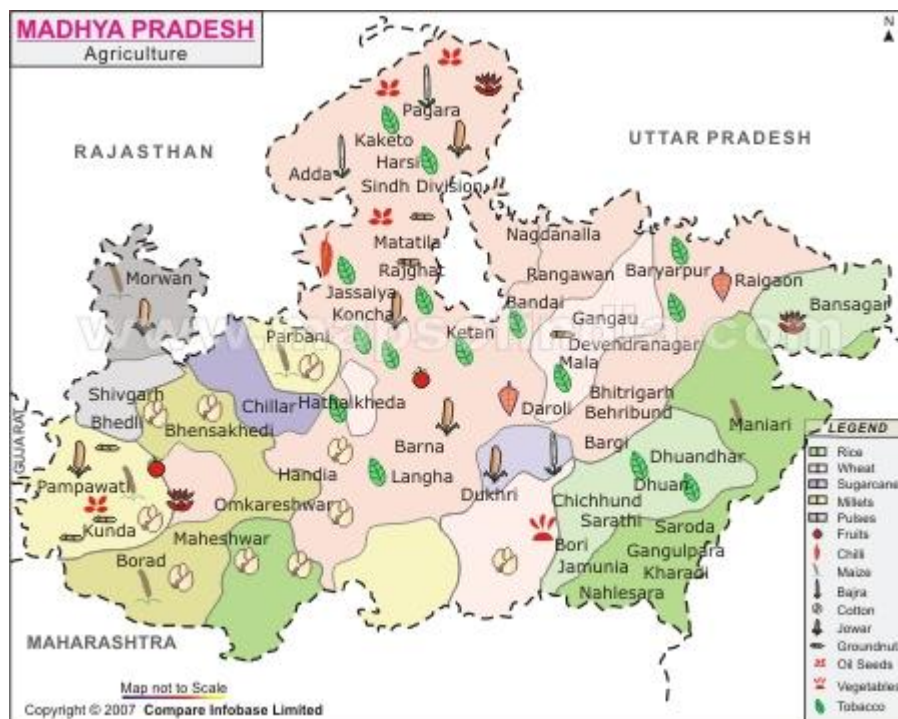


Report of the Joint Inspection Team on their inspection visit to District Indore, Dewas, Kargone, Khandwa and Bhopal Districts of Madhya Pradesh during June(09 -16 June, 2012).



**National Horticulture Mission
Department of Agriculture and Cooperation (DAC)
Krishi Bhawan, New Delhi-110001**

Review Report of Joint Inspection Team visit during June 2012 (09 -16th June, 2012) to Indore,Dewas,Khargone,Khandwa and Bhopal Districts of Madhya Pradesh.

The Joint Inspection Team (JIT) to visit and monitor the centrally sponsored programmes for Horticulture Development comprises following members:

S.N	Name & Designation	Adress
1	Dr. R.C.Upadhyaya, Chief Consultant (NHM)	Ministry of Agriculture, Government of India Krishi Bhawan, New Delhi
2	Sri Atul Mishra ,Joint Director	Horticulture,Department of Horticulture and food processing,Govt. of M.P. ,Bhopal
3	Er.Lavesh Chaurasia, Research Associate	Central Institute of Agriculture Engineering(ICAR), Nabi Bagh,Bhopal-38
4	Dr. R. N. S. Banafar, Prof. and Head ,Horticulture ,	Horticulture Division, Rajmata Vijayaraje Scindia Krishi Vishwa Vidyalaya (RVSKVV), Gwalior. Not attended

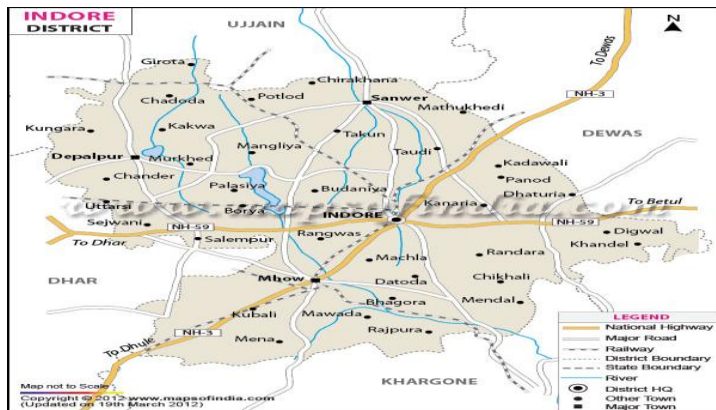
Component for review:

- Crop specific cluster at district level.
- ☐Nurseries management and progress including accreditation of nurseries.
- ☐Vermin compost units under SHM.
- ☐Flowers and vegetable production under protected conditions.
- ☐Micro irrigation scheme and use of plastic in mulching, irrigation and precision farming.
- ☐Placement of technical Staff at Management and also at field Level.
- ☐Other activities and KVK, s support including Financial Progress: (Rs. in lakhs).
- National Mission on Micro Irrigation.
- National vegetable Initiative.

Financial Progress: Year-wise details of Outlay, Funds Released and Expenditure under NHM in Madhya Pradesh (Rs. In lakh):

Year	Outlay	Releases	Expenditure	Balance
2005-06	5971	2839.77	411.96	2427.8
2006-07	7427.1	4291.75	4736.23	1983.33
2007-08	11790.11	5537.49	4306.3	3214.52
2008-09	10400.43	6000	5670.99	3543.53
2009-10	6800	3545	6027.3	1061.23
2010-11	8500	5100	5878.25	282.98
2011-12	7225	4500	2647.52	2135.46

Indore District:



Indore is located at North latitude &75.25-76.25-76.160 east longitude n the western region of Madhya Pradesh, on the southern edge of the Malwa plateau . It lies on the Saraswati and Khan rivers, which are tributaries of the Shipra River and has an average elevation of 553.00 meter above mean sea level. It occupies area of 7,020 km² and located on an elevated plain, with the Vindhyas range to the south. Apart from Yashwant Lake, there are many lakes that supply water to the city including Sirpur Tank, Bilawali Talab, Sukhniwas Lake and Piptyapala Talab. Indore is located 190 km west of the state capital of Bhopal. and is fourteenth most populous city in India.Indore's total population as per the provisional population data for census 2011 is reported to be 1,960,631.

Climate and Soil:

Indore has a transitional climate between a tropical wet and dry climate and a humid subtropical climate. Three distinct seasons are observed: summer, monsoon and winter. Summers start in mid-March and can be extremely hot in April and May. The daytime temperatures can touch 40 °C on more than one occasion. Average summer temperature may go as high as 36–39 °C (100.4 °F) but humidity is very low. Winters are moderate and usually dry. Lower temperatures can go as low as 4 °C-6 °C on some nights. Usually the temperature ranges between 26 °C-30 °C during winters. Rains are due to southwest monsoons. The typical monsoon season goes from 15 June till mid-September, contributing 32–35 inches of annual rains. 95% of rains occur during monsoon season. Indore gets moderate rainfall of 35 to 38 inches (890 to 970 mm) during July–September due to the southwest monsoon. The underlying rock of the region is composed of black basalt, and their acidic and basic variants dating back to the late Cretaceous and early Eocene eras. Winter: During the months of November to February, the night low is around 10 degree C, it get as low as 2 to 3 degree C when the winter reaches its peak. The lowest temperature recorded is +1.5 degree C. Summer: summer last from the months of April to June, the temperature varies from 35-40 degree C during the peak of summer in May. Day temperature at times touches 45 degree C However, unlike other places in central India, the summer nights in Indore are distinct. Due to its location on the southern edge of the Malwa Plateau, the climate turns cool in late evening, making the evening delightful. Rainfall: Indore receives moderate rainfall of 30-35 inches during the monsoon season during July-September

Climate data for Indore

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
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Average high °C (°F)	26.5 (79.7)	28.8 (83.8)	34.3 (93.7)	38.7 (101.7)	40.4 (104.7)	36.2 (97.2)	30.3 (86.5)	28.2 (82.8)	30.9 (87.6)	32.4 (90.3)	29.7 (85.5)	26.9 (80.4)	31.94 (89.50)
Average low °C (°F)	9.8 (49.6)	11.4 (52.5)	16.2 (61.2)	21.2 (70.2)	24.4 (75.9)	24.1 (75.4)	22.6 (72.7)	21.9 (71.4)	21.1 (70.0)	18.1 (64.6)	13.9 (57.0)	10.6 (51.1)	17.94 (64.30)
Precipitation mm (inches)	4 (0.16)	3 (0.12)	1 (0.04)	3 (0.12)	11 (0.43)	136 (5.35)	279 (10.98)	360 (14.17)	185 (7.28)	52 (2.05)	21 (0.83)	7 (0.28)	1,062 (41.81)
Avg. precipitation days	0.8	0.8	0.3	0.3	1.8	8.6	15.9	18.3	8.6	3.1	1.4	0.6	60.5
Mean monthly sunshine hours	288.3	274.4	288.3	306.0	325.5	210.0	105.4	80.6	180.0	269.7	273.0	282.1	2,883.3

