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THE ECONOMIC IMPACT OF RAINY SEASON ON KOKAN REGION IN MAHARASHTRA

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1. INTRODUCTION

This paper has underlined the importance of rainy season on Kokan region in Maharashtra. As we know that rain is a source of the life of everyone who are living on the Earth hence everyone is waiting to the monsoon which have starting mostly in the month of June .Rainy season is a source of many things in our life and plays different role may be in form of freshwater, drinking water ,good climate for crop ,water storage , to maintain good quality of air, water recreation ,develop tourism to prevent soil erosion, to maintain the balance between the animal husbandry and nature and to support the forest too.

Maharashtra is located on the coast of the magnificent Arabian Sea and occupies the western & central peninsular region of India. The State has 720 km long coastline & Sahyadri mountain ranges on the west, the Satpuda hills along the north and Bhamragad-Chiroli-Gaikhuri ranges on the east as its natural borders. The State is surrounded by Gujarat to the north west, Madhya Pradesh to the north, Chhattisgarh to the east, Telangana to the south east, Karnataka to the south and Goa to the south west. For administrative convenience, the State has been divided into 36 districts and six revenue divisions. Maharashtra experiences a tropical monsoon climate with hot, rainy and cold weather seasons. The month of March marks the beginning of the summer and is followed by monsoon in early June .(GoM,2023-24)

Konkan Division is one of the six administrative divisions of the Indian state of Maharashtra. It includes the northern and central parts of the greater Konkani region, which was merged with Maharashtra due to the reorganization of the state of India. Its geographical location is 72°75′ to 74°45′ East and 15°30′ to 20°20 North and 720km length of Beach. In Kokan area there are more than 5681 villages and 47 talukas.

Rainfall is a crucial factor in agriculture, providing the necessary water for plant growth, but its impact can vary greatly depending on the amount and timing of precipitation, with both excessive rain and drought causing significant damage to crops and impacting agricultural productivity; essentially, adequate rainfall is essential for healthy crop yields. In Maharashtra, there are various divisions, of these Kokan divisions always got highest rainfall every year as compare to other divisions. In 2023-24 Kokan region has recorded 3186 ML rainfall.

2. OBJECTIVE OF THE PAPER

The Paper The Economic Impact of Rainy season on Kokan region in Maharashtra has some specific objectives given as below.

1. To study the actual rainfalls in Kokan area.
2. To understand the impact of rainfalls on economic activities in Kokan Area.
3. To find out any correlation between rainfall and the standard of living of Kokan Region

3. SOURCES OF DATA

The paper has referred secondary data and it is available on in public platform like Internet,websit,print media,news paper and Magazine.

4. ANALYSIS OF DATA

On the basis of secondary data,the paper has divided in two parts A) Actual Rainfall 2. Economic activity in Kokan area.

Part=A) Actual Rainfall

Konkan is located in the western part of the country's coastline and covers the coastal districts of the western Indian state of Maharashtra, Karnataka, and Goa. The districts covered by the Konkan Coast are Thane, Mumbai City, Ratnagiri, Raigad, Palghar, Sindhudurg, and Mumbai Suburban. Konkan coast stretches for 450 miles along the coastline and cover total area of 11,871 square miles. The topography of this region is generally rugged in nature. The larger part of the Konkan coast has forested areas, particularly in the slopes of the Western Ghats, dense cover of mangrove trees particularly in the estuaries, numerous coral reefs, different fish spawning areas, and a wide range of sea flora and fauna.

