Medical/Ayurveda
A REVIEW ON CONCEPT OF ABHAVAPRATINIDHIDRAVYAS

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ABSTRACT:

The principles to select Abhava Pratinidhi Dravya based on similarity of Rasa, Guna, Virya and Vipaka but most important factor is Karma i.e. Rasapanchaka. This article advocates similar action regarding Abhava Pratinidhi Dravyas without any adverse effect. In the current situation endangered plant list is increasing gradually so that implementation of Pratinidhi Dravyas may be the right option. The Pharmacopeial or extra Pharmacopeial drug should be assessed on the basic fundamentals of Dravyaguna like Rasa, Virya, Vipaka etc. as well as resemblance, regional substitution on the basis of synonym, homonym, pharmacological and clinical trials. This will enrich the current practices of Abhava Pratinidhi Dravyas in Ayurvedic science. This concept is referred from one of the Laghutrayi, Bhavapraksha, Yogaratnakara and Bhaishajyaratnawali.

Key words: Abhava Pratinidhi dravyas, Rasapanchaka.

INTRODUCTION:

In Ayurveda there are many drugs combined in single formulation, some of them were difficult to get and some species got destroyed with development of civilization and industrialization. This resulted in scarcity and less availability of the ingredient in the formulation which may cause a drastic effect of formulation at all. Hence ancient seers of Ayurveda advised some drugs which can be used when other drug with similar properties is not available for medicinal purpose. Such drugs are known as Abhava Pratinidhi Dravyas, should possess similar Rasapanchaka and proven on the basis of pharmaco-therapeutically activity. Understanding the logic behind the Ayurvedic concept of Abhava Pratinidhi dravya could lead to new methods of identifying legitimate drug alternatives, and help solve industry's problems of crude drug shortage. The prior Acharyas like Charaka and Sushruta have not given direct reference or listing of Pratinidhi Dravyas but, Acharya Vagbhatta have stated that in case of unavailability of any particular drug in the preparation of a compound one should try to get another similarly potent drug having similar Rasapanchaka. Detail description regarding
Pratinidhi Dravyas can be traced from the text books like Bhavaprakasha, Yogaratnakara and Bhaishajyaratnavali mentioned.

MATERIALS AND METHODS:

- Available Ayurvedic literatures were studied for better understanding of concept of AbhavaPratinidhi dravyas.
- Information regarding Substitutes drugs from various journals, Ayurvedic texts and also internet media was also used for availability and necessity for comprehensive understanding of the subject.
- A detailed list of Abhava Pratinidhi Dravyas has been prepared according to different Acharyas.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Mukhya dravya</th>
<th>Bhavaprakasha</th>
<th>Yogaratnakara</th>
<th>Bhaishajya Ratnavali</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Kusha (Desmostachya bipinata)</td>
<td>--------</td>
<td>Kasha (Saccharum spontaneum)</td>
<td></td>
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<tr>
<td>2</td>
<td>Kustombaru (Coriandrum sativum)</td>
<td>--------</td>
<td>------</td>
<td>Dhanyaka (Coriandrum sativum)</td>
</tr>
<tr>
<td>3</td>
<td>Kutaja (Holarrhena antidysentrica)</td>
<td>--------</td>
<td>------</td>
<td>Mushali moola (Asperagus ascendsens)</td>
</tr>
<tr>
<td>4</td>
<td>Lakshamana (Ipomea sepearia)</td>
<td>Mayurshikha (Actinopeteris dichotoma)</td>
<td>------</td>
<td>Mayurshikha (Actinopeteris dichotoma)</td>
</tr>
<tr>
<td>5</td>
<td>Madhu</td>
<td>Purana Guda (Old Jaggery)</td>
<td>Purana Guda (Old Jaggery)</td>
<td>Purana Guda (Old Jaggery)</td>
</tr>
<tr>
<td>6</td>
<td>Yashtimadhu (Glycyrhiza glabra)</td>
<td>Dhataki pushpa (Woodfordia floribunda)</td>
<td>Dhataki pushpa (Woodfordia floribunda)</td>
<td>Dhataki pushpa (Woodfordia floribunda)</td>
</tr>
<tr>
<td>7</td>
<td>Meda-Mahameda (Polygonatum cirrhifolium)</td>
<td>Shatavari (Asperagus recemosus)</td>
<td>Shatavari (Asperagus recemosus)</td>
<td>------</td>
</tr>
<tr>
<td>8</td>
<td>Nagakeshara (Mesua ferra)</td>
<td>Padmakeshara(Nel umbium speciosum)</td>
<td>Padmakeshara(Nel umbium speciosum)</td>
<td>Kamal keshara (Nymphaea alba)</td>
</tr>
<tr>
<td>9</td>
<td>Rakta chandana (Valeriana wallichii)</td>
<td>Karpura (Cinnamomum camphora)</td>
<td>Karpura (Cinnamomum camphora)</td>
<td>------</td>
</tr>
<tr>
<td>10</td>
<td>Tagara (Valeriana wallichii)</td>
<td>Kushtha (Saussurea lappa)</td>
<td>Kushtha (Saussurea lappa)</td>
<td>------</td>
</tr>
<tr>
<td>11</td>
<td>Chavya (Piper chaba)</td>
<td>Pippalimoola</td>
<td>Pippalimoola</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Ativisha (Aconitum Heterophyllum)</td>
<td>Nagarmotha (Cyperus rotundus)</td>
<td>Nagarmotha (Cyperus rotundus)</td>
<td>Nagarmotha (Cyperus rotundus)</td>
</tr>
<tr>
<td>13</td>
<td>Haritaki (Terminalia chebula)</td>
<td>Amalaki (Emblica Officinalis)</td>
<td>Kakadshingi (Wrightia tinctoria)</td>
<td>Amalaki (Emblica officinalis)</td>
</tr>
</tbody>
</table>
DISCUSSION:

- In the text *Bhaishajya Ratnavali*, it is clearly stated that the main drug in any formulation can not be substituted, only the exessory drugs in the formulation can be substituted by appropriate *Pratinidhi dravyas*.
- In recent era, mainly two factors are responsible for adulteration i.e. availability and price.
- When availability of the drug is less and demand is more, it leads to adulteration.
- As the health is first and foremost issue to be prioritized and that too at affordable cost, but when the cost of drug is high, again it leads to adulteration.
- The other factors involved for selection of *Pratinidhi dravyas*, which are mention in *Ayurvedic* texts and then find out most appropriate drugs in case of unavailability of genuine drugs.
- Some major factors regarding the *Pratinidhi dravyas* are discuss here.

Uncertain identity:

In *Ayurvedic* texts many drugs were unidentified, the criteria for identification like Morphology, Organoleptic characteristics, properties and action of drugs were taken into consideration.

For example: *Meda, Mahameda – Shatavari* (Root of *Asparagus racemosus*)

Regional substitute:

Under one name, various drugs were used in various regions due to wrong identification, adulteration practices or specific drug action on the available sources may be the causes of regional substitute.

For example: *Rasna*

- *Pluchea lanceolata* used in Gujarat and Punjab.
- *Alpinia galangal* used in South India.
- *Vanda roxburghii* used in Bengal.

Nonavailability of the drugs:

In case of unavailability of leaf of the *Abies webiana (Talisapatra)* leaf of the *Abies baccata* are used.

Seasonal availability of drugs:

Some drugs are available in specific season so other drugs can be introduced, which have same action.

For example: *Trianthema portulacastrum* can be used in seasonal absences of *Boerhavia diffusa*. 
Shelf life of the drug:
In case of unavailability of old jiggery used new jiggery after heating in sun rays for 4 hr.

Contraversy due to synonym and homonyms:
Krushna is a synonym of several other drugs such as Piper longum, Indigo feratinctoria and Alpinia galanga so lots of confusion face for genuine drug.

Other part of same plant:
Easily or bulk availability of other part of same plant may be used. For example: root of Dashamoola plants are not available in market so bark or whole plant may be used.

Regional substitutes on the basis of vernacular names:
More than one plants used on the basis of the regional variation.
For example: In Gujarat state, Desmodium gangeticum is known as Pandidiyo and Desmodium lexiflorum is known as Ruchalo pandadiyo.

