



Appraisal of Marāṭhawādā province of Mahārāṣṭra state in correlation with the concept of Deśa in Āyurvedā

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ABSTRACT

Introduction: Āyurvedā has described three types of Deśa viz. Jāṅgal, Ānup and Sādhāraṇa. Deśa also known as Bhūmī refers to the natural inhabitant of an individual. It has a major role in examination of disease as well as a diseased person. In Āyurvedic diagnostic method importance is given to Deśa Parikṣa while interrogating to patients because climate, food, constitution and diseases vary according to Deśa (habitat). Marāṭhawādā is an administrative part of Mahārāṣṭra state of India. It is having different climate than other regions of the state such as Konkan, Ghāt area, Khāndeśa, Vidarbha etc. **Methods:** This paper is an attempt to critically analyze the Marāṭhawādā region of the state considering present climate condition and geography in comparison to the concept of Āyurvedic Deśa description. Authentic government web portals of this region were visited to know the present climatic situations. Various research papers were also reviewed to discern the territory from other part of the state. **Results:** After scrutinizing the facts over past few years; it has been found that most of the region of Marāṭhawādā falls under deficit (below average) rainfall terrain. Flora and fauna is similar to that of dry land. **Conclusion:** Marāṭhawādā province of Mahārāṣṭra state can be compared with Jāṅgal Deśa rather than Sādhāraṇa Deśa.

KEYWORDS

Āyurvedā, Deśa, Jāṅgal Deśa, Marāṭhawādā, Mahārāṣṭra

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Āyurvedā, the primeval Indian holistic medical science, practiced since centuries, deals with body, mind and spirit of humans with an aim to preserve and promote health of an individual along with the prevention and or cure of diseases. It endows with the measures for a disciplined and disease-free, long life.

In Āyurvedic clinical examination Deśa parikṣa is mentioned. Āyurvedic texts have given importance to Deśa parikṣa while interrogating with patient. Deśa means Bhūmī Deśa (land) and Ātur Deśa (patient body).^[1] Bhūmī Deśa is the land where person lives. Person's prakṛuti (constitution), Bala (strength) depends on Deśa.^[2,3] So it is necessary for an Āyurvedic physician to ask where the person born? , where he grownup? During stay in which area he felt ill? etc. According to Caraka, area wise people follow different religions, traditions, dietary habits. Work culture also differs according to the area wherein the person lives. Availability of food and medicinal herbs also differ in different regions. Diseases also differ region to region.^[4] In Āyurvedic classics, Brihat trayi i.e. Carak Saṃhitā, Sushruta Saṃhitā, and Aṣṭāṅg hriday one may find scattered description about Deśa. As Āyurvedic Saṃhitās are written by people living in Indian continent, description of Deśa represents the climate of same only. Temperature, rainfall, type of soil, availability of water and natural resources are different in different area. Mahārāṣṭra state is divided in Konkan region, Ghāt area, Khāndeśa, Marāṭhawādā and Vidarbha. Though Mahārāṣṭra is one state; there is variation in geography of these areas, therefore there is variation in climatic conditions. This article deals only about Marāṭhawādā region of Mahārāṣṭra state of India; as the authors are living and dealing with patients of this region and at present they are much more familiar to environment of this area. For the study purpose, four representative districts of Marāṭhawādā viz. Bīd, Osmānābād, Lātur and Nāndeḍ were chosen. During graduation studies i.e. B.A.M.S. students of Āyurvedā learn Marāṭhawādā as Sādhāraṇa Deśa. But after considering the geographical and climatic conditions of this region, the question arises whether Marāṭhawādā should be called as Sādhāraṇa Deśa or not? Concepts regarding Deśa, available in various classical texts like Caraka Saṃhitā, Sushruta Saṃhitā, Aṣṭāṅga Hridaya and other Nighaṅṭu were thoroughly reviewed. Published literature on Bhūmī Deśa by scholars in various national & international indexed journals including Central Database of PubMed was reviewed. To discern the comprehensive, accurate, reliable and one-stop source for the information and present climatic situation about the major districts considered in this study from Marāṭhawādā region; authentic government web portals of those districts were visited and required information was extracted. Records procured from the classics and the various sources were critically reassessed to co-relate the type of Deśa explained in classics and present scenario in the districts considered for the study.

