

Shri Shivaji Mofat Education Society, Kandhar
SHRI SHIVAJI LAW COLLEGE, KANDHAR

Dist. Nanded, (M.S) India

Affiliated to

**Swami Ramanand Teerth Marathwada University,
Nanded**

In collaboration with

Global Foundation

Organized

One Day Multidisciplinary



International e-Conference

On

**Sustainable Development Goals: Key Issues, Opportunities
and Challenges in Environment, Agriculture, Population,
Resources, Economy and Social Sciences**

Date: - Date: 20th August 2022, Saturday

CERTIFICATE

This is to certify that Prof./Dr./Mr./Ms. *Dr. Vijay Purushottam Gorde, Assistant Professor, Dept. of Geography, Mahatma Gandhi Arts, Science & Late N.P. Commerce College, Armori Dist. Gadchiroli* has participated in One Day Multidisciplinary International e-Conference on *"Sustainable Development Goals: Key Issues, Opportunities and Challenges in Environment, Agriculture, Population, Resources, Economy and Social Sciences"* organized by the *Internal Quality Assurance Cell (IQAC), Shri Shivaji Law College, Kandhar, Dist. Nanded, (M.S) India* In collaboration with *Global Foundation* on Date: 20th August 2022, Day-Saturday

He/She has Participated/Published/Presented a research paper entitled **Geographical Study Of Orange Cultivation In Vidarbha -2021**

Convener
Dr. P. K. Dhondge
Director of Physical Education and Sports

Chief Organizer
Dr. M. L. Dharmapurikar
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Young Researcher Association
INTERNATIONAL JOURNAL
OF
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NAME- Dr. Vijay Purushottam Gorde, Assistant Professor, Dept. of Geography,
Mahatma Gandhi Arts, Science & Late N.P. Commerce College, Armori Dist. Gadchiroli

In recognition of the publication of the paper entitled

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GEOGRAPHICAL STUDY OF ORANGE CULTIVATION IN VIDARBHA -2021

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Abstract: -

*Vidarbha is the north-eastern region of the state of Maharashtra. Situated in the central part of India. The Vidarbha region is known for its growing major crop of oranges and cotton. Mandarin orange (*Citrus reticulata*) is most common among citrus fruits grown in India, as well as Vidarbha. It occupies nearly 40% of the total area under citrus cultivation in India. Nagpur mandarin is one of the best mandarins in the world, as well as Vidarbha. Production of this orange crop in the central and western parts of India is increasing per year. Amravati and Nagpur are the major orange cultivators in Vidarbha. But Changing weather conditions in Vidarbha affected orange cultivation in this region.*

Keywords: - Orange Cultivation, Vidarbha

Introduction: -

Among the various regions of Maharashtra, the Vidarbha region is located in the eastern part of the state of Maharashtra. Vidarbha includes a total of 11 districts of Maharashtra. Vidarbha is divided into two administrative divisions namely East Vidarbha and West Vidarbha. East Vidarbha has a total of six districts including Nagpur, Wardha, Bhandara, Gondia, Chandrapur, Gadchiroli, etc.

West Vidarbha consists of five districts namely Amravati, Yavatmal, Akola, Washim and Buldhana, etc. Various crops are grown in different districts of Vidarbha where black cotton-rich soil is found in West Vidarbha while rice cultivation is important in East Vidarbha.

Important crops grown in Vidarbha are cotton, tur, soybean, rice, sorghum, wheat, and orange. Nagpur in East Vidarbha and Amravati District in West Vidarbha are the main orange-producing districts in Vidarbha. Orange from Vidarbha is popularly known as 'Nagpuri Orange'. The Orange region of Vidarbha is mainly found in the lower region of Satpura foothills. Nagpuri

orange from Vidarbha is known as mandarin. Which is famous for its attractive sweet and sour taste. Orange is a cash crop and horticultural crop in Vidarbha and farmers get maximum financial benefit from it. Oranges from Vidarbha are famous not only in India but also in the world.