CONCLUSION:
- Ayurveda phytochemistry and pharmacology analysis of, Abhava Pratinidhi Dravya can legitimately substitute respective Abhava Dravya.
- The Trans disciplinary research work can be helpful study and to find out other AbhavaDravya- Abhava Pratinidhi Dravya pairs and to search new Abhava PratinidhiDravya suitable to contemporary requirements.
- However further research is necessary to prove the efficacy and similar action of Abhava PratinidhiDravya on basis of its pharmacological action, animals and clinical studies.

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AYURVEDA FOR HEALTHY EYE

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ABSTRACT:
Prevention of ocular disorder and preservation of ocular health has been become essential, as changing lifestyle has resulted in many eye disorders. In Ayurveda, eye is considered as the most vital sense organ. Many diseases of eye may occur due to defective life style changes particularly in busy modern life. Ayurveda found to describe vividly about ocular health. So an attempt has been made to explore the procedure for preservation of eye health in relation to certain factors like relation of eye diseases with mind, diet, activities, sleep, ageing process, poor vision and rasayana therapy for preserving good vision procedure like Anjana (collyrium), Aschyotan (eyedrop), Snana (bath), Padabhyanga (foot massage with oil), Nasya (nasal application of drugs), Abhyanga (oil massage) are considered as highly effective daily procedures for the maintenance of eye health. Various Yogasan, Satkriya and Rasayana therapy are also effective for ocular health.

Key Words: Healthy eye, Eye care, Rasayana, Ayurveda

INTRODUCTION:
Ayurveda is a science of life, which deals with the life style of mankind. This science is meant for prevention & cure of diseases. To achieve this objective, Ayurveda believes in theory of equilibrium of ‘Dosha’, ‘Dhatu’, and ‘Mala’ in the body. Among all sense organs eye are consider to be very important because vision is crucial for social and intellectual development of person. Eye is the source of direct knowledge. Sushruta has given more importance to eye as it is evident from the fact that the Uttartantra of Sushruta Samhita starts with eye diseases and out of which 19 chapters are devoted only to eye disease. So one has to take necessary efforts to take care of methods for prevention of eye diseases. Smoking, cigarette, tobacco, alcohol, high fat diet and junk food, chronic stress, prolonged exposer to bright light, working in computer for long time etc are few example which exerts damage to the eye. Some eye disease like age...
related macular degeneration (AMRD), diabetic or hypertensive retinopathy, computer vision syndrome may cause due to faulty life style.

For preventing such type of eye diseases and for maintaining ocular health everyone should follow Ayurveda. Dincharya (daily regimen), Ritucharya (seasonal regimen) and specific therapies like rasayana therapy and kriyakala describe in Ayurveda useful to restore eye health and proper vision. The eye diseases can be prevented and proper vision can be restored for long time by following certain points in daily life like dincharya, ritucharya, sadvritta and taking chakshyusya rasayana drugs described in Ayurvedic text.

**Dinacharya (Daily Regimen)**

Dinacharya regarding maintaining eye health is described in Charak Samhita, Sushruta Samhita Chikitsha sthan chapter 24, Astang hrudaya Uttarstan chapter 13 and pathya, apathy in eye diseases described in Yogratnakar, Bhaishjyaratnavali in Netrarogadhikar adhyayas. While Charak starts daily regimen with anjan, Sushrut advised for netraprakshalan with Lodhra (Symplocos racemosa) kasaya (decoction).

**Netraprakshalanana (Eye wash):**

Washing eyes with decoction of Lodhra or with Amalaka (Emblica officinalis) swarasa (juice) after getting up from bed in the morning.\(^1\)

**Anjana (Collyrium)**

Anjana is a method in which the medicine is applied along the inner surface of eye lid. Souveeranjan or darvi rasa kriya can be mixed with honey can be applied in the eye for kaphashodhana as eye is pitta predominant in nature and should be protected from kapha dosha. So daily practice of anjana is best simple ophthalmic medication to prevent eye diseases.\(^2\) Anjana can dissolve the accumulated vitiated kapha and drains it out, it dilates the blood vessels and increase the blood flow and maintaining of netral strotus intact.

**Abhyanga**

It is the procedure in which the oil is applied in the head. Oil is best for vata dosha. The vatadosha confined to eye is pranavayu and the seat of pranavayu is in the head (murdha). When the oil is applied to the scalp, medicinal effect reaches up to brain. Daily application of oil, selected and medicated according to ‘prakriti’ of a person is a preventive measure of the eye diseases.\(^3\) Abhyanga nourishes all sense organs and also acts as dristiprasadana.\(^4\)

**Snanam (Bath)**

Generally, the sense organs get freshness with bath. The temperature mechanism is maintained and blood circulation is kept intact. Hot water preferably for body bath and cold water for head bath. Hot water for head bath will adversely affect the hair and eyes.\(^5\)\(^6\)
Nasya

The procedure in which medicines are applied through the nasal cavity called Nasya. Nasal cavity anatomically leads to structures of the head. Due to anatomical communications the medicine applied through the nasal cavity reaches all the areas, particularly strengthens the “Sringatak Marma” which is the seat of all the centers of eye, ear, nose and tongue.\(^7\) Accumulation of vitiated kapha in the stratus of the eye can be prevented by daily application of Pratimarsh Nasya.\(^8\)

Mukhalepa

Application of medicines on face in the form of poultice is called mukhalepa. The facial artery, facial nerve and trigeminal nerve are lying along the cheek, having branches to the eye. So the medicinal value of mukhalepa in turn affects the eye also.\(^9\)

Padavyanga, PadaprakshalanandPadatraDharan

Taking care of foot is also essential as the foot is connected to eye.\(^10\) Foot is the end organ and the nerve ending are highly sensitive. The stimulation of nerve endings of the foot reflects in the eye via sympathetic and parasympathetic supply. So foot should be kept clean, abhyanga and footwear should be used to avoid physical injuries to the foot as padavyanga, padaprakshalana (cleaning foot) and padatra dharan (using foot wear has chakyushya effect (improve vision)).\(^11\)

Use of umbrella

Use of umbrella protect the eyes from sun shine, heat, dust and smoke and it is chakshyushya.\(^14\)

Ahara (Diet) and Eye Health

Ahara plays an important role in keeping eyes healthy. Virudha Ahara (incompatible food) may leads to poor vision or cause blindness.\(^15\)

Pathya Ahara for Healthy Eye

Lohitasali (Red rice), Yava (Barley), Mudga (Greengram), Vanyakulattha (Dolichos biflorus), Jeevanti (Leptadenia reticulata), Punernava (Boerhavia procumbens), Patola (Trichosanthes dioecia), Kumari (Aloevera), Chandan, Karpura, Draksha, Grapes, Kurramamsa (Turtle flesh) Naripayya (human milk), cowmilk, Hasteeni paya (Elephant milk), Ajaghrit (Ghee prepared from goat milk), Kheerthakakra (Buttermilk), Peya, Vilepi, Yusha, Swarna (Gold), Kansya (Bronze), Mukta (Pearl), Vidruma (Coral), Vajra (Diamond).

Apathya Aharafor Healthy Eye

Amla (Sour), Lavana (Salt), Kshara (Alkali), katu rasatmak ahara, Masha (Horse gram), Kalingaka patrasaka, Phanita, Tambula (Piper betel).\(^16\)\(^17\)
Sleep rejuvenates the mind and body. Sound sleep is absolutely necessary for the eyes. During sleep, the eye is at complete rest and retains functional capacity. Normally 6-8 hours of sleep is necessary for a normal adult. Sleep deprivation leads to many eye disorders like floppy eye lid disorder, dry eye, asthenopic symptoms, sudden vision loss after awakening becomes permanent (AION), swelling of optic nerve, blurred vision, change in color perception. When natural urge of sleep is hold it leads to Akshigaurabam (heaviness and fatigue in eyes). In the context of etiological factors responsible for eye diseases Sushruta has mentioned “Swapnaviparyayat” (false sleep).[19]

Mana (Mind), Stress and Eye Health:

A good, balanced mental status is essential for proper functioning of the eyes because sense organs can perceive the objects only in presence of mind. [20] Stress hormones like cortisol are secreted and activation of hypothalamic pituitary adrenocorticosteroid leads to further arteriole dilation and venous constriction. So eye disease like central Serous Chorio retinopathy is believed to be exacerbated by stress and corticosteroid use.

