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JALGAON DISTRICT

CONTINGENT CROP PLANNING AND AGRO ADVISORY

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2017

STATE: MAHARASHTRA

Agriculture Contingency Plan for District: JALGAON

1.0	District Agriculture profile District agriculture profile				
1.1	**Agro-Climatic/Ecological Zone**				
	Agro Ecological Sub Region (ICAR)	Deccan plateau, semi-arid eco-region (6.3) Western Maharashtra plateau, moist semi-arid eco- subregion			
	Agro-Climatic Zone (Planning Commission)	Western Plateau and Hills Region (IX)			
	Agro Climatic Zone (NARP)	Western Maharashtra Scarcity Zone (MH-6)			
	List all the districts or part thereof falling under the NARP Zone	Jalgaon, Ahmednagar, Sangli, Dhule			
	Geographic coordinates of district headquarters	Latitude	Longitude	Altitude	
		$21^0$00′10" N	$75^0$33′57"E	227m (744ft) MSL	
	Name and address of the concerned ZRS/ ZARS/ RARS/ RRS/ RRTTS	Oilseeds Research Station, MPKV,Jalgaon -425 001 Phone-(0) 0257 2250888,2200464 Fax 2253228, e- mail- orsjalgaon@gmail.com,oilseedjalgaon.mpkv@gov.in			
	Mention the KVK located in the district	1. Krishi Vignyan Kendra, Mamurabad Farm, Jalgaon-425001 2. Krishi Vignyan Kendra, Pal, Tal- Raver, Dist- Jalgaon.			
1.2	**Rainfall (2012-16)**	Normal RF(mm)	Normal Rainy days	Normal Onset	Normal Cessation
	SW monsoon (June-Sep):	684.94	37	2nd week of June	3rd week of Oct
	NE Monsoon(Oct-Dec):	36.12	3		
	Winter (Jan- Feb)	33.22	3	-	-
	Summer (March -May)	3.54	1	-	-
	Annual	757.82	44	-	-

1.3	**Land use pattern of the district**	Geographical area	Cultivable area	Forest area	Land under non-agricultural use	Permanent Pastures	Cultivable wasteland	Land under Misc. tree crops and groves	Barren and uncultivable land	Current fallows	Other fallows
	Area ('000 ha)	1164	873	155.9*	16.2	38.7	6.3	2.8	80.4	9.6	4.9

Source: Land Utilization Statistics LUS, 2011-12, Dept. of Agriculture, Govt. of Maharashtra. (- 13.25% of total geographic area)

1. 4	**Major Soils**	**Area ('000 ha)**
	Shallow soils	349.1
	Medium deep black soils	289.8
	Deep black soils	213.5

Source: NBSS & LUP, Nagpur)

1.5	**Agricultural land use**	Area ('000 ha)	Cropping intensity %
	Net sown area	849	137.10
	Area sown more than once	315	
	Gross cropped area	1164	

(Source: Land Utilization Statistics LUS, 2011-12, Dept. of Agriculture, Govt. of Maharashtra.)

1.6	**Irrigation**	Area ('000 ha)		
	Net irrigated area	213		
	Gross irrigated area	295		
	Rainfed area	717		
	Sources of Irrigation	Number	Area ('000 ha)	Percentage of total irrigated area
	Canals	--	5.1	2.3
	Tanks	-	--	--
	Open well	61449	214.3	97.6
	Bore well			
	Lift irrigation schemes		5.8	
	Micro-irrigation			
	Other sources (please specify)			
	Total Irrigated Area		219.35	
	Pump sets	34000		
	No. of Tractors	6000		
	Groundwater availability and use*	No. of blocks/ Tehsils	(%) area	Quality of water (specify the problem such as high levels of arsenic, fluoride, saline etc)
	Over exploited			
	Critical			
	Semi- critical			
	Safe			
	Wastewater availability and use			
	Ground water quality	Good		

* Source - Agricultural Statistical Data 2016-17, DSAO, Jalgaon,

1.7 Area under major field crops & horticulture etc. (2016-17)

1.7	Major field crops cultivated	Area ('000 ha)							
		Kharif			*Rabi*			Summer	Total
		Irrigated	Rainfed	Total	Irrigated	Rainfed	Total	Irrigated	
	Cotton	-	444.58	444.58					444.58
	Sorghum	-	52.22	52.22	25.18	-	25.18		77.40
	Maize	-	98.61	98.61	54.19		54.19	17.57	170.37
	Bajra		17.46	17.46	-	-	-	4.73	22.19
	Pigeonpea		21.95	21.95	-	-	-	-	21.95
	Black gram		36.25	36.25					36.25
	Mungbean		37.55	37.55		-	-	-	37.55
	Soybean		30.43	30.43					30.43
	Sesamum		3.5	3.5		L	-	-	3.5
	Groundnut		2.97	2.97				1.5	4.47
	Wheat				42.82	-	42.82		42.82
	Chickpea						56.23		56.23
	Other crops		8.27	8.27	2.43		2.43	0	11.00
	Horticulture crops - Fruits	**Total area**			**Irrigated**			**Rainfed**	
	Banana	46.0			46.0			-	
	Acid lime	3.5			3.5			-	
	Sweet orange	2.5			2.5			-	
	Guava	1.5			1.5			-	
	Horticultural crops -	**Total area**			**Irrigated**			**Rainfed**	
	Vegetables	-			-			-	
	Medicinal and Aromatic crops	**Total area**			**Irrigated**			**Rainfed**	
	NA	NA			NA				
	Plantation crops	**Total area**			**Irrigated**			**Rainfed**	
	NA	NA			NA			NA	
	Fodder crops	**Total area**			**Irrigated**			**Rainfed**	
		NA			NA			NA	

* Source - Agricultural Statistical Data 2016-17, DSAO, Jalgaon

1.8	**Livestock**	**Male ('000)**	**Female ('000)**	**Total ('000)**
	Non descriptive Cattle (local low yielding)	288.2	198.5	486.7
	Crossbred cattle	21.5	46.2	67.7
	Non descriptive Buffaloes (local low yielding)	0	0	0
	Graded Buffaloes	0	0	0
	Goat	101.3	319.7	421.0
	Sheep	10.1	20.3	30.5
	Others (Camel, Pig, Yak etc.)			
	Commercial dairy farms (Number)			

1.9	**Poultry**	**No. of farms**	**Total No. of birds ('000)**
	Commercial	13	84.8
	Backyard	0	248.1

1.10 Fisheries (Data source: Chief Planning Officer)

A. Capture

i) Marine (Data Source: Fisheries Department)	**No. of fishermen**	**Boats**		**Nets**		**Storage facilities (Ice plants etc.)**
		Mechanized	Non-mechanized	Mechanized (Trawl nets, Gill nets)	Non-mechanized (Shore Seines, Stake & trap nets)	
	NA	NA	NA	NA	NA	NA

ii) Inland (Data Source: Fisheries Department)	**No. Farmer owned ponds**	**No. of Reservoirs**	**No. of village tanks**
	0	**116**	**6**

B. Culture

	Water Spread Area (ha)	**Yield (t/ha)**	**Production (tons)**
i) **Brackish water** (Data Source: MPEDA/ Fisheries Department)			
ii) **Fresh water** (Data Source: Fisheries Department)	15090	0.296	4470
Others			

