INTRODUCTION

Ayurveda is a health science developed by time to look after the human lives. It has established many concepts among which the concept of Desha is one of the important principle related to health and disease. Disha (direction) denotes Desha which is directed or divided from one part to other. In Ayurveda the term Desha has been applied for both form as Disha (direction) and Desha (place) directed or divided part. Both are important for the maintenance of health prevention and cure of disease too. Commonly Desha term is in sense of site location, land etc. In reference of site and location Desha has been applied and described in two dimensional way in Ayurvedic classics known as Bhumi Desha (Specific part of land or geographical part) and Atura Desha (the site of disease body and mind). In reference of architecting, collection of drugs, quality of river water property of air etc. are described on the basis of Bhumi Desha. The air, water coming from specific direction has specific property. The aim of this study is collection, exploration and interpretation of the subject matter related to Desha and its impact of health and disease in human beings as described in the Ayurveda classics.

Atura Desha: In Atura Desha there is ten point of investigation for the good result in the management of disease in Ayurveda. The examination of Atura Desha is done to know three major aspects of living beings. 1. To know status of Dosha in patient. 2. To know the life span of patient. 3. To know status of Bala (immunity). The anatomical position of tissue and structures is determined by Desha and Disha in context Atura Desha. Similarly the place of Dosha, Dhatus and Malas is well defined in normal state and change/disturb when pathology is created. The pathology is created where the vitiated Doshas found favourable conditions and get lodged due to vitiation of Srotasas (chennals).

CLASSIFICATION OF BHUMI DESHA

1. Jangala Desha (Dry land): Dry land, land surface is characterized by rocky, sandy with full of stones, appearance of mirages in summer, small ponds, open spaces, hot weather, thorny bushes, scanty rainfall. Predominance of dry wind and arid desert. Plants are mostly thorny, trees like Khadira (Acacia catechu), Aswakaran (Dipterocarpus alatus), Sallaki (Boswellia serrate), Aswatha (Ficus religosa), Vata (Ficus benghalinse), Amalaki (Emblica officinalis), Sami (Prosopis cineraria), Arka (Calotropis procera), Pello (Salvadora persica), etc. are common. Abundant crops like Cotton (Gossypium herbaccum), ground nut, Bajra (Pennisetum glaucum), etc are prevalent. The people of Jangala Desha tend more towards Vata and Pitta dominant constitution. They are harsh, strong and rough in nature and are more prone to Vata- Pitta dominant diseases. Jangala Desha (arid, desert- like land) is that in which the land is like the sky, high, with less water and trees, such as karira (Capparis decidua), Bilva (Aegle marmelos), Pilu (Salvadora persica), karkandhu trees (which have very little of sap and are thorny and rough) abound, plenty of antelopes, deer’s, bucks and donkeys, fruits which are very sweet and with people suffering from diseases caused by Vata. Jangala has less quantity of water and trees and...
people suffer from disease of Pitta, Asruka, Maruta (Vata).6

2. Anupa Desha (Marshy land): Marshy land is moist & humid. Land surface is uneven. Hills, lakes, well, river are found in great numbers and underground water level is not deep, coastal areas and variety of fruits & vegetables; Hintal (Date palm), Tamala (Garcinia sps.), Narikela (Coconut tree), Kadal (Banana tree). Sea coasts or river banks are full of trees. In between the forests many flowering climbers are found. Paddy, sugarcane, plantain tree etc. The individuals of Anupa Desha tend more towards Kapha and Vata dominant constitution. They are usually delicate, beautiful and gentle in nature and are more prone to Kaphaj and Vataj diseases.7-10 Anupa Desha (Marshy land) is to be understood by presence of plenty of rivers, mountains, reservoirs of water (ponds, lakes etc.) with abundance of lotus flowers, swan, crane, goose, lark and other such birds, animals, like the rabbit, bear, buffalo, deer, duck etc. Plenty of trees with more flowers, green vegetation full of fruits, yield of different kinds of paddy, plantains, sugarcanes etc.11