Yoga and Eye Health:

Trataka and Neti Kriya may help to improve vision and maintain the eye health. Hathayoga Pradipika and Gherand Samhita clearly mention that accepting procedures like Trataka and Neti Kriya helps to improve vision and prevent the diseases of eye. [21][22]

Rasayana Therapy and Eye Health:

All the materia medica and treatment procedures which create doshic balance (somatic and psychological) are equally implies to the treatment of eye along with a group of materia medica coined as ‘Chakshushya rasayana’ had been highlighted by our ancient scholars. Chakshushya class of medicines has a targeted action on the eye and visual apparatus. Triphala is one such combination which can correct the imbalance of doshas as well as bring them to normalacy along with specific vision promoting effect. The ingredients that make up triphala are very potent individually; when combined correctly; synergy enhances the efficacy and healing quotient exponentially.

TRIPHALA- HARITAKI, VIBHITAKI, AMALAKI:

Haritaki-

It’s botanical source is Terminalia chebula and called as Chebulic Myrobalans in Latin. Charaka goes so far as to say that Haritaki is as nourishing and useful for everyone as mother’s milk. He mentions that it’s a rasayana for the eyes, hence it can be used to prevent the eye diseases. Haritaki has an anti-aging value “vayasthapani” (anti-aging). Thus advised in the
prevention of age related eye disorders like Age related macular degeneration (ARMD), Senile Cataract, Open angle glaucoma and Retinal degeneration.

Vibhitaki–

The botanical source is Terminalia bellerica. It is said to be best homeostatic, meaning that it helps to regulate the internal environment specially the circulation of pure blood in the body. It is an ideal herb for pacifying both Pitta and Kapha. Acharaya charaka quotes vibhitaki as netre hitam, meaning it is beneficial for the eyes.

Amalaki–

The botanical source is Emblica officinalies. It helps in purifying toxins from the body, by enhancing food absorption. When our digestion becomes stronger, the food we eat is converted to nutrition rather than staying undigested and producing impurities (Aama). Thus flushes out the toxins out of the body. The eyes are another organ that specially benefit from Amalaki. In fact, Amalaki is called chakhusya, which means “a rasayana for strengthening the eyes.

External/Topical use of Triphala:

Netra prakshalana, Netraseka, Vidalaka, Pindi, Aschyotana, Anjana, Tarpana and Putapaka comes under Bahirparimarjana of Netra roga.

Internal Use of Triphala:

Triphala possess tridoshasamaka property, Cakshushya as well as good kostha shodhaka hence it can be jolly well used in all Netra vikaras for the purpose of shodhana (procedure by which excess accumulation of vitiated doshas from the body is removed). Hence Triphala is used as both shaman (procedure by which accumulation of vitiated doshas from the body is pacified) and shodana in day today clinical practice to prevent and manage ocular disorders. Acharayas highlighted the role of triphala prayoga as shamana mainly in Drishtigata vikaras (group of eye disease in which vision is mainly affected). Triphala is used as rasayana dravya in all drishtigata rogas only by changing the anupana (adjuvants) depending upon the doshic predominance. For eg: Triphala with madhu, taila and ghrita in Kaphaja, Vataja and Pittaja Netra rogas respectively. [23] Use of Triphala is also quoted in drugs which prevent one from eye ailments. [24]

Triphala churna along with madhu (honey) and ghrita (ghee) is considered to be the best rejuvenation therapy for eye disorders. [25]

Triphala: Yogas (Formulations)

Famous yogas containing Triphala as main ingredient, which are utilized in day today ophthalmic practice are Triphala Churna, Sadangakwatha guggulu, Triphaladi
kwatha, Triphala anjana, Triphala varī, Triphaladi rasakriya, Nagarjuna varī, Kokilavarti, Drustiprada varī, Candhanadi varī, Lohadi guggulu, Timirahara lauha, Saptamruta loha, Triphaladi ghrita, Mahatriphaladi ghrita and Triphala Guggulu.

Chakshyushya Rasayan described in different samhitas[26]

Charak Samhita-
1. Jivaneya drug, Yasthimadhu (Ch. Su. 4/11)
2. Netra roga rasayan, Droniprasheikrasayan (Ch. Chi. 1-4/7).

Sushruta Samhita-
1. Suvarna (Gold) - Su. Su. 46/325.
2. Bijaksaradi yoga - Su. Chi. 27/12.

Astanga Samgraha-
1. Triphala Rasayan - A. Su. 12/47.

DISCUSSION:

Present day lifestyle choices i.e. low activity level, sedentary lifestyle and progressive weight gain also contribute to risk of developing the metabolic syndrome, which consequently have their ill effect on the most vital organ eye. The causative factors for eye diseases explained in classical texts exactly fits the present day lifestyle practice which in turn generate eye diseases. Activity such as reading while travelling produce difficulty in accommodation and thus causes ailments of vision. It was found that person with an active lifestyle (defined as regular activity) were 70% less likely to develop neo vascular AMD compared with person without an active lifestyle. Kriya kalpas have major role as a remedy for lifestyle induced eye diseases. Kriya kalpas such as Aschyotana, Anjana, Nasya etc are both prevention as well as treatment modalities. Aschyotana (eye drop) is a basic therapeutic intervention which is beneficial in wide variety of eye diseases. Eye diseases due to ageing process are inevitable but can be delayed by taking Chakshyushya rasayana.

CONCLUSION

Thus various lifestyle exposures are found closely associated with eye diseases. The prevention modalities advocated in Ayurveda such as Aschyotana, Anjana, Nasya etc along with
a few positive lifestyle modifications may help considerably reducing the impact of ocular diseases in general population.

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A REVIEW ON
CONCEPT OF VIRUDDHA AHAR IN PRESENTER:

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INTRODUCTION:

Aahar plays an important role in Healthy living and its among the various factors affecting the health of an individual. Aahar is one of the part of ‘trayopstambha’ i.e. three pillars of body. According to Ayurveda not only dhatu, bala, varna but wellness of mind is also maintained by aahar. So judicious, appropriate and careful intake of food is very important for Healthy life. Non judicious intake of food results into diseases which is elaborated under viruddaahar concept. One of the concept of Pathya and Apathya (Dos and Don't's) - “Viruddha Aahar” has been explained with examples in Charak-Samhita. Viruddha Aahar means the Aahar which causes the vitiation of dosha from its sthaan but doesn’t remove it from the body but makes them accumulate in the dhatus and causing diseases. Viruddha Aahar is of 18 types and is the emerging cause of many diseases such as infertility, blindness, anaemia, skin diseases etc. It is often the neglected part in finding it as a cause of the above diseases. In fact, all the apathyas related to the quality and quantity of aahar can be gathered together and explained under the term “Viruddha Aahar” as follows in 18 different ways:

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Type of Viruddha Aahar</th>
<th>Example in Charak Samhita</th>
<th>Examples found in day-to-day life</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Desh-Viruddha</td>
<td>Consumption of ruksha and tikshna dravya in jaangal bhoomi and, snigdha, sheeta dravya in anoop bhoomi</td>
<td>Consumption of ice-cream and cold-drinks in Mumbai</td>
</tr>
<tr>
<td>2.</td>
<td>Kala-viruddha</td>
<td>Consumption of sheeta and ruksha food in cold season/weather and, katu and tikshna food in summer</td>
<td>1.Consumption of ice-cream and cold-drinks in winter 2.Consumption of hot tea/coffe during summer 3.Consumption of curd at night</td>
</tr>
<tr>
<td>3.</td>
<td>Agni-viruddha</td>
<td>Consumption of foodstuffs not beneficial according to the four of types agni (person-wise).</td>
<td>Taking large quantity of food by a person having mandagni, at night either after skipping breakfast and lunch or having less breakfast or lunch</td>
</tr>
</tbody>
</table>
4. **Matra-viruddha**  
Consumption of honey and ghee together in the same quantity

5. **Saatmya-viruddha**  
Consumption of such food which is naturally not suitable to one.  
1. Consumption of egg-containing cake by some pure vegetarian persons.  
2. Consumption of katu ras and ushna gunatmak food by a person who has madhur ras satmya/suitable to him.

