaon	89	48014	39778	32084	7694	124.0	2327	3256	10347
11	Parola	114	79121	60917	52077	8840	117.0	10640	4807	11597
12	Chalisgaon	136	121763	99666	89569	10097	111.3	16935	5307	9952
13	Bhadgaon	63	57453	48415	38870	9545	124.6	10002	1510	7071
14	Pachora	128	82041	73628	61578	12050	119.6	11343	1825	7295
15	Jamner	152	136072	117484	101328	16156	115.9	31083	2712	949
Total		1501	1176827	981137	804465	176672	122.0	218567	43747	110048

2.1 Area wise, crop-wise Irrigation status

Name of the State : Maharashtra

Name of the District : Jalgaon

Name of the Block : Jalgaon

Crop Type	Kharif (Area in ha)			Rabi (Area in ha)			Summer Crop (Area in ha)			Total (Area in ha)			Horticulture & Plantation Crop (area in ha)		
	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total
A) Cereals	801	4923	5724	7626	0	7626	1819	0	1819	10246	4923	15169	0	0	0
B) Coarse Cereals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C) Pulses	1327	8148	9475	3902		3902	7	0	7	5236	8148	13384	0	0	0
D) Oilseeds	694	5509	6203	0	0	0	0	0	0	694	5509	6203	0	0	0
E) Fibre	3556	21844	25400	0	0	0	0	0	0	3556	21844	25400	0	0	0
F) Any other crop	2780	0	2780	0	0	0	0	0	0	2780	0	2780	12724	0	12724
Total	9158	40424	49582	11528	0	11528	1826	0	1826	22512	40424	62936	12724	0	12724

Source : Department of Agriculture Statistic of state, agristat

2.1 Area wise, crop-wise Irrigation status

Name of the State : Maharashtra

Name of the District : Jalgaon

Name of the Block : Bhusawal

Crop Type	Kharif (Area in ha)			Rabi (Area in ha)			Summer Crop (Area in ha)			Total (Area in ha)			Horticulture & Plantation Crop (area in ha)		
	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total
A) Cereals	1023	3920	4943	2180	0	2180	331	0	331	3534	3920	7454	0	0	0
B) Coarse Cereals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C) Pulses	245	3687	3932	3902	0	3902	0	0	0	4147	3687	7834	0	0	0
D) Oilseeds	80	1590	1670	0	0	0	84	0	84	164	1590	1754	0	0	0
E) Fibre	878	13752	14630	0	0	0	0	0	0	878	13752	14630	0	0	0
F) Any other crop	1279	0	1279	0	0	0	0	0	0	1279	0	1279	1850	0	1850
Total	3505	22949	26454	6082	0	6082	415	0	415	10002	22949	32951	1850	0	1850

Source : Department of Agriculture Statistic of state, agristat

2.1 Area wise, crop-wise Irrigation status

Name of the State : Maharashtra

Name of the District : Jalgaon

Name of the Block : Bodwad

Crop Type	Kharif (Area in ha)			Rabi (Area in ha)			Summer Crop (Area in ha)			Total (Area in ha)			Horticulture & Plantation Crop (area in ha)		
	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total
A) Cereals	1462	4922	6384	1368	0	1368	520	0	520	3350	4922	8272	0	0	0
B) Coarse Cereals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C) Pulses	317	3211	3528	1040	0	1040	0		0	1357	3211	4568	0	0	0
D) Oilseeds	150	1664	1814	0	0	0	215	0	215	365	1664	2029	0	0	0
E) Fibre	1229	12425	13654	0	0	0	0	0	0	1229	12425	13654	0	0	0
F) Any other crop	44	0	44	721	0	721	536	0	536	1301	0	1301	1215	0	1215
Total	3202	22222	25424	3129	0	3129	1271	0	1271	7602	22222	29824	1215	0	1215

Source : Department of Agriculture Statistic of state, agristat

2.1 Area wise, crop-wise Irrigation status

Name of the State : Maharashtra

Name of the District : Jalgaon

Name of the Block : Yawal

Crop Type	Kharif (Area in ha)			Rabi (Area in ha)			Summer Crop (Area in ha)			Total (Area in ha)			Horticulture & Plantation Crop (area in ha)		
	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total
A) Cereals	4583	4965	9548	4274	0	4274	1634	0	1634	10491	4965	15456	0	0	0
B) Coarse Cereals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C) Pulses	3143	3407	6550	7698	0	7698	0	0	0	10841	3407	14248	0	0	0
D) Oilseeds	2311	3040	5351	0	0	0	207	0	207	2518	3040	5558	0	0	0
E) Fibre	7126	7720	14846	0	0	0	0	0	0	7126	7720	14846	0	0	0
F) Any other crop	4456	0	4456	720	0	720	940	0	940	6116	0	6116	11573	0	11573
Total	21619	19132	40751	12692	0	12692	2781	0	2781	37092	19132	56224	11573	0	11573

Source : Department of Agriculture Statistic of state, agristat

2.1 Area wise, crop-wise Irrigation status

Name of the State : Maharashtra

Name of the District : Jalgaon

Name of the Block : Raver

Crop Type	Kharif (Area in ha)			Rabi (Area in ha)			Summer Crop (Area in ha)			Total (Area in ha)			Horticulture & Plantation Crop (area in ha)		
	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total
A) Cereals	3057	3449	6506	12800	0	12800	536	0	536	16393	3449	19842	0	0	0
B) Coarse Cereals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C) Pulses	3025	3410	6435	5927	0	5927	216	0	216	9168	3410	12578	0	0	0
D) Oilseeds	2305	3729	6034	120	0	120	56	0	56	2481	3729	6210	0	0	0
E) Fibre	7858	8862	16720	0	0	0	0	0	0	7858	8862	16720	0	0	0
F) Any other crop	3051	0	3051	754	0	754	526	0	526	4331	0	4331	22374	0	22374
Total	19296	19450	38746	19601	0	19601	1334	0	1334	40231	19450	59681	22374	0	22374

Source : Department of Agriculture Statistic of state, agristat

2.1 Area wise, crop-wise Irrigation status

Name of the State : Maharashtra

Name of the District : Jalgaon

Name of the Block : Muktainagar

Crop Type	Kharif (Area in ha)			Rabi (Area in ha)			Summer Crop (Area in ha)			Total (Area in ha)			Horticulture & Plantation Crop (area in ha)		
	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total
A) Cereals	2688	5764	8452	4941	0	4941	760	0	760	8389	5764	14153	0	0	0
B) Coarse Cereals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C) Pulses	377	3048	3425	1075	0	1075	0	0	0	1452	3048	4500	0	0	0
D) Oilseeds	105	929	1034	0	0	0	315	0	315	420	929	1349	0	0	0
E) Fibre	2032	16440	18472	0	0	0	0	0	0	2032	16440	18472	0	0	0
F) Any other crop	1063	0	1063	629	0	629	495	0	495	2187	0	2187	7322	0	7322
Total	6265	26181	32446	6645	0	6645	1570	0	1570	14480	26181	40661	7322	0	7322

Source : Department of Agriculture Statistic of state, agristat

2.1 Area wise, crop-wise Irrigation status

Name of the State : Maharashtra

Name of the District : Jalgaon

Name of the Block : Amalner

Crop Type	Kharif (Area in ha)			Rabi (Area in ha)			Summer Crop (Area in ha)			Total (Area in ha)			Horticulture & Plantation Crop (area in ha)		
	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total
A) Cereals	2690	8671	11361	5122	0	5122	940	0	940	8752	8671	17423	0	0	0
B) Coarse Cereals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C) Pulses	444	6956	7400	2506		2506	0	0	0	2950	6956	9906	0	0	0
D) Oilseeds	161	2790	2951	0	0	0	531	0	531	692	2790	3482	0	0	0
E) Fibre	2315	36260	38575		0	0	0	0	0	2315	36260	38575	0	0	0
F) Any other crop	435	0	435	832	0	832	590	0	590	1857	0	1857	2633	0	2633
Total	6045	54677	60722	8460	0	8460	2061	0	2061	16566	54677	71243	2633	0	2633

Source : Department of Agriculture Statistic of state, agristat

2.1 Area wise, crop-wise Irrigation status

Name of the State : Maharashtra

Name of the District : Jalgaon

Name of the Block : Chopada

Crop Type	Kharif (Area in ha)			Rabi (Area in ha)			Summer Crop (Area in ha)			Total (Area in ha)			Horticulture & Plantation Crop (area in ha)		
	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total
A) Cereals	4000	6256	10256	10094	0	10094	2770	0	2770	16864	6256	23120	0	0	0
B) Coarse Cereals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C) Pulses	2795	4363	7158	4939	0	4939	0	0	0	7734	4363	12097	0	0	0
D) Oilseeds	1360	2251	3611	0	0	0	478	0	478	1838	2251	4089	0	0	0
E) Fibre	11950	18685	30635	0	0	0	0	0	0	11950	18685	30635	0	0	0
F) Any other crop	4251		4251	5185	0	5185	2188	0	2188	11624	0	11624	5545	0	5545
Total	24356	31555	55911	20218	0	20218	5436	0	5436	50010	31555	81565	5545	0	5545

Source : Department of Agriculture Statistic of state, agristat

2.1 Area wise, crop-wise Irrigation status

Name of the State : Maharashtra

Name of the District : Jalgaon

Name of the Block : Erandol

Crop Type	Kharif (Area in ha)			Rabi (Area in ha)			Summer Crop (Area in ha)			Total (Area in ha)			Horticulture & Plantation Crop (area in ha)		
	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total
A) Cereals	2299	5468	7767	2564	0	2564	284	0	284	5147	5468	10615	0	0	0
B) Coarse Cereals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C) Pulses	457	3344	3801	1523	0	1523	0	0	0	1980	3344	5324	0	0	0
D) Oilseeds	315	2374	2689	1075	0	1075	42	0	42	1432	2374	3806	0	0	0
E) Fibre	1994	14619	16613	0	0	0	0	0	0	1994	14619	16613	0	0	0
F) Any other crop	1232		1232	1500	0	1500	252	0	252	2984	0	2984	1585	0	1585
Total	6297	25805	32102	6662	0	6662	578	0	578	13537	25805	39342	1585	0	1585