* Source - Agricultural Statistical Data 2016-17, DSAO, Jalgaon

1.11 Production and Productivity of major crops (Average of last 5 years: 2012-13, 13-14,14-15,15-16 & 16-17)

1.11	Name of crop	*Kharif*		*Rabi*		Summer		Total		Crop residue as fodder ('000 tons)
		Production ('000 t)	Productivity (kg/ha)	Production ('000 t)	Productivity (kg/ha)	Production ('000 t)	Productivity (kg/ha)	Production ('000 t)	Productivity (kg/ha)	
Major field crops (Crops to be identified based on total acreage)										
	Sorghum	120.06	2028	46.60	1650	-	-	166.66	1839	
	Maize	382.62	2835	143.41	2300	36.23	1850	562.26	2328	
	Bajra	284.35	1628	-	-	5.19	950	289.54	1289	
	Cotton	224.072	420	-	-	-	-	224.072	420	
	Pigeonpea	236.57	777	-	-	-	-	236.57	777	
	Black gram	25.01	560	-	-	-	-	25.01	560	
	Mungbean	24.11	461	-	-	-	-	24.11	461	
	Soybean	53.71	1709	-	-	-	-	53.71	1709	
	Groundnut	3.47	877	-	-	2.41	1350	5.88	1114	
	Sesamum	1.35	349	-	-	-	-	1.35	349	
	Wheat	-	-	22.98	1196	-	-	22.98	1196	
	Chickpea	-	-	53.42	700	-	-	53.42	700	
Major horticultural crops (Crops to be identified based on total acreage)										
	Banana							35.01	76000	
	Acid lime							24.2	7000	
	Sweet orange							34.4	14000	
	Guava							20.8	14000	

* Source - Agricultural Statistical Data 2016-17, DSAO, Jalgaon,

1.12	**Sowing window for 5 major field crops**	Cotton	Maize	Groundnut	Sesamum	Sorghum	Greengram and Blackgram	Soybean	Pigeonpea
	Kharif- Rainfed	2rd week of June to 2nd week of July	--	2nd week of June to 2nd week of July	2nd week of June to 2nd week of July	3rd week of June to 2nd week of July	3rd week of June to 2nd week of July	3rd week of June to 2nd week of July	3rd week of June to 2nd week of July
	Kharif-Irrigated	3rd week of May to End of May	2ndrd week of June to 1st week of July	2nd week of June to 2nd week of July	-		-	-	
	Rabi- Rainfed	-		-		3rd week of Sept. to 1st week of October	-	-	
	Rabi-Irrigated	-	3rd week of October to Mid of November	-		-	-	-	
	Summer- irrigated	-		3rd week of January to Mid of February.		-	-	-	

1.13	**What is the major contingency the district is prone to?**	Regular	Occasional	None
	Drought	-	√	-
	Flood	-	√	-
	Cyclone	-	√	-
	Hail storm	-	√	-
	Heat wave	-	√	-
	Cold wave	-	√	-
	Frost	-	-	√
	Sea water intrusion	-	-	√
	Pests and disease outbreak (specify)	-	√	-

1.14	**Include digital maps of the district for**	Location map of district within State as Annexure I	Enclosed: Yes
		Mean annual rainfall as Annexure 2	Enclosed: Yes
		Soil map as Annexure 3	Enclosed: Yes

2.0 Strategies for weather related contingencies

2.1 Drought

2.1.1 Rainfed situation

Condition	Suggested contingency measures				
Early season drought (delayed onset)	**Major farming situation**	**Normal crop / cropping system**	**Change in crop / cropping system including variety**	**Agronomic measures**	**Remarks on Implementation**
Delay by 2 weeks June 4th week	Shallow soil	Pearl millet	Adishakti, Dhanshakti	• Conservation furrow after every 12th row,	
		Mothbean	MBS-27	• Conservation furrow after every 12th row	
	Medium soils	Deshi cotton	Y-1, Phule JLA-794, JLA-505	• Opening of furrows for moisture conservation in between two rows	Linkages with central campus MPKV, Rahuri, College of Agril., Pune and Dhule • NSC, MSSC Private co. Distributers
		Sorghum	CSH- 14, 16, 17, 18, 23, 25, 27, 30, Phule Revati & Phule Vasundhara	• Hoeing at 25 DAS	
		Black gram	TPU-4, TAU-1, AKU 15	• Hoeing at 25 DAS, weeding	
		Pigeonpea	Vipula, BSMR-736, BSMR-853, BDN 711	• Application of Pendamithlin as • pre- emergence weedicide	
		Sesamum	PT-1,JLT-7,JLT -408	• Conservation furrow after every 12th row, • Thinning before 20th DAS	
		Soybean	JS-335, JS-9305	• Conservation furrow after every 6th row,	
		Groundnut	Jl-24, Jl-501, Jl-286 & JL-776 (Phule Bharati)	• Hoeing at 20 DAS, Weeding	
		Green gram	Vaibhav	• As above	
	Deep soils	Cotton	Bt cotton	• Opening of furrows for moisture conservation in between two rows • Drip irrigation	
		Maize	Rajarshi, Maharshi, Phule Madhu	• As above	

Condition	Suggested Contingency measures				
Early season drought (delayed onset)	**Major farming situation**	**Normal crop/ cropping system**	**Change in crop/cropping system**	**Agronomic measures**	**Remarks on Implementation**
Delay by 4 weeks July 2 nd week	Shallow soils	Pearl millet	Adishakti, Dhanshakt	• Hoeing at 25 DAS	
	Medium soils	Desi cotton	Desi cotton (Y-1, Phule JLA -795) + pigeonpea (Vipula)(6:1) Desi cotton(Y-1, JLA-505) + Green gram (Vaibhav)/Black gram (TAU-1 & TPU-4) (1:1)	• Hoeing at 20,40 and 60 DAS • Opening of conservation furrow after harvest of intercrop	Linkages with central campus MPKV, Rahuri, College of Agril., Pune and Dhule • NSC, MSSC Private co. Distributers
		Blackgram	• Pigeonpea (Vipula)+ Black gram(TPU-1,4) (1:3)	• Hoeing at 25 DAS • Opening of conservation furrow after harvest of Blackgram	
		Groundnut	Groundnut (Jl-24,Jl-501,Jl-286)+ green gram(Vaibhav)/Black gram (TPU-1,4) (6:2)	• Hoeing at 15 and 30 DAS	
		Sorghum	Sorghum(CSH-14,16,17,18,23,25,27,30, Phule Revati & Phule Vasundhara) + Green gram (Vaibhav) /Black gram (TAU-1 & TPU-4)/ Cowpea for fodder : Shweta (2:1)	• Hoeing at 25 DAS,	
		Sesamum	Maize (Rajarshi) , pearl millet (Adishakti, Dhanshakti)	• , Thinning before 20th DAS\ • Hoeing at 25 DAS,Weeding • Application of IInd dose of Urea @54 kg/ha	
		Green gram	Pearl millet(Adishakti, Dhanshakti) + Green gram(Vaibhav) (6:3)	• Hoeing at 30 DAS,Weeding	
	Deep soils	Cotton	Bt Cotton	• Opening of furrows for moisture conservation in between two rows • Drip irrigation	

Condition	Suggested contingency measures				
Early season drought (delayed onset)	**Major farming situation**	**Normal crop/ cropping system**	**Change in crop/cropping system**	**Agronomic measures**	**Remarks on Implementation**
Delay by 6 weeks July 4th Week	Shallow Soil	Pearl millet	Adishakti, Dhanshakti		
	Medium soils	Cotton	Pigeonpea (Vipula)	• Opening of furrows for moisture conservation in between two rows • Drip irrigation, • Paired row planting 90 cm between two rows and 180 cm between two paired rows	Linkages with central campus MPKV, Rahuri, College of Agril., Pune and Dhule • NSC, MSSC Private co. Distributers
		Sorghum	Maize(Rajarshi Maharshi, Phule Madhu)	• Sowing on ridges	
		Black gram	Pearl millet(Adishakti, Dhanshakti)	• Hoeing at 25 DAS	
		Sesamum	Maize(Rajarshi, Maharshi, Phule Madhu)	• Sowing on ridges	
		Green gram	Maize(Rajarshi, Maharshi, Phule Madhu))	• Sowing on ridges	
		Groundnut	Pearl millet(Adishakti, Dhanshakti)	•	
	Deep soils	Bt cotton	Pigeon pea (Vipula, BSMR-736, BSMR-853, BDN 711, BDN-716)	• Opening of furrows for moisture conservation in between two rows • Drip irrigation, • Paired row planting 90 cm between two rows and 180 cm between two paired rows	