6. **Dosha-viruddha**  
The food which is having same properties as that of the dosha-pradhanaya present in the body or the doshaj prakriti.  
2. Consumption of icecream by a person having kaphaj dosha-pradhaan prakriti.

7. **Sanskaar-viruddha**  
The flesh of a peacock which is roasted on the wood of castor oil tree  
Frying fish in mustard or sarshap oil as in done in Punjab state.

8. **Virya-viruddha**  
Sheetal dravya mixed with ushna virya dravya  
1. Taking fish and dahi-bhaat/milk together, a practice commonly followed in children.  
2. Brownie in which ice-cream is mixed with hot chocolate cream and then consumed.

9. **Koshtha-viruddha**  
Consumption of mrudu-virechak dravya by a person of krura-koshtha and tikshna-virechak dravya by a person of mrudu-koshtha.  
Consumption of black raisins by a person of krura-koshtha and consumption of jaipaal seed by a person of krura-koshtha.

10. **Avastha-viruddha**  
Consumption of vaat-prakopak aahar by persons who are doing laborious work daily and consumption of kapha-prakopak aahar by persons who feel sleepy and don’t do physical work.  
1. Consumption of sprouted pulses (except moong) by porters, hawkers, servants, construction site workers, sweepers etc.  
2. Consumption of bolied rice, curd by people who are living sedentary life like shopkeepers or I.T. people or Bank clerks/Officers

11. **Krama-viruddha**  
1. Consumption of food without giving way to the urges of defecation and urination  
2. Consumption of food even when not feeling hungry  
3. Not consuming food when feeling hungry  
1. Taking madhura rasa food or dravya at the end of meals.  
2. Madya-sevan or consumption of alcoholic drinks before meals.

12. **Parihaar-viruddha**  
Consumption of ushna dravya after consuming of meat of pig  
Consumption of cold water immediately after having hot tea/coffee

13. **Uphaar-viruddha**  
Consumption of cold water after taking ghrot-paan.  
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14. **Paak-viruddha**  
Consumption of half-cooked or extra-cooked or burnt food  
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15. **Hridaya-viruddha**  
Consumption of foods not liked by the person  
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16. **Sanyoga-viruddha**  
Mixing amla-ras dravya with milk  
1. Fruits’ milk shakes especially sour fruits’ milk shakes.  
2. Consuming salt with milk e.g. A. Toasts, biscuits, popular energy
drinks like horlicks, bournvita all of which contain salt, with milk or tea (to which milk is added) and B. Milk tea chapati wherein the chapatti contains salt. C. Consuming bread-butter with milk 3. Popular Maharashtrian dish known as ‘shikran’ which is a mixture of pieces of bananas and milk.

17. **Sampada-viruddha**

The dravyas which do not have ras fully developed or have vikrut ras development in them

Over-ripen fruits like banana, papayee and mangoes.

18. **Vidhi-viruddha**

Consumption of food which is not done according to the Aahar-vidhi vishesh-aayatan and also which is not consumed alone.

Talking with others, watching T.V. while consuming meal.

**DISCUSSION:**

In the era of modernization as per changing the living standards in this fast life the faulty food habits are making a issue of prestige which in later is responsible for various disease conditions. Out of 18 types mentioned above in details with examples by Charakacharya new few examples are added in present era which are discussed below. Viruddha samyog is very commonly found nowadays especially related to milk and fruits e.g. fruit salad, milk shakes, icecream with fruits and lassi with ice ceam. Milk with sour things is viruddha. In practice people take curd or buttermilk with milk. Paneer which is very famous food item today which is made by adding salt or lemonjuice in milk is also example of Samyog viruddha. Milk and bread is also same example. Again milk, rice with salt is samyog viruddha. Drinking chilled water is example of agni viruddha. Also eating icecream followed by food is kram viruddha. Acharya have described diseases resulting due to viruddh-aaahar are Amlapitta, Adhman, kustha, shwitra, jwar, ekkustha, vicharchika, galgraha, pinasa and so on. Therefore one can know the consequences of virudhaaharsevana in todays era which could be responsible for many diseases and it can be avoided by proper and judicious intake of food.

**CONCLUSION:**

From the above discussion, it is clear that Viruddha Ahara is an important aspect of today’s improper dietary habits. This can lead to several hazardous diseases unknowingly to the patients. Therefore, it is important to enlist the causative incompatible dietary factors and train the patients to avoid such etiologic factors. The article also opens a new research window in the field of Ayurvedic dietetics to research upon a variety of incompatible factors to observe the effect.
CONCEPT OF LIPIDS IN AYURVED - A REVIEW STUDY

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ABSTRACT:

Ayurveda aims at to cure the disease & maintain health state of healthy people. Ayurved is divided into 8 main branches out of which Kayachikitsa deals with medical problems afflicting mankind. Now a days Medoroga is a commonly seen metabolic disorder which causes due to abnormally elevated levels of any or all lipids in the blood. Our body is made up of many tissues which are rich in lipids such as Medo Dhatu, Vasa and Majja Dhatu. Among the above lipids medodathu is very important, as it has significant role in developing many metabolic disorders.

The pathology leads to excess deposition of Medo Dhatu in circulation, which can be referred to the conditions such as hyperlipidaemia.

Key Words: Hyperlipidaemia, Medhodathu, Medhoroga.

INTRODUCTION:

Now a days India is facing a big health problem dyslipidemia. It include Hyperlipidemia hyper lipo-proteinemia, or hyperlipidaemia which causes due to abnormally elevated levels of lipids and lipoproteins in the blood. These lipids include cholesterol, cholesterol esters, phospholipids, and triglycerides. Lipids are carried out as large 'lipoproteins' in the blood. On the basis of density Lipoproteins are divided into five major classes as-

- chylomicrons,
- very low-density lipoproteins (VLDL),
- intermediate-density lipoproteins (IDL),
- low-density lipoproteins (LDL),
- and high-density lipoproteins (HDL).

Hyperlipidemias are divided as primary and secondary subtypes. Genetic causes such as a mutation in a receptor protein leads to Primary hyperlipidemia, while secondary hyperlipidemia arises due to other disease such as diabetes, thyroid disorders, liver disorders.
renal disorders, and Cushing's syndrome. Alcohol consumption, obesity, estrogen administration, are the other precipitating factors.

Hyperlipidemia is the main risk factor for ischemic heart disease and coronary mortality.

CONCEPT OF LIPIDS IN AYURVEDA:

Our sharir is made from Medo Dhatu, Vasa and Majja Dhatu. All these three have Snehatwa as common feature but all the three differ in their site and function.1

“एक व्रत करते हैं वसा व अज्ञात करते हैं”

Udara is the main sthan of medas, but some of it is also present in Mamsa and Bruhat Asthi. The Medas present inside small (Anu) Asthi is called Sarakta Medas and when it is present in large (Sthula) Asthi, the same is called Majja. The pure form of Medas present in Mamsa (Peshi) is called Vasa.2 Thus all forms of lipids in body are present mainly in Meda, Vasa and Majja. But importance is given to Medo Dhatu which is having significant role in developing many metabolic disorders like Medoroga, Prameha etc.

MedoDhatu is of two types one is Poshaka and second is Poshya. Along with the Rasa-Rakta Dhatu, Poshaka Medo Dhatu is circulated, in the whole body, to give nutrition to Posiya Medo Dhatu. Second, Poshya MedoDhatu is immobile nature (Gativivarjita), which is stored in Medodharakala. The site of Medodharakala is Udara, Anuasthi, Sphika, Stana and Gala.