Field Visit Report

Report on Visit of JIT at Indore district during 10-06.12

S r. n o.	Name of the Farmer s/Orga nization	Address	Crop/Variety/ equipment	Area	Remark
1	Gover nment fruit garden	Sukhani a Indore	Mango- Langda/dase hri/Siroli/Hapu s Sapota Phalsa	4 ha 1 ha 0.5 ha	<ul style="list-style-type: none"> • Mother block of Mango Cv. Amrapali and Guava Cv. Allahabad Safeda and Lalit may also be established at nursery area. Old mango plantations may be rejuvenated and pruned properly. Phalsa should be grown as intercrop and pruned properly. • Nursery should properly be labelled and management practices should be adopted to maintain fruit block. Proper records of nursery are not maintained. Emphasis may be given only for fruit plants and not of forest plants or avenue plants. Garden maintenance is poor even 11 labourers are engaged. • Poly houses are badly damaged and needs immediate repair and change of poly sheet. • Plant protection measures should be adopted in established orchards and Drip irrigation facilities may be provided at Govt fruit garden. Nursery farm may be supervised by a technical field staff.
2	Premc hand s/o Ramn ath	Village Ralamanda Block Indore	Bottle gourd Okra	1000 sq. m shed net house with mulch and drip.	<p>Farmer is taking bottle gourd by direct showing of seed in the raised bed under shade net. Cucumber gynoecium varieties and cherry tomato nursery should be grown in portraits to avoid damage of seedlings and transplanted in the bed or in protected structures preferably shade net.</p> <ul style="list-style-type: none"> • Farmer should be properly trained in protected cultivation.

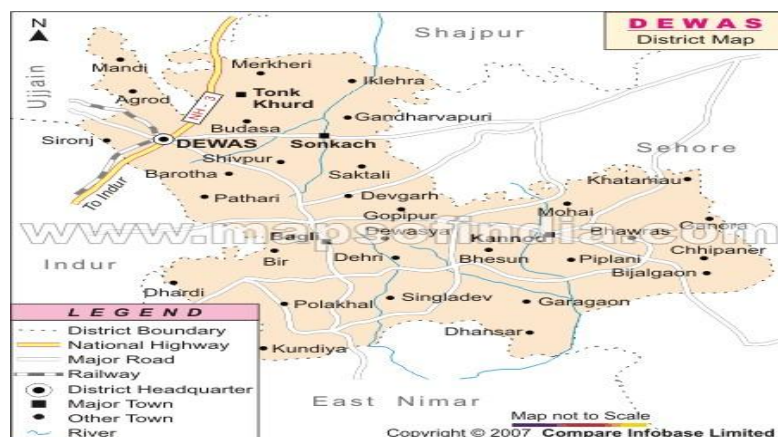
S r. n o.	Name of the Farmer s/Orga nization	Address	Crop/Variety/ equipment	Area	Remark
3	Mukesh s/o Hari Singh	Village Dudhia block Indore	Tractor of 42 HP with potato planter is given to the farmer.	40 acres	<ul style="list-style-type: none"> Farmer cultivated Potato, Onion and Garlic and taking mango high density plantation in 5 acres. Subsidy provided on tractor purchase is not clear in guide lines. Horticulture department may clarify about tractor purchase under NHM (Mechanization).
4.	Rajesh S/o Kishan	Village Bhicholi, Block Mahu	Mango-208 plants, cheque of Rs. 12,800/- is given as subsidy Mango-208 plants, cheque of Rs. 12,800/- is given as subsidy	2 ha	<ul style="list-style-type: none"> All the mango planting material supplied through the department died and field staff never visited the field. It seems that plants were not supplied properly and timely nor supervised at the time of planting. Planting material supplied to the farmers was not supervised and creates doubts and needs departmental enquiry and fixed the responsibility and accountability. It is the similar case where all the mango planting material supplied through the department died and field staff never visited the field. It seems that plants were not supplied properly and timely nor supervised at the time of planting. Planting material supplied to the farmers was not supervised and creates doubts and needs departmental enquiry and fixed the responsibility and accountability.
	Pinkibai W/o Rajesh			2ha	
5	Maa Vaishno Ice & cold storage	Rau indore	Potato & coriander	capacity 5400 MT Rs.60 lakhs has given released	<ul style="list-style-type: none"> It is observed that norms are followed as per guidelines and seventy percent works are completed and advised that work should be completed within a month.
6	Parvati bai w/o Mohan Lal	Village Gokalpur Block Depalpur	Guava Allahabad safeda & L-49	1ha	<ul style="list-style-type: none"> Farmer planted guava with high density population with drip during Aug.,2011 and farmer procured planting material from Allahabad *(Private Nursery).

S r. n o.	Name of the Farmer/s/Organization	Address	Crop/Variety/equipment	Area	Remark
	Mohan lals/o Hari Ram	Village Gokalpur Block Depalpur	Guava Allahabad safeda & I-49	1.33ha	<ul style="list-style-type: none"> Performance of guava orchard is satisfactory and farmer is doing recommended package of practices. Orchard Needs plant protection measures and de suckering.

General Instruction:

Mortality was very high in mango & guava plantations and needs verification of field by a team before payment of second Installment.KVK scientist may be included in team.

DewasDistrict:



Dewas District in Ujjain Revenue Division, is situated on the Malwa plateau in the West-central part of Madhya Pradesh and lies between 20°17' and 23°20' North latitude and 75°54' and 77°08' East longitude. The district is bounded by Ujjain district in the north, Indore district in the west, West Nimar district in the south-west, East Nimar district in the south, Hoshangabad district in the South East, Sehore district in the east and Shajapur district in the North-East. The tropic of cancer passes through the district near Nemawar village south of Khategaon town. According to the 2011 census Dewas District has a population of 1,563,107 Its population growth rate over the decade 2001-2011 was 19.48 % and the district has an area 7,020 sq. km. Dewas District is now divided in to six tehsils namely Sonkatch, Dewas, Bagli, Kannod, Tonk-Khurd and Khategaon. Dewas tehsil is situated on the north-western part of the district, Sonkatch on the north-eastern part, Bagli on the south, Kannod on the south-central part and Khategaon on the South-east. The Narmada River, regarded as the lifeline of Madhya Pradesh is an important river of the district. Kali Sindh is another important river of the district. It is also an important river of Malwa Region. The other small streams are Jamner, Bagli, Datuni, Chandrakeshar, Khari etc.

The district can be divided in to four broad physiographical regions:

1.Dewas plateau:

This region extends over the north-western part of Sonkatch tahsil and the western part of Dewas tahsil. The hill range which runs north-south from Shajapur tahsil of district extends north-south on the eastern part of this region in the broken form. This region is part of Malwa plateau with higher elevation of the north-east plateau land in the north-west and plain land topography on its south. Lakander, Chhoti Kali-Sindh and Kshipra rivers drain this region. Kshipra River flowing in south-north direction forms the western boundary of this region. Dewas town is situated on the plateau of this region. On the northern part of this region a number of streams flow in south-north direction. Maximum height of this region is 2296 ft. towards north of Dewas town. The conical Chamunda hill having the shrine of Goddess Chamunda on top of it is located in Dewas town of this region.

2. Kali Sindh Basin:

This region is situated in north eastern part of the district in a vertical column covering major part of Sonkatch tahsil towards south of this region. Kali Sindh River flowing in south-north direction on the middle part of this region forms its main drainage system. This is by far the most fertile tract of the district.

3. Vindhyan Range:

This region comprises of the Vindhyan hill ranges passes through the middle of the district in a east-west direction forming a narrow strip in higher broken form on the east and broader but lower and irregular towards west. This also forms the northern boundary on the lower half of the district. Spurs of the Vindhyan hill ranges are conspicuous towards west of Bagli and Hatpiplaya towns. Kshipra Kalisindh Rivers have originated from the north of this hill ranges while most of the tributaries of Narmada have originated from the south of vindhyan hill ranges. Maximum height of this region is 2,372 near Bhatpura village in Bagli tahsil and the minimum height is 1,495 near village Palasi of the same tahsil.

4. Middle Narmada valley:

This region comes under Malwa plateau and is situated in the south-eastern part of the district occupying major parts of Kannod and Khategaon tahsils and the lower half of Bagli tahsil. Narmada River flowing east to west forms most of the southern boundary of this region as well as of the district. The middle Narmada valley region is thus bounded by vindhyan hill ranges on the north and Narmada River with its tributaries on the other three sides and lies almost entirely in the catchment of river Narmada and its numerous tributaries sloping towards south. Extensive forests are seen in this region. Maximum height of this region is 1,328 ft. near village Serali in Kannod tahsil and the minimum height is 916 ft. near village Kanjipura in Khategaon tahsil.