Source : Department of Agriculture Statistic of state, agristat

2.1 Area wise, crop-wise Irrigation status

Name of the State : Maharashtra

Name of the District : Jalgaon

Name of the Block : Parola

Crop Type	Kharif (Area in ha)			Rabi (Area in ha)			Summer Crop (Area in ha)			Total (Area in ha)			Horticulture & Plantation Crop (area in ha)		
	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total
A) Cereals	2690	8991	11681	4683	0	4683	293	0	293	7666	8991	16657	0	0	0
B) Coarse Cereals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C) Pulses	1218	4078	5296	2240	0	2240	0	0	0	3458	4078	7536	0	0	0
D) Oilseeds	290	1360	1650	0	0	0	47	0	47	337	1360	1697	0	0	0
E) Fibre	7262	24314	31576	0	0	0	0	0	0	7262	24314	31576	0	0	0
F) Any other crop	567	0	567	1410	0	1410	167	0	167	2144	0	2144	1307	0	1307
Total	12027	38743	50770	8333	0	8333	507	0	507	20867	38743	59610	1307	0	1307

Source : Department of Agriculture Statistic of state, agristat

2.1 Area wise, crop-wise Irrigation status

Name of the State : Maharashtra

Name of the District : Jalgaon

Name of the Block : Dharangaon

Crop Type	Kharif (Area in ha)			Rabi (Area in ha)			Summer Crop (Area in ha)			Total (Area in ha)			Horticulture & Plantation Crop (area in ha)		
	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total
A) Cereals	1516	4533	6049	3270	0	3270	954	0	954	5740	4533	10273	0	0	0
B) Coarse Cereals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C) Pulses	1049	3147	4196	1352	0	1352	0	0	0	2401	3147	5548	0	0	0
D) Oilseeds	1051	3169	4220	0	0	0	610	0	610	1661	3169	4830	0	0	0
E) Fibre	3845	11534	15379	0	0	0	0	0	0	3845	11534	15379	0	0	0
F) Any other crop	568	0	568	943	0	943	565	0	565	2076	0	2076	1672	0	1672
Total	8029	22383	30412	5565	0	5565	2129	0	2129	15723	22383	38106	1672	0	1672

Source : Department of Agriculture Statistic of state, agristat

2.1 Area wise, crop-wise Irrigation status

Name of the State : Maharashtra

Name of the District : Jalgaon

Name of the Block : Pachora

Crop Type	Kharif (Area in ha)			Rabi (Area in ha)			Summer Crop (Area in ha)			Total (Area in ha)			Horticulture & Plantation Crop (area in ha)		
	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total
A) Cereals	3880	9500	13380	5570	0	5570	1740	0	1740	11190	9500	20690	0	0	0
B) Coarse Cereals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C) Pulses	1012	2475	3487	1600	0	1600	535	0	535	3147	2475	5622	0	0	0
D) Oilseeds	955	2495	3450	0	0	0	0	0	0	955	2495	3450	0	0	0
E) Fibre	10260	25040	35300	0	0	0	0	0	0	10260	25040	35300	0	0	0
F) Any other crop	2090	0	2090	1455	0	1455	1150	0	1150	4695	0	4695	3871	0	3871
Total	18197	39510	57707	8625	0	8625	3425	0	3425	30247	39510	69757	3871	0	3871

Source : Department of Agriculture Statistic of state, agristat

2.1 Area wise, crop-wise Irrigation status

Name of the State : Maharashtra

Name of the District : Jalgaon

Name of the Block : Chalisgaon

Crop Type	Kharif (Area in ha)			Rabi (Area in ha)			Summer Crop (Area in ha)			Total (Area in ha)			Horticulture & Plantation Crop (area in ha)		
	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total
A) Cereals	4410	15635	20045	3703	0	3703	670		670	8783	15635	24418	0	0	0
B) Coarse Cereals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C) Pulses	928	3283	4211	1414	0	1414	0	0	0	2342	3283	5625	0	0	0
D) Oilseeds	200	1452	1652	610	0	610	68	0	68	878	1452	2330	0	0	0
E) Fibre	11850	42015	53865	0	0	0	0	0	0	11850	42015	53865	0	0	0
F) Any other crop	4830	0	4830	1792	0	1792	1840	0	1840	8462	0	8462	4966	0	4966
Total	22218	62385	84603	7519	0	7519	2578	0	2578	32315	62385	94700	4966	0	4966

Source : Department of Agriculture Statistic of state, agristat

2.1 Area wise, crop-wise Irrigation status

Name of the State : Maharashtra

Name of the District : Jalgaon

Name of the Block : Bhadgaon

Crop Type	Kharif (Area in ha)			Rabi (Area in ha)			Summer Crop (Area in ha)			Total (Area in ha)			Horticulture & Plantation Crop (area in ha)		
	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total
A) Cereals	1680	6320	8000	6760	0	6760	165	0	165	8605	6320	14925	0	0	0
B) Coarse Cereals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C) Pulses	593	2232	2825	824	0	824	0	0	0	1417	2232	3649	0	0	0
D) Oilseeds	210	855	1065	0	0	0	56	0	56	266	855	1121	0	0	0
E) Fibre	4725	17775	22500	0	0	0	0	0	0	4725	17775	22500	0	0	0
F) Any other crop	955	0	955	1525	0	1525	215	0	215	2695	0	2695	3525	0	3525
Total	8163	27182	35345	9109	0	9109	436	0	436	17708	27182	44890	3525	0	3525

Source : Department of Agriculture Statistic of state, agristat

2.1 Area wise, crop-wise Irrigation status

Name of the State : Maharashtra

Name of the District : Jalgaon

Name of the Block : Jamner

Crop Type	Kharif (Area in ha)			Rabi (Area in ha)			Summer Crop (Area in ha)			Total (Area in ha)			Horticulture & Plantation Crop (area in ha)		
	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total
A) Cereals	2073	23554	25627	8950	0	8950	5442	0	5442	16465	23554	40019	0	0	0
B) Coarse Cereals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C) Pulses	194	5266	5460	1479		1479	0	0	0	1673	5266	6939	0	0	0
D) Oilseeds	130	4625	4755	0	0	0	65	0	65	195	4625	4820	0	0	0
E) Fibre	2016	58844	60860	0	0	0	0	0	0	2016	58844	60860	0	0	0
F) Any other crop	1070	0	1070	0	0	0	220	0	220	1290	0	1290	3556	0	3556
Total	5483	92289	97772	10429	0	10429	5727	0	5727	21639	92289	113928	3556	0	3556

Source : Department of Agriculture Statistic of state, agristat

2.1 Area wise, crop-wise Irrigation status

Name of the State : Maharashtra

Name of the District- Jalgaon

Crop Type	Kharif (Area in ha)			Rabi (Area in ha)			Summer Crop (Area in ha)			Total (Area in ha)			Horticulture & Plantation Crop (area in ha)		
	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	Rainfed	Total
A) Cereals	38852	116871	155723	83905	0	83905	18858	0	18858	141615	116871	258486	0	0	0
B) Coarse Cereals	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
C) Pulses	17124	60055	77179	41421	0	41421	758	0	758	59303	60055	119358	0	0	0
D) Oilseeds	10317	37832	48149	1805	0	1805	2774	0	2774	14896	37832	52728	0	0	0
E) Fibre	78896	330129	409025	0	0	0	0	0	0	78896	330129	409025	0	0	0
F) Any other crop	28671	0	28671	17466	0	17466	9684	0	9684	55821	0	55821	85718	0	85718
Total	173860	544887	718747	144597	0	144597	32074	0	32074	350531	544887	895418	85718	0	85718

Source : Department of Agriculture Statistic of state, agristat

Irrigation Planning of Jalgaon District of Maharashtra State (India)

2.2 Production and Productivity of Major Crop

Name of the Block : Jalgaon

Season	Crop sown							Rainfed			Irrigated			Total		
	Cereals	Coarse Cereals	Pulses	Oil seeds	Fibre Crops	Any Other Crops	Area (ha)	Production (Qtl/Yr)	Productivity or Yield (Kgs/Ha)	Cost of cultivation (Rs./ha)	Production (Qtl/Yr)	Productivity or Yield (Kgs/Ha)	Cost of cultivation (Rs./ha)	Production (qtn/yr)	Productivity on (kgs/hs)	Cost of cultivation on (Rs./ha)
A. Kharif	5724	0	9475	6203	25400	2780	49582	147547.6	365	--	46797.38	511	--	194344.98	438	--
B. Rabi	9475	0	3902	0	0	0	13377	0	0	--	55103.84	478	--	55103.84	239	--
C. Summer	1819	0	7	0	0	0	1826	0	0	--	3195.5	175	--	3195.5	87.5	--
Horticultural & Plantation	0	0	0	0	0	12724	12724	0	0	--	2831726.2	22255	--	2831726.2	11127.5	--
Total	17018	0	13384	6203	25400	15504	77509	147547.6	365	--	2936822.92	5854.75	--	3084370.52	3109.875	--

Source : DAP Agriculture statistics

Name of the Block : Bhusawal

Season	Crop sown							Rainfed			Irrigated			Total		
	Cereals	Coarse Cereals	Pulses	Oil seeds	Fibre Crops	Any Other Crops	Area (ha)	Production (Qtl/Yr)	Productivity or Yield (Kgs/Ha)	Cost of cultivation (Rs./ha)	Production (Qtl/Yr)	Productivity or Yield (Kgs/Ha)	Cost of cultivation (Rs./ha)	Production (qtn/yr)	Productivity on (kgs/hs)	Cost of cultivation on (Rs./ha)
A. Kharif	4943	0	3932	1670	14630	1279	26454	75272.72	328	--	16094.96	459.2	--	91367.68	393.6	--
B. Rabi	2180	0	3902	0	0	0	6082	0	0	--	29740.98	489	--	29740.98	244.5	--
C. Summer	331	0	0	84	0	0	415	0	0	--	742.85	179	--	742.85	89.5	--
Horticultural & Plantation	0	0	0	0	0	1850	1850	0	0	--	367687.5	19875	--	367687.5	9937.5	--
Total	7454	0	7834	1754	14630	3129	34801	75272.72	328	--	414266.29	5250.55	--	489539.01	2789.275	--