Condition			Suggested Contingency measures		
Early season drought (delayed onset)	**Major farming situation**	**Normal crop/ cropping system**	**Change in crop/cropping system**	**Agronomic measures**	**Remarks on Implementation**
Delay by 8 week 2nd week of August	Medium soils	Cotton	Maize (Rajarshi, Maharshi, Phule Madhu)	• Sowing on ridges & furrows	Linkages with central campus MPKV, Rahuri, College of Agril., Pune and Dhule • NSC, MSSC Private co. Distributers
		Sorghum	Fodder maize (African tall) / sorghum (Phule Amrita)	• Fodder maize and / sorghum	
		Maize	Pearl millet(Adishakti, Dhanshakti)	• Hoeing at 25 DAS	
		Black gram	Onion (Phule samartha, AFDR,Bhimakiran)	• Sowing / planting on ridges & furrows for sprinkler / Drip method of irrigation	
		Pearl millet	Pearl millet(Adishakti, Dhanshakti)	• Hoeing at 25 DAS	
		Soybean	Sunflower (SS-56, Bhanu,Phule Raviraj, Phule Bhaskar)	• Opening of conservation furrows	
		Groundnut	Onion (Phule samartha, AFDR,Bhimakiran)	• Sowing / planting on ridges & furrows for sprinkler / Drip method of irrigation	
		Green gram	Onion (Phule samartha, AFDR,Bhimakiran)	• As above	
		Sesamum	Onion (Phule samartha, AFDR,Bhimakiran)	• As above	
	Deep black soils	Deshi cotton	Maize (Rajarshi, Maharshi, Phule Madhu)	• Sowing on ridges & furrows	

Condition	Suggested contingency measures				
Early season drought (Normal onset)	**Major farming situation**	**Normal crop/cropping system**	**Crop management**	**Soil nutrient and moisture conservation measures**	**Remarks on Implementation**
Normal onset followed by 15-20 days dry spell after sowing leading the poor germination / crop stand	Shallow Soil				
	Medium soils	Cotton	Use of root trainer for gap filling if needed	• Opening of furrows for moisture conservation in between two rows, Drip irrigation	Linkages with central campus MPKV, Rahuri, College of Agril., Pune and Dhule • NSC, MSSC Private co. Distributers
		Sorghum	Re sowing in case of poor germination, Thinning and weeding	• Hoeing • Weeding	
		Pearlmillet			
		Groundnut			
		Green gram			
		Sesamum			
		Black gram	--		
	Deep soils	Bt cotton	Gap filling	• Hoeing • Weeding	

Condition	Suggested contingency measures				
Mid season drought , long dry spell, consecutive 2 weeks, rainless (>2.5 mm)period	**Major farming situation**	**Normal crop/cropping system**	**Crop management**	**Soil nutrient and moisture conservation measures**	**Remarks on Implementation**
At vegetative stage	Shallow Soil	-	-	-	
	Medium black soils,	Cotton	• Protective irrigation, • Urea (2%) spray • DAP (2%) spray	• Opening of furrows for moisture conservation in between two rows • Drip irrigation, • 8% Kaolin Spray, hoeing	Linkages with central campus MPKV, Rahuri, College of Agril., Pune and Dhule • NSC, MSSC Private co. Distributers
		Sorghum	• Protective irrigation, • Reduce plant population (30%) and apply as mulch • Urea (2%) spray • DAP (2%) spray	• Hoeing	
		Blackgram	-	• As above	
		Pearlmillet	Remove every third row and used for fodder	• Hoeing	
		Groundnut	--	• As above	
		Green gram	--	• As above	
		Sesamum	-	• Opening of furrows for moisture conservation in between two rows	
	Deep black soils	Bt cotton	• Protective irrigation, • Urea (2%) spray • DAP (2%) spray	• Opening of furrows for moisture conservation in between two rows • Drip irrigation, • 8% Kaolin Spray, hoeing	

Condition	Suggested contingency measures				
Mid season drought long dry spell, consecutive 2 weeks, rainless (>2.5 mm)period	**Major farming situation**	**Normal crop/ cropping system**	**Crop management**	**Soil nutrient and moisture conservation measures**	**Remarks on Implementation**
At flowering / fruiting stage	Shallow Soil		•		
	Medium soils	Cotton	• Protective irrigation, • Urea (2%) spray • DAP (2%) spray • Topping	• Opening of furrows for moisture conservation in between two rows • Drip irrigation, • 8% Kaolin Spray, hoeing	Use of farm ponds for life saving irrigation
		Sorghum	Protective irrigation if possible	--	
		Black gram	Protective irrigation if possible	--	
		Pearl millet	Protective irrigation if possible	--	
		Groundnut	Protective irrigation if possible	--	
		Green gram	Protective irrigation if possible	--	
		Sesamum	Protective irrigation if possible	--	
	Deep soils	Cotton	• Protective irrigation, • Urea (2%) spray • DAP (2%) spray Topping	• Opening of furrows for moisture conservation in between two rows • Drip irrigation, • 8% Kaolin Spray, hoeing	

Condition	Suggested contingency measures				
Terminal drought (Early withdrawal of monsoon)	**Major Farming situation**	**Normal Crop /cropping system**	**Crop management**	**Rabi Crop planning**	**Remarks on Implementation**
	Shallow soil	Pearlmillet	Protective irrigation, In case of poor grain filling harvest for fodder	As above	
	Medium soils	Cotton	Protective irrigation	Rabi sorghum, chickpea	Use of farm ponds for life saving irrigation
		Sorghum	Protective irrigation, In case of poor grain filling harvest for fodder	As above	
		Black gram	harvest at physiological maturity	As above	
		Groundnut	harvest at physiological maturity	As above	
		Green gram	harvest at physiological maturity	As above	
		Sesamum	harvest at physiological maturity	As above	
	Deep soils	Cotton	Protective irrigation	As above	As above

2.1.2 Irrigated situation

Condition			Suggested contingency measures		
Delayed release of water in canals due to low rainfall	**Major farming situation**	**Normal crop/ cropping system**	**Crop management**	**Agronomic measures**	**Remarks on Implementation**
	Not applicable				
Limited release of water in canals due to low rainfall Condition	Not applicable				
Non release of water in canals under delayed onset of monsoon in catchment area					
	Not applicable				
Lack of inflows into tanks due to insufficient /delayed onset of monsoon	Not applicable				

Condition			Suggested Contingency measures		
Insufficient ground water recharge due to low rainfall	**Major farming situation**	**Normal crop/ cropping system**	**Change in crop/cropping system**	**Agronomic measures**	**Remarks on Implementation**
	Medium soils- Open well irrigated	Cotton	Bt.cotton/ pearlmillet(Adishakti, Dhanshakti, Shraddha, Saburi, Shanti) / pigeonpea (Vipula) /Sunflower (SS-56, Bhanu, Phule Raviraj, Phule Bhaskar)	In case of Bt cotton Drip irrigation,Skip row irrigation, Hoeing. In case of Pigeonpea,Pearlmillet and Sunflower - Hoeing, irrigation at critical growth stages	**Seed source :** Central campus MPKV, Rahuri, College of Agril., Pune ,Kolhapur and Dhule • NSC, MSSC Private co. Distributers
		Maize	Rajarshi, Maharshi, Phule Madhu	Sowing on ridges , Skip row irrigation,	
		Soybean	Phule Agrani, JS-335, DS-228	Hoeing at 25 DAS	
	Deep black soils- Open well irrigated	Deshi cotton	Cotton (Y-1, Phule JLA-794 & JLA-505)	In case of Bt cotton Drip irrigation,Skip row irrigation, hoeing	
		Chickpea	Vijay, Digvijay, Phule Vikram	Sprinkler irrigation	