Climate and Soil:

Rainfall	Normal ,RF(mm)	Normal Rainy days (number)
SW monsoon (June-Sep)	925	48
June 4th week of Sep. NE Monsoon(Oct-Dec):	110	05
Winter (Jan- March)	30	02
Summer (Apr-May)		
Annual	1065	55

Soil Types:

Major Soils	Area ('000 ha)	Percent (%) of total
Deep soil	363	51.81
Medium deep soil	125	17.95
Shallow soil	212	30.245

Land Use:

Agricultural land use	Area ('000 ha)	Cropping intensity %
Net sown area	388.4	160.8
Area sown more than once	236.2	
Area sown more than once	624.6	
Irrigation	Area ('000 ha)	
Net irrigated area	193.64	
Gross irrigated area	193.60	
Rainfed area	430.90	

Horticultural crops Area:

Fruits;	Area ('000 ha)	Total Production('000 t)	Total Productivity (kg/ha)
mango	0351	9.36	2666.67
Guava	0.57	82.74	14515.79
Orange	0.14	22.79	16278.57
Lemon	0.359	58.33	14767.09
Pomegranate	0.08	8.58	10725.00
Anola	0.474	34.56	7291.14
Papaya	0.095	03	21084.21
others	0.31	17.77	5732.26

Vegetables			
Tomato	1.7	534.51	31441.76
Potato	6.57	1152.17	17536.83
Onion	3.274	536.89	16398.59
Bhindi	1.045	196.22	18777.03
Cauliflower	1.06	160.57	15148.11
Cucurbits	1.855	296.12	15963.34
Spices			
Coriander	1.784	18.06	1012.33
Garlic	6.051	896.98	14823.67
Chilly	1.887	29.45	1560.68
Fenugreek seed	0.22	11.34	5040.00

Visit of JIT at Dewas district on 11.06.12

Sr . n o.	Name of the Farmers/o rganizatio n	Addres s	Crop/Vari ety/ Technolo gy	Area	Remark
1.	Government Nursery	Village Malhara . District Dewas	Mango Guava Custard apple Pack house for onion	14 ha	<ul style="list-style-type: none"> Nursery Saplings were healthy and managed properly as per package of practices recommended. It is advised that all the nursery plants should be properly levelled with name and variety and date of grafting etc. and get accredited There is acute shortage of water at farm and water tank provided is filled with tankers supply. Farm should have a large size pond and water harvesting system. Orchards should be developed near the ponds Mother orchard block of Guava and Mango is established properly and needs all timely input support and farm machine including tractor. Old orchard may be rejuvenated.
2.	Devendra	Village	Chilly:	2 Ha	<ul style="list-style-type: none"> Chilly should be harvested. Field should

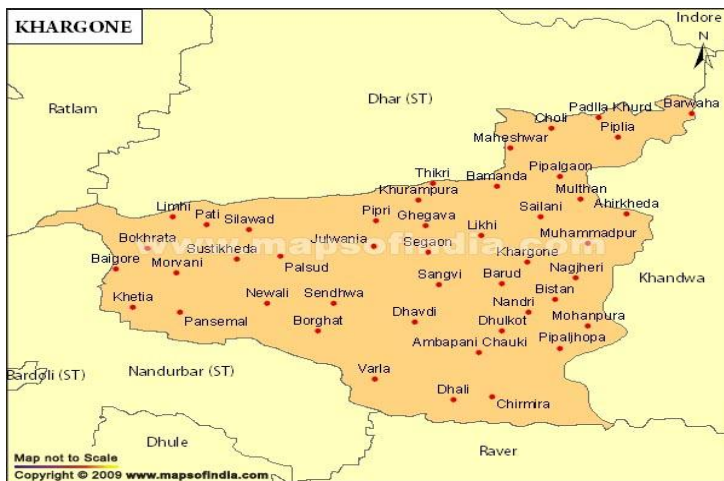
Sr . n o.	Name of the Farmers/o rganization	Addres s	Crop/Vari ety/ Technolo gy	Area	Remark
	Singh s/o Himmat Singh	Tonk Kala Tonk khurd block dewas	BNR 109 with mulch planted in 2011-12	Subsidy Rs. 20000 for plastic mulch.	<p>be prepared for next crop. The income of the Farmer is 1.20 lakh per acre from the chilly plantation.</p> <ul style="list-style-type: none"> • Advice for rejuvenation or replace Sapota orchard. • Farmer should Construct Shade net with micro irrigation and should have exposser visit to Jaipur.
3	Ramchand ra s/o Thavraji Khati	Village Chidaba d Block Tonk khurd district Dewas	Mango(NH M) 2011-12 Orange (Dept scheme)	0.5 ha, 50 mango plants and Subsidy Rs. 3059 1 ha	<ul style="list-style-type: none"> • Out of 50 mango plants planted during 2011-12, 47 plants are surviving satisfactorily. • In orange farmer is practicing irrigation stress for de leafing while irrigation is must on wilting stage & pruning for canopy management.
5	Dilip Singh S/O Amar Singh	Village Ranayal kala Block Tonk khurd District Dewas	Naturally Ventilated Poly house with Mulch.	1000sq m poly house in 2011-12 Subsidy sanction ed Rs.4675 00.	<ul style="list-style-type: none"> • Farmer is growing Bottle gourd under protected structures and using mulch Followed by capsicum, Tomato crop.Farmers are getting good profit as market for this crop is organized by NGO. • 2nd installment of the subsidy yet to be released immediately.
6	Pawan Singh S/O Amar Singh	Village Ranayal kala Block Tonk khurd District Dewas	Naturally Ventilated Poly house.	1000 sqm 2011-12 Subsidy Rs.4675 00. /-	<ul style="list-style-type: none"> • Poly house construction work is completed and field preparation work for planting is in progress for bottle gourd followed with tomato and capsicum
8.	Dilip Singh S/O Amar Singh	Village Ranayal kala Block Tonk khurd District Dewas	Onion storage house under RKVY	Capacity 50MT Sanction ed in 2010-11 Subsidy sanction ed and	<ul style="list-style-type: none"> • Farmer has stored onion in full capacity. • Roof of the store house should be covered with wet local agriculture waste to minimise the temperature and to maintain the humidity.

Sr . n o.	Name of the Farmers/organization	Addresses	Crop/Variety/Technology	Area	Remark
				given	
9.	Dilip Singh S/O Amar Singh	Village Ranayal kala Block Tonk khurd District Dewas	Shade net house under NHM	100sqm Sanctioned in 2011-12 Subsidy sanctioned	<ul style="list-style-type: none"> Nursery growing in shed net for commercial purpose and sale to other farmers.
10	Roop Singh S/O Amar Singh	Village Ranayal kala Block Tonk khurd District Dewas	Shade net house under NHM	100sqm Sanctioned in 2011-12 Subsidy /-	<ul style="list-style-type: none"> Nursery growing in shed net for commercial purpose and sale to other farmers

KVK ,Dewas visit:

JIT visited KVK, Dewas, and had a interaction with Nisith Gupta SMS Horticulture and other SMSs about to create awareness, demonstration in their fields and promotion of technologies.KVK made available recommended practices to the farmers and interaction with horticulture department. Demonstration on use of shade net, drip irrigation and Water harvesting structures.