CONCEPT OF DEŚA IN ĀYURVEDĀ

Types of Deśa

Classical literature of Āyurvedā categorizes Deśa (regions) in three major types as Jāṅgal, Ānup and Sādhāraṇa Deśa.

Jāngal Deśa

In *Jāngal Deśa* land is parched with few rainfall, ground water level is low, wells are deep with less water. The soil is dry with full of uneven hard granites and rock-strewn. Trees are scattered and less. Thorny bushes and grass found along with the plants such as *Emblica officinalis* (*Āmalaki*), *Ziziphus nummularia* (*Ber*), *Ficus religiosa* (*Pipal*), *Ficus benghalensi* (*vāta*), *Terminalia arjuna* (*Arjuna*) tree, *Prosopis cineria* (*shami tree*) etc. Dry and hot winds flows speedily. Due to enormously dry condition of the soil and parched environment, there is a predominance of Agni. *Jāngal Deśa* is considered as *Vāta*, *Pitta* predominant area. Therefore *Vāyu* and *Prithvi Mahābhūtās* in turn produce plants containing prevalence *Kashaya*, *Kaṭu* and *Tikta Rasa*. Generally people of these area are thin built but strong and stout and prone to have diseases of *Vāta* and *Pitta* predominance.^[5,6]

Ānup Deśa

In such areas rainfall is heavy. Ground water level is abundant. Wells and ponds have abundant water. This area is nearby sea or surrounded by lakes and rivers with deep forests. Banana, coconut, Palm trees are found in *Ānup Deśa* with frequent cold winds. The surrounding atmosphere is humid. The *Ānup* land is green grassy and has bunches of thin plants such as *Nala*, *Kumuda* and *Vetasa*. Due to the moist and humid scenery of soil and influence of *Prithvi* and *Āpa Bhūthas* the plants from *Ānup* area are predominant in *Madhur* and *Amla Rasa*. People are well nourished but tender (*Sukumar*) and soft and *Kapha Vāta* predominant. They have tendency of *Kapha Vāta* predominant diseases.^[5,7]

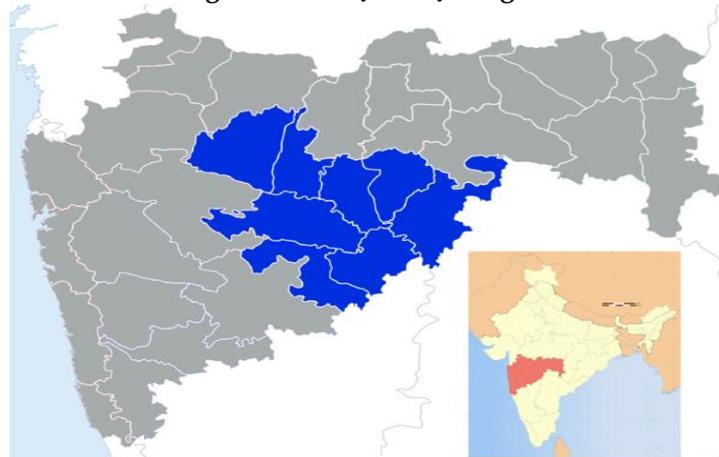
Sādhāraṇa Deśa

Area shows character of both *Jāngal* and *Ānup Deśa* is called as *Sādhāraṇa Deśa* and have mixed picture. It holds the moderate land where the soil is gray, red or black in colour and the place is neither too humid nor too parched; neither has it had cornucopia of rock particles or sand not the lakes and rivers. *Sādhāraṇa Deśa* is productive nourishing all kinds of plants and crops. Physiologically the *Doṣa* is generally maintained in a balanced state and the same is reflected in the health of inhabitants.