2.2 Unusual rains (untimely, unseasonal etc) (for both rainfed and irrigated situations)

Condition	Suggested contingency measure			
Continuous high rainfall in a short span leading to water logging	**Vegetative stage**	**Flowering stage**	**Crop maturity stage**	**Post harvest**
Cotton	Drain out excess water	Drain out excess water, NAA spray, drenching of 1.5% Urea + 1.5 % MOP	Harvest at physiological maturity	Shift the produce to safer place
Sorghum	As above	Drain out excess water	As above	As above
Maize	As above	As above	As above	As above
Black gram	As above	As above	As above	As above
Sesamum/Groundnut	As above	As above	As above	As above
Pigeonpea	As above	As above	As above	As above
Horticulture				
Banana	Drain out excess water, preventive spray of fungicides (, 0.2% mancozeb or 0.1% Carbendenzim)	Drain out excess water, preventive spray of fungicides (0. 25 % COC , 0.2% mancozeb)	Drain out excess water, preventive spray of fungicides (0. 25 % COC , 0.2% mancozeb)	Shift the produce to safer place
Acid lime	As above	As above	As above	
Sweet orange	As above	As above	As above	
Heavy rainfall with high speed winds in a short span				
NA				

Outbreak/ Incidence of pests and diseases due to unseasonal rains	Vegetative stage	Flowering stage	Crop maturity stage	Post harvest
Cotton	**Insect pest :-**Aphids,Jassids,Thrips **Spray** NSKE @ 5%,Dimethoate 1.5 ml/l, Imidacloprid 0.5ml/lit, Thiamethaxam 0.4 g/lit alternating spray, use crysopa eggs @ 50,000 per ha	**Insect pest :-**Boll worm Use Bt Cotton, Spray HNPV, use IPM Technology given in MPKV (Krishi Darshani Diary) university diary- 2017 **Disease:-** Alternaria leaf blight Spray COC (0.25%), Reddening-2% DAP spray **Para wilt:-**Timely irrigation , Drenching of 1.5% Urea+ 1.5% MOP followed by 2% DAP drenching after 15 days	**Insect pest :-** **White fly:** Spray Acetamiprid 4 g / 10 lit, water, Dimethoate 2 ml/ lit water **Pink Bollworm:-** USE IPM Technology. Spray Lambda-Cyholothrin @ 8 ml + 10 lit of water.	
Sorghum	**Insect pest :-**Shootfly /Stem borer Chlorpyriphos 20 EC 2 ml / lit water	**Insect pest :-** Army worm Quinalphos 1.5 % or spraying **Disease :-** Leaf Blight , spray of COC 3 g/ lit water	**Insect pest :-**Ear head caterpillar Chlorpyriphos or Quinalphos @ 20 ml + 10 lit water	
Maize	**Insect pest :-**Aphid, Jassids spray Dimethoate 30EC or Monocrotophos 36 SL 1ml / lit water. Shootfly - Spray Dimethoate 1.5 ml / lit	**Insect pest :-**Stem Borer Chlorpyriphos 20 EC 1000 ml + 500 lit of water	**Insect pest :-** Cob worm Use trichocards @ 5 per ha.	
Black gram/ Green gram	**Insect pest :-** white fly, Thrips, Aphid, Jassids, spray Dimethoate 30EC @ 1ml / lit	**Insect pest :-** Hairy caterpillar Spray Quinalphos/ Chlorpyriphos 1.5 ml / lit water **Disease**:- Powdery mildew, Spray wettable sulphur 2.5 g/ lit or Carbendazim 1.0 g/lit, Yellow Mosaic Virus - Spray Dimethoate 30EC 1.5 ml/lit for white fly control		
Sesamum	Leaf roller - Quinalphos 1000 ml l .2 Lt + 500 lit of water per ha	**Insect pest :-** leaf eating caterpillar Chlorpyriphos 1.5 ml/lit / Quinolphos 2ml/lit **Disease:-** Alternaria blight/ Cercospora Leaf Spot : spray COC 3g/lit or Mancozeb 2.5g/Lt Phyllody : Spray Dimethoate 30EC 1.5 ml/lit for leaf hopper control		

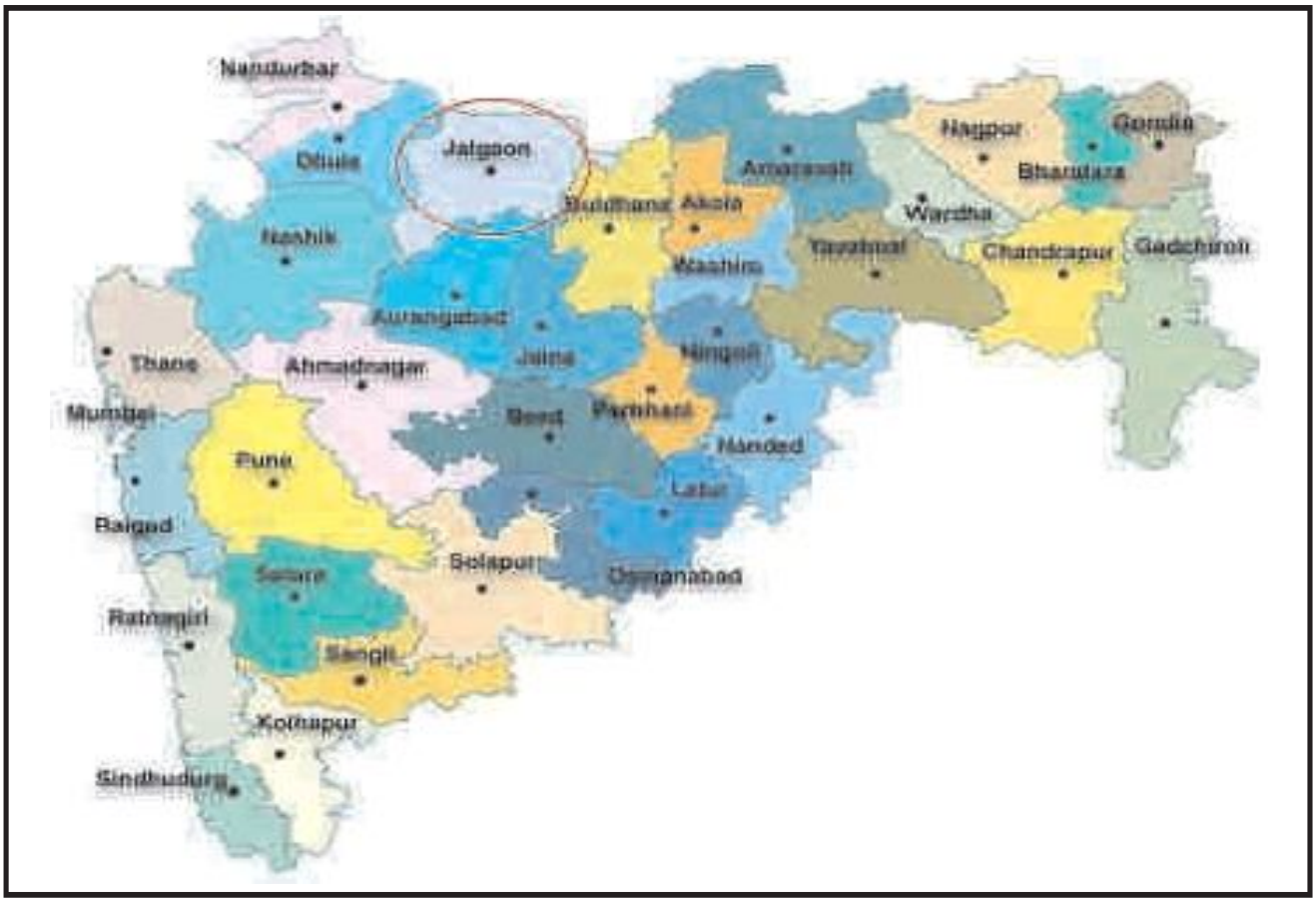
Outbreak of pests and diseases due to unseasonal rains	Vegetative stage	Flowering stage	Crop maturity stage	Post harvest
Horticulture				
Banana	**Disease:-**Sigatoka leaf blight Spray Mancozeb 75 wp + mineral oil 10 ml/lit + sticker or 0.1% Carbendenzim or Propiconazole 0.1%) or Carbendenzim 0.5% + mineral oil 100ml/litre of water or Propiconazole0.5% + mineral oil 100ml/litre of water	**Disease:- S**pray Mancozeb 75 wp or COC 50wp @ 2.5 g/lit + mineral oil 10 ml/lit + sticker **Insect pest :-** Thrips: Spray Acetamiprid 2.0 gm/ 10 lit water. Aphids – Spray Dimethoate 20 ml per 10 lit.	**Insect pest :-** Thrips Acitamiprid 2.0 gm/ 10 lit water Rhinocerus beetle - Crop roration and clean cultivation. No ratooning taken place	
Acid lime	**Disease :-** Citrus canker: spray 1 % BM, COC 0.3 % + Streptocycline 100 ppm **Insect pest :-**Mealy bug - Malathion or Methyl demeton 1.5 ml/lit	**Disease :-** Citrus canker spray 1 % BM, COC 0.3 % + Streptocycline 100 ppm **Insect pest :-**Mealy bug - Malathion or Methyl demeton 1.5 ml/lit	**Insect pest :-**Mealy bug - Malathion or Methyl demeton 1.5 ml/lit **Disease :-** Citrus canker spray 1 % BM, COC 0.3 % + Streptocycline 100 ppm	
Sweet orange	Leaf eating cater piller - Quinalphos 20 ml + 10 lit Ahid, Mite, Citrus psylla - Dimethoate 20 ml / Imidaclopide 4 ml + 10 lit.	**Insect pest :-** Fruit fly Bating of malathion 200ml + 1 kg Jaggery + 1 Lit Fruit Juice + 10 lit water for 10 Plants. Use of Methyl eujenal traps@ 5 per ha.	**Insect pest :-** Fruit fly Bating of malathion 200ml + 1 kg Jaggery + 1 Lit Fruit Juice + 10 lit water for 10 Plants of Methyl eujenal traps@ 5 per ha.	