Khargone District:

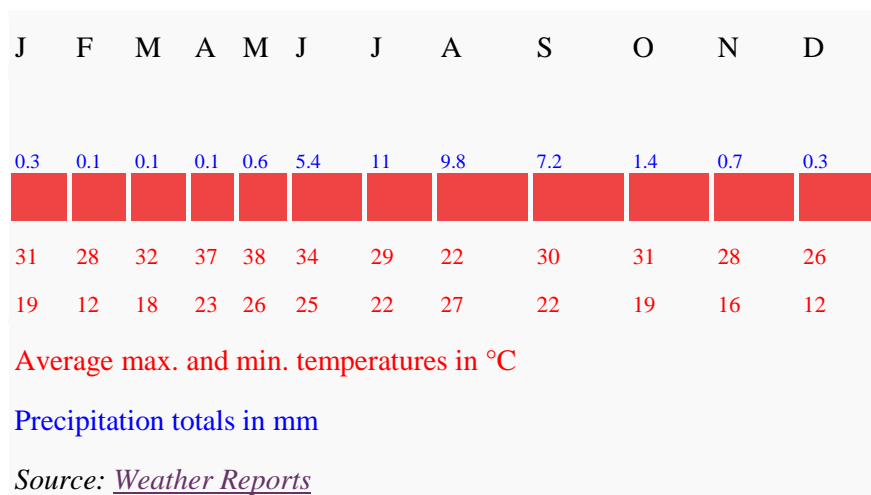


Khargone district formerly known as West Nimar district and lies between 21°22' and 22°35' North latitude and 74°25' and 76°14' East longitude. The district is surrounded by Dhar, Indore and Dewas in the north side, state of Maharashtra state in the south side, Khandwa, Burhanpur in the east side and Barwani in the West side. Khargone district covers the 8030 km² area. Area of the district is 8030 km² and According to the 2011 census Khargone District has a population of 1,872,413. The district is divided into 5 sub-divisions, which are further divided into 8 tehsils. Barwaha sub-division has only one tehsil, Barwaha with the town bigger than Barwaha name *Sanawad*. Bhikangaon sub-division has two tehsils, Bhikangaon and Jhiranya. Kasrawad sub-division has only Kasrawad tehsil while Khargone sub-division has three tehsils, Khargone, Bhagwanpura and Segaoon. Mandaleswar sub-division has one tehsil, Maheshwar. Khargone town is the administrative headquarters of the district. Other towns are Maheshwar, Kasrawad, Segaoon, Bhagwanpura, Jhiranya, Bhikangaon and Barwah. Maheshwar is a place of tourist attraction as the former capital of the Haihayas and the Holkars of Indore.

Climite:

Khargone has a tropical wet and dry climate and a humid subtropical climate. Summer is extremely hot and dry and it lasts from the mid of March till mid of June with the temperature above 40 C during April May, during these months the dry and hot wind blows in this area widely affects the local ecology. The temperature also remains quite high during the night. The monsoon season arrives in late June, with temperatures around 29 C. Rainfall of about 36 in, the rainy season is humid and experiences considerable rainfall. Local people are often affected by the flood of River Kunda which in the outskirts of the city. Dry, mild and sunny winter enters in mid-November the average temperatures is about 4-15 C, but often falls to freezing point during the night.

Khargone (Climate chart):



Horticulture progress in the district:

Horticulture looks after various fruits and vegetables. The department oversees production of Red chillies in the district – the second largest producers in the country, with an annual production of 60,000 tones. The department promoted various new technologies such as Drip irrigation and worked upon new technologies in various institutes such as ICAR in the country. The major technique used in this department was ‘Grafting’ – where the stem from a mature plant of the fruit was tied to the sapling of a young plant, so that it could absorb more minerals. The average time of the plant to be able to bear the fruit is thus reduced from six years to three years.

Production and productivity of horticultural crops

Sl.No.	Fruits	Production ('000 t)	Total Productivity (kg/ha)
1	Mango	6	30000
2	Guava	7.25	20000
3	Banana	23310	90000
	Vegetables		
1	Potato	2.530	22000
2	Onion	7.875	25000
3	Tomato	4.040	20000
4	Chilly	43.957	2500
5.	Coriander	0.607	1200
6	Ginger	2.400	15000

S r. n o.	Name of the Farmers/ Organization	Address	Crop/Variety/ Technology	Area	Remark
1	Animesh Sharma S/O Alok	Village Padhali Block Badwah District Khargone	Naturally Ventilated Poly house with Mulch and drip irrigation.	1000 sq.m. poly house sanctioned in 2010-11 Subsidy 467500/- In 2007-08 drip irrigation installed in 5ha. 2008-09 plastic mulching	<ul style="list-style-type: none"> • Cut flower cultivation under poly house shed net and also in open Cultivation with mulch. Farmer Grow gerbera, Rose & Carnation in poly houses. • To the same family 5 more poly houses each of 1000 sq.m. are sanctioned in the year 2010-11 this case should be examined as violated the norms of NHM. • In the same family drip irrigation system is installed in the year 2007-08 in 5 ha. Subsidy given Rs. 161575/-. • Needs departmental enquiry.
2	1.Radheshyam S/o Mansa Ram 2.Mansa Ram S/o Shobha Ram	Village Shelda Block Badwah District Khargone	Plantation of Pomegranate cv.bhagwa with drip.	1. 3ha. No of plants 1200 subsidy Rs.34265/- 2. area planted 1.8ha No of plants 720 subsidy Rs.20562/-	<ul style="list-style-type: none"> • Plants purchased from Horticulture Department Government of Maharashtra. • Farmer does pruning of pomegranate & removal of rainy season fruiting of y 200ppm spray of ethrel for better yield of winter crop. • Staff should be given technical training on pomegranate production and develop cluster of pomegranate in the village. Monthly schedule of cultural operation should also be given to the farmer. • Proper plant protection measures should be taken as per schedule recommended to the crop.

S r. n o.	Name of the Farmers/ Organization	Address	Crop/Variety/ Technology	Area	Remark
3	Kundan S/O Gyan Singh	Village Dabhad Block Badwah District Khargone	1. Shade net house tubular structure. 2. Pack house	1.4000 sq.m shade Sanctioned in 2011-12 Subsidy Rs.12 lakh. 2. 9x6 sq.m pack house sanctioned in 2010-11 Subsidy and given Rs. 1.5 lakh.	<ul style="list-style-type: none"> Incomplete structure of shade net house and the farmer has given full payment of his share to M/S Neil Agro tech Gujarat. Advised department to examine and instruction may be issued that work should be completed in one month or to refund payment. MOU should also be signed by State government with company for 2 years of maintenance of the structure. Incomplete pack house and advised department to examine. Instructions may be issued that work should be completed in one month or to refund payment.
4	Samar Vijay Singh	Village Dabhad Block Badwah District Khargone	Cucumber, Bottle gourd, bitter gourd	1. 2 ha..Plastic Mulching in 2008-09 subsidy Rs. 20000/- 2. drip irrigation in 2007-08 in 5ha subsidy Rs.161575	<ul style="list-style-type: none"> Cultivation of cucurbitaceous crops under open cultivation with mulching proved to give higher return to the farmers as informed. It should be repeated to other farmers of the area
5	Omkareshwar Cold storage	Village Badud Block Badwah	Red Chilly	6000 MT, 3 chambers, ammonia based cold storage. Sanctioned in 2011-12 Subsidy Rs.120 lac.	<ul style="list-style-type: none"> Insulation done in the entire 3 chamber but panelling work is done in 1st chamber, another 2 chamber no panelling done, work not completed in 3rd chamber. Technical verification should be done by engineer expert .Full payment is done and needs to examine the case
6	Vindhyachal Nursery proprietor Dayamantibai W/O Subhash.	Village Panwar Block Kasravad district Khargone	Mango, Guava, Custard apple, katahal,	Small nursery 1ha. 2010-11 subsidy Rs 1.5 lac.	<ul style="list-style-type: none"> Nursery was maintained properly and needs proper leveling of plants Mother block of mango Var. Amrapali & Guava Var. Allahabad Safeda may also be planted.

S r. n o.	Name of the Farmers/ Organizat ion	Addres s	Crop/Var iety/ Technolo gy	Area	Remark
7.	Raghubir S/O Bholu	Village Balgao Block Kasrava d district Khargon e	Banana G-9 T.C. with Drip irrigation.	1. Banana T.C. 2011- 12 in 1.6 ha subsidy Rs. 49923/- And drip irrigation system support 2011-12 in 3ha area subsidy Rs.196620/ -	<ul style="list-style-type: none"> Banana crop performance and yield seems to be good and proper management practices adopted by the farmer. Staking should be done properly
8.	Nathibai Ranchor W/O Bholu	Village Balgao Block Kasrava d district Khargon e	Banana G-9 T.C. with Drip irrigation.	1. Banana T.C. plants given in 2011-12 in 0.9 ha area subsidy given Rs. 28032/-	<ul style="list-style-type: none"> Banana crop performance and yield seems to be good and proper management practices adopted by the farmer. Staking should be done properly

Khandwa District:



The district lies between north latitude $20^{\circ} 31'$ and east longitude $75^{\circ} 57' 27''$ to $77^{\circ} 13'$. Falling in very of India atm poshee N . 55, 55C. E. The total population is 1078251 person in the district. Entire Khandwa district falls under the Narmada basin Narmada and its tributaries form the main source of surface water in the area. Narmada flows along the northern boundary of the district main rivers which drains the area of the district which drains the area of the district are Chhota Tawa, Sukta & Bhim Nadi.