DERANGEMENT OF METABOLISM (PARINAM)OF MEDAS:

“Agni is called as bhagawan because it is responsible for all metabolic activities in the body. Also It is solely responsible for any increase or decrease of Dosha, Dhatu or Mala. When decreasd, Agni fails to convert the Vijatiya (non-assimilable) Dravyas into Sajatiya (assimilable) ones and produces “Ama” (undigested/partially digested molecules) and also lead to various metabolic disorders, in result the end products cannot be assimilated by the Dhatus. Such products will be dangerous to body and can cause signs and symptoms according to their presence at various physiological levels.

In the condition of Agnimandya of Dhatwagni (one or more), the particular Dhatus cannot assimilate nutrients present in the circulating Ahara Rasa or circulating PoshakaDhatu. So, such PoshakaDhatus will be accumulated in Ahara Rasa in abnormal quantities and they may further get accumulated at abnormal sites. This process can be called as Leenatwa (deep seated) of Ama in Dhatus. Such Leenatwa can cause a number of disorders.

When the above-mentioned pathology occurs with MedoDhatu, or when Medo Dhatwagni is impaired then the homologues nutrients present in Poshaka Medo Dhatu will be
excess in circulation, leads to excess accumulation of abnormal quantities of poshaka medodathu in rasa. This condition can be turns to hyperlipidaemia. Poshaka Medo Dhatu cannot be assimilated into Sthayi Medo Dhatu by Medo Dhatwagni, causing for excess of Poshaka Medo Dhatu in circulation. Any cause, which can lead to Kapha Vridhi, Pitta Kshaya or Vata Prakopa can lead to this condition. The consequence of such increase in Poshaka Medo Dhatu may risk to disorders such as Dhamani Pratichaya (Hypertension) etc.³.

DIFFERENT CONCEPT OF HYPERLIPIDAEMIA:

Hyperlipidaemic condition cannot directly refer to disease. Moreover different scholars have different opinions about the nearest possible disease. Most of them had compared hyperlipidaemia under the heading of Medoroga or Medodosh. Few of them have considered as Rasagata-Snehavriddhi, Raktagata-Snehavriddhi or Rasa Raktagata-Snehavriddhi, whereas some are the suggesting considering hyperlipidaemia under the broad term of Ama. So, all these conditions are moreover similar with each other.

COMPARISION BETWEEN THE CONCEPT OF MEDA AND LIPIDS:

<table>
<thead>
<tr>
<th>Sr.No.</th>
<th>MEDA</th>
<th>LIPIDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ingestion of excessive Sneha (Ghritha, taila, vasa &amp; majja)⁴</td>
<td>Intake of high fat diet (ghee, oils, butter etc.) increases body lipids.</td>
</tr>
<tr>
<td>2</td>
<td>Dietary intake of excessive madhura dravya causes medo roga⁵</td>
<td>Increase consumption of carbohydrates (especially sucrose enhances cholesterol level)⁶</td>
</tr>
</tbody>
</table>

MEDO ROGA:

Medoroga is common term given to the disorder related to meda dhatu dusti. Medodushti is abnormal accumulation of Meda Dhatu in body due to disturbance in metabolism.

Cause

Unbalanced diet combined with sedentary habits is the most important cause of Medoroga (Sthaulya). The etiological factors of Medoroga can be classified as follows:

1 Dietary Factors:

These include Atisampurana of Ahara (Overeating), Adhyashana (frequent eatings), Madhura-Guru-Sheeta Dravya Ahara, Shleshma Dravya Ahara, Vishishta Ahara, Atimeda Ahara Sevana and Ati Madhya Sevana.
2. Behavioural Factors:

Some of the behavioural factors held responsible for Medoroga are: Divaswapna (day sleep), Avayayama (lack of exercise), Achintana (lack of thinking), Harshanityatva (exhilaration) and sedentary habits.

3. Genetic or Hereditary Factors:

Genetic or hereditary factors are also plays an important role in the development of Medoroga (Sthaulya).

4. Inadvertent therapeutic application:

Injudicious use of some of the therapeutic measures i.e. Santarpana etc. may give rise to Medoroga (Sthaulya).

SYMPTOMS:

PATHOGENESIS:

Medoroga is dushya dominant disorder.

“doshadushiteshu vaatyarthadushiteshu sanganam medoayam” su. Su 14/9

Medovriddhi is a complex process. Regarding the samprapti of medaroga both Acharya acharaka and sushruta have different views. Acharya charaka has accepted Aahara as most common pathogenic factor whereas Acharya sushruta has accepted Ama as the factor.

The pathogenesis described in Madhavanidana has the following sequel –

1. Cause in the form of (Dietary Factors or Behavioral Factors or Genetic or Hereditary Factors) à excessive production of medodathu.
2. Excessive medodathu leads to marga avarana à depletion of other dhatus and provocation of vayu.
3. Provocation of vayu à Increase in appetite à excessive consumption of food.
4. Excessive consumption of food à excessive production of medodathu.
COMPARISON BETWEEN MEDOROGA & LIPID DISORDERS

<table>
<thead>
<tr>
<th>Etiological factors</th>
<th>MEDOROGA</th>
<th>LIPID DISORDERS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Medyanna – Atisevana Avyayam, Divaswapna Achitan, Beejswabhav</td>
<td>Intake of high fat diet, Sedentary life style, Lack of exercise, Genetic predisposition.</td>
</tr>
</tbody>
</table>

| Clinical Features | Sphik, udara, parshva- sthanapradesha Atimedavriddhi, Kshudha- atimatra, Kshudrashwasa, Atisweda, Daurbalya. | Excessive deposition of fat in abdomen, waist, buttock etc. Excessive appetite, Exertional dyspnoea, Excessive perspiration, General weakness |


DISCUSSION:

- After studying the above comparison of the facts, it seems that hyperlipidaemia can be compared with Medoroga. No separate disease in the name of Medoroga is described in Charaka Samhita, but Atisthaulya is mentioned under Ashto-ninditiya, which is actually Medoroga. It is in Madhava Nidana that the term Medoroga is used while describing its etiology. Abnormal accumulation of MedaDhatu in body is known as Medodushti. Medodushti includes several numbers of other Medovikaras, which are collectively known as Medoroga.

- Acharya Charaka has described Medoroga under the title of Atisthaulya. According to Acharya Charaka Atisthaulya is the Dushti of Medovah Strotas and can be understood as synonym of Medoroga.

- It can be stated that abnormal and unequal distribution/collection of MedoDhatu in body seems to be known as Medoroga.

- This idea is supported by Madhukoshakara and Bhavamishra by describing separate chapter of Medoroga.

- Madhavakara has described the disease under heading of Medoroga in 34th chapter and has used Medasvina, Atisthula and sthula words as synonyms.

- Madhavakara has mentioned the Nidana, Rupa and gives clear picture of Medoroga – borrowing all the thoughts of previous authors.
CONCLUSION:

- Hyperlipidemia involves abnormally elevated levels of any lipids or lipoproteins in the blood.
- In our body, there are many tissues which are rich in lipids such as MedoDhatu, Vasa and MajjaDhatu.
- Among the above lipids medodathu is very important, as it has significant role in developing many metabolic diseases.
- Agni is responsible for all metabolic activities of the body.
- The pathology – Medo dhatwagnimandhya leads to excess homologues Poshaka MedoDhatu in circulation, which can be referred to the conditions such as hyperlipidaemia.
- Etiological factors and signs and symptoms mentioned for medoroga are almost similar to hyperlipidemia.
- Thus the condition which is characterized by dyslipidemia in the body can be considered under the concept of Medoroga.

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A CRITICAL ANALYSIS OF DHAMANISHARIR

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Controversy of Dhamani is mainly between two structures artery & nerves. First of all it is necessary to understand the characteristics of Dhamani.

According to Ayurveda Dhamani are hollow tubular structures.

Dhamani are the Structures in which dhamana karma is happened. Dhamana karma means ‘blowing’ or ‘piping’. Dhamani transmits Rasa & Rakta.

From the above references it can be said that Dhamani are the hollow tubular structures different from strotasa and Nadi. Its function is to transmit Rasa & Rakta.