Source : DAP Agriculture statistics

Irrigation Planning of Jalgaon District of Maharashtra State (India)

Name of the Block : Bodwad

Season	Crop sown							Rainfed			Irrigated			Total		
	Cereals	Coarse Cereals	Pulses	Oil seeds	Fibre Crops	Any Other Crops	Area (ha)	Production (Qtl/Yr)	Productivity or Yield (Kgs/Ha)	Cost of cultivation (Rs./ha)	Production (Qtl/Yr)	Productivity or Yield (Kgs/Ha)	Cost of cultivation (Rs./ha)	Production (qtn/yr)	Productivity on (kgs/hs)	Cost of cultivation on (Rs./ha)
A. Kharif	6384	0	3528	1814	13654	44	25424	63999.36	288	--	12904.06	403	--	76903.42	345.5	--
B. Rabi	1368	0	1040	0	0	721	3129	0	0	--	15300.81	489	--	15300.81	244.5	--
C. Summer	520	0	0	215	0	536	1271	0	0	--	5655.95	445	--	5655.95	222.5	--
Horticultural & Plantation	0	0	0	0	0	1215	1215	0	0	--	139457.7	11478	--	139457.7	5739	--
Total	8272	0	4568	2029	13654	2516	31039	63999.36	288	--	173318.52	3203.75	--	237317.88	1745.875	--

Source : DAP,Agriculture statistics

Name of the Block : Yawal

Season	Crop sown							Rainfed			Irrigated			Total		
	Cereals	Coarse Cereals	Pulses	Oil seeds	Fibre Crops	Any Other Crops	Area (ha)	Production (Qtl/Yr)	Productivity or Yield (Kgs/Ha)	Cost of cultivation (Rs./ha)	Production (Qtl/Yr)	Productivity or Yield (Kgs/Ha)	Cost of cultivation (Rs./ha)	Production (qtn/yr)	Productivity on (kgs/hs)	Cost of cultivation on (Rs./ha)
A. Kharif	9548	0	6550	5351	14846	4456	40751	76145.36	398	--	108527.38	502	--	184672.74	450	--
B. Rabi	4274	0	7698	0	0	720		0	0	--	61936.96	488	--	61936.96	244	--
C. Summer	1634	0	0	207	0	940		0	0	--	14600.25	525	--	14600.25	262.5	--
Horticultural & Plantation	0	0	0	0	0	11573		0	0	--	2193430.69	18953	--	2193430.69	9476.5	--
Total	15456	0	14248	5558	14846	17689	67797	76145.36	398	--	2378495.28	5117	--	2454640.64	2757.5	--

Source : DAP,Agriculture statistics

Irrigation Planning of Jalgaon District of Maharashtra State (India)

Name of the Block : Raver

Season	Crop sown							Rainfed			Irrigated			Total		
	Cereals	Coarse Cereals	Pulses	Oil seeds	Fibre Crops	Any Other Crops	Area (ha)	Production (Qtl/Yr)	Productivity or Yield (Kgs/Ha)	Cost of cultivation (Rs./ha)	Production (Qtl/Yr)	Productivity or Yield (Kgs/Ha)	Cost of cultivation (Rs./ha)	Production (qtn/yr)	Productivity on (kgs/hs)	Cost of cultivation on (Rs./ha)
A. Kharif	6506	0	6435	6034	16720	3051	38746	78189	402	--	89340.48	463	--	167529.48	432.5	--
B. Rabi	12800	0	5927	120	0	754	19601	0	0	--	95848.89	489	--	95848.89	244.5	--
C. Summer	536	0	216	56	0	526	1334	0	0	--	6003	450	--	6003	225	--
Horticultural & Plantation	0	0	0	0	0	22374	22374	0	0	--	4173869.7	18655	--	4173869.7	9327.5	--
Total	19842	0	12578	6210	16720	26705	82055	78189	402	--	4365062.07	5014.25	--	4443251.07	2708.125	--

Source : DAP Agriculture statistics

Name of the Block : Muktainagar

Season	Crop sown							Rainfed			Irrigated			Total		
	Cereals	Coarse Cereals	Pulses	Oil seeds	Fibre Crops	Any Other Crops	Area (ha)	Production (Qtl/Yr)	Productivity or Yield (Kgs/Ha)	Cost of cultivation (Rs./ha)	Production (Qtl/Yr)	Productivity or Yield (Kgs/Ha)	Cost of cultivation (Rs./ha)	Production (qtn/yr)	Productivity on (kgs/hs)	Cost of cultivation on (Rs./ha)
A. Kharif	8452	0	3425	1034	18472	1063	32446	90324.45	345	--	25686.5	410	--	116010.95	377.5	--
B. Rabi	4921	0	1075	0	0	629	6625	0	0	--	31098.6	468	--	31098.6	234	--
C. Summer	760	0	0	315	0	495	1570	0	0	--	6892.3	439	--	6892.3	219.5	--
Horticultural & Plantation	0	0	0	0	0	7322	7322	0	0	--	1089293.94	14877	--	1089293.94	7438.5	--
Total	14133	0	4500	1349	18472	9509	47963	90324.45	345	--	1152971.34	4048.5	--	1243295.79	2196.75	--

Source : DAP Agriculture statistics

Irrigation Planning of Jalgaon District of Maharashtra State (India)

Name of the Block : Amalner

Season	Crop sown							Rainfed			Irrigated			Total		
	Cereals	Coarse Cereals	Pulses	Oil seeds	Fibre Crops	Any Other Crops	Area (ha)	Production (Qtl/Yr)	Productivity or Yield (Kgs/Ha)	Cost of cultivation (Rs./ha)	Production (Qtl/Yr)	Productivity or Yield (Kgs/Ha)	Cost of cultivation (Rs./ha)	Production (qtn/yr)	Productivity on (kgs/hs)	Cost of cultivation on (Rs./ha)
A. Kharif	11361	0	7400	2951	38575	435	60722	174419.63	319	--	25812.15	427	--	200231.78	373	--
B. Rabi	5122	0	2506	0	0	832	8460	0	0	--	38831.4	459	--	38831.4	229.5	--
C. Summer	940	0	0	531	0	590	2061	0	0	--	9109.62	442	--	9109.62	221	--
Horticultural & Plantation	0	0	0	0	0	2633	2633	0	0	--	444950.67	16899	--	444950.67	8449.5	--
Total	17423	0	9906	3482	38575	4490	73876	174419.63	319	--	518703.84	4556.75	--	693123.47	2437.875	--

Source : DAP,Agriculture statistics

Name of the Block : Chopda

Season	Crop sown							Rainfed			Irrigated			Total		
	Cereals	Coarse Cereals	Pulses	Oil seeds	Fibre Crops	Any Other Crops	Area (ha)	Production (Qtl/Yr)	Productivity or Yield (Kgs/Ha)	Cost of cultivation (Rs./ha)	Production (Qtl/Yr)	Productivity or Yield (Kgs/Ha)	Cost of cultivation (Rs./ha)	Production (qtn/yr)	Productivity on (kgs/hs)	Cost of cultivation on (Rs./ha)
A. Kharif	10256	0	7158	3611	30635	4251	55911	118331.25	375	--	119100.84	489	--	237432.09	432	--
B. Rabi	10094	0	4939	0	0	5185	20218	0	0	--	101494.36	502	--	101494.36	251	--
C. Summer	2770	0	0	478	0	2188	5436	0	0	--	26527.68	488	--	26527.68	244	--
Horticultural & Plantation	0	0	0	0	0	5545	5545	0	0	--	869899.6	15688	--	869899.6	7844	--
Total	23120	0	12097	4089	30635	17169	87110	118331.25	375	--	1117022.48	4291.75	--	1235353.73	2333.375	--

Source : DAP,Agriculture statistics

Irrigation Planning of Jalgaon District of Maharashtra State (India)

Name of the Block : Erandol

Season	Crop sown							Rainfed			Irrigated			Total		
	Cereals	Coarse Cereals	Pulses	Oil seeds	Fibre Crops	Any Other Crops	Area (ha)	Production (Qtl/Yr)	Productivity or Yield (Kgs/Ha)	Cost of cultivation (Rs./ha)	Production (Qtl/Yr)	Productivity or Yield (Kgs/Ha)	Cost of cultivation (Rs./ha)	Production (qtn/yr)	Productivity on (kgs/hs)	Cost of cultivation on (Rs./ha)
A. Kharif	7767	0	3801	2689	16613	1232	32102	90059.45	349	--	29910.75	475	--	119970.2	412	--
B. Rabi	2564	0	1523	1075	0	1500	6662	0	0	--	32577.18	489	--	32577.18	244.5	--
C. Summer	284	0	0	42	0	252	578	0	0	--	2762.84	478	--	2762.84	239	--
Horticultural & Plantation	0	0	0	0	0	1585	1585	0	0	--	283001.75	17855	--	283001.75	8927.5	--
Total	10615	0	5324	3806	16613	4569	40927	90059.45	349	--	348252.52	4824.25	--	438311.97	2586.625	--

Source : DAP Agriculture statistics

Name of the Block : Dharangaon

Season	Crop sown							Rainfed			Irrigated			Total		
	Cereals	Coarse Cereals	Pulses	Oil seeds	Fibre Crops	Any Other Crops	Area (ha)	Production (Qtl/Yr)	Productivity or Yield (Kgs/Ha)	Cost of cultivation (Rs./ha)	Production (Qtl/Yr)	Productivity or Yield (Kgs/Ha)	Cost of cultivation (Rs./ha)	Production (qtn/yr)	Productivity on (kgs/hs)	Cost of cultivation on (Rs./ha)
A. Kharif	6049	0	3147	4220	15379	568	29363	130176.48	336	--	53520.15	445	--	183696.63	390.5	--
B. Rabi	3270	0	1352	0	0	943	5565	0	0	--	39581.75	475	--	39581.75	237.5	--
C. Summer	954	0		610	0	565	2129	0	0	--	2337.27	461	--	2337.27	230.5	--
Horticultural & Plantation	0	0	0	0	0	1672	1672	0	0	--	247741.85	18955	--	247741.85	9477.5	--
Total	10273	0	4499	4830	15379	3748	38729	130176.48	336	--	343181.02	5084	--	473357.50	2710	--