General Information:

Geological Area	8307 km
Number of Tehsils	3
Number of Blocks	7
Population	1078251
Average Annual Rainfall (mm)	916.6

Geomorphology:

Structural hills of deccan traps flood plain, valley fills inter montane depression pediment (Volcanic)

Major Physiographic Units :

Major Rivers:

Narmada, Chhota Tawa, Sukta, Bhim Nadi

Land Use (2004-05)

(a) Forest Area	269.5 Km ²
(b) Net area sown	3043.99 Km ²
(c) Cultivable area :	3046.29 Km ²

Major Soil Types	Black Cotton
Area Under Principal Crops (As on 20004-05)	Paddy, Wheat, Jowar, Maize, Gram & Soyabean,
Net Irrigated Area -	1138.98
Pre-Monsoon level during 2006	6.45-14.55 mbgl 1.05-7.20 mbgl
Post-Monsoon Depth to water level during 2006	+0.21 to 0.49 pre m/year
Long Term water level trend in 10 years (1997-2006)	+0.11 to -0.41 pot m/year

Climate and Soil:

The climate of Khandwa district is characterized by hot summer and general dryness except during the south west monsoon season. The year may divide into four seasons. The cold season, December to February is followed by the hot season from March to about the middle of June. The period from the middle of June to September is the south west monsoon season. October and November form the post monsoon or transition period. The normal annual rainfall of Khandwa District is 916.6 mm Khandwa district receives maximum rainfall during south – west monsoon period i.e. June to September. About 90.5% of the annual rainfall received during monsoon season. The maximum rainfall received at Khandwa is 987.3 mm and minimum at Burhanpur 824.6 mm. The normal maximum temperature received during the month of May is 41.8° C and minimum during the month of January 11.2° C. The normal annual means maximum and minimum temperature of Khandwa district is 34° C & 19.5° C respectively. During the south- west monsoon season the relative humidity generally exceeds 86% (July / August month). The rest of the year is drier. The driest part of the year is the summer season, when relative humidity is less than 33%. April is the driest month of the year.

The nature & Charactersitics of soils is dependent primarily on Relief of the area which influences the variation in soil formation. The soil of Khandwa dist;riict are classified on medium black soils under the broad classification of soil of India & are low fertility soils. There are alluvial deposits constitute gravel sand, silt or clay sized unconsolidated alluvium found along the narrow strips of rivers.

Normal climatologically parameter of Khandwa District:

S. No.	Parameters	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
1	Maximum Temp ($^{\circ}$ C)	29.5	32.6	36.8	40.5	41.8	37.6	31.7	29.9	31.8	34.0	31.9	29.7	34.0
2	Minimum Temp ($^{\circ}$ C)	11.2	13.5	18.5	23.5	27.5	26.0	23.9	23.0	22.5	19.0	14.1	11.4	19.5
3	Relative Humidity ($^{\circ}$ C)	57	45	36	33	45	68	82	86	81	63	58	60	60
4	Wind Velocity (Km/hr.)	5.3	6.0	7.2	9.1	14.0	15.6	13.2	12.0	9.1	5.0	4.0	4.1	8.7
5	Rainfall (m.m.)	5.4	1.7	7.9	2.2	13.0	128.5	260.4	264.8	175.8	29.2	17.2	10.5	916.6

Soil Types:

Major Soils	Area ('000 ha)	Percent (%) of total
Deep soil	377.20	35.48
Medium deep soil	195.00	18.34
Shallow soil	491.20	46.17

Land Use:

Agricultural land use	Area ('000 ha)	Cropping intensity %
Net sown area	300.6	128.0
Area sown more than once	84.2*	
Area sown more than once	384.8	
Irrigation	Area ('000 ha)	
Net irrigated area	122.8	
Gross irrigated area	122.8	
Rainfed area	119.7	

- Normally it is from irrigated area .However in years when the good rains received in later part of the kharif (end of September or in October-November) then it also include some areas of rain fed.

Horticultural crops Area:

Fruits;	Area (‘000 ha	Total Production(‘000 t)	Total Productivity (kg/ha)
Mango	0.246	1.845	7500.00
Guava	0.639	8.307	13000.00
Orange	0.575	7.187	12499.13
Lemon/sweet lime	0.745	11.32	15000.00
Pomegranate	0.05	0.525	10500.00
Grapes	0.16	0.224	1400
Papaya	0.25	6.25	25000.00
others	0.16	2.40	15000.00
Vegetables			
Tomato	115	2.921	25400.00
Potato	2.19	45.99	21000.00
Sweet Potato	1.34	29.48	22000.00
Bhindi	0.268	2.417	9020.00
Cauliflower	0.133	3.325	25000.00
Cucurbits	0..198	2.85	115000.00
others	2.856	22.848	8000.00
Spices			
Coriander	3.002	4.322	1439.71
Garlic	3.70	3.70	1000.00
Chilly	4. 298	22.349	5199.86
Fenugreek seed	2.00	78.00	3900.

Report on Visit of JIT at Khandwa district :

Sr. no .	Name of the Farmers/ Organiza tion	Address	Crop/Variety/ Technology	Area	Remark
1	Rahul Kumar Jain S/O Rajendra	Village Morkhedi Block Punasa District Khandwa	Guava Allahabad safeda with drip.	1 ha 2009-10. intercrop ping of cotton.	<ul style="list-style-type: none"> Plant protection measures and micronutrients schedule should be used as per recommendations from SAUs and ICAR.Orchard is in decline condition and advised rejuvenation and canopy management.Only legume may be taken as inter crop.

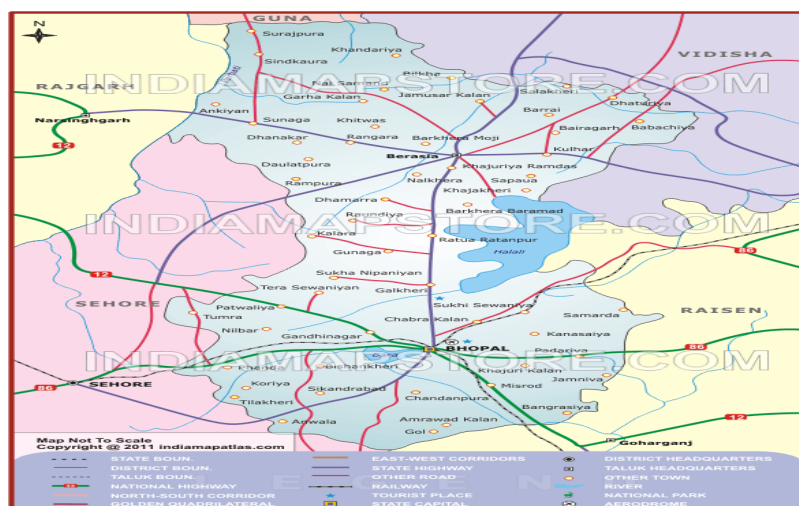
Sr. no .	Name of the Farmers/ Organization	Address	Crop/Variety/ Technology	Area	Remark
					<ul style="list-style-type: none"> Farmer earned 1.1 lac as orchard was in fruiting stage.
2	Shyamsundar S/o Gokuldas	Village Morkhedi Block Punasa District Khandwa	Guava Allahabad safeda.	1 ha 2009-10. intercropping of cotton.	<ul style="list-style-type: none"> Plant protection measures and micronutrients schedule should be used as per recommendations from SAUs and ICAR. Orchard is in decline condition and advised rejuvenation and canopy management. Only legume may be taken as inter crop. Farmer earned 1.1 lac as orchard was in fruiting stage. Orchard may be given drip irrigation system.
3	Amjad Husain S/o Ahemad Husain	Village Sulgaon Block Punasa District Khandwa	Papaya Thiavan 786(Red Leady)	1.20 ha 2011-12. Subsidy Rs.2700 0/-.	<ul style="list-style-type: none"> Papaya crop was infected with mosaic virus and advised to purchase seeds of recommended varieties from authorized dealers and known source. Plant protection measures and micronutrients schedule should be used as per recommendations from SAUs and ICAR
4	Gajraj Singh S/o Nathu Singh	Village Nirmarkhedi Block Punasa District Khandwa	Cucumber, Tomato, Bottlegourd	Pack house Rs. 1.5 lakh Sanctioned in 2011-12	<ul style="list-style-type: none"> Farmer was having pack house with zero energy chamber for storing vegetable crops. Pack house preferably may be given to fruit growers.. Recommended varieties of open pollinated crops or hybrids may sow in the field better net returns.
5	Durgaram S/o Champa Lal	Village Khediburg Block Punasa District	Capsicum & chilly G-19	Shade net house 1000 sqm sanction	<ul style="list-style-type: none"> Farmer earned Rs. 50000/- this year. Use shade net house properly designed. Due to fault construction Shade net house is broken to high wind & needs repair. Committee may be constituted to verify the quality of