But the controversy was started due to the function of Dhamani explained by Acharya Sushruta.

Mulasthana of Dhamani:

According to Sushruta, the dhamani arising from nabhi. There are twenty four dhamanis which have their roots in the naval region. Ten dhamanis goes upward & ten dhamanis goes downwards & four dhamanis flows laterally or transversely.
But according to Acharya Charaka, Dhamanis are related with heart i.e., dhamanis arises form hridaya.

Functions of Dhamanis:

Functions of dhamanis are perception of object of senses i.e. sound, light, taste, smell, touch. These functions of dhamanis are look like the function of nerves and that’s why Acharya Gangadhar Shashtri compares dhamani as Arteries. But if dhamani are nerves so it is not possible to nerves to transmit Rasa & Rakta and nerves are related to the brain & not to the heart.

Nerves have not pulsations. So it is better to compare dhamanis to the arteries as they have pulsation, relation with heart & transmits the Rasa & Rakta.

Conclusion:

Function of the Indriyas are done by the nervous system and the nervous system is governed by the brain and spinal cord. But the maintenance of the function of nervous system is done by the arteries as if blood supply of some part of brain or spinal cord will be hampered so, that part will not be able to done its normal functions and produces diseases like hemiplegia, paraplegia, facial palsy, deftness, blindness or even death. So at the end we can conclude that function of nervous is also governed by the arteries & form above all the discussion it is now clear that Dhamani is artery which transmit Rasa & Rakta.
Science
AVIAN DIVERSITY OF KHARADKHD TANK
TQ. DEGLOOR DIST. NANDED DISTRICT [M.S.]

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Netaji Subhashchandra Bose College Nanded.

ABSTRACT:
The Kharadkhed tank is 15Km away from Degloor. The tank is constructed for irrigation & drinking water, fish culture etc. The tank consists of various aquatic animals & weeds are present in water bodies. In the present study total 66 species of birds are recorded during the study period of June 2010 to July 2011. Among these avifauna 22 Residential common, 18 Residential uncommon, 09 Residential rare, 05 Residential migrant common, 05 Residential Migrant rare, 02 migrant common, 02 winter migrant uncommon and 01 winter migrant rare

Key words: Avian diversity, Kharadkhed tank.

INTRODUCTION:
The Kharadkhed tank is 15Km away from Degloor. The tank is constructed for irrigation & drinking water, fish culture etc. The tank consists of various aquatic animals & weeds are present in water bodies. The disturbances of birds are more so that the common birds & few migratory birds are visited to the ponds. Ghazalal Shahabuddin et.al. (2004). Studies birds forest & conservation in Rajasthan, Islam et.al. (2004) Studies in important bird area in India, S. Subramanya et. al. (2004) Studied Puttahalli tank Banglore. He found 126 bird species belonging to 50 birds’ families, David et.al. (2004) Sighting of thick-billed Wrabler near Panchagani Maharashtra, Ahmed (1997), (1998) Studied live bird trade in Northern India, Studied some green avadavat in Indian birds trade, Butler (1975-77) Study on avifauna of Mount Aboo and Northern Gujarat,

MATERIAL AND METHODS:
The present study avian diversity identified at the spots as per guidelines given by Ali and Ripley (1996), Ali (2002), Chitampelli (2002) by using binoculars 7x and 8x Magnification.

The present study is based on observation made June 2006 to July 2007, regular visits for the survey and identification of birds monthly visits were done in morning (7am-10am) and evening (4 to 5-30pm) hours.
RESULT AND DISCUSSION:

The observed birds are listed on the basis of their common name, scientific name, total count, nature of abundances and migratory behavior. In the Kharadkhed tank total 66 species of birds were identified out of them 22 Residential Common (RC), 18 Residential Uncommon (RU), 09 Residential rare (Rr), 05 Residential Migrant common (RMc), 05 Residential Migrant rare (RMr), 02 Migrant rare (Mr), 02 Winter migrant common (WMc), 02 Winter migrant uncommon (WMu), and 01 Winter migrant rare (WMr). The species feed on fishes therefore affecting reservoir fishery. They are also carries pathogens (Lagler (1978), Jhingran (1988)) and there it is necessary to reduce their population. These can be done by eradicating aquatic weeds and clearing the periphery margins of reservoirs.K.B. Patel (2011) observed 39 species of birds from Patan district also find out taluka wise population status. The results indicated that 5 to 10 species of birds were found very common in most of the taluka. These were Cattle egret, Blue Rock Pigeon, Rose-ringed Parakeet, Green Bee eater, Babbler, House sparrow. Present research work focused on the qualitative and quantitative aspects of avian diversity that can be used to understand and help in prioritization of areas for conservation. In order to conserve local bird population structure and status of bird is essential.

The check list of the birds of the local area with their status was worked by reliable methods used in bird census determination. Therefore exact estimation total population of each avian species was determined in abundance status. During study period there is no observed globally threatened species or nearly threatened species of birds.

REFERENCE:

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<th>Scientific Name</th>
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<td>Silvidae</td>
<td>Large Grey Babbler</td>
<td><em>Turdoides malcolm</em></td>
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<td>62</td>
<td>Yellow Wagtail</td>
<td><em>Motacilla flava</em></td>
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<td>Baya Weavers</td>
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<td>64</td>
<td>White-throated Munia</td>
<td><em>Lonchura malabarica</em></td>
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<td>Spotted Munia</td>
<td><em>Lonchura punctulata</em></td>
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<td>Black-throated Munia</td>
<td><em>Lonchura kelaarti</em></td>
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**Abbreviation and total species:**
- **RC** - (Residential Common) = 22
- **RU** - (Residential Uncommon) = 18
- **Rr** - (Residential rare) = 09
- **RMc** - (Residential Migrant common) = 05
- **RMr** - (Residential Migrant rare) = 05
- **Mr** - (Migrant rare) = 02
- **WMc** - (Winter Migrant common) = 02
- **WMr** - (Winter Migrant rare) = 01
- **WMu** - (Winter Migrant uncommon) = 02
Education
INCLUSION OF MUSIC IN SANSKRIT LANGUAGE TEACHING AT SCHOOLS

Dr. C. D. Sonpethkar
In-charge, Sanskrit Educatio, Assistant Professor, Tilak College of Education, Pune 30.

INTRODUCTION:
The collaboration between music and Sanskrit have long history in India. It starts from Vedic period. Samaveda Samhita is not meant to be read as a text, it is like a musical score sheet that must be heard.

STRUCTURE OF SANSKRIT SUBJECT AND SCOPE FOR INCLUSION OF MUSIC:
In Structure of Sanskrit subject at school level, following elements are included majorly:

<table>
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<th>Prose</th>
<th>Scope for Inclusion of Music</th>
<th>Poetry</th>
<th>Scope for Inclusion of Music</th>
<th>Grammar</th>
<th>Scope for Inclusion of Music</th>
<th>Other</th>
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<td>Subhashitmala</td>
<td>Yes</td>
<td>Naam</td>
<td>Yes</td>
<td>Picture Reading</td>
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<td>Story</td>
<td>Yes</td>
<td>Kavyashastrvinod</td>
<td>Yes</td>
<td>Dhaatu</td>
<td>Yes</td>
<td>Unseen poetry</td>
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<td>Letter</td>
<td>No</td>
<td>Selected verses from epic etc</td>
<td>Yes</td>
<td>Adjectives like Numerical etc</td>
<td>Yes</td>
<td>Unseen Prose</td>
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<td>Drama</td>
<td>Yes</td>
<td>Modern creations</td>
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TITLE OF THE STUDY: Music & Sanskrit Subject teaching at schools

STATEMENT OF THE STUDY: To study the inclusion of music by Sanskrit Teachers in their teaching of Sanskrit subject at school level.

OBJECTIVES OF THE STUDY: To study the inclusion of music by Sanskrit Teachers in their teaching of Sanskrit subject at school level.

SAMPLING:
The sample included 20 Sanskrit Teachers teaching Sanskrit subject at various schools in Pune city.
METHODOLOGY OF THE STUDY:
The researcher used Survey method for the study.