Source : DAP Agriculture statistics

Irrigation Planning of Jalgaon District of Maharashtra State (India)

Name of the Block : Parola

Season	Crop sown							Rainfed			Irrigated			Total		
	Cereals	Coarse Cereals	Pulses	Oil seeds	Fibre Crops	Any Other Crops	Area (ha)	Production (Qtl/Yr)	Productivity or Yield (Kgs/Ha)	Cost of cultivation (Rs./ha)	Production (Qtl/Yr)	Productivity or Yield (Kgs/Ha)	Cost of cultivation (Rs./ha)	Production (qtn/yr)	Productivity on (kgs/hs)	Cost of cultivation on (Rs./ha)
A. Kharif	11681	0	5296	1650	21576	567	40770	73192.41	327	--	32196.29	401	--	105388.7	364	--
B. Rabi	4683	0	2246	0	0	1410	8339	0	0	--	26044.2	468	--	26044.2	234	--
C. Summer	293	0	0	47		167	507	0	0	--	9623.08	452	--	9623.08	226	--
Horticultural & Plantation	0	0	0	0	0	1307	1307	0	0	--	332142.8	19865	--	332142.8	9932.5	--
Total	16657	0	7542	1697	21576	3451	50923	73192.41	327	--	400006.37	5296.5	--	473198.78	2811.75	--

Source : DAP, Agriculture statistics

Name of the Block : Pachora

Season	Crop sown							Rainfed			Irrigated			Total		
	Cereals	Coarse Cereals	Pulses	Oil seeds	Fibre Crops	Any Other Crops	Area (ha)	Production (Qtl/Yr)	Productivity or Yield (Kgs/Ha)	Cost of cultivation (Rs./ha)	Production (Qtl/Yr)	Productivity or Yield (Kgs/Ha)	Cost of cultivation (Rs./ha)	Production (qtn/yr)	Productivity on (kgs/hs)	Cost of cultivation on (Rs./ha)
A. Kharif	13380	0	3487	3450	35300	2090	57707	145001.7	367	--	87709.54	482	--	232711.24	424.5	--
B. Rabi	5570	0	1600	0	0	1455		8625	0	0	--	43470	504	--	43470	252
C. Summer	1740	0	535	0	0	1150	3425	0	0	--	16268.75	475	--	16268.75	237.5	--
Horticultural & Plantation	0	0	0	0	0	3871	73628	0	0	--	718651.15	18565	--	718651.15	9282.5	--
Total	20690	0	5622	3450	35300	8566		145001.7	367	--	866099.44	5006.5	--	1011101.14	2686.75	--

Source : DAP, Agriculture statistics

Irrigation Planning of Jalgaon District of Maharashtra State (India)

Name of the Block : Chalisgaon

Season	Crop sown							Rainfed			Irrigated			Total		
	Cereals	Coarse Cereals	Pulses	Oil seeds	Fibre Crops	Any Other Crops	Area (ha)	Production (Qtl/Yr)	Productivity or Yield (Kgs/Ha)	Cost of cultivation (Rs./ha)	Production (Qtl/Yr)	Productivity or Yield (Kgs/Ha)	Cost of cultivation (Rs./ha)	Production (qtn/yr)	Productivity on (kgs/hs)	Cost of cultivation on (Rs./ha)
A. Kharif	20035	0	4211	1652	53865	4830	84593	219595.2	352	--	104646.78	471	--	324241.98	411.5	--
B. Rabi	3703	0	1414	610	0	1792	7519	0	0	--	37444.62	498	--	37444.62	249	--
C. Summer	670	0		68		1840	2578	0	0	--	11343.2	440	--	11343.2	220	--
Horticultural & Plantation	0	0	0	0	0	4966	4966	0	0	--	886579.98	17853	--	886579.98	8926.5	--
Total	24408	0	5625	2330	53865	13428	99656	219595.2	352	--	1040014.58	4815.5	--	1259609.78	2583.75	--

Source : DAP,Agriculture statistics

Name of the Block : Jamner

Season	Crop sown							Rainfed			Irrigated			Total		
	Cereals	Coarse Cereals	Pulses	Oil seeds	Fibre Crops	Any Other Crops	Area (ha)	Production (Qtl/Yr)	Productivity or Yield (Kgs/Ha)	Cost of cultivation (Rs./ha)	Production (Qtl/Yr)	Productivity or Yield (Kgs/Ha)	Cost of cultivation (Rs./ha)	Production (qtn/yr)	Productivity on (kgs/hs)	Cost of cultivation on (Rs./ha)
A. Kharif	25627	0	6460	4755	63860	1070	101772	94049.72	346	--	38202.84	468	--	132252.56	407	--
B. Rabi	8950	0	1479	0	0	0	10429	0	0	--	43905.38	482	--	43905.38	241	--
C. Summer	5442	0		65	0	220	5727	0	0	--	1962	450	--	1962	225	--
Horticultural & Plantation	0	0	0	0	0	3556	3556	0	0	--	662171.25	18785	--	662171.25	9392.5	--
Total	40019	0	7939	4820	63860	4846	121484	94049.72	346	--	746241.47	5046.25	--	840291.19	2696.125	--

Source : DAP,Agriculture statistics

Irrigation Planning of Jalgaon District of Maharashtra State (India)

Name of the Block : Bhadgaon

Season	Crop sown						Rainfed			Irrigated			Total			
	Cereals	Coarse Cereals	Pulses	Oil seeds	Fibre Crops	Any Other Crops	Area (ha)	Production (Qtl/Yr)	Productivity or Yield (Kgs/Ha)	Cost of cultivation (Rs./ha)	Production (Qtl/Yr)	Productivity or Yield (Kgs/Ha)	Cost of cultivation (Rs./ha)	Production (qtn/yr)	Productivity on (kgs/hs)	Cost of cultivation on (Rs./ha)
A. Kharif	8000	0	2825	1065	22500	955	35345	303575.437	328.94	--	21328.87	389	--	324904.3066	358.97	--
B. Rabi	6760	0	824	0	0	1525	9109	0	0	--	44636.12	428	--	44636.12	214	--
C. Summer	162	0	0	56	0	215	433	0	0	--	23595.24	412	--	23595.24	206	--
Horticultural & Plantation	0	0	0	0	0	3525	3525	0	0	--	418043.36	11756	--	418043.36	5878	--
Total	14922	0	3649	1121	22500	6220	48412	303575.44	82.235	--	507603.59	3246.25	--	811179.03	1664.2425	--

Source : DAP, Agriculture statistics

Cropping Pattern and Irrigation Status-

The details of area wise cropping pattern of Jalgaon district is given in table no 2.1. whereas production and productivity of major crops in Jalgaon district is given taluka wise in table no. 2.2. Taluka wise irrigation based classification of Jalgaon district is ellaborated in table no. 2.3.

2.3 Irrigation Based Classification

Name of the State : Maharashtra

Name of the District : Jalgaon

Sr. No.	Name of the Block	Irrigated (Area in Ha)		Rainfed (Area in Ha)	
		Gross Irrigated Area	Net Irrigated Area	Partially Irrigated / Protective Irrigation	Un-Irrigated or Totally Rainfed
1	Jalgaon	12061	8723	6697	46886
2	Bhusawal	3371	2547	3219	22538
3	Bodwad	2763	2131	3063	21445
4	Yawal	34984	25116	3401	23807
5	Raver	38754	28726	4049	28345
6	Muktainagar	6225	4772	4374	30622
7	Amalner	7632	5702	7206	50447
8	Chopada	33336	23968	4686	32802
9	Erandol	5452	4042	3705	25940
10	Dharangaon	9946	8021	3007	21056
11	Parola	12105	9895	5272	36910
12	Chalisgaon	32708	24184	8173	57212
13	Bhadgaon	10550	8163	3838	26869
14	Pachora	19291	14779	5849	40950
15	Jamner	11132	7093	11779	82456
	Total	240310	177862	78318	548285

Status of Water Availability-

In Jalgaon district, water available through surface irrigation is about 7.384 BCM. Out of which 4.726, 2.068 and 0.591 BCM is available in Kharif, Rabi and Summer season respectively. Similarly; water available through ground water is about 1.733 BCM. Out of which 1.109, 0.485 and 0.139 BCM is available in Kharif, Rabi and Summer season respectively.

3.1 Status of Water Availability

in BCM

Sr. No.	Sources	Kharif	Rabi	Summer	Total
1	Surface Irrigation				
i)	Canal (Major & Medium Irrigation)	1.512	0.662	0.189	2.363
ii)	Minor Irrigation tanks	2.127	0.930	0.266	3.323
iii)	Lift Irrigation/Diversion	0.709	0.310	0.089	1.108
iv)	Various Water Bodies Includung Rain Water Harvesting	0.378	0.165	0.047	0.591
	Sub Total	4.726	2.068	0.591	7.384
2	Ground water				
i)	Open Well	0.388	0.170	0.049	0.607
ii)	Bore Well	0.721	0.315	0.090	1.127
	Sub Total	1.109	0.485	0.139	1.733
	Grand Total	5.835	2.553	0.729	9.118

Source : CWC, District Irrigation and Agriculture office records

Status of Ground water Availability-

Status of ground water availability in Jalgaon district is depicted block wise in table no 3.2. out of 15 blocks in the district; two blocks namely; Yawal and Raver falls in the category of critical ground water status whereas four blocks namely; Bodwad, Muktainagar, Chopda and Parola falls in the category of semi- critical ground water status. While remaining blocks comes in the category of safe ground water status.