Sr. no .	Name of the Farmers/ Organization	Address	Crop/Variety/ Technology	Area	Remark
		Khandwa		ed in 2010-11 subsidy sanction & given Rs. 3 lakh	<p>before payment.</p> <ul style="list-style-type: none"> Farmers should be trained before completion of shade net for its proper use. Capsicum growing during summer season should not be grown and proper package and time for crop cultivated may be adopted.
8	Prithvi Singh S/o Kalusingh	Village Khedibujurg Block Punasa District Khandwa	No crop	Shade net 400 sqm in 2010-11 subsidy sanctioned Rs. 1.20 lac.	<ul style="list-style-type: none"> Farmer not using shade net for cultivation of any vegetable instead use shade net as cattle house. District officer has released subsidy without physical verification.
9	Champal Singh S/o Amar Singh	Village Khedibujurg Block Punasa District Khandwa	Papaya Taiwan 786 Redlady	Papaya in 0.5 ha and Plastic Mulch in 2 ha.	<ul style="list-style-type: none"> Papaya growing with mulch and drip irrigation. Advised to purchase seeds of recommended varieties from authorized dealers and known source. Plant protection measures and micronutrients schedule should be used as per recommendations from SAUs and ICAR
10	Government nursery Deshgao n	Village- Deshgao n Block Chegaon makhan District Khandwa	Mango Dasher 175,Guava 1500 Lemon 3000 Custard Apple 1400	4.04 ha	<ul style="list-style-type: none"> Nursery was not properly maintained and totally neglected.Competent technical staff may be posted at nursery. Mango mother block of recommended varieties may be established including Cv. Amrapali with drip Irrigation.
11	Government nursery	Village Borgaon khurd	Seedlings of Guava 20,000	5.6 ha.	<ul style="list-style-type: none"> Good management of nursery but records are not properly maintained. DDH Indore should check all the

Sr. no .	Name of the Farmers/ Organization	Address	Crop/Variety/ Technology	Area	Remark
	BorgaonK hurd	Block Khandwa District Khandwa	(Seed origin) Mango, Citrus,		record and submit the report to Director Horticulture withi a month. • Mather Block of pomegranate and Guava should be established.
12	BadriPras ad S/o Sevakra m	Village Satbada Block Khandwa District Khandwa	Banana G- 9	2ha	• Farmer grown banana only from subsidy amount not his contribution so area showing 7 ha but actual plantation in one ha. Inputs were supplied through by the department and no cash given.
13	Narayan S/o Sevakra m	<i>Village Satbada Block Khandwa District Khandwa</i>	Banana G- 9	1 ha	• Farmer grown banana closer spacing and recommended guide lines may be used.
14	Manisha W/o Ashish		Banana G- 9 died	1 ha	• Banana Plantation died, DDH Indore should enquire the matter and submit the report to the Director Horticulture.
15	Asha Bai W/o Shyamlal		Banana G- 9 died	1 ha	
16	Shyamlal S/o Mangilal		Banana G- 9 died	2 ha	
17	Dr. Shivshan kar Choure Sankalp Biotec Society	Rajur Tehsil Harsud District Khandwa	Vermi compost unit	3X20 feet 4 pits construc ted in the year 2009-10 subsidy given under NHM Rs. 15000/-	<ul style="list-style-type: none"> • Good management of vermin compost beneficiary have sound knowledge on the subject. • Need to use HDPE vermin compost pit also. • Awareness programme convert the whole village as an organic village should be taken.

Sr. no .	Name of the Farmers/ Organization	Address	Crop/Variety/ Technology	Area	Remark
18	Smt Bhavna W/O Vijay Shah	Village Ashapur Block Khalva District Khandwa	Shed net house	4000 sqm. In 2011-12. Subsidy Rs.12 lakh given 1st Instalment Rs. 6.0 lakh	<ul style="list-style-type: none"> • Installation work is in progress. • Need to install stalking attachments. • Ensure saving the crop in rainy season. • Training must be given to the farmers .

Bhopal District :



Bhopal has an average elevation of 427 metres (1401 ft). Bhopal is located in the central part of India, and is just north of the upper limit of the Vindhya mountain ranges. Located on the Malwa plateau, it is higher than the north Indian plains and the land rises towards the Vindhya Range to the south. The city has uneven elevation and has small hills within its boundaries. The major hills in Bhopal comprise of Idgah hills and Shyamala hills in the northern region and Arera hills in the central region. The municipality covers 298 square kilometres¹ It has two very beautiful big lakes, collectively known as the Bhoj Wetland . These lakes are the Upper Lake (built by King Bhoj) and the Lower Lake. Locally these are known as the Bada Talab and Chota Talab respectively. The catchment area of the Upper Lake is 360 km² while that of the Lower Lake is 9.6 km². The Upper Lake drains into the Kolar River. The Van Vihar National Park is a national park situated besides the Upper Lake. According to the 2011 census the population of the Bhopal city is about 1,795,648 and population of Bhopal district stands at 2,368,145.

Climate:

Bhopal has a humid subtropical climate, with mild, dry winters, a hot summer and a humid monsoon season. Summers start in late March and go on till mid-June, the average temperature being around 30 °C (86 °F), with the peak of summer in May, when the highs regularly exceed 40 °C (104 °F). The monsoon starts in late June and ends in late September. These months see about 40 inches (1020 mm) of precipitation, frequent thunderstorms and flooding. The average temperature is around 25 °C (77 °F) and the humidity is quite high. Temperatures rise again up to late October when winter starts, which lasts up to early March. Winters in Bhopal are mild, sunny and dry, with average temperatures around 18 °C (64 °F) and little or no rain. The winter peaks in January when temperatures may drop close to freezing on some nights. On 6 January 2011, the lowest temperature was 2 °C lower than in Shimla. Total annual rainfall is about 1146 mm (46 inches).

Climate data for Bhopal

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Average high °C (°F)	25.3 (77.5)	28.6 (83.5)	33.6 (92.5)	38.3 (100.9)	40.7 (105.3)	37.0 (98.6)	30.6 (87.1)	28.8 (83.8)	30.5 (86.9)	32.0 (89.6)	29.0 (84.2)	25.9 (78.6)	31.7 (89.1)
Average low °C (°F)	10.2 (50.4)	12.4 (54.3)	17.1 (62.8)	21.8 (71.2)	25.5 (77.9)	25.3 (77.5)	23.1 (73.6)	22.4 (72.3)	21.4 (70.5)	18.4 (65.1)	14.1 (57.4)	10.9 (51.6)	18.6 (65.5)
Precipitation mm (inches)	12.9 (0.508)	7.8 (0.307)	7.2 (0.283)	4.5 (0.177)	8.0 (0.315)	114.0 (4.488)	155.8 (6.134)	188.4 (7.417)	195.8 (7.709)	26.2 (1.031)	13.7 (0.539)	12.4 (0.488)	1,146.7 (45.146)

Source: *IMD*

Report on Visit of JIT at Bhopal district during 14-06.12

S r. n o.	Name of the Farmers/ Organization	Address	Crop/Var iety/ Technolo gy	Area	Remark
1	Sai Nursery owner Amit Saxena	Village Kirat Nagar Block Abdullaganj District Raisen	Poly house Poly house Nursery	Poly house 1000 sqm NHB in 2008. Poly house 1664 sqm constructed in 2009.	<ul style="list-style-type: none">Gerbera crop is growing & Nursery maintenance is goodCrop rotation should be plannedRefrigerated van may be supported with NHM to the grower for transport of cut flower..Pre cooling chamber should be established to the grower.
2	Govt. Model Nursery	Village Kanhasaiya Block Fanda District Bhopal	Excellent mother plants block of Mango, Guava, Awala,	45 acres which includes Nursery acres. Seed production at Training centre	<ul style="list-style-type: none">Farm planning committee should be formed for establishing the orchards and planning of farm lay out with proper drainage.Crop cafeteria of fruit crops may be established crops like orange, bale, jamun, custard apple,

					<p>pomegranate, ber, sapota .</p> <ul style="list-style-type: none"> • Vegetable, medicinal and Floriculture Block should be established and properly planned. • Convert the centre as Centre of Excellent. • De ionizer should be put used for supply of mineral free water as iron is in excess.
3.	Aggregato r Rana Greens collection centre	Village Eentkhed ichap Block Fanda, District Bhopal	collection centre under NVI	2000 sq ft.out of which 1000sq ft covered and 1000sqft open. .subsidy sanctioned Rs.4.0 lakhs given as 1st Instalment Rs. 2.0 lakh	<ul style="list-style-type: none"> • 80% work at site is completed. • 800 Farmers are associated with the aggregator. • Aggregator is operating in the village with collection centre.
4.	Aggregato r Rana Greens collection centre cum Retail outlet.	Kolar road Bhopal.			<ul style="list-style-type: none"> • Aggregator is having excellent collection centre cum Retail outlet in the heart of the city with cold room and cold chamber. • Horticulture produce from the Farmer's field is sorted, graded and packed for further delivery. • The centre is having on line computer facilities to carry out day to day works.

Wrap meeting with Director Horticulture, Govt. of Madhya Pradesh with Joint Inspetion Team held on 15-06-2012 at Bhopal.