Kokan is popular in Maharashtra due to their beauties which depend on good rainfall. Every year we have observed that Kokan region always get highest rainfall. (Table-1, Table-2)

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Table -1 Actual rain In Kokan in June and July 2024

Circle	Jun-24			Jul-24		
	Normal Rain	Actual Rain	% to Normal Rain	Normal Rain	Actual Rain	% to Normal Rain
Thane	461.9	347.6	75.25	942.3	1217.9	129.25
Raigad	658	502.3	76.34	1206.2	1582.1	131.16
Ratanagiri	813.5	877.6	107.88	1151.6	1789.3	155.38
Sindhudurg	880.1	794.9	90.32	1043.6	1716.9	164.52
Palgar	411.9	367.5	89.22	905	1135.7	125.49
Kokan	**662.5**	**621.9**	**93.87**	**1063**	**1556**	**146.38**
Nashik	139.7	159.9	114.46	218.5	226.6	103.71
Pune	198.6	211.1	106.29	327.2	422.2	129.03
Sambhajinagar	134	183	136.57	186.2	230	123.52
Amravati	147.6	163.6	110.84	239.6	323.8	135.14
Nagpur	187.1	131.1	70.07	362.3	652.3	180.04
	1469.5	1470.6	100.07	2396.8	3410.9	142.31

Source: **https://maharain.maharashtra.gov.in/test/maharain/previous_year_rain.php**

Table -2 Actual rain In Kokan in August and September 2024

Circle	Aug-24			Sep-24		
	Normal Rain	Actual Rain	% to Normal Rain	Normal Rain	Actual Rain	% to Normal Rain
Thane	691.3	520.6	75.31	337.9	385	113.94
Raigad	874.5	542.9	62.08	412.1	390.8	94.83
Ratanagiri	835.9	600.2	71.80	394.1	453.9	115.17
Sindhudurg	689.2	759.3	110.17	327.6	394.3	120.36
Palgar	669.7	539.8	80.60	318.8	449.1	140.87
Kokan	**766.3**	**593.3**	**77.42**	**375.5**	**416**	**110.79**
Nashik	197.9	251.9	127.29	151.5	148.1	97.76
Pune	247.5	254.2	102.71	171.7	136.3	79.38
Sambhajinagar	193.3	160.8	83.19	166	231	139.16
Amravati	231.7	199.4	86.06	130.9	175.1	133.77
Nagpur	347.8	347.8	100.00	175.3	131.1	74.79
Total	**1984.5**	**1807.4**	**91.08**	**1171**	**1237.6**	**105.70**

Source:- **https://maharain.maharashtra.gov.in/test/maharain/previous_year_rain.php**

Table -1 has depicted actual status of rain during the month of June and July2024.There was found highest rainfall in Ratnagiri district and the same time kokan region got 93.87 % rain . It was so good as compare to Sambhajinagar and Amravati district. In July 2024, there was found good rainfall 110.79% in the said area ,of these highest rainfall got by Sindhudurg District. Similarly Nashik,Pune and Nagpur were get less rainfall as compare to Kokan Region.

Table -2 has shown the trend of rainfall in August 2024, there was observed that kokan region got 77.42 % rainfall which is very low as compare other region in Maharashtra.

As we have knew that rainy season is available as an average 120 days per year. But Maharashtra statistical report 2020 shows total days of rain per month as it given Table-3

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Table-3 Total Rain days In Kokan Area

Name of District	2019	2020
Thane	116	114
Palgar	108	101
Raigad	120	120
Ratanagiri	124	132
Sindhudurge	125	131

Sources:- Maharashtra statistical Report

Table 3 ,highlighted that there were only three district who got rainfall more than120days and Thane and Palgar Districts were get less than 120 days Rain

Part=B**. Economic activity in Kokan area.**

Heavy rain is gift to Kokan region from nature. Kokan receives a heavy rain fall of up to 3000 mm. every year. During the monsoon season, the rivers are abundantly flowing and are dry in summer. In the Kokan region, there is a conflict of climatic conditions. Due to the geographical positioning of the region which consists of steep upward and downward hill slopes and due the natural architecture, the rivers are filled with water.Konkan's Natural Bliss, Tourism, Agriculture, Fisheries, Food Processing etc., has created immense business opportunities in this region and beyond.