Geography of Marāṭhawāḍā

Marāṭhawāḍā is a southern part of Mahārāṣṭrā state (Fig. 1). It consists of 8 districts: Aurangābād, Parabhaṇi, Lātur, Nānded, Jālana, Beed, Hingoli and Osmānābād. In the year 2016, the region experienced largest rainfall deficit in the past 10 years at -42%. In two districts it was much more than 40%, leading to a severe water crisis.^[8]

Figure 1. Marāṭhawāḍā Region



Osmānābād

Osmānābād district is located on east side of Marāṭhawāḍā region of Mahārāṣṭrā state, within North latitude 17.35 to 18.40 degree and east latitude 75.16 to 76.40 degree (Fig. 2). It lays on Deccan plateau, situated 600- 653 meter above sea level. It is surrounded by Bālāghāta Mountain with rocky traits. The climate of Osmānābād district is generally dry and arid. Temperature in summer is 40-45 centigrade. Bhum, Paranda, Wāshi and Kalamb areas are draught prone having very scarce rainfall. The average rainfall of this Osmānābād district is 765.5 mm.^[9] Vegetation mostly comprises grasses with a few scattered trees due to less rainfall.^[10]

Lātur

The Lātur District is in the south-eastern region of Marāṭhawāḍā in Mahārāṣṭrā state. The town is situated on the 18.7° latitude and 73.25° longitude (Fig. 3). Lātur is having minimal rainfall due to being situated in rain shadow area. Trees are scattered and mostly grasses are there. It is a draught prone area. Average rainfall is 725 mm. Climate is hot and semiarid. Elevation is 540-638 m above sea level. The District is situated on Bālāghāta plateau.^[11]

Beed

Beed is having semiarid hot and dry climate. Rainfall is less. Average rainfall is 734mm.^[12] It is situated in Deccan plateau of Bālāghāta mountain (Fig. 4). North part of river basin is 1200 to 1500 feet high from sea level and south hilly part is 2000 to 2200feet high from sea level. Most of the Mājalgāon and Gevarai tahasil area is situated in Godavari river basin due to which soil is very fertile there. Mājalgāon and Gevarai have good rainfall compared to other tahsils of Beed. Some parts of Beed district is situated in hilly area and has very less rainfall e.g. Āṣṭi, Parali, Pāṭodā, Dhārur. Average rainfall is scarce and not timely hence many times there is draught like condition in maximum parts of Beed district.^[13]

Figure 2. Map of Osmānābād District



Figure 3. Map of Lātur District



Figure 4. Map of Beed District



Figure 5. Map of Nāndēd District

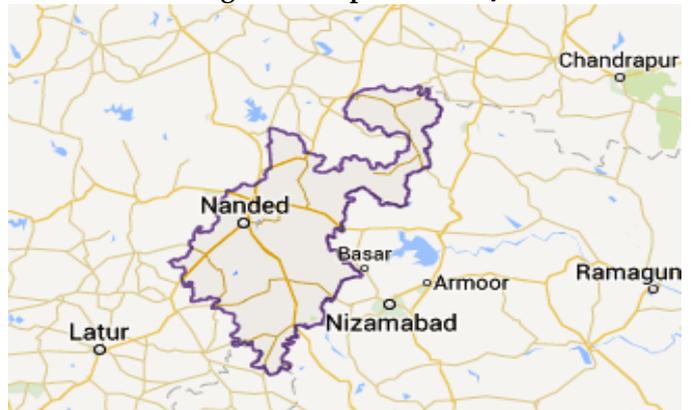
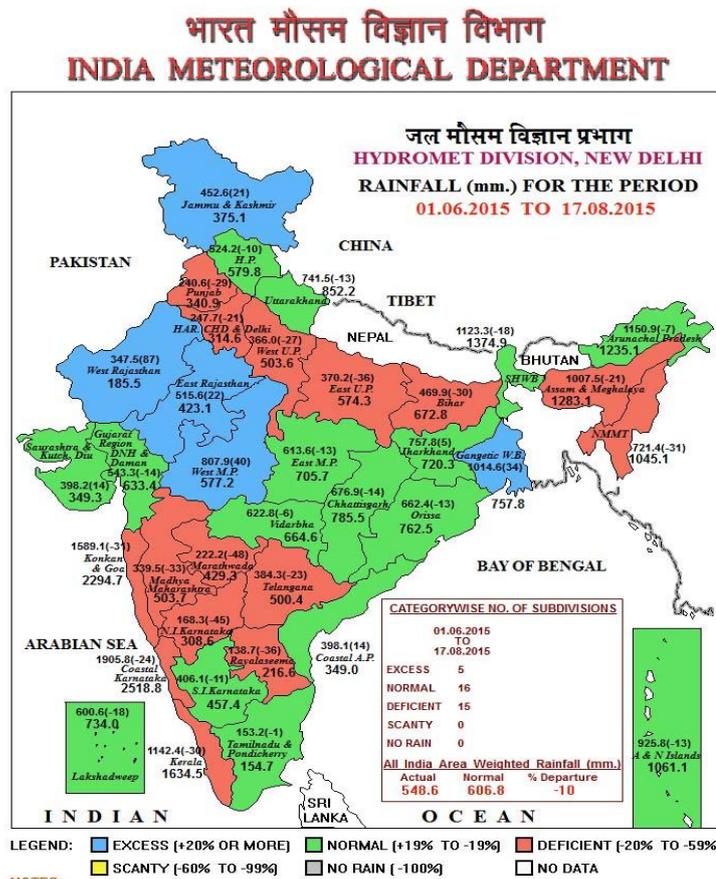