3.2 Status of Ground water Availability

Name of the state : Maharashtra

Name of the District : Jalgaon

Sr. No	Name of the Block	Status of Block as per Central Ground Water Board Notification			Ground water (BCM)		
		Critical	Semi-Critical	Safe	Draft	Recharge	Gap
1	Jalgaon			✓	0.000464	0.000825	0.000361
2	Bhusawal			✓	0.000455	0.000567	0.000111
3	Bodwad		✓		0.000330	0.000396	0.000066
4	Yawal	✓			0.001040	0.000765	-0.000275
5	Raver	✓			0.001188	0.000975	-0.000213
6	Muktainagar		✓		0.000455	0.000521	0.000066
7	Amalner			✓	0.000902	0.001152	0.000250
8	Chopada		✓		0.000983	0.001086	0.000104
9	Erandol			✓	0.000458	0.000706	0.000248
10	Dharangaon			✓	0.000437	0.000752	0.000315
11	Parola		✓		0.000717	0.000740	0.000023
12	Chalisgaon			✓	0.001170	0.001411	0.000241
13	Bhadgaon			✓	0.000778	0.001321	0.000543
14	Pachora			✓	0.000762	0.001067	0.000305
15	Jamner			✓	0.000954	0.001335	0.000381
Total				✓	0.011094	0.013619	0.002526

Source : CGWB

Table 3.2 shows that ground water recharge from rainfall which is computed in ground water assesment carried out by Ground Water Survey & Development Agency (GSDA). This table also shows draft means ground water withdrawal from aquifer by water abstracting structures like well and tube well.

(Ref - Ground Water Assessment report 2011-12)

Status of Command Area-

The total command area in Jalgaon district is 227068 ha. out of which 125855 ha is developed command while 101213 ha command needs to be developed. The detailed block wise status of command area is given in the table no. 3.3.

3.3 Status of Command Area

Name of the state : Maharashtra

Name of the District : Jalgaon

Area in Ha.

Sr. No.	Name of the Block	Information of Canal Command			Information on the Other Services Command			Total Area	
		Total Area	Developed Area	Undeveloped Area	Total Area	Developed Area	Undeveloped Area	Developed Command	Undeveloped Command
1	2	3	4	5	6	7	8	4+7	5+8
1	Jalgaon	18877	479	18398	0	0	0	479	18398
2	Bhusawal	1422	763	659	0	0	0	763	659
3	Bodwad	850	587	263	0	0	0	587	263
4	Yawal	17294	6994	10300	0	0	0	6994	10300
5	Raver	15286	14915	371	0	0	0	14915	371
6	Muktainagar	4781	1756	3025	0	0	0	1756	3025
7	Amalner	12037	2187	9850	0	0	0	2187	9850
8	Chopada	41427	18189	23238	0	0	0	18189	23238
9	Erandol	12534	10799	1735	0	0	0	10799	1735
10	Dharangaon	22592	9307	13285	0	0	0	9307	13285
11	Parola	14513	8902	5611	0	0	0	8902	5611
12	Chalisgaon	21436	19695	1741	0	0	0	19695	1741
13	Bhadgaon	13117	12169	948	0	0	0	12169	948
14	Pachora	15495	10900	4595	0	0	0	10900	4595
15	Jamner	15407	8213	7194	0	0	0	8213	7194
Total		227068	125855	101213	0	0	0	125855	101213

Water requirement of Jalgaon district-

Domestic water requirement of Jalgaon district is 0.23946 BCM while crop water requirement is 12.296 BCM. Water required for livestock, industrial use and power generation in Jalgaon district is 0.0229 BCM, 0.02513 BCM and 0.0073 BCM respectively. The detailed block wise water requirement for domestic purpose, crop, livestock, industrial, for power generation and total water requirements is elaborated in table no. 4.1, 4.2, 4.3, 4.4, 4.5 and 4.6 respectively.

4.1 Domestic Water Demand

Sr. No.	Blocks	Population in 2015	Projected Population in 2020	Gross Water Demand (BCM)
1	Jalgaon	727003	782649	0.03857
2	Bhusawal	351666	378583	0.01865
3	Bodwad	98684	106237	0.00523
4	Yawal	302268	325404	0.01603
5	Raver	336128	361856	0.01783
6	Muktainagar	175703	189152	0.00932
7	Amalner	309647	333348	0.01643
8	Chopada	336280	362019	0.01784
9	Erandol	181264	195138	0.00962
10	Dharangaon	187062	201380	0.00992
11	Parola	211523	227713	0.01122
12	Chalisgaon	434460	467714	0.02305
13	Bhadgaon	175107	188510	0.00929
14	Pachora	311076	334886	0.01650
15	Jamner	376205	405000	0.01996
Total		4514076	4859589	0.23946

Source : CWE, Department of water Resorces in District status Report

4.2 Crop Water Requirement

Block	Crop	Area Sown (ha)	Irrigated Area (ha)	Crop Water Demand (mm)	Water Potential Required (BCM)	Existing Water Potential (BCM)	Water Potential to be Created (BCM)
Jalgaon	Cotton	25400	3556	650	0.165	0.1156	0.04953
Bhusawal		14630	878	650	0.095	0.0666	0.02853
Bodwad		13654	1229	650	0.089	0.0621	0.02663
Yawal		14846	7126	650	0.096	0.0675	0.02895
Raver		16720	7858	650	0.109	0.0761	0.03260
Muktainagar		18472	2032	650	0.120	0.0840	0.03602
Amalner		38575	2315	650	0.251	0.1755	0.07522
Chopada		30635	11950	650	0.199	0.1394	0.05974
Erandol		16613	1994	650	0.108	0.0756	0.03240
Dharangaon		15379	3845	650	0.100	0.0700	0.02999
Parola		31576	7262	650	0.205	0.1437	0.06157
Chalisgaon		53865	11850	650	0.350	0.2451	0.10504
Bhadgaon		22500	4725	650	0.146	0.1024	0.04388
Pachora		35380	10260	650	0.230	0.1610	0.06899
Jamner		63860	2016	650	0.415	0.2906	0.12453
Total District		412105	78896	650	2.679	1.8751	0.80360
Jalgaon	Maize	3256	456	450	0.015	0.0103	0.00440
Bhusawal		2620	878	450	0.012	0.0083	0.00354
Bodwad		3916	1230	450	0.018	0.0123	0.00529
Yawal		2034	976	450	0.009	0.0064	0.00275
Raver		2342	1124	450	0.011	0.0074	0.00316
Muktainagar		2492	2032	450	0.011	0.0078	0.00336
Amalner		5122	2315	450	0.023	0.0161	0.00691
Chopada		5988	2335	450	0.027	0.0189	0.00808
Erandol		5238	1993	450	0.024	0.0165	0.00707
Dharangaon		3224	806	450	0.015	0.0102	0.00435
Parola		6589	1515	450	0.030	0.0208	0.00890
Chalisgaon		11567	2545	450	0.052	0.0364	0.01562
Bhadgaon		5000	1050	450	0.023	0.0158	0.00675
Pachora		10954	3176	450	0.049	0.0345	0.01479
Jamner		20700	1915	450	0.093	0.0652	0.02795
Total District		91042	24346	450	0.410	0.2868	0.12291

4.2 Crop Water Requirement

Jalgaon	Kh.Jowar	2468	345	450	0.011	0.0078	0.00333
Bhusawal		2238	135	450	0.010	0.0070	0.00302
Bodwad		2446	220	450	0.011	0.0077	0.00330
Yawal		7498	3600	450	0.034	0.0236	0.01012
Raver		4164	1960	450	0.019	0.0131	0.00562
Muktainagar		5425	596	450	0.024	0.0171	0.00732
Amalner		3846	230	450	0.017	0.0121	0.00519
Chopada		3325	1296	450	0.015	0.0105	0.00449
Erandol		1640	196	450	0.007	0.0052	0.00221
Dharangaon		1998	500	450	0.009	0.0063	0.00270
Parola		3283	755	450	0.015	0.0103	0.00443
Chalisgaon		3724	820	450	0.017	0.0117	0.00503
Bhadgaon		1950	410	450	0.009	0.0061	0.00263
Pachora		1200	348	450	0.005	0.0038	0.00162
Jamner		4617	138	450	0.021	0.0145	0.00623
Total District		49822	11549	450	0.224	0.1569	0.06726
Jalgaon	Bajra	0	0	350	0.000	0.0000	0.00000
Bhusawal		85	10	350	0.000	0.0002	0.00009
Bodwad		22	12	350	0.000	0.0001	0.00002
Yawal		16	7	350	0.000	0.0000	0.00002
Raver		0	0	350	0.000	0.0000	0.00000
Muktainagar		535	60	350	0.002	0.0013	0.00056
Amalner		2393	145	350	0.008	0.0059	0.00251
Chopada		943	370	350	0.003	0.0023	0.00099
Erandol		889	110	350	0.003	0.0022	0.00093
Dharangaon		827	210	350	0.003	0.0020	0.00087
Parola		1809	420	350	0.006	0.0044	0.00190
Chalisgaon		4754	1045	350	0.017	0.0116	0.00499
Bhadgaon		1050	220	350	0.004	0.0026	0.00110
Pachora		1226	355	350	0.004	0.0030	0.00129
Jamner		310	20	350	0.001	0.0008	0.00033
Total District		14859	2984	350	0.052	0.0364	0.01560

4.2 Crop Water Requirement

Jalgaon	Tur	750	105	450	0.003	0.0024	0.00101
Bhusawal		850	60	450	0.004	0.0027	0.00115
Bodwad		882	80	450	0.004	0.0028	0.00119
Yawal		1312	630	450	0.006	0.0041	0.00177
Raver		1366	642	450	0.006	0.0043	0.00184
Muktainagar		1040	115	450	0.005	0.0033	0.00140
Amalner		1018	61	450	0.005	0.0032	0.00137
Chopada		588	230	450	0.003	0.0019	0.00079
Erandol		327	40	450	0.001	0.0010	0.00044
Dharangaon		564	141	450	0.003	0.0018	0.00076
Parola		712	163	450	0.003	0.0022	0.00096
Chalisgaon		1034	230	450	0.005	0.0033	0.00140
Bhadgaon		245	52	450	0.001	0.0008	0.00033
Pachora		980	285	450	0.004	0.0031	0.00132
Jamner		2610	78	450	0.012	0.0082	0.00352
Total District		14278	2912	450	0.064	0.0450	0.01928
Jalgaon	Mug	3233	452	400	0.013	0.0091	0.00388
Bhusawal		1332	80	400	0.005	0.0037	0.00160
Bodwad		1176	105	400	0.005	0.0033	0.00141
Yawal		2482	1191	400	0.010	0.0069	0.00298
Raver		2326	1093	400	0.009	0.0065	0.00279
Muktainagar		838	92	400	0.003	0.0023	0.00101
Amalner		4335	260	400	0.017	0.0121	0.00520
Chopada		4831	1885	400	0.019	0.0135	0.00580
Erandol		2562	307	400	0.010	0.0072	0.00307
Dharangaon		1908	477	400	0.008	0.0053	0.00229
Parola		2145	495	400	0.009	0.0060	0.00257
Chalisgaon		1754	385	400	0.007	0.0049	0.00210
Bhadgaon		1245	261	400	0.005	0.0035	0.00149
Pachora		1257	365	400	0.005	0.0035	0.00151
Jamner		2210	66	400	0.009	0.0062	0.00265
Total District		33634	7514	400	0.135	0.0942	0.04036