Mumbai and Greater Mumbai is part of Kokan region hence is one of the important territory from overall development of this region. During 2023-24, the 'Agriculture & allied activities' sector was grow by 1.9 per cent, 'Industry' sector grow by 7.6 per cent and 'Services' sector grow by 8.8 per cent for the State. As per the Maharshtra Economic survey, nominal (at current prices) Gross State Domestic Product (GSDP) for 2023-24 was ` 40,44,251 crore and real (at constant 2011-12 prices) GSDP was ` 24,10,898 crore.(GoM,2023-24)

Kokan is called Callifornia of Maharashtra due to the following Important features

1.Konkan is a major tourist region in Maharashtra. Konkan is naturally very rich with cultural heritage, blue sea coast, greenery, red soil, houses with Terracotta tiles roof, ancient temples, hot springs, sea forts.

2.The Konkan region is blessed with a coastline to the west. Mumbai is the international port which is the gateway to India and Jawaharlal Nehru Port is the major port and Nhava Sheva, Srivardhan, Harne Dabhol, Ratnagiri, Jaigarh, Vijaydurg, Devgad, Malvan and Vengurla are the main ports. Hence the fishing business is huge.

3.Rice is the major crop in this region as it is a high rainfall region. Also crops such as Nachni, Kulith, Toor, Val are also grown. Also, coconut, betel nut, mango, jackfruit, cashew, kokum are cultivated mainly.

4. Kokan people have Major food is fish and rice.

5.In Kokan there are sea forts like Murud Janjira and Sindhudurg forts as well as historical forts like Raigad, Colaba, Revdanda, Kolai, Khanderi, Vasai, Karnala, Bankot, Suvarnadurg, Gopalgad, Jaigad, Ratnadurg, Purnagad, Vijaydurg.

6.There are also cold air places in Kokan like Matheran, Jawhar, Amboli, Malshej Ghat .

6. Due to the long coastal area ,there are many beaches like Dahanu and Bordi, Tarkarli, Tondvali, Alibaug. Kihim, Harihareshwar, Ganapatipule, Anjarle, Chiwala, Mithbav, Varsoli, Shrivardhan, Diveagar, Vengurla, Sagareshwar, Kunkeshwar.

7. In kokan there also found hot springs in Thane, Raigad and Ratnagiri districts.

Due to the above mentioned natural blessing and heavy rainfall in Kokan,there are developed tourism and fisheries business in large scale.At the same time Konkan has beautiful sandy beaches, waterfalls, hills, forts, temples, and Konkani food and cuisines. There are also beautiful places which attract tourists, and they include the Harnai-Murud beaches, forts, Ganpati temple in Ganpatipule, and Ratnagiri town. Most tourists visit Malvan town to dive and also visit traditional resorts found within the town.The Samdrudhha kokan and Make in Kokan Programme are already started in the field of agriculture, horticulture, fruit processing, industry to develop kokan and generate employment opportunities for their Local People**.**In addition there are more scope to develop and expand the fishing business . There are several fishing varieties such as Crabs, Basa, Jitada, Tilapia, Aquarium fish, Fishery processing unit, fish export, MPEDA, NFDB, MSFC, State fishing Industry, mangrove foundation and other organisations will be made available.Live fishponds with practical industry information is a special attraction for this venture.

One District One Product In Kokan region

'Processed cashew' has been identified as One District One Product for Kokan region .Sindhudurg,Raigad,Thane, Palgar and Ratangiri district has the largest area under cashew cultivation as it has the ideal climate to produce good-quality cashew. Cashew processing units found in Sindhudurg are more than hundred years old with the first plant established in Vengurla in 1920. The *tehsils* of Devgad, Dodamarg, Kankavli, Kudal, Malvan, Sawantwadi, Vaibhavwadi and Vengurla in Sindhudurg district form the all-important cashew cluster. Raigad has identified a diverse range of freshwater fish species, reflecting the rich biodiversity of the region. The region focuses on value addition by processing seafood into various products such as frozen fillets, readyto-cook items, and packaged seafood snacks. Raigad emphasizes sustainable fishing practices, aquaculture management, and measures to protect the marine ecosystem, ensuring the long-term viability of the industry. District is promoting responsible resource management, preserving its unique aquatic ecosystem, and supporting the livelihoods of local communities. There 36 cold storage and processing units in the

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district. Raigad has set an example of sustainable practices and cultural heritage can coexist, ultimately benefiting both the environment and the people of Raigad. Major Hubs: Taloja, Panvel, Uran,