Figure 6. Rainfall status in Marāṭhawādā



Nānedeḡ

Nānedeḡ district is spread between north latitude 18,016' to 19,555' and longitude 760 to 5500' to 78019' (Fig. 5). It is situated in the middle of the middle part of the state of Mahārāṣṭrā, in the middle of the Arabian Sea and the Bay of Bengal, and in the middle of the land of Bhārat. Nānedeḡ is situated in the central part of Godavari river basin. Land is very fertile in the Godāvāri valley. It is situated in the Deccan plateau. District is divided in hilly region (1.36%), table land (77.60%), and river coastal area (20.83%). Average rainfall is higher compared to other districts of Marāṭhawādā.^[14] The district's climate is generally dry except for the southwest monsoon season.^[15]

Considering description of above 4 districts of Marāṭhawādā all of them come under hot semiarid climate (BSH class) according to Koppen classification. According to Koeppen classification method which is worldwide accepted, this type of climate is called as steppe/ semiarid climate i.e. intermediate between desert climate and humid climate. Steppe/ semiarid climate is defined as climate of region that receives precipitation below evapotranspiration but not extremely.^[16]

Most of the Marāṭhawādā is draught prone except some parts of Nānedeḡ District. Average rainfall is less and not timely. The report of India Meteorological department shows that average rainfall of Marāṭhawādā region was deficit in -20% to -59% (Fig. 6). There is no distinct forest in Marāṭhawādā. Trees are scattered. Grass land is abundant. Small thorny bushes found everywhere. Summers are hot and winters are also not so cool. Ground water is deep. Most of the agriculture is dependable up on monsoon rainfall. Jowār, Bājṛā, Pulses are the traditional crops of Marāṭhawādā.

People of Marāṭhawādā are of Medium to thin built, Medium stature, coarse dry hairs and Skin. Skin color is wheatish to Blakish. But people are hard worker and can tolerate strenuous work. Traditional diet of Marāṭhawādā was also very simple. Jowar, Bajra roti (Bhakari), pulses in the forms of Dāl (varan), Zunka, Pithle etc. Onion, very few varieties vegetables, sunflower oil for cooking.

This all description favors Marāṭhawādā as a *Jāngal Deśa*. For Healthy living (Swasthavritta), people should follow *Deśaviparīt āhar* i.e. diet opposite to qualities of habitat. As environment of Marāṭhawādā is *Vāta Pitta* predominant one should follow *Vāta Pitta* pacifying diet.^[17]

CONCLUSION

Present climatic situations of the districts included in the study shows that most of the territory from Marāṭhawādā region of Mahārāṣṭrā state is dry as it plunges under deficit rainfall area. The flora and fauna of this region usually occurs in dry paddock. Therefore the districts included in present study i.e. Beed, Osmānābād, Lāturand Nānedeḡ should be categorized as *Jāngal Deśa*. As these 4 districts are representatives of Marāṭhawādā and holds most of the region; the province of Marāṭhawādā area should also be considered as *Jāngal Deśa*. Further studies should be designed to precise and authenticate the findings of this work.