2.3 Floods: Not applicable

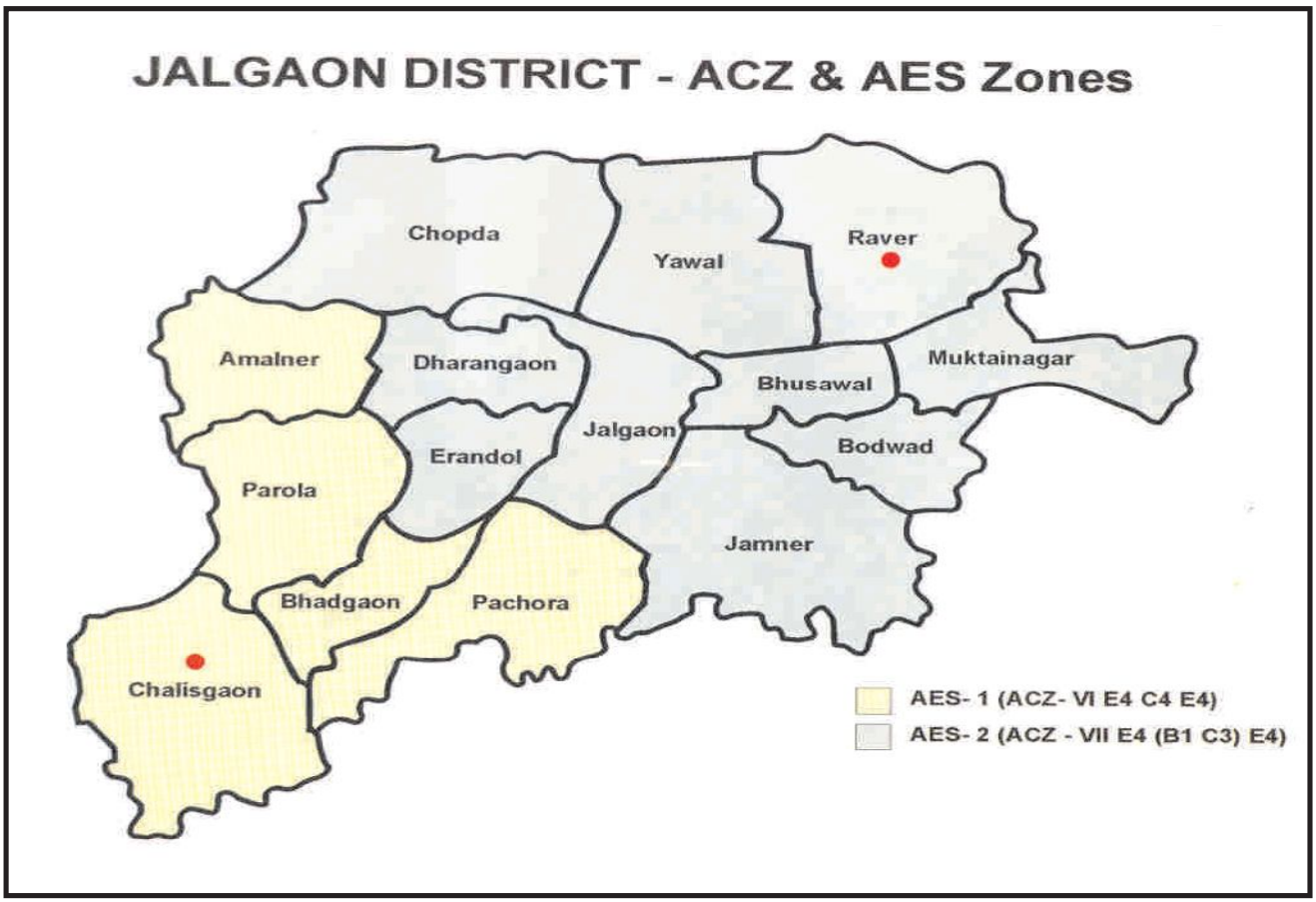
2.4 Extreme events: Heat wave / Cold wave/Frost/ Hailstorm /Cyclone : Not applicable

2.5 Contingent strategies for Livestock, Poultry & Fisheries : Separate Chapter given (Animal Component for All District)