3. Sadharana Desha (Dry and Marshy land): Mixed characteristics of both Jangala and Anupa Desha are found. With proper balance of dry land and moist season, open spaces & forests. The animals and crops have the combined characters of Jangala and Anupa Desha. People are Sama Doshaj prakarti.12-13 The land which has mixed features (of both) is called Sadharana Desha. Because cold, rain, heat and breeze are in equal proportion, leading to balance in Doshas’ also, hence it is best.14

Anupa, Sadharana: Anupa Sadharana is the land which has more features of Anupa Desha. It is the originating place for Lavana and Amla Rasa. Jangala, Sadharana:- is the land which has more features of Jangala Desha. Jangala Sadharana Desha is the originating place for Tikta and Kasaya Rasa.15

Classification of Desha on the basis of Panchamahabhuta: The character of that particular Mahabhuta dominates in that particular Deshas. This factor is most important in classification of Trivida Desha. Acharya Susruta has given Panchabhautika classification of Bhumi on the basis of overall appearance of that area. 1. Parthiva Bhumi Desha-Full of heavy rocks, greyish or blackish coloured soil and huge trees are present. 2. Apya Bhumi Desha-Smooth, full of water and grass, delicate trees and whitish soil are present. 3. Agneya Bhumi Desha-Different coloured of soil, mixed with plenty of small stones and smaller trees are present. 4. Vayaviya Bhumi Desha-Rough and ash coloured stones, with plenty of dry small trees with holes are found. 5. Akasiya Bhumi Desha-The land is soft, even with holes in it and is having tasteless huge trees and mountains. The colour of the soil is greyish black in colour.16

Classification of Desha / Bhumi on the basis of Rasas:

SAMGRAHA DESHA (LAND SUITABLE FOR DRUG COLLECTION)
According to Acharya Charaka, Aushadha (drug) and Ahara dravyas, for producing excellent effects, should be collected from places having the following characteristic features: These are to be collected from Sadharana Desha (forests of normal land) or Jangala Desha (dry land forests). Plants should have been exposed to seasonal cold land Vayu and rain appropriately. Plants should have grown over plains and clean land surrounded by water reservoirs. Plants should not have been grown in a crematorium, Caiyta (sacred tomb), prayer ground, assembly ground, pits, parks, ant-hills and saline soil. The land should have enormous growth of Kusa (Desmostachya bipinnata) and Rohisa (Cymbopogon martini). The soil should be unctuous, black in colour and sweet in taste or golden in colour and sweet in taste. The land should not have been ploughed, and there should not be other big trees in the vicinity over-shadowing the medicinal plants.18 According to Acharya Susruta Potency of drug (plant origin) depends on its place of cultivation, time of collection and their proper preservation. Place of origin directly influenced the properties of any plant. In 36th chapter of Sutra Sthana, Susruta described same opinion in context of suitable land for drug collection except the plant to be collected should be unaffected by insects, poison, weapon, sun, wind, fire, water, oppression and thoroughfare, with excellent Rasas, not unfertile, fragile and with distant water sources.19 Charaka said that land of Himalayas is best habitats of medicinal plants.20 These are the excellent among the mountains, named Himalaya, which is the best habitat of medicinal plants. Hence one should obtain the fruits grown there proper time, mature with, taste and potency, replenished with the sun, air, shade and water in respective seasons according to need, and which are uncut, unputrefied, uninjured and nontoxic.21 According to Astanga Samgraha. It is best to collect medicinal herbs from Jangala or Sadharana kinds of land. It gives same opinion of Charaka and Sushruta in respect of drug collection.22 The herbs grown in Vindhyaa Mountains are hot in potency and those available in Himalaya are cold. The herbs that are found in other forests also have the potency based on the prevailing ecological conditions.23

Place of Storage: The collected plant products should be kept in appropriate containers well covered with a lid, and hung on a swing. The store-room should have doors facing towards the east or the north. The room should be immune to the wind or storm and there should be only one window for ventilation. Flower-offerings and sacrificial rituals should be performed in the store-room every day. It should be free from the hazards of fire, water, moisture, smoke, dust, mice and quadrupeds.24