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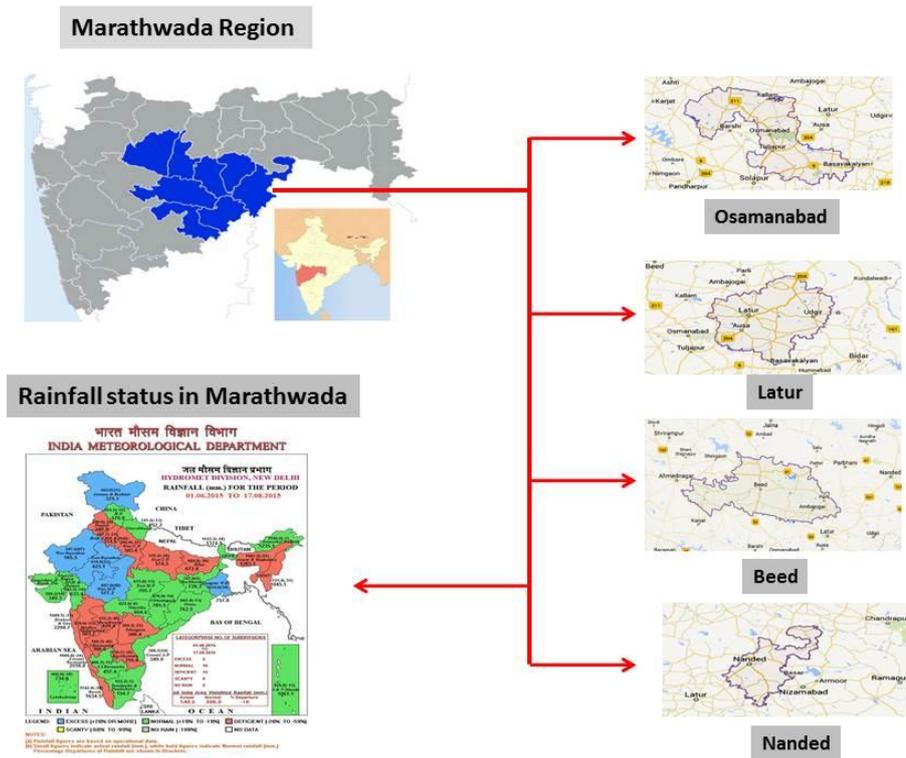
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ABOUT AUTHOS

Dr. Mayur Ramesh Rao Deshmukh obtained his MD (Ayu) in Rognidan & Vikriti Vigyan from Nagpur University, in 2006. He has published a book entitled "Textbook of Rognidan, Paper-II. He has published 03 papers in international Peer reviewed journals and delivered more than 10 guest lectures. He is a practicing Ayurvedic physician and specializes in Ayurvediya Rognidana. Dr. Deshmukh is presently serving as Assistant Professor in Government Ayurveda College, Osmanabad, Maharashtra state, India. MRD worked on the study of climatic conditions of Osmanabad and Beed district to compile and analyze its present situation.

Dr. Sandeep Vishnu Binorkar pursued his Ayurveda degree from Dr. B. A. Marathwada University, Aurangabad and his Post graduate MD (Ayu) in Agadatantra (Ayurvedic Toxicology) from the University of Calicut, Kerala. He has been honored with 6 National Awards including Kerala Ayurveda Research Award-2007 for his research work during Post graduation. He has published more than 30 research articles in peer reviewed international journals, authored 5 books, has presented in number of National and international conferences and is one of the distinguished faculty on the editorial /reviewer board of various International journals of Ayurveda, Yoga, Alternative Medicine, Forensic Medicine & Toxicology from the country and abroad. Presently he is working as an Assistant Professor in the Department of Agadatantra & Vyavahara Ayurveda (Forensic Medicine & Toxicology) at Government Ayurveda College, Nanded, Maharashtra state, India. SVB has gone through the present climatic situations of Nanded and Latur district and its critical analysis and correlation with the type of Desha according to Ayurveda.

GRAPHICAL ABSTRACT



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