4.2 Crop Water Requirement

Jalgaon	Udید	5492	770	400	0.022	0.0154	0.00659
Bhusawal		1750	105	400	0.007	0.0049	0.00210
Bodwad		1470	132	400	0.006	0.0041	0.00176
Yawal		2756	1322	400	0.011	0.0077	0.00331
Raver		2743	1290	400	0.011	0.0077	0.00329
Muktainagar		1547	170	400	0.006	0.0043	0.00186
Amalner		2047	123	400	0.008	0.0057	0.00246
Chopada		1739	680	400	0.007	0.0049	0.00209
Erandol		912	110	400	0.004	0.0026	0.00109
Dharangaon		1724	431	400	0.007	0.0048	0.00207
Parola		2439	560	400	0.010	0.0068	0.00293
Chalisgaon		1423	313	400	0.006	0.0040	0.00171
Bhadgaon		1335	280	400	0.005	0.0037	0.00160
Pachora		1250	362	400	0.005	0.0035	0.00150
Jamner		1640	50	400	0.007	0.0046	0.00197
Total District		30267	6698	400	0.121	0.0847	0.03632
Jalgaon	Soybean	4953	694	450	0.022	0.0156	0.00669
Bhusawal		1344	80	450	0.006	0.0042	0.00181
Bodwad		1667	150	450	0.008	0.0053	0.00225
Yawal		4816	2311	450	0.022	0.0152	0.00650
Raver		4905	2305	450	0.022	0.0155	0.00662
Muktainagar		949	105	450	0.004	0.0030	0.00128
Amalner		2695	161	450	0.012	0.0085	0.00364
Chopada		3483	1360	450	0.016	0.0110	0.00470
Erandol		2624	315	450	0.012	0.0083	0.00354
Dharangaon		4205	1051	450	0.019	0.0132	0.00568
Parola		1265	290	450	0.006	0.0040	0.00171
Chalisgaon		910	200	450	0.004	0.0029	0.00123
Bhadgaon		995	210	450	0.004	0.0031	0.00134
Pachora		3294	955	450	0.015	0.0104	0.00445
Jamner		4265	130	450	0.019	0.0134	0.00576
Total District		42370	10317	450	0.191	0.1335	0.05720

4.2 Crop Water Requirement

Jalgaon	Kh.Gr.nut	1250	175	450	0.006	0.0039	0.00169
Bhusawal		326	20	450	0.001	0.0010	0.00044
Bodwad		147	15	450	0.001	0.0005	0.00020
Yawal		535	256	450	0.002	0.0017	0.00072
Raver		1129	530	450	0.005	0.0036	0.00152
Muktainagar		85	10	450	0.000	0.0003	0.00011
Amalner		256	15	450	0.001	0.0008	0.00035
Chopada		128	50	450	0.001	0.0004	0.00017
Erandol		65	8	450	0.000	0.0002	0.00009
Dharangaon		15	4	450	0.000	0.0000	0.00002
Parola		385	90	450	0.002	0.0012	0.00052
Chalisgaon		742	163	450	0.003	0.0023	0.00100
Bhadgaon		70	15	450	0.000	0.0002	0.00009
Pachora		156	45	450	0.001	0.0005	0.00021
Jamner		490	15	450	0.002	0.0015	0.00066
Total District		5779	1411	450	0.026	0.0182	0.00780
Jalgaon	S.cane	2780	2780	2200	0.612	0.4281	0.18348
Bhusawal		1279	1279	2200	0.281	0.1970	0.08441
Bodwad		44	44	2200	0.010	0.0068	0.00290
Yawal		4456	4456	2200	0.980	0.6862	0.29410
Raver		3051	3051	2200	0.671	0.4699	0.20137
Muktainagar		1063	1063	2200	0.234	0.1637	0.07016
Amalner		435	435	2200	0.096	0.0670	0.02871
Chopada		4251	4251	2200	0.935	0.6547	0.28057
Erandol		1232	1232	2200	0.271	0.1897	0.08131
Dharangaon		568	568	2200	0.125	0.0875	0.03749
Parola		567	567	2200	0.125	0.0873	0.03742
Chalisgaon		4830	4830	2200	1.063	0.7438	0.31878
Bhadgaon		955	955	2200	0.210	0.1471	0.06303
Pachora		2090	2090	2200	0.460	0.3219	0.13794
Jamner		1070	1070	2200	0.235	0.1648	0.07062
Total District		28671	28671	2200	6.308	4.4153	1.89229

4.2 Crop Water Requirement

Jalgaon	Wheat	1972	1972	500	0.010	0.0069	0.00296
Bhusawal		2108	2108	500	0.011	0.0074	0.00316
Bodwad		1245	1245	500	0.006	0.0044	0.00187
Yawal		3777	3777	500	0.019	0.0132	0.00567
Raver		3523	3523	500	0.018	0.0123	0.00528
Muktainagar		2023	2023	500	0.010	0.0071	0.00303
Amalner		1022	1022	500	0.005	0.0036	0.00153
Chopada		5380	5380	500	0.027	0.0188	0.00807
Erandol		1191	1191	500	0.006	0.0042	0.00179
Dharangaon		893	893	500	0.004	0.0031	0.00134
Parola		2580	2580	500	0.013	0.0090	0.00387
Chalisgaon		1750	1750	500	0.009	0.0061	0.00263
Bhadgaon		2774	2774	500	0.014	0.0097	0.00416
Pachora		710	710	500	0.004	0.0025	0.00107
Jamner		2949	2949	500	0.015	0.0103	0.00442
Total District		33897	33897	500	0.169	0.1186	0.05085
Jalgaon	Gram	2027	2027	350	0.007	0.0050	0.00213
Bhusawal		2106	2106	350	0.007	0.0052	0.00221
Bodwad		845	845	350	0.003	0.0021	0.00089
Yawal		4198	4198	350	0.015	0.0103	0.00441
Raver		6527	6527	350	0.023	0.0160	0.00685
Muktainagar		1275	1275	350	0.004	0.0031	0.00134
Amalner		2437	2437	350	0.009	0.0060	0.00256
Chopada		6224	6224	350	0.022	0.0152	0.00654
Erandol		1812	1812	350	0.006	0.0044	0.00190
Dharangaon		1352	1352	350	0.005	0.0033	0.00142
Parola		2340	2340	350	0.008	0.0057	0.00246
Chalisgaon		2209	2209	350	0.008	0.0054	0.00232
Bhadgaon		2124	2124	350	0.007	0.0052	0.00223
Pachora		1691	1691	350	0.006	0.0041	0.00178
Jamner		2414	2414	350	0.008	0.0059	0.00253
Total District		39581	39581	350	0.139	0.0970	0.04156

4.2 Crop Water Requirement

Jalgaon	Rabi Sorghum	5612	5612	400	0.022	0.0157	0.00673
Bhusawal		773	773	400	0.003	0.0022	0.00093
Bodwad		987	987	400	0.004	0.0028	0.00118
Yawal		1938	1938	400	0.008	0.0054	0.00233
Raver		1356	1356	400	0.005	0.0038	0.00163
Muktainagar		520	520	400	0.002	0.0015	0.00062
Amalner		4420	4420	400	0.018	0.0124	0.00530
Chopada		4018	4018	400	0.016	0.0113	0.00482
Erandol		1904	1904	400	0.008	0.0053	0.00228
Dharangaon		2397	2397	400	0.010	0.0067	0.00288
Parola		1753	1753	400	0.007	0.0049	0.00210
Chalisgaon		1380	1380	400	0.006	0.0039	0.00166
Bhadgaon		1900	1900	400	0.008	0.0053	0.00228
Pachora		2732	2732	400	0.011	0.0076	0.00328
Jamner		3247	3247	400	0.013	0.0091	0.00390
Total District		34937	34937	400	0.140	0.0978	0.04192
Jalgaon	R.Maize	1917	1917	450	0.009	0.0060	0.00259
Bhusawal		1096	1096	450	0.005	0.0035	0.00148
Bodwad		52	52	450	0.000	0.0002	0.00007
Yawal		2779	2779	450	0.013	0.0088	0.00375
Raver		8195	8195	450	0.037	0.0258	0.01106
Muktainagar		2827	2827	450	0.013	0.0089	0.00382
Amalner		981	981	450	0.004	0.0031	0.00132
Chopada		4596	4596	450	0.021	0.0145	0.00620
Erandol		1765	1765	450	0.008	0.0056	0.00238
Dharangaon		923	923	450	0.004	0.0029	0.00125
Parola		1660	1660	450	0.007	0.0052	0.00224
Chalisgaon		2180	2180	450	0.010	0.0069	0.00294
Bhadgaon		2311	2311	450	0.010	0.0073	0.00312
Pachora		3492	3492	450	0.016	0.0110	0.00471
Jamner		1819	1819	450	0.008	0.0057	0.00246
Total District		36593	36593	450	0.165	0.1153	0.04940