Which 30 inches to 40 inches of rainfall along with 15 degrees to 38-degree centigrade temperature can grow oranges. Since orange is a horticultural crop, it requires a large amount of irrigation. The orange crop is harvested twice a year which is known as Ambia blooming (Bahar) and Mrig blooming (Bahar).

Objectives of the Study: -

1. To make a comparative study of the area under orange crop in Vidarbha.
2. To identify the main orange-producing districts of East Vidarbha and West Vidarbha.
3. To study the effect of irrigation and groundwater status on orange cultivation.
4. To discuss the status of the industry on orange crops considering the economic importance of orange farming.

Area of study: -

Vidarbha region is located in the center of India and on the East side of

Maharashtra. Vidarbha is situated between 19° 05' to 21° 47' North latitude and 75° 59' to 79° 11' East latitude. The area covered by Vidarbha is 97321 square kilometers and it covers 31.6 % of percentage area of Maharashtra. Vidarbha region shares its boundary with the state of Chhattisgarh towards the east, Madhya Pradesh in the north, Telangana in the south, and Aurangabad and Nashik administrative division of Maharashtra state in the west. Vidarbha has been divided into Amravati and Nagpur administrative divisions of Maharashtra.

Amravati administrative division in the west side of Vidarbha region with five districts Buldhana, Akola, Washim, Yavatmal besides Amravati district. Nagpur administrative division is on the East side of Vidarbha with 6 districts Wardha, Bhandara, Gondia, Chandrapur,

and Gadchiroli besides Nagpur district, Vidarbha represents 11 districts.

Study Methodology:-

In the present research article, the research data related to the subject while studying the geography of orange farming in Vidarbha is based on the secondary data source and it is taken from District Socio and Economic Survey - Districts in Vidarbha (2021). The bar graph is drawn based on the data from Vidarbha.

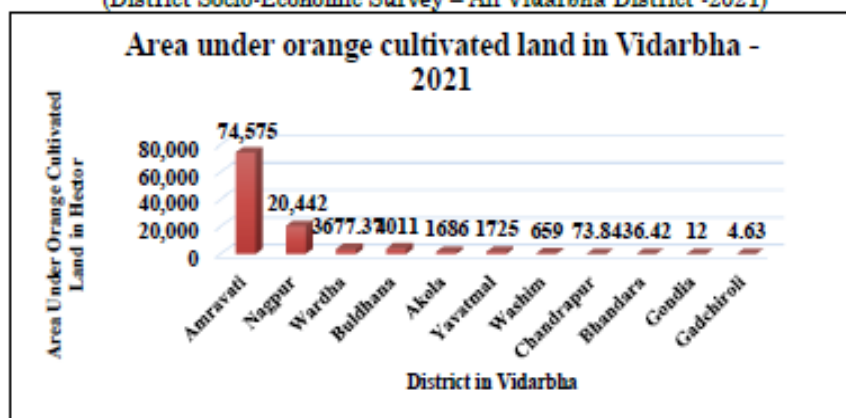
Status of Orange crop in Vidarbha:-

A study of total net cultivated area and area under orange crop in Vidarbha reveals that two orange growing districts are prominent in Vidarbha, namely Nagpur in East Vidarbha and Amravati in West Vidarbha. In the entire Vidarbha district, Amravati seems to have the largest area under orange cultivation followed by Nagpur, Wardha, Buldhana, Yavatmal, and Akola respectively.