Relation between Janpadodhwamsa (epidemics) and Desha: In Janpadodhwama chapter, Desha is considered as one of the important environmental factor responsible for the causation of epidemic diseases which inflicts the person having dissimilar constitution, flood, body, strength, suitability, mind and age simultaneously. Therefore when the place is having normal features then epidemics do not occur but the place when get polluted by any means then
epidemic diseases are occurred. When an epidemic disease breaks out in a region, it affects a large number of people in the community, who are not similar in all respects. Such diseases are very powerful; their mode of spread very quick and their source is common. Ancient scholars of Ayurveda recognized that such epidemics are due to use of contaminated air, water, land and season because these four factors are common to all in a community.25 The impact on health of incident in Hiroshima and Nagasaki of Japan and Bhopal gas tragedy also in India is known to the entire world. People of these regions are still suffering from various genetic disorders.

Characteristics of Dusta Desha (Polluted land): Place (Desha) should be known as Dusta (Polluted) when abnormality in the natural colour, smell, taste, and touch. It contains excessive moisture. It is troubled by reptiles, violent animals, mosquitoes, locusts, flies, rats, owls, vultures, jackals etc. Having grows of grasses and creepers and abundance of diffusing plants. Havinga new look; has fallen, dried and damaged crops, and smoky winds, crying out of birds and dogs, bewilderment and painful disposition of various types of animals and birds. The community with abandoned and destroyed virtue, truthfulness, modesty, conduct, behaviour and other merits. The rivers constantly agitated and over-flooded. Frequent occurrence of meteorites, thunder bolts and earthquake, fierce and crying appearance. The sun, the moon and the stars with rough, coppery reddish, white and cloudy appearance frequently. Appearance of the atmosphere as if there is confusion, excitement, torture, lamentation and darkness. Presence of excessive crying noise as if the country is seized by guhyaka.26

Features of land polluted with Poison: Contaminated/Polluted land is the one having lot of flies, rats, reptiles, and frequent natural calamities, full of unhealthy foods and is devoid of righteousness and potent herbs. In contact of poison earth, shoes and slippers, horseback, elephant back, armour, banner, bed and chairs produce burning and piercing pain in hands and feet, exhaustion and indigestion in addition to the above manifestations.27 Acharya Susruta has been given opinion described in kalpa Sthana as that characteristic of the land (Desha), which is defiled with poison except these symptom oedema, and falling of hairs and nails etc.28 In the Astanga Samgraha, (8th chapter) in reference to Annaraksa (foods Protection), properties of poisoned land and its management has been described by Vagbhatta. The region of land which has been poisoned appears as burnt from fire, the grass and bush will be found faded and dropping down. Insects and crawling animals lying dead, the hoofs and nails of horse etc. become cracked and fall off. Men and animals may develop vomiting, fainting, fever, delusion and headache.29

The specific Desha has specific type of climate and dietic culture which becomes as specific cause of specific disease as

The people of the eastern side and Chinese use excessively Kshara which produces injurious effect on hair, eyes, heart and virility. People of villages, towns, cities and countries, where this is used in excess, suffer from blindness, impotency, baldness, grey hair and heart disease characterized by sawing pain.30 The people of Balhika, Saurastrika, Saindhava and Sauviraka Desha are in habit of excessive use of lavana which it produces fatigue, lassitude and weakness in the body. People of villages, towns, cities and countries, where it is used in excess people suffer various health problems. So all these aspect important to understand the cause of disorders according to the Desha in the individual.31 This is a unique contribution of Kasyapa Samhita about the treatment of Amlapitta according to Desha. In human beings, this disease (Amlapitta) often develops in Anupa Desha (marshy place) that is why it should be treated with the medicine growing in Jangala Desha (arid zone). If it does not get pacified with this, the person should go to other place, because a particular Desha (region) is known as good where people live with disease free State.32 The diseases are also categorised on the basis of Desha and Disha. In Madhava Nidana it is stated that the Shlipada (filariasis) occurs specially in those places, where there is always a collection of stagnating water and dampness round the year. These types of places are termed as Anupa Desha (marshy place) and the peoples residing in these places are more prone for filariasis.33 Raktapitta (bleeding disorder) as Urthwa, Adhoga and Tiryaka due to direction of bleeding from the body.