4.2 Crop Water Requirement

Jalgaon	Su.Maize	1508	1508	450	0.007	0.0048	0.00204
Bhusawal		305	305	450	0.001	0.0010	0.00041
Bodwad		846	846	450	0.004	0.0027	0.00114
Yawal		1621	1621	450	0.007	0.0051	0.00219
Raver		1071	1071	450	0.005	0.0034	0.00145
Muktainagar		1013	1013	450	0.005	0.0032	0.00137
Amalner		1473	1473	450	0.007	0.0046	0.00199
Chopada		4062	4062	450	0.018	0.0128	0.00548
Erandol		436	436	450	0.002	0.0014	0.00059
Dharangaon		1619	1619	450	0.007	0.0051	0.00219
Parola		360	360	450	0.002	0.0011	0.00049
Chalisgaon		1837	1837	450	0.008	0.0058	0.00248
Bhadgaon		386	386	450	0.002	0.0012	0.00052
Pachora		2665	2665	450	0.012	0.0084	0.00360
Jamner		5563	5563	450	0.025	0.0175	0.00751
Total District		24765	24765	450	0.111	0.0780	0.03343
Jalgaon	Su.Groundnut	318	318	600	0.002	0.0013	0.00057
Bhusawal		110	110	600	0.001	0.0005	0.00020
Bodwad		425	425	600	0.003	0.0018	0.00077
Yawal		1160	1160	600	0.007	0.0049	0.00209
Raver		263	263	600	0.002	0.0011	0.00047
Muktainagar		557	557	600	0.003	0.0023	0.00100
Amalner		588	588	600	0.004	0.0025	0.00106
Chopada		1374	1374	600	0.008	0.0058	0.00247
Erandol		142	142	600	0.001	0.0006	0.00026
Dharangaon		510	510	600	0.003	0.0021	0.00092
Parola		147	147	600	0.001	0.0006	0.00026
Chalisgaon		1041	1041	600	0.006	0.0044	0.00187
Bhadgaon		50	50	600	0.000	0.0002	0.00009
Pachora		760	760	600	0.005	0.0032	0.00137
Jamner		164	164	600	0.001	0.0007	0.00030
Total District		7609	7609	600	0.046	0.0320	0.01370

4.2 Crop Water Requirement

Jalgaon District Fruits, Vegetables and Spices	Fruit Crops						
	Custard Apple	585	25	280	0.002	0.0011	0.00049
	Pomegranate	1911	120	280	0.005	0.0037	0.00161
	Sweet Orange	677	225	350	0.002	0.0017	0.00071
	Mango	287	105	300	0.001	0.0006	0.00026
	Banana	49280	49280	2200	1.084	0.7589	0.32525
	Guava	1248	755	280	0.003	0.0024	0.00105
	K. Lime	1615	825	350	0.006	0.0040	0.00170
	Papaya	2664	2664	400	0.011	0.0075	0.00320
	Sapota	524	125	300	0.002	0.0011	0.00047
Sub Total	58791	54124	527	1.116	0.7810279	0.334726	
Vegetable Crops							
	Brinjal	739	135	750	0.006	0.0039	0.00166
	Cabbage	1020	355	750	0.008	0.0054	0.00230
	Cauliflower	745	210	750	0.006	0.0039	0.00168
	Okra	1595	438	750	0.012	0.0084	0.00359
	Tomato	532	238	750	0.004	0.0028	0.00120
	Potato	50	50	750	0.000	0.0003	0.00011
	Onion	20000	8000	750	0.150	0.1050	0.04500
	Sub Total	24681	9426	750	0.185	0.130	0.056
Spice Crops							
	Ginger	70	40	750	0.001	0.0004	0.00016
	Turmeric	625	325	750	0.005	0.0033	0.00141
	Chilli	1551	851	750	0.012	0.0081	0.00349
	Sub Total	2246	1216	750	0.017	0.012	0.005
	Grand Total of Horticulture	85718	64766	2027	1.32	0.92	0.40

4.2 Crop Water Requirement

		62936	22687	563	0.93	0.65	0.28
		32952	10023	563	0.45	0.32	0.14
		29824	7617	563	0.17	0.12	0.05
		56224	37348	563	1.24	0.87	0.37
		59681	40788	563	0.95	0.67	0.29
		40661	14490	563	0.45	0.31	0.13
		71643	16981	563	0.48	0.34	0.15
		81565	50061	563	1.34	0.94	0.40
		39352	13555	563	0.47	0.33	0.14
		38106	15727	563	0.32	0.22	0.10
		59610	20957	563	0.45	0.31	0.13
		95000	32778	563	1.57	1.10	0.47
		44890	17723	563	0.45	0.31	0.13
		69837	30291	563	0.83	0.58	0.25
		117928	21654	563	0.88	0.62	0.27
Total District	Horticulture Crops	85718	64766	2027	1.32	0.92	0.40
Grand Total of District		632006	267512	653	12.296	8.607	3.689

4.3 Livestock Water Demand

Sr. No	Block	Total No. of live Stock	Present Water Demand (BCM)	Water Demand in 2020 (BCM)	Existing Water Potential (BCM)	Water Potential to be Created (BCM)
1	Jalgaon	148525	0.0016	0.0028	0.0015	0.0013
2	Bhusawal	94263	0.0010	0.0017	0.0009	0.0008
3	Bodwad	54789	0.0006	0.0010	0.0006	0.0005
4	Yawal	140498	0.0015	0.0026	0.0014	0.0012
5	Raver	141920	0.0016	0.0026	0.0014	0.0012
6	Muktainagar	143328	0.0016	0.0027	0.0014	0.0012
7	Amalner	137744	0.0015	0.0026	0.0014	0.0012
8	Chopada	132323	0.0014	0.0025	0.0013	0.0011
9	Erandol	89400	0.0010	0.0017	0.0009	0.0008
10	Dharangaon	114154	0.0012	0.0021	0.0011	0.0010
11	Parola	115460	0.0013	0.0021	0.0012	0.0010
12	Chalisgaon	297995	0.0033	0.0055	0.0030	0.0025
13	Bhadgaon	105277	0.0012	0.0020	0.0011	0.0009
14	Pachora	165113	0.0018	0.0031	0.0017	0.0014
15	Jamner	207325	0.0023	0.0038	0.0021	0.0018
Total		2088114	0.0229	0.0387	0.0210	0.0177

4.4 Industrial Water Demand

Block	Name of the Industry	Water Demand (BCM)	Water Demand 2020 (BCM)	Existing Water Potential (BCM)	Water Potential to be Created (BCM)
Jalgaon	MIDC	0.00754	0.01137	0.00741	0.00396
Bhusawal	MIDC	0.00503	0.00758	0.00494	0.00264
Bodwad	----	0.00000	0.00000	0.00000	0.00000
Yawal	----	0.00000	0.00000	0.00000	0.00000
Raver	----	0.00000	0.00000	0.00000	0.00000
Muktainagar	----	0.00000	0.00000	0.00000	0.00000
Amalner	MIDC	0.00126	0.00189	0.00123	0.00066
Chopada	----	0.00000	0.00000	0.00000	0.00000
Erandol	MIDC	0.00126	0.00189	0.00123	0.00066
Dharangaon	----	0.00000	0.00000	0.00000	0.00000
Parola	----	0.00000	0.00000	0.00000	0.00000
Chalisgaon	MIDC	0.00503	0.00758	0.00494	0.00264
Bhadgaon	----	0.00000	0.00000	0.00000	0.00000
Pachora	MIDC	0.00251	0.00379	0.00247	0.00132
Jamner	MIDC	0.00251	0.00379	0.00247	0.00132
Total	MIDC	0.02513	0.03789	0.02469	0.01320

4.5 Water Demand for Power Generation

Sr. No.	Block	Power Requirment MW	Water Demand (BCM)	Water Demand in 2020 (BCM)	Existing Water Potential (BCM)	Water Potential to be created (BCM)
1	Jalgaon	----	0.00000	0.00000	0.00000	0.00000
2	Bhusawal	1475	0.00734	0.00750	0.00734	0.00017
3	Bodwad	----	0.00000	0.00000	0.00000	0.00000
4	Yawal	----	0.00000	0.00000	0.00000	0.00000
5	Raver	----	0.00000	0.00000	0.00000	0.00000
6	Muktainagar	----	0.00000	0.00000	0.00000	0.00000
7	Amalner	----	0.00000	0.00000	0.00000	0.00000
8	Chopada	----	0.00000	0.00000	0.00000	0.00000
9	Erandol	----	0.00000	0.00000	0.00000	0.00000
10	Dharangaon	----	0.00000	0.00000	0.00000	0.00000
11	Parola	----	0.00000	0.00000	0.00000	0.00000
12	Chalisgaon	----	0.00000	0.00000	0.00000	0.00000
13	Bhadgaon	----	0.00000	0.00000	0.00000	0.00000
14	Pachora	----	0.00000	0.00000	0.00000	0.00000
15	Jamner	----	0.00000	0.00000	0.00000	0.00000
Total		1475	0.00734	0.00750	0.00734	0.00017

4.6 Total Demand of the District for Various Sectors

Sr. No.	Block	Components					Total (BCM)
		Domestic	Crop	Livestock	Industrial	Power Generation	
1	Jalgaon	0.0358	1.0132	0.0016	0.0075	0.0000	1.0582
2	Bhusawal	0.0173	0.5381	0.0010	0.0050	0.0073	0.5688
3	Bodwad	0.0049	0.2574	0.0006	0.0000	0.0000	0.2629
4	Yawal	0.0149	1.0666	0.0015	0.0000	0.0000	1.0831
5	Raver	0.0166	1.0398	0.0016	0.0000	0.0000	1.0579
6	Muktainagar	0.0087	0.5354	0.0016	0.0000	0.0000	0.5457
7	Amalner	0.0153	0.5723	0.0015	0.0013	0.0000	0.5903
8	Chopada	0.0166	1.4245	0.0014	0.0000	0.0000	1.4426
9	Erandol	0.0089	0.5591	0.0010	0.0013	0.0000	0.5702
10	Dharangaon	0.0092	0.4085	0.0012	0.0000	0.0000	0.4190
11	Parola	0.0104	0.5356	0.0013	0.0000	0.0000	0.5473
12	Chalisgaon	0.0214	1.6571	0.0033	0.0050	0.0000	1.6868
13	Bhadgaon	0.0086	0.5967	0.0012	0.0000	0.0000	0.6065
14	Pachora	0.0153	0.9192	0.0018	0.0025	0.0000	0.9389
15	Jamner	0.0185	0.9723	0.0023	0.0025	0.0000	0.9956
Total		0.2224	12.0960	0.0229	0.0251	0.0073	12.3737

Water Budget of Jalgaon district-

Accordingly block wise water budget of Jalgaon district is prepared and is illustrated in table no. 4.7.