DATA COLLECTION TOOL:
Interview was the data collection tool

STATISTICAL TOOL:
Percentage is used as statistical tool.

OUTCOMES OF THE STUDY:
1. Sanskrit Teachers know about the significance of music in language teaching.
2. Most of the Sanskrit Teachers take cognizance of inclusion of music while planning the lesson.
3. Most of the Sanskrit Teachers mentioned the need of organization of professional training or workshop regarding the appropriate inclusion of music in teaching.
4. Most of the Sanskrit Teachers use music for poetry teaching, recitation of Noun forms, recitation of Verb forms and recitation of grammar rules in shloka forms.

RECOMMENDATIONS:
1. Teacher Education Institutions should organize special training programs regarding inclusion of music and language Education.
2. Schools also should organize such training programs for their teachers.
3. Sanskrit Teachers should emphasis on inclusion of Music in their regular teaching practice.

REFERENCES:
2. Entire Sanskrit Textbook, STD Ninth, (2012), MSBSHSE, Pune
3. Entire Sanskrit Textbook, STD Tenth, (2013), MSBSHSE, Pune
Arts / Humanity / Social Sciences
RIGHT TO HEALTH UNDER THE CONSTITUTION OF INDIA

Bharatiya Abhaykumar Vijaykumar

Ph.D. Research Scholar in Social work,
School of Social Sciences, SRTMU Nanded.

The supreme Court of India while interpretation the Art.21, it has stated that “Right to Health” but the framers of the Constitution recognized the mandate on the part of the state to improve health. In this way they put the mandate through the directive principles of providing right to health of fundamental rights the obligation of the state to ensure the creation and sustaining of conditions instead to good health is by the constitutional directives confined in articles 391, 422 and 473. According to these directives the state has to direct its policy towards securing that health and strength of workers, men and women, and the tender age of children are not abused and that citizens are not forced by economic necessity to enter avocations unsuited to their age to develop in a healthy manner and in opportunities and facilities to develop in a healthy manner and inj conditions of freedom of dignity and that childhood and youth are protected against exploitation and against moral and material abandonment. The dream of healthy people in the country versioned by the constitutional makers.

STATE DUTIES TO REALISE THE RIGHT TO HEALTH:

The state is also required to provide for just and humane conditions of work and for maternity benefit. Again it becomes the primary duty of the state to endeavor the raising of the level of nutrition and standard of living of its people and improvement of public health and to bring about prohibition of the consumption, of intoxicating drinks and drugs which are injurious to health protection and improvement of the health of the people under constitution of India aims at equality in all spheres of live. It would enable the state to have a national policy on wages and estimate inequalities in various spheres of life.

The state Legislature is also empowered to make laws with respect to public health and sanitation, hospitals and dispensaries. Both Centre and States have power to legislate on matters of social security and social insurance, state has power to prevent one state to another of infections of contagious diseases or pests affecting man, animals and plants. The directive principles of state policy the directives are fundamental in the governance of the country. The power to legislate on public health is right derived from the various entries under the lists.

The directive Principles of State Policy are non – justifiable and their status is only that of a directive to the government. Public health could have been realized through fundamental
rights read together with restrictions. The idea of welfare state envisaged by our Constitution can only be achieved if the state endeavours to implement them with high sense of moral duty.

After careful reading of the earlier mentioned principles, it must be admitted that the directive principles enjoins the government to provide comprehensive, creative, preventive, promotional and rehabilitative health services and proper nutrition to all the people of India. The Government has enacted many legislation on above said issues, these Acts may be categorized as:

1. Health legislation prohibiting conduct injurious to health;
2. Health legislation authorizing programmes and services to protect or promote health; and establishing surveillance over the quality of care;
3. Health legislation regulationg ethical issues in health care and right to access to the health care etc.

IMPORTANT LEGISLATION ON PREVENTION AND SPREADING DISEASES:


Legislation to prevent the spread of disease by providing for environmental sanitation, waste disposal and conduct injurious to health the purity and safety of foods and drugs, and assuring sound working conditions comes under the category of health legislation and it furthers said that disabling legislations.

The state must discharge its moral duties under part-IV of the constitution in this way state must provide services for specific groups such as women, children and prisoners. Mentally and physically handicapped person, often result in drafting health legislation. This legislation coupled with legislation providing specific services in case of communicable disease and emergency services these legislations may be said as authorizing programmes for protecting the health of public.

Legislation has also been enacted to ensure that physicians are qualified and the hospitals and nursing homes meet acceptable standards. The dentist Act, 1948. The Nursing Council Act, 1947 The Pharmacy Act, 1948 etc.

In the past medical ethics was concerned largely with personal behavior and individual rights. But in recent years ethical issues affecting the health of population have become prominent because of health care inequalities in allocation of resources, rationing of scarce health care services, individual rights of patients and social responsibility of doctors. in India
though awareness to medical ethics is catching up, legislation in this area is scarce and available in insufficient quantity.

The above mentioned Act cover the variety of the health care issues range of health issues. This implies that if legislation is properly enacted they become essential bases of authority for all public health actions.

**JUDICIAL RESPONSE TO THE HEALTH CARE:**

The Judiciary acknowledged that a vibrant constitutional synthesis exists between the concepts of social justice and individual freedom. An attempt was made to elevate right to health to the status of fundamental right and part and parcel of Article – 21 of the Constitution of India.

The decisions of the court in the late 1970’s and early 1980’s did not explicitly say that Article 21 contained right to health. However, a close examination of a few cases shows that the court was moving towards declaring that the concept of right to life in Article 21. The obligation of a welfare state to ensure the creation and sustaining of conditions congenial to good health was highlighted in Vincent Panikulangara V. Union of India the facts of the case like this a public Interest Litigation filed for banning certain drugs.

The expanded meaning of right to life is wholly justified, other fundamental rights the Supreme Court provided a meaningful and just interpretation to the rights are available Under Part – III to life and had referred to the duties of a welfare state.

In Paramananda Katra V. Union India the facts of the case show that a person riding a Scooter was knocked down by a speeding car. Shifted the victim to the nearby private hospital where the patient was refused treatment because of noncompliance of procedural formalities regarding accident victims. Then the Samaritan carried the victim to a hospital located 20 km away, that handled medicolegal cases, but before reaching the hospital the patient succumbed to his injuries a petition was filed under article 32 of the Constitution seeking direction that every citizen should instantaneously be given medical treatment to preserve life and the procedural criminal law should not be allowed to operate or interfere with the discharge of the obligation in order to avoid negligent death. The court examined the duty of doctors to take all possible measures to preserve life and observed that preservation of human life was of paramount importance.

The apex court also clarified that fact that every doctor, whether at government hospital or otherwise, had a professional obligation to extend his service with due expertise for protecting life. It was also held that the obligation was total, absolute and paramount, and laws of procedure, whether in statutes or could not be sustained and must therefore give away.
Providing adequate facilities for people thus became an essential part of the obligations undertaken by the government in a welfare state. Another noteworthy feature that is admitted by the apex court is that failure on the part of a government hospital to provide timely medical treatment to a person is violation of the injured victim’s right guaranteed by Article 21.

The Supreme Court has pronounced following cases in regard to the health care in Andhra Pradesh. V Mc Dowell & Co., it affirmed that intoxicated drinks and drugs were injurious to health and therefore state could bring out prohibition of the consumption of intoxicating drinks. It thus reiterated the stand taken in khoday Distillers Ltd. V. Karnataka and held that the Article 47 was one of the directive principles, which was fundamental in the governance of the country. The state therefore has power to completely prohibit manufacture, because it inherently dangerous article of consumption. The same rationale was used in prohibition to tobacco usage.

CONCLUSION:

After careful analysis of the Supreme Court in the series of the cases. It is clear that the court has declared the Right to health is a fundamental right under Article 21 of the constitution of India at the same time the author want to make the following suggestion to further improvement of the rights of health care to the citizens of India.

1. The state must evolve it’s policy in the lines of the spirit of the judgements of the Supreme Court.
2. The public and Public sector must be liable to provide basic health care
3. The health insurance schemes must reach to all
4. The principle “where there is a right there is a remedy” must realize.