A Wrap up meeting with joint inspection team constituted by department of Agriculture & Cooperation, Government of India for monitoring and review progress of National Horticulture Mission, National Mission on Micro Irrigation and National Vegetable Inisiative was held on 15th june 2012 under the chariman ship of director horticulture ad mission direttore , state Horitculture Mission Bhopal. JIT team leader Dr. R.C. Upadhayaya, Chief Constulant explained about field visit to Indore, Dwas Khargone, Khandwa and Bhopal. Districts of M.P. Team visited the farmer's field and Govt. Nurseries. Disscussion was held on production of quality planting matieral and maintenance of nurseries including production of disease free fruit seedings and placement of staff at nursaries. Disscussion was held also held on maintaince and utilization of protected structures and water harvesting.Placement of qualified technical staff and their visit to the farmers field was discussed with Director.

Madhya Pradesh:

Madhya Pradesh is producing about 6.39 m MT of horticulture produce from an area of 0.60 m ha. and accounts for 2.87 % of total horticulture production of the country. The major share of

Madhya Pradesh Horticulture (, 000 Ha.)

Total Geographical area	30.744
Area Covered under Horticulture	0.645
Fruits crop	0.064
Vegetables	0.246
Spices	0.309
Others (Medicinal , Aromatic & Flowers)	0.026

Agro Climatic Zones in Madhya Pradesh :

The cropped area in Madhya Pradesh is divided into eleven zones based on the Agro-climatic conditions. The classification mainly concentrates on the range of rainfall received, type and topography of the soils. The districts covered by the different zones and their Agro-climatic characteristics are given below:

- Chattisgarh Plain Balaghat.
- Northern Hill Region of Chattisgarh.
- Kymore Plateau Satpura Hills.
- Central Narmada Valley.
- Vindhya Plateau.
- Grid Region.
- Bundelkhan.
- Satpura Plateau.

- Malwa Plateau
- Nimar Plains
- Jhabua Hills



Horticulture produce is from vegetables (48.70%) and fruits (44.81%). District Covered (34) Betul, Bhopal, Hoshangabad, Sagar, Jabalpur, Ujjain, Jhabua, Dewas, Indore, Chhindwara, Mandsaur, Shajapur, Badwani, Ratlam, Burhanpur, Dhar, Khargone , Khandwa, Mandla ,Dindori, Chhatarpur, Harda , Rewa , Gwalior, Rajgarh , Neemach , Satna, Guna ,Sehore, Sidhi, Alirajpur, Singroli, Ashoknagar, and Vidisha.

Focused Crops:

Mango, Orange, Aonla, Guava, Ber, Custard Apple, Banana, Garlic, Coriander, Chillies and Flowers.

Fruits Production in Madhya Pradesh :

No	Fruits	Area in hectare	Production in mn MT	Productivity in MT/ Ha
1	Mango	24403	2.19	9
2	Oranges	19857	3-17	16
3	Sweet Lemon	501	0.01	16
4	Lime	10872	1.73	16
5	Banana	49155	19.66	40
6	Guava	6636	1.32	20
7	Papaya	1500	0.40	27

8	Grapes	246	0.06	25
9	Other Fruits	81832	4.90	6
	Total	195002	33.44	

Vegetables Production in Madhya Pradesh:

No	Vegetables	Area in hectare	Production in mn MT	Productivity in MT/ Ha
1	Potato	70903	10.64	15
2	Sweet Potato	3777	0.23	6
3	Onion	46787	7.49	16
4	Tomato	18254	2.74	15
5	Brinjal	13219	1.98	15
6	Cabbage	3366	0.67	20
7	Cauliflower	7648	1.22	16
8	Okra	8571	0.51	6
9	Green Peas	17278	1.90	11
10	Other Vegetables	56416	7.9	14
	Total	246219	35.28	

Spices Production in Madhya Pradesh:

No	Spices	Area in hectare	Production in mn MT	Productivity in MT/ Ha
1	Chillies	44180	0.040	0.91
2	Ginger	5204	0.006	1.13
3	Turmeric	558	0.001	0.96
4	Garlic	27816	0.117	4.22
5	Coriander	102078	0.040	0.39
6	Other Spices	129974	0.130	1.00
	Total	309810	0.334	

No	Other Crops	Area in hectare	Production in mn MT	Productivity in MT/ Ha.
1	Flowers	3800	0.02	0.6
2	Medicinal & Aromatic Plants	22900	0.137	6

District selected for specific crops:

Mango:

Betul, Bhopal, Hoshangabad, Sagar, Jabalpur, Indore, Mandla, Dindori, Sehore, Jhabua, Ujjain, Dewas, Chattarpur, Harda, Rewa, Satna, Sidhi, Alirajpur, Singrauli,

ORANGE:

Betul, Bhopal, Chhindwara, Hoshangabad, Shajapur, Mandsaur, Ujjain, Harda, Rajgarh, Vidisha, Sehore and Neemuch

Guava:

Betul, Jabalpur, Chhindwara, Hoshangabad, Sagar, Indore, Dhar, Khandwa, Khargone, Bardwani, Jhabua, Burhanpur, Ujjain, Shajapur, Ratlam, Mandsaur, Dewas, Mandla, Dindori, Harda, Gwalior, Guna, Rewa, Singrauli, Alirajpur.

Aonla:

Badwani, Bhopal, Jabalpur, Jhabua, Ratlam, Sagar, Indore, Dhar, Khandwa, Ujjain, Khargone, Burhanpur, Dewas, Mandla, Dindori, Rajgarh, Shajapur, Ratlam, Rewa, Vidisha, Sehore, Sidhi, Ashoknagar, Betul, Alirajpur, Singrauli. Hoshangabad, Chhatarpur, Satna, Guna, Chhindwara:

Pomegranate:

Bhopal, Betul, Jabalpur, Chhindwara, Hoshangabad, Sagar, Indore, Dhar, Khandwa, Khargone, Bardwani, Jhabua, Burhanpur, Ujjain, Shajapur, Ratlam, Mandsaur, Dewas, Mandla, Dindori, Harda, Gwalior, Guna, Rewa, Neemuch, Satna, Chattarpur, Sehore, Ashoknagar, Singrauli, Alirajpur.

Ber:

Bhopal, Jabalpur, Chhindwara, Hoshangabad, Sagar, Dhar, Khandwa, Khargone, Ratlam, Mandsaur, Mandla, Dindori.

Custord Apple:

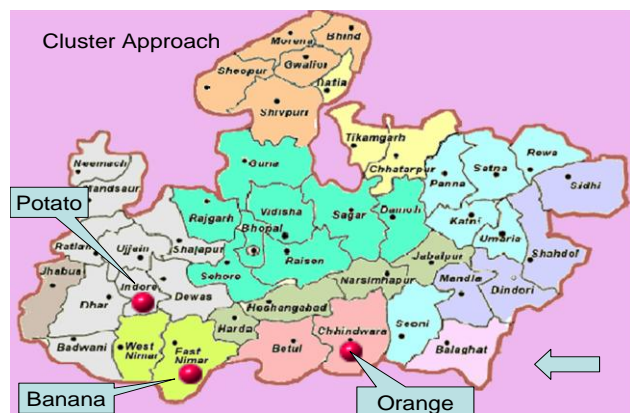
Bhopal, Betul, Jabalpur, Chhindwara, Hoshangabad, Sagar, Dhar, Khandwa, Khargone, Mandsaur, Dindori, Sehore, Mandla, Harda.

Banana:

Badwani, Burhanpur, Dhar & Khargone, Khandwa, Hoshangabad

Chilli

Bhopal, Betul, Chhindwara, Hoshangbad, Sagar, Indore, Dhar, Khandwa, Khargone, Barwani, Burhanpur, Mandla, Dindori, Chattarpur, Gwalior, Harda, Neemuch, Rewa, Satna, Jabalpur, Shahjapur, Jhabua, Rajgarh, Sehore, Vidisha, Sidhi, Ratlam, Alirajpur, Singrauli, Harda, Alirajpur.