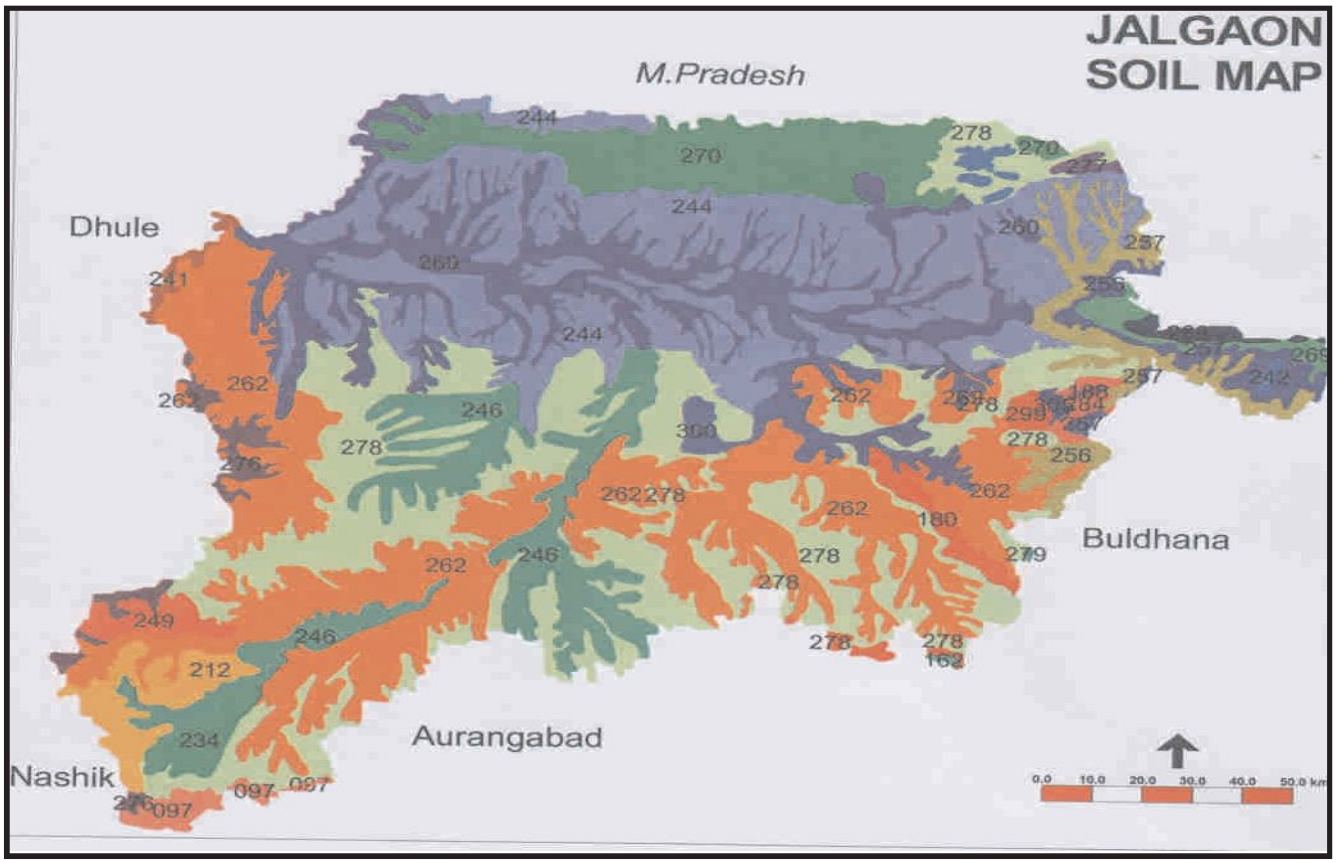
Annexure – I :
Location map

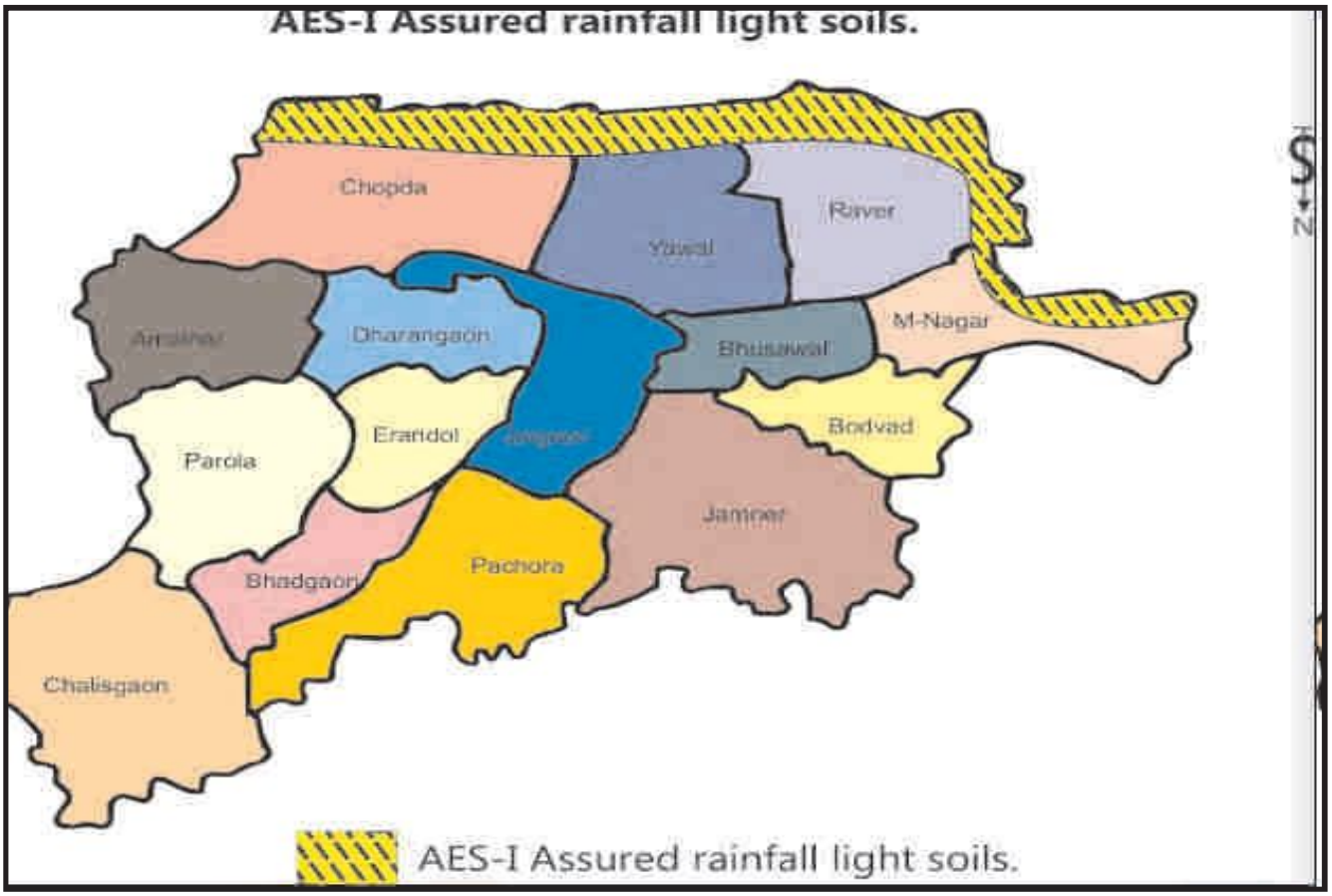


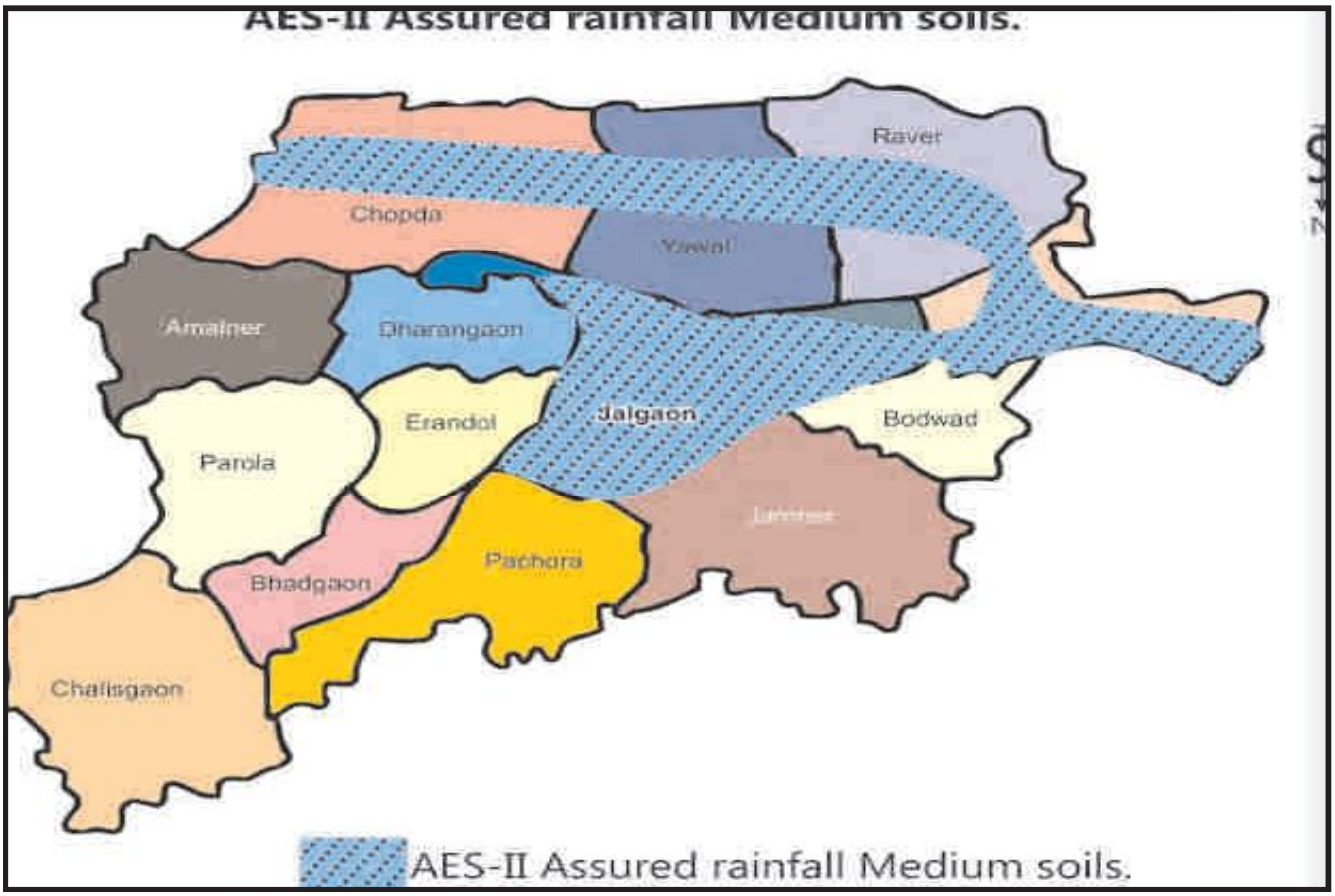
Annexure – II : Rainfall map of Jalgaon District