Gholvad, known as the 'Chikoo Bowl of Maharashtra' is a quaint village located on the coastal highway heading towards Dahanu in Palghar district. Bordi, Gholvad, Kosbad, Borigaon and Dahanu produce more than 400 – 500 tonnes of chikoo annually. Palghar district produces around 36% of total chikoo production from Maharashtra. Chikoo cultivation in Gholvad is not just an economic pursuit; it's deeply rooted in the local culture. The fruit plays a vital role in festivals, culinary traditions, and customs, shaping the community's identity. The economy of Gholvad and Bordi survives singularly on its sapota plantations which has generated employment for those engaged as agricultural labourers, in trading, processing, packaging, transportation as well as the fashionable current trend of Agritourism. Gholvad's chikoo orchards are organically certified, ensuring sustainable practices. In Dahanu chikoo cluster, 48 units operate. Gholvad chikoo, GI tagged, is sweeter. Its pulp is soft, smooth, and granular, with 23 seeds. Major Hubs: Dahanu, Bordi, Talasari, Gholvad. Fisheries in Ratnagiri, Maharashtra, represent a significant component of the state's One District One Product (ODOP) initiative, showcasing the region's rich marine resources, diverse fish varieties. It is known for its abundant marine biodiversity, resulting in the availability of a wide variety of seafood, including various fish species, prawns, crabs, lobsters, and mollusc's. The fisheries industry in Ratnagiri provides employment opportunities to a significant number of people, from fishermen and fisherwomen to those involved in processing, packaging, transportation, and marketing. Ratnagiri's seafood products, particularly its fresh fish and prawns, have export potential. They reach both national and international markets, including the Middle East, Europe, and Asia. Major Hubs: Ratnagiri, Rajapur, Dapoli, Guhagar

Table.4 ,Selective indicators from Kokan Region

Particular	Thane And Palgar	Raigad	Ratnagiri	Sindhudurg
Per Person Net Income	3,53299	287397	221545	260304
Under forest land(Hec,000)	134514	133	6	55.97
Barren land(Hec)	99910	75	198	75
Non- agricultural (Hec)	36370	31	21	57
Under Agricultural(Hec)	136280	131	247	221
Actual Agriculture (Hec)	113574	109	242	212
Crop Income(crore)	2705	2604	5210	3859
Forest income(crore)	2324	3879	1322	4191
Income from fisheries (crore)	470	432	737	292
Trade and Hotels	27785	7718	2222	1432
Railways (crore)	1511	399	150	73
Storage (crore)	531	143	50	26

Sources:https://mahades.maharashtra.gov.in/files/publication/dsa/2023-24/DSA_

Table 4 is defines some important indicator that base is Good rainfall and climate .The Maharashtra Gross net Income as per current price Rs.2,52,389/- but at the same time many districts Gross net income as per current price from Kokan is greater than from state of Maharashtra Income.

5.CONCLUSION

Kokan is very important region in Maharashtra. There are good monsoon even it has available around 120days per year . Rainy season is main source of not only water but also base of many economic activities. We are not treated to rainy season as a burden on our state but it is an asset of state. By using different ideas and innovation, then Kokan will contribute in large scale in development of Maharashtra.

REFERENCES

1. *https://mahades.maharashtra.gov.in/ESM1920/chapter/English/esm2324_e.pdf*
2. *https://mausam.imd.gov.in/responsive/rainfallinformation_msd.php*
3. *https://maharain.maharashtra.gov.in/test/maharain/previous_year_rain.php*
4. *https://gsda.maharashtra.gov.in/en-kokan/*
5. *https://en.wikipedia.org/wiki/Konkan_division*
6. *https://ratnagiri.gov.in/geographical-information/*
7. *https://www.worldatlas.com/articles/where-is-the-konkan-coast.html*
8. *https://www.kokanclub.org/kokan-bhumi-pratishthan.html*
9. *https://maitri.maharashtra.gov.in/wp-content/uploads/pdf/Explore%20Maharashtra%*