4.7 Water Budget

Name of the Block	Existing Water Availability (BCM)		Total (BCM)	Water Demand (BCM)		Water Gap (BCM)	
	Surface Water	Ground Water		Present	Projected 2020	Present	Projected 2020
Jalgaon	0.6111	0.0725	0.6836	1.0582	1.1189	-0.3746	-0.4353
Bhusawal	0.2416	0.0711	0.3127	0.5688	0.5987	-0.2561	-0.2859
Bodwad	0.0984	0.0516	0.1501	0.2629	0.2741	-0.1128	-0.1240
Yawal	0.8181	0.1625	0.9806	1.0831	1.1813	-0.1025	-0.2007
Raver	0.7907	0.1856	0.9763	1.0579	1.1186	-0.0816	-0.1423
Muktainagar	0.3767	0.0711	0.4478	0.5457	0.5749	-0.0979	-0.1271
Amalner	0.3844	0.1409	0.5253	0.5903	0.6223	-0.0650	-0.0970
Chopada	0.7842	0.1536	0.9378	1.4426	1.5269	-0.5048	-0.5891
Erandol	0.2896	0.0716	0.3612	0.5702	0.6005	-0.2091	-0.2393
Dharangaon	0.2791	0.0683	0.3474	0.4190	0.4402	-0.0716	-0.0928
Parola	0.4476	0.1121	0.5597	0.5473	0.5765	0.0124	-0.0167
Chalisgaon	0.7269	0.1829	0.9098	1.6868	1.7870	-0.7771	-0.8773
Bhadgaon	0.4339	0.1216	0.5555	0.6065	0.6755	-0.0510	-0.1200
Pachora	0.5917	0.1191	0.7107	0.9389	0.9923	-0.2281	-0.2816
Jamner	0.5104	0.1490	0.6594	0.9956	1.0529	-0.3362	-0.3935
Total	7.3844	1.7334	9.1178	12.374	13.1404	-3.2559	-4.0226

Table 4.7 shows that net ground water available from rainfall recharge as well as recharge from water impounding structures in Jalgaon district which is calculated by using GEC-1997 norms by computing assessment of dynamic ground water resources of the Maharashtra 2011-12

(Ref - Ground Water Assessment Report 2011-12)

Strategic Action Plan-

For narrowing the gap between water requirement and water availability in the Jalgaon district integrated approach through soil and water conservation works and use of micro-irrigation techniques is needed. Accordingly block wise strategic action plan is prepared and is shown in table no 5.0.

Irrigation Planning of Jalgaon District of Maharashtra State (India)

Strategic Action Plan For Irrigation in District – Jalgaon

Sr. No	Concerned Ministry/ Department	Component	Activity	Total Number/Capacity	Command Area/Irrigation Potential(Ha)	Period of Implementation (5/7 yrs)	2017-18	2018-19	2019-20	2020-21	2021-22	Estimated Cost(In Rs. Crore)
1	MoWR	AIBP	Major Irrigation	7	218485	5	1398.36	1466.26	1494.54	1532.6	1577.18	7468.94
2	MoWR		Medium Irrigation	11	40395	5	314.2	332.58	346.88	350.36	352.41	1696.43
3	MoWR		Surface Minor irrigation	4	2068	5	7.125	7.235	7.496	7.736	7.988	37.58
4	MoWR		Lift Irrigation	482	4820	5	0.412	0.456	0.461	0.467	0.498	2.294
5	MoWR		Ground water development	295	0	5	31.878	31.95	32.22	32.96	33.42	162.428
6	MoWR		RRR of water Bodies	108	1080	5	0.0401	0.0416	0.043	0.045	0.0463	0.216
7	MoWR		Construction of Field channels									
7.1	MoWR		Lined Field Channels	22	110	5	2.29	2.42	2.53	2.64	2.72	12.6
7.2	MoWR		Unlined Channels	0	0	5	0	0	0	0	0	0
8	MoWR		Micro-Irrigation	0	0	5	0	0	0	0	0	0
9	MoA & FW-DAC & FW	Per Drop More Crop (Micro Irrigation)	DPAP Drip	112748	112748	5	98.24	99.12	99.31	99.47	99.9512	496.0912
10	MoA & FW-DAC & FW		DPAP Sprinkler	372	372	5	0.17	0.178	0.189	0.194	0.199	0.93
11	MoA & FW-DAC & FW		Non- DPAP Drip	48909	48909	5	42.2096	42.84	43.12	43.48	43.55	215.1996
12	MoA & FW-DAC & FW		Non- DPAP Sprinkler	306	306	5	0.145	0.149	0.152	0.157	0.162	0.765
				162335	162335	20	140.7646	142.287	142.771	143.301	143.8622	712.9858
13	MoA & FW-DAC & FW	Per Drop More Crop (Supplementary Water Management Activities)	Topping Up of MGNREGA	616	30800	5	90	114	126	136	150	616
14	MoA & FW-DAC & FW		Drought Proofing through Check Dams/ Water Harvesting Structures	144	3662.41	5	15	22	32	35	40	144
15	MoA & FW-DAC & FW		Secondary Storage Structures	0	0	5	0	0	0	0	0	0
16	MoA & FW-DAC & FW		On Farm Development	526000	526000	5	1.533	1.563	1.583	1.599	1.612	7.89

Irrigation Planning of Jalgaon District of Maharashtra State (India)

Sr. No	Concerned Ministry/ Department	Component	Activity	Total Number/Capacity	Command Area/Irrigation Potential(Ha)	Period of Implementation (5/7 yrs)	2017-18	2018-19	2019-20	2020-21	2021-22	Estimated Cost(In Rs. Crore)
			(distribution pipe/ raised bed & furrow system)									
17	Newly created WHS											
17.1	DoLR-MoRD	PMKSY Watershed	Farm Ponds	5756	25268.88	5	36.14	37.2	37.84	38.13	38.5	187.81
17.2	DoLR-MoRD		Check Dams	0	0	5	0	0	0	0	0	0
17.3	DoLR-MoRD		Mati Nala Bund	373	5772	5	3.69	3.8	3.855	3.94	3.98	19.265
17.4	DoLR-MoRD		Cement Nala Bund	1119	28460.1	5	18.64	18.75	18.84	18.94	19.08	94.25
17.5	DoLR-MoRD		Compartment Bunding	74371	66933.9	5	86.56	87.95	88.23	89.96	91.949	444.649
17.6	DoLR-MoRD		Deep CCT	587	1311.2	5	37.95	38.25	38.43	40.24	41.557	196.427
17.7	DoLR-MoRD		Percolation Tanks	172	36020	5	38.66	39.32	39.94	40.61	41.87	200.4
17.8	DoLR-MoRD		Other Ground Water Recharge structures	2858	0	5	8.02	8.29	8.56	8.82	9.03	42.72
17.9	DoLR-MoRD		Fishery Ponds/ Cattle Ponds	0	0	5	0	0	0	0	0	0
18	Renovated WHS											
18.1	DoLR-MoRD	PMKSY Watershed	Farm Ponds	0	0	5	0	0	0	0	0	0
18.2	DoLR-MoRD		Check Dams	0	0	5	0	0	0	0	0	0
18.3	DoLR-MoRD		Nala Bund	3776	134112	5	22.56	22.8	23.05	23.26	23.39	115.06
18.4	DoLR-MoRD		Percolation Tanks	94	348	5	0.142	0.149	0.15	0.162	0.167	0.77
18.5	DoLR-MoRD		Other Ground Water Recharge structures	1951	0	5	4.37	4.56	4.72	4.84	4.906	23.396
18.5A	DoLR-MoRD		Excluding NRM activities	55.652	0	5	10.86	11.022	11.17	11.27	11.33	55.652
18.6	DoLR-MoRD		Fishery Ponds/ Cattle Ponds	0	0	5	0	0	0	0	0	0
19	Newly created											
19.1	DoRD-MoRD	Convergence with MGNREGA	Water Conservation - well digging	2774	13870	5	15.93	16.28	16.36	16.94	17.71	83.22
19.2	DoRD-MoRD		Water harvesting- well recharge	3307	3307	5	3.16	3.25	3.33	3.38	3.415	16.535
19.3	DoRD-MoRD		Creation of Irrigation Canals	176	704	5	1.14	1.21	1.28	1.35	1.42	6.4

Irrigation Planning of Jalgaon District of Maharashtra State (India)

Sr. No	Concerned Ministry/ Department	Component	Activity	Total Number/Capacity	Command Area/Irrigation Potential(Ha)	Period of Implementation (5/7 yrs)	2017-18	2018-19	2019-20	2020-21	2021-22	Estimated Cost(In Rs. Crore)
			and Drains									
19.4	DoRD-MoRD		Providing Infrastructure for Irrigation	0	0	5	0	0	0	0	0	0
19.5	DoRD-MoRD		Land Development	0	0	5	0	0	0	0	0	0
20	Renovation											
20.1	DoRD-MoRD	Convergence with MGNREGA	Renovation of water bodies including desilting	459	4590	5	0.619	0.661	0.692	0.706	0.717	3.395
20.2	DoRD-MoRD		Renovation and Maintenance of Irrigation Canals & Drains	209	418	5	0.329	0.347	0.367	0.372	0.38	1.795
21	State Planned Scheme of Irrigation											
21.1	State Irrigation Department	AIBP	Major Irrigation	0	0	0	0	0	0	0	0	0
21.2	State Irrigation Department		Medium Irrigation	0	0	0	0	0	0	0	0	0
21.3	State Irrigation Department		Surface Minor Irrigation	0	0	0	0	0	0	0	0	0
22	Irrigation Scheme of State Department	-	-	162335	162335	5	93.84	94.85387	95.19	95.53	95.91	475.32387
23	Irrigation Scheme of other line departments of State Govts	-	-	0	0	0	0	0	0	0	0	0
24	Externally aided projects	-	-	0	0	0	0	0	0	0	0	0
25	Other loan projects like NABARD	-	-	0	0	0	0	0	0	0	0	0
Total				1473205.49	5	2384.213	2509.4855	2578.53	2641.16	2715.048	12828.4317	