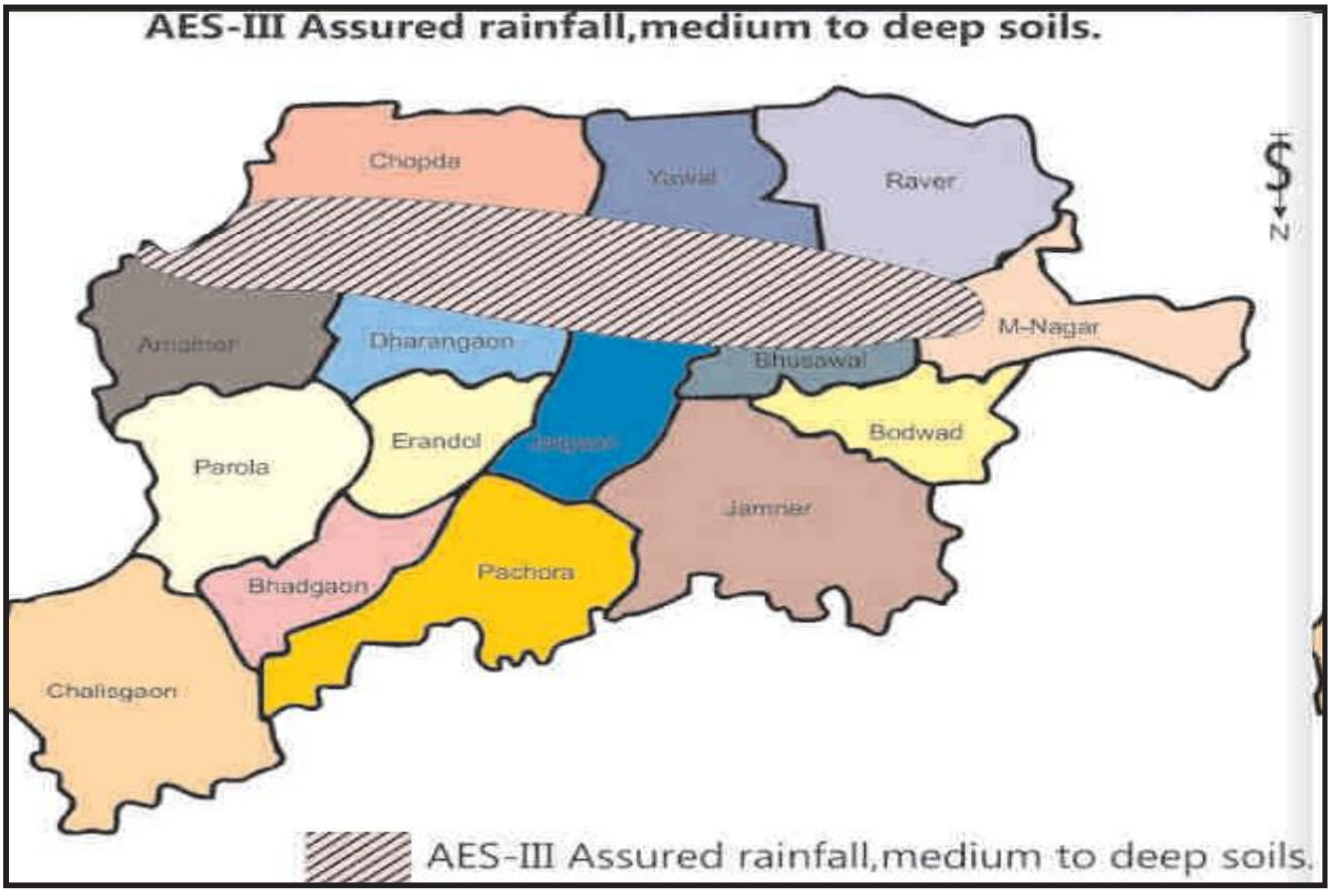


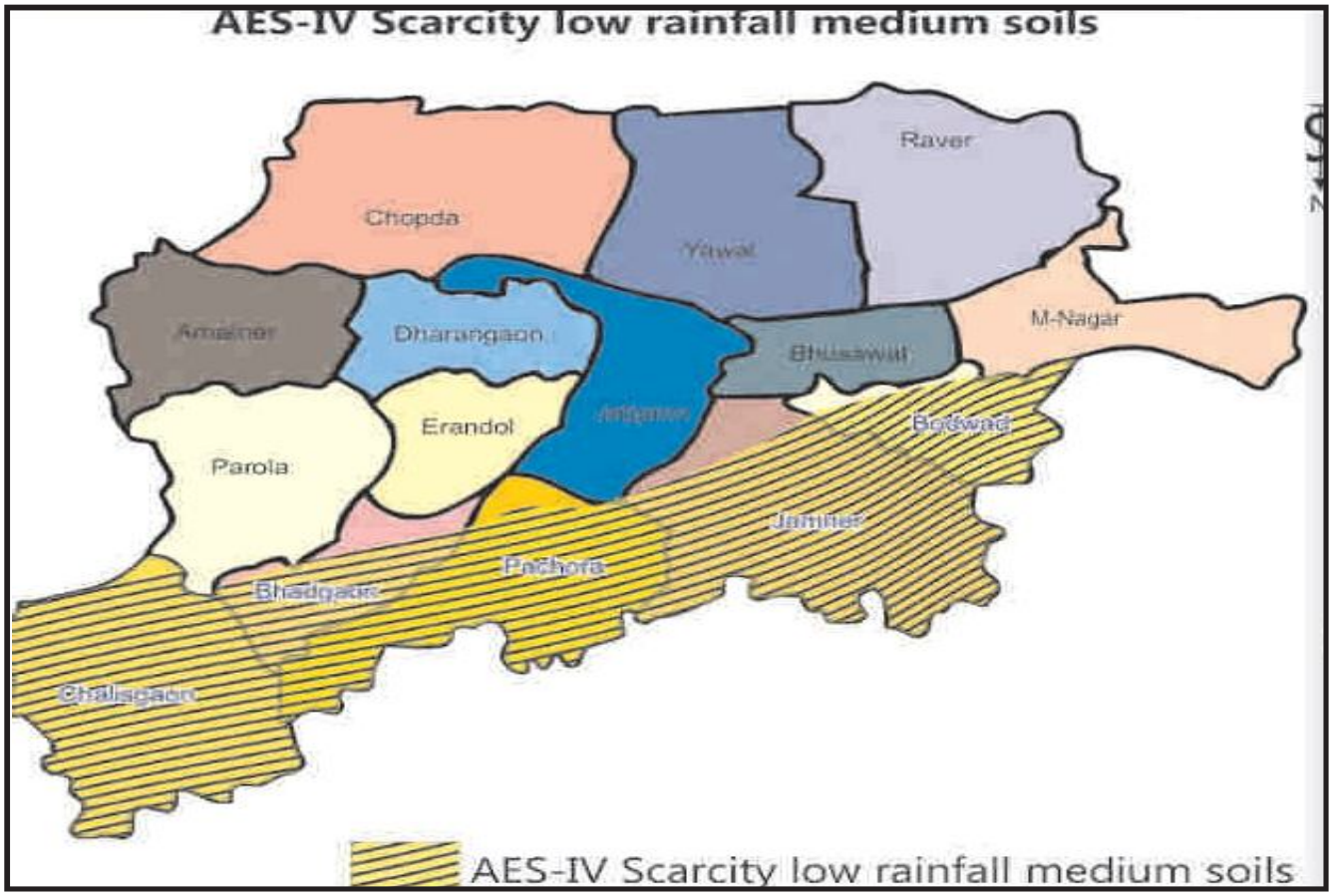
Annexure – III : Soil Map of Jalgaon District

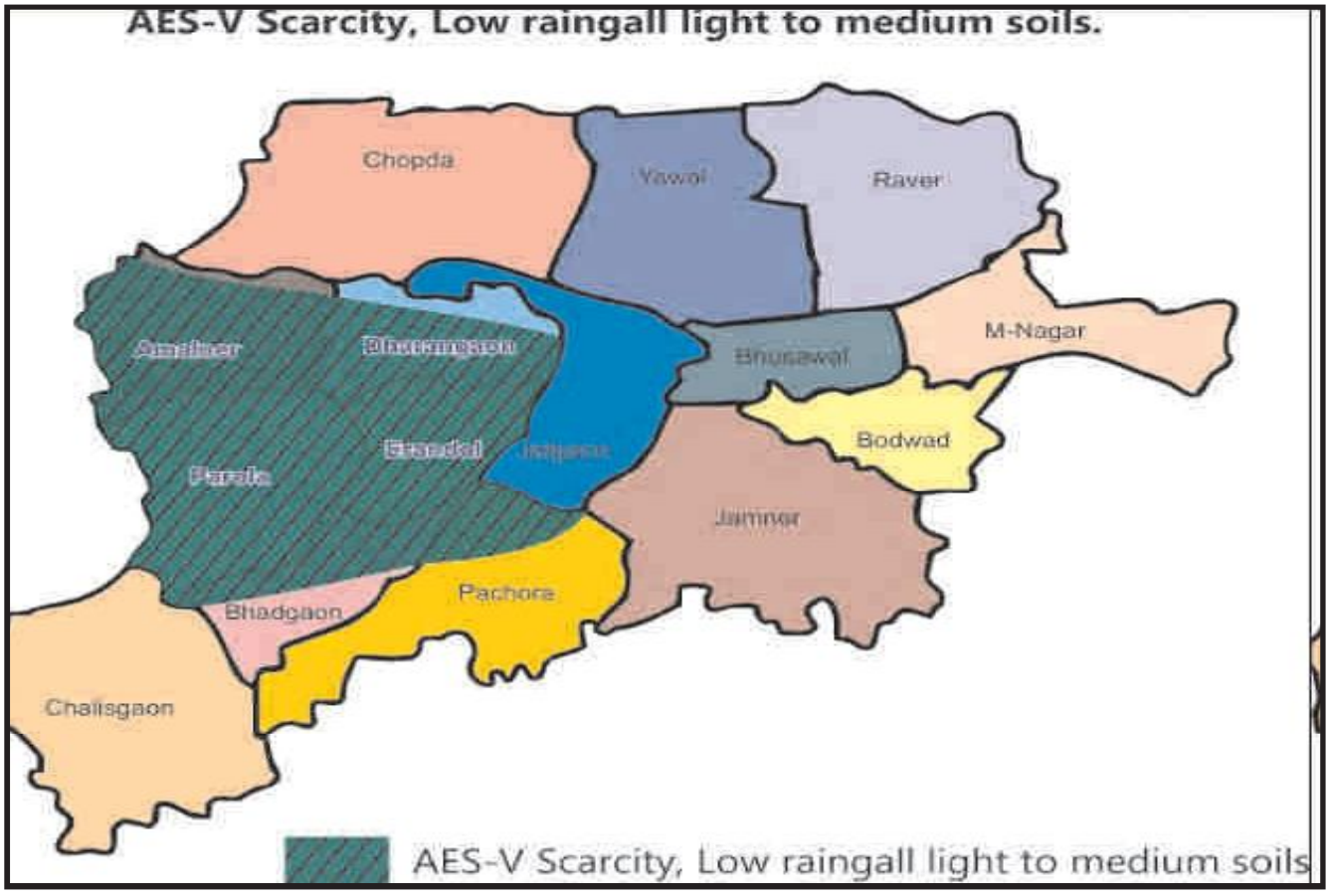





AES-II Assured rainfall Medium soils.
Raver
Chopda
Yawal
Amalner
Dharangaon
Erandol
Jalgaon
Bodwad
Parola
Pachora
Bhadgaon
Chalisgaon
AES-II Assured rainfall Medium soils.


AES-III Assured rainfall,medium to deep soils.
Chopda
Yawal
Raver
Amalner
Dharangaon
M-Nagar
Bhusawal
Parola
Erandol
Bodwad
Jamner
Pachora
Bhadgaon
Chalisgaon
AES-III Assured rainfall,medium to deep soils.


AES-IV Scarcity low rainfall medium soils
Chopda
Yawal
Raver
Amalner
Dharangaon
Bhusawal
M-Nagar
Erandol
Jalgaon
Bodwad
Parola
Jamner
Pachora
Bhadgaon
Chalisgaon
AES-IV Scarcity low rainfall medium soils


AES-V Scarcity, Low raingall light to medium soils.
Chopda
Yawal
Raver
Amalner
Dharangaon
Bhusawal
M-Nagar
Erandol
Jalgaon
Bodwad
Parola
Jamner
Pachora
Bhadgaon
Chalisgaon
AES-V Scarcity, Low raingall light to medium soils