Infrastructures for Agricultural Marketing:

1. Modern Multi Modal Logistic Hub at Pawarkheda in PPP
2. Irradiation centre at APMC, Indore - estimated outlay of INR 400 million
3. Modern Whole-sale Market at Bhopal
4. Centre for perishable cargo at Indore Airport
5. Spot Trading through Commodity Exchange
6. Base Line Survey – National Institute of Agriculture Marketing (NIAM)

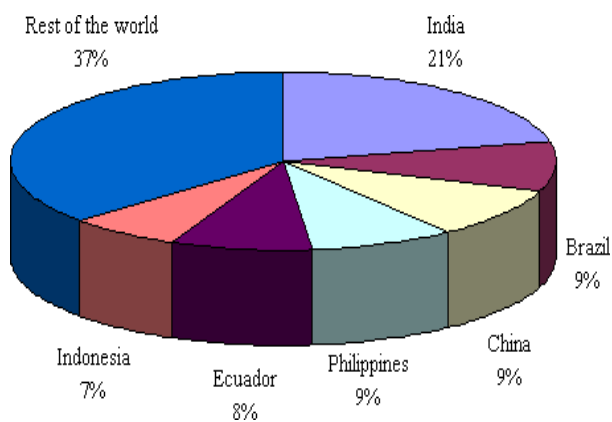
Development of Food Processing Industries :

A cluster approach

- Crops identified - Banana, Potato & Orange
- Banana cluster at Burhanpur
- Potato cluster at Indore (Mhow)
- Orange cluster at Chhindwara

Banana Production:

- India's production of Banana is 21% of total world's production.
- Madhya Pradesh ranks 8 th in country.
- Banana cultivated in 17000 hectares at Burhanpur in M.P.
- India's production of Banana is 21% of total world's production.
- Madhya Pradesh ranks 8 th in country.



Summary Statement

Year : 2012-13

1. Name of State : Madhya Pradesh
2. Name of District : Bhopal

Area Coverage Physical and Financial programme

A. Drip Irrigation

Sl. No.	Crop	Spacing	No. of Beneficiaries	Area Ha.	Total Cost Involved	Financial Outlay	
						Government of India Share	State Share
1	Mango/Chiku	10x10	30	30.00	6.01	2.71	1.68
2	Aonla	8x8	0	0.00	0.00	0.00	0.00
3	Citrus/Guava	6x6	70	70.00	18.59	8.36	5.20
4	Grapes/Pomegranate	3x3	0	0.00	0.00	0.00	0.00
5	Papaya	2x2	0	0.00	0.00	0.00	0.00
6	Horticulture	1.5x1.5	20	10.00	7.44	3.35	2.08
7	Vegetable/spices	1.2x0.6	150	150.00	146.40	65.88	40.99
	Sub Total : Drip		270	260.00	178.44	80.30	49.96

B. Sprinkler

1	Horti/Non Horti.	63mm	0	0.00	0.00	0.00	0.00
2	Horti/Non Horti.	75mm	235	470.00	89.51	40.28	25.06
	Sub Total : Sprikler		235	470.00	89.51	40.28	25.06

C. (a) Demonstration for Drip Irrigation

	(b) Demonstration for Mini Sprinkler						
1	Mini Sprinkler		0	0.00	0.00	0.00	0.00
			0	0.00	0.00	0.00	0.00
	Grand Total		505	730.00	267.95	120.58	75.02

Monthly Progress Report under C.S.S. Micro Irrigation Scheme

Name of State.- Madhya pradesh

Name of District- Bhopal

Period of Report- **MARCH 2011-12**

Details of Progress Achieved.

Year-2011-12

N0	Crop name & Space	Target for Financial year 2011-12					Achievement During Month					Progress up to Previous Month				
		No Be- nefi	Tar get (ha)	Assistance in laakh			No Be nefi	Area (ha)	Exp.			No Ben efi	Area (ha)	Exp.		
				Gol	State	Total			Gol	State	Total			Gol	State	Total

A. Drip Irrigation

1	Mango 10X10						2	4.000		0.64	0.64	5	15-0	0.40	0.30	0.70
2	Aonla 8X8 9X9									0.07	0.07	2	2-00	0.09	0.06	0.15
3	Citrus 6X6						3	4.200	0.9	3.15	4.05	44	57-4	1.39	0.91	2.30
	papaya 2X2									0.19	0.19	1	1-00			
	2.5 X2.5									0.61	0.61	5	22-00	3.62	2.72	6.34
	Anar 5X54X4							3.80		1.03	1.03	4	7-00			
4	Floriculture re1X1															
5	Vegetable 1X1															
	1.5x1.5						4	4.84	0.89	1.24	2.13	13	9-46	2.03	1.41	3.44
	1.2x0.6						—	—	0.04	11.81	11.85	55	85-1	15.98	10.66	26.64
	Etc						2	0.90	—	0.08	0.08	1	0-40	0	0.04	0.04
	Sub Total		200-0				11	17.74	1.83	18.82	20.65	130	199-36	23.51	16.10	39.61

Sprinkler

1	Vegetable e 1X1						27	47.00	2.85	1.99	4.84	08	16-00	0.87	0.66	1.53
2	Floriculture re1X1															
	Sub Total		15-00				27	47.00	2.85	1.99	4.84	08	16-0	0.87	0.66	1.53
	GrandTotal		215.0	29-32	37-69	67-01	38	64.74	4.68	20.81	25.49	138	215.36	24.38	16.76	41.14

Observations and Suggestions of JIT:

JIT has recorded following common observations on implementation of centrally Sponsored Horticulture development programmes in the visited districts (Indore, Dewas, Khargone, Khandwa and Bhopal) of Madhya Pradesh during 9th June, 2012 to 16th June, 2012.

- Proper sign board with NHM logo indicating the name of beneficiary, activity, cost, assistance provided, year, etc. needs to be displayed at site. It is also observed that no boards are fixed at field level of activities with crop details to account NHM programmes and suggested to take up this activity at field level at districts. □ To ensure transparency in implementation of various activities under NHM, details about the activities approved in the village, cost of work, subsidy available, name of beneficiaries, area covered and year of implementation needs to be displayed at the district level and at block level.
- Overall progress of implementation of the NHM programme in Indore, Dewas, Khargone, and Khandwa districts is needed to be accelerated.
- □ There is serious shortage of field staff and field functionaries posted at district level hardly visit fields. Field functionaries are not going to field and unable to provide proper technical guidance to the farmers. The staff may also be rationally posted at block level, sub-division level and at nurseries to produce quality planting material. Field staff also needed proper trainings or refresher course on latest package of practices of horticultural crops, so to provide proper technology in field.
- JIT observed that nurseries established at private / public sector needs proper care and maintenance. These nurseries should be properly leveled with Varieties, date of sowing seeds, date of grafting and method of grafting etc. and should be accredited by National Horticulture Board. Staff posted at nursery should be technically qualified (May be agriculture graduate).
- JIT has a view that more attention should also be given on vermi-composting, bee keeping, rejuvenation, mechanization (Small tractors only and not gig tractors), protected cultivation, and nursery establishment etc. in future. The cluster approach should be followed in area expansion activities. The entire production cluster needs to be linked with PHM & marketing infrastructure.
- JIT suggested that rejuvenation of declined and old orchards of fruit crops should be taken on priority and initiated in old decline plantations.
- JIT has a view that more attention should also be given on vermin-composting, bee keeping, rejuvenation, mechanization, protected cultivation, and nursery establishment etc. in future. The cluster approach should be followed in area expansion activities. The entire production cluster needs to be linked with PHM & marketing infrastructure.
- It was observed that many places newly planted orchards were completely damaged and there was not a single plant of either Mango or Guava in the field of beneficiaries. In such cases responsibility may be fixed to the responsible person for such negligence. It is suggested that team may be constituted preferably evolving KVK experts and deputy director of the division to visit the field before payment of second installment. The team may also supervise for implementation of Micro Irrigation

scheme convergence with horticultural crops. Team may also be constituted at State level to monitor the programmes and visit field regularly.

- JIT observed satisfactory progress of protected cultivation, mulching and drip irrigation components in convergence. It is suggested that more efforts are to be made for cultivation of vegetables in shade net and poly tunnel during winter season. The farmers are to be provided training on management of green house, poly house, shade net, plastic tunnel, mulching .Design for construction of green house and shade net house recommendations of SAU,s or KVK or ICAR(CIAE ,Bhopal) may be adopted. Farmers may also be trained on crop selection and their package of practices adopted under protected structures before completion of such units.
- Front line demonstration may be taken up on Bee production in specific horticultural crops to understand the role of Bee's as pollinator which helps in increasing the crop yield. The farmers may also be trained in the art of handling bees, transferring the hives and extraction of honey.
- JIT suggested that technical committee may be constituted for technical verifications in newly constructed Cold Storages before any payment made to the party. Team observed poor construction of cold storage at one location.
- □Farmers are not aware of recommended package of practices of horticultural crops. Therefore, Farmers may be provided hand outs of specific technical knowledge and provided regular training or awareness programmes.
- Indore, Dewas ,Khargone, Khandwa and Bhopal districts needs priority support for water harvesting of small and large units .This programme may be supported with technical guidance of experts/NGOs(Working on such projects) in large scale in convergence with other schemes like MFPI, APEDA, MNREGA, BADP, NHB, NBB, Micro Irrigation etc
- The annual report of the NHM programme and success stories of various NHM interventions needs to be submitted to DAC at the earliest.