Orange cultivation- 2021

Sr. No.	District	Total cultivated land (in Hector)	Orange cultivated land (in Hector)	Orange cultivated Land (%)	Irrigated land under Orange crop (Hector)
1.	Amravati	7,61,513	74,575	69.75 %	74,575
2.	Nagpur	5,40,107	20,442	19.12 %	20,316
3.	Wardha	389772.4	3677.37	3.42 %	3338.39
4.	Buldhana	750457	4011	3.75 %	4011
5.	Yavatmal	863707	1725	1.61 %	1725
6.	Akola	4,20,037	1686	1.57 %	1535
7.	Washim	407056	659	0.61 %	659
8.	Chandrapur	470834.21	73.84	0.06 %	58.63
9.	Bhandara	182249.17	36.42	0.03 %	31.90
10.	Gondia	167267	12	0.01 %	01
11.	Gadchiroli	205892.30	4.63	0.004 %	0.00
Total District		5158892.08	106,906.26	100 %	106250.92

(District Socio-Economic Survey – All Vidarbha District -2021)



According to the 2021 data, 20,442 hectares of farmland is under orange crop in Nagpur district while 74,575 hectares of farmland are under orange crop in Amravati district. Amravati district in Vidarbha has the highest total area of 69.75% covered by orange crops. And Amravati district is the first largest producer of oranges in Vidarbha. After that, Nagpur district occupies second place with 19.12% area. Warud taluka of Amravati district alone has more area (22492 Hectore) than Nagpur district (20442 Hectore) which is the second largest producer of oranges in Vidarbha.

Although oranges in Vidarbha are known as Nagpuri oranges, the area of Amravati district is three times that of Nagpur district. Warud, Morshi, Chandurbazar, and Achalpur are important orange-producing talukas in the Amravati district while Katol, Narkhed, Kalmeshwar, and Savner are the main orange-producing talukas in the Nagpur district.

Orange being a horticultural crop requires irrigation. Due to the impact of irrigation, the groundwater level in Warud, Morshi, Achalpur, and Chandur Bazar of Amravati district and Narkhed, Katol, Kalmeshwar, and Savner talukas of Nagpur district is seen to have decreased to a large extent.

Conclusion:-

1. Amravati district appears to be the main orange-producing district in the whole of Vidarbha.
2. Warud taluka of Amravati district in the entire Vidarbha has the maximum area under net cultivation of the orange crop.
3. As the orange crop requires a large amount of irrigation, it is seen that the farmers have pumped the water from the ground by bore wells on a large scale. The effect of which is that the administration has banned borewells in the Amravati district.
4. The increasing heat is affecting the orange groves and the orange area seems to be shrinking.
5. Due to the day-by-day decreasing groundwater level in the orange growing

Dr. Vijay Purushottam Gorde

areas, lack of irrigation, and lack of processing industries based on the orange crop, orange farmers in Vidarbha are seen committing suicide on a large scale.

6. The project started by the Amravati Food Grower Industrial Co-operative Society in 1958 closed in 1962 and NOGA was established in 1972 after which the orange juice processing industry started in the Amravati district and it also closed down.

7. It is necessary to set up an orange processing industry in the main orange-producing talukas of Amravati or Nagpur district to get the right price for the orange farmers.

8. In the orange-growing district of Vidarbha, there is a need to build large dams, and canals and provide large-scale subsidies for drip irrigation in various irrigation facilities. Along with this, it is also necessary to provide loans at low-interest rates to orange farmers.

References:-

- 1) Husen Majid (2000) - Agriculture Geography, Ravat Publication, Jaipur
- 2) Dr. V.J. Patil & Dr. Shailesh Wagh (2001) - Krushi Bhugol, Prashant Publication, Jalgaon
- 3) Dr. V.T. Gharpure (2001) - Krushi Bhugol, Pimpalapur Publication, Nagpur
- 4) Economic & Statistical Dept. Mumbai (1995) - District socio-economics survey (All District in Vidarbha - 2021)
- 5) <https://www.agrifarming.in/orange-farming>,
<https://vishwakosh.marathi.gov.in/32644/>
- 6) <https://indiaagronet.com/Fruit-Farming/Orange-Cultivation.html>
- 7) <https://www.orangeodyssey.com/about-vidarbha>