Table 1: Different places, habitual food and diseases prone according to Acharya Bhela34

<table>
<thead>
<tr>
<th>S.N.</th>
<th>Region (Desha)</th>
<th>Habitual</th>
<th>Diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Eastern</td>
<td>Fish and rice</td>
<td>Phlegmatic (kapha) and biliary, elefantiasis and goitre</td>
</tr>
<tr>
<td>2.</td>
<td>South</td>
<td>Fish of the river waters and of the sea</td>
<td>Kusth (Skin disease)</td>
</tr>
<tr>
<td>3.</td>
<td>People of the outskirts of kambhoja</td>
<td>Masura (Lens culinaris), Yava (Hordeum vulgare)</td>
<td>Piles</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Godhuma (Triticum vulgare), Tila (Sesamum indicum),</td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>West</td>
<td>Meat, wines and women; they love adventure</td>
<td>Rajayaksha (Tuberculosis)</td>
</tr>
<tr>
<td>5.</td>
<td>Balhika</td>
<td>Food that is very hot, and also meat that is trickling with juices (Abhisyandmi) as well as Panakas (syrops) and watery drinks (Aadakam) (in plenty)</td>
<td>Balasaka (Excess of mucous)</td>
</tr>
<tr>
<td>6.</td>
<td>Parvata (mountainous) regions and of their neighbouring places</td>
<td>-</td>
<td>Catarrah Abbasyannah-</td>
</tr>
</tbody>
</table>
The potency of the herbs available in forests and other gardens etc. has to be identified on the basis of prevailing ecological conditions of that place. If one needs cold potency drug, he should get it from Himalaya, and if a hot potency drug is needed, it should be obtained from the Vindhya. This also implies that a hot potency drug obtained from Vindhya will be more powerful than that which is collected from Himalayas and vice-versa. Drug should be collected from as Sadharana Desha (place having qualities of both Jangala and Anupa) which is situated in the north direction. Among the three pillars of life; Ahara has its prime importance in maintaining the health of a healthy person. The acclimatization of a particular habitat is possible by adopting Ahara with opposite qualities pertaining to Desha, such as hot and unctuous substances in marshy land whereas cold and unctuous substances in dry land.

Desha and the principles of management of disease:
Acharya Susruta stated that disease originated in Anupa Desha (marshy place) and shifted to Jangala Desha (arid zone or Vice versa) they lose their severity also. The Doshas, accumulated in its native place may not aggravate in another. If appropriate regimen is followed, there is no fear of disease caused by place. In spite of innate qualities of the place, one should take precaution in diet, sleep, activities etc. The balance state of Doshas is known as health. The first and foremost principles are avoidance of the cause of diseases. Therefore if someone takes Dravyas (Ahara / Aushadh) of similar quality of Desha, Doshas will be alleviated leading to diseases. The scholars of Ayurveda have directed to use Ahara (diet) and Vihara (life style) opposing to Desha. There is a specific concept in Ayurveda entitled Viruddha Ahara which indicates various type of Viruddha Ahara. One of them is Desha Viruddha according to that the Ruksha Ahara in Jangala Desha is Desha Viruddha because if natures of both are similar it will aggravate Doshas. The diet should also be taken against Prakriti (constitution). The similar type of diet in specific Desha will aggravate the Desha strongly and diseases born by it will be severe and acute. The quality of drugs are also described according to Desha and the collection of the drugs are described keeping the View of different Disahs also.

CONCLUSION
Jangala Desha is generally good for health and diseases point of view than Anupa Desha. For the purpose of treatment Desha/Dish also includes both the geographical and bodily location of the disease concerned. In reference to the treatment of disease, scholars of Ayurveda have directed to use Ahara (diet) and Vihara (life style) Ausadhi (drug) opposing to Desha. So this concept of Desha/land/locality/place/geographical area is very important and should be kept in mind while planning a treatment of patient/research project and framing the policies too.
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