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JUVENILE JUSTICE (CARE AND PROTECTION OF CHILDREN) ACT, 2000 - A COMPREHENSIVE REVIEW

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India has a population of about 1,207 million and of these nearly 450 million are children (Census 2001). Article 39(f) of the Constitution of India states that the State shall, in particular, direct its policy towards securing that children are given opportunities and facilities to develop in a healthy manner and in conditions of freedom and dignity, and that childhood and youth are protected against exploitation and against moral and material abandonment. The government stands by its commitment to ensure that all children within our community are safeguarded and protected from abuse and neglect. It is also society’s responsibility to promote the welfare of children and prevent child destitution. The term juvenile delinquency is to describe children who take to crime. It is neglect, which drives them to crime, and parents and the society are responsible for making children commit crimes. Numerous studies have proven that such children are not delinquents, but only destitutes.

Laws regarding juvenile justice have always been passed in a hurried manner in India. The Juvenile Justice Act, 1986, allegedly drafted to the whims of the then Prime Minister in just a few days, was passed by the Parliament without many debates and made into a law in record time. The same story seems to have been repeated with the present Juvenile Justice Act, 2000. Despite repeated adjournments and interruptions, 16 Bills including JJ Bill were passed in the winter Session of Parliament in 2000 and gained the assent of the Honorable President of India. In substance, the JJ Act, 1986, with some minor changes.

A review of the working of the JJ Act, 1986, would put for word that much greater attention is required to be given to children in conflict with law and children in need of care and protection. It is necessary that the JJ system be easily accessible to a child and anyone on their behalf, including the police, voluntary organizations social workers, or parents and guardians throughout the country. There is also an urgent need for creating adequate infrastructure necessary for the implementation of the legislation with a larger involvement of informal system, especially the family, the voluntary organizations and the community.

Objectives:
1. To lay down the basic principles for administering justice to a juvenile or child.
2. To make the JJ system meant for juvenile or child more appreciative of the developmental need in comparison to criminal justice system as applicable to adults.


4. To prescribe a uniform age of 18 years for both boys and girls.

5. To ensure speedy disposal of cases by the authorities regarding a juvenile or a child within a time limit of four months.

6. To spell out the role of the state as a facilitator rather than doer by involving voluntary organizations and local bodies in the implementation of the legislation.

7. To create Special Juvenile Police units with humane approach through sensitization and training of police personnel.

8. To enable increased accessibility to a juvenile or child by establishing JJB And CWC and homes in each district or group of districts.

9. To minimize the stigma, and in keeping with the developmental needs of the juvenile or the child. To separate the Act into two parts one for juveniles in conflict with law and other for juveniles or children in need of care and protection.

10. To provide for effective provisions and various alternatives for rehabilitation and social reintegration such as adoption foster care sponsorship and after care of abandoned destitute, neglected and delinquent juvenile of child.

SALIENT FEATURES OF JJ ACT 2000:

- JJ Act, 2000 is a Central Act enacted by Government of India.
- The JJ Act of 1986 has been replaced.
- The JJ Act has come into force with effect from 1 April 2001.
- The Act extended to age limit of children under its coverage to eighteen years irrespective of gender.
- The Act segregated children under its coverage as juveniles in conflict with law and children in need of care and protection and laid different provisions for both the groups.
- The Act provides for proper care, protection and treatment of juveniles in conflict with law and children in need of care and protection by catering to their development needs and by adopting a child friendly approach in the adjudication and disposition of matters in the best interest of children and for their ultimate rehabilitation through various institution established under the enactment.
- The act authorizes the JJB to deal with all cases of Juveniles in conflict with law.
• The Act provides observation home and special homes for the placement of Juveniles in conflict with law.
• The rule that a juvenile in conflict with law can produced before an individual member of the board is not sitting.
• The Act authorizes child welfare committee to deal with the cases of children in need of care and protection.
• The Act introduces the concept of inspection and social Auditing for monitoring and evaluation of children homes.
• The Act strongly recommends for speedy disposal of cases within a limited time period of four months.
• The Act envisages that Restoration of and protection to a child shall be the prime objective of and children’s home or the shelter home.
• The Act prohibits SVC.
• The Act provides for foster care for such children who are awaiting adoption.
• The Act has scope for recognizing children home or the state run institutions for orphans as adoption agencies for scrutiny and placement of children.
• The Act introduces the concept of sponsorship in order to meet medical nutritional educational and other needs of children to improve their quality of life.
• The act recommends for the establishment or recognition of after care organization for those children who complete their term in children homes special homes etc to enable such children to lead an honest industrious and useful life.
• The Act envisages children’s home as temporary stay during which possibilities of adoption foster care sponsorship and after care have to be worked out.
• The Act empowers the state govt. to establish and maintain O.H., C.H. and Shelter Homes for the welfare of juveniles or children either by themselves or in agreement with voluntary organizations.
• The Act empowers the state govt. or local authority to create fund of welfare and rehabilitation of children.

CHILDREN COVERED UNDER THE JJ ACT, 2000:

The JJ Act 2000 applies to juveniles found to have committed on offence and the children found to be living in the specified circumstances of neglect.

CHILDREN IN NEED OF CARE AND PROTECTION:

1. Child who is found without any home.
2. Child beggars
3. Destitute children
4. Children whose parents or guardians are unfit or incapacitated to exercise control over them
5. Sex worker’s child
6. Child who is abused or is likely to be abused or exploited for immoral or illegal purposes.
7. Mentally or physically challenged children
8. Children with terminal illness
9. Children in difficult circumstance
10. Working children

JUVENILE IN CONFLICT WITH LAW:

A juvenile who has been found to have committed an offence is defined as a juvenile in conflict with law. The term juvenile in conflict with law has been used for removing the stigma attached with the word delinquent and make the law more child friendly. This has to be read in the context of sections 82 and 8 of the Indian penal code that states that nothing is an offence that is done by a child below 7 years and by a child between 7-12 years who has not attained sufficient maturity of understanding to judge the nature and consequences of his action on that occasion.

CHILD WELFARE COMMITTEE:

The state govt. will establish CWC to handle the child in need of care and protection which was earlier known as the JWB. A committee shall consist of chair and four other members of whom not less than one shall be a woman and another an expert on matters concerning children. A member shall be vested with the powers of a Magistrate under the code of criminal procedure 1973. The committee shall functions as a bench of magistrates. The committee should complete the enquiry within a time limit of four months. A child in need of care and protection may be placed under the care of his parent or guardian or in addition under the supervision of a probation officer or with a fit person or may be sent to a children home or shelter home. The shelter homes shall function as drop in center for the children in need of urgent support. The committees shall have the powers to restore any child in need of care and protection to her parents adopted parents and foster parents.

JUVENILE JUSTICE BOARD:

The state Govt. will constitute JJB to handle juveniles in conflict with law. A JJB consists of a magistrate and two social workers of whom at least one should be a woman. Further the magistrate should have special knowledge or training in child psychology or child welfare. The social workers should have been involved in health education or welfare activities pertaining to children for at least seven years. The board is empowered to obtain the social investigation report on a juvenile even through a recognized voluntary organization.

OBSERVATION HOMES:
The act provided for establishment of observation homes by the state govt. for temporary reception of the juveniles in conflict with law during the tendency of any enquiry. In the JJ Act 1986 there was no clear demarcation between the observation homes to be provided for delinquents and neglected juveniles.

SPECIAL HOMES:

The state govt. will establish and maintain special homes for the reception and rehabilitation of juveniles in conflict with law. The special home will provide accommodation, maintenance and facilities for education vocational training and rehabilitation. It will also provide her with facilities for the development of her character and abilities and give her necessary training for protecting her against moral danger or exploitation. It shall also perform other functions to ensure an all round growth and development of his/her personality.

PROCEDURE TO DEAL THE JUVENILE IN CONFLICT WITH LAW:

As soon as the police apprehend a juvenile in conflict with law he/she shall be placed under the charge of the special juvenile police unit. A juvenile in conflict with law whatever the offence committed by him/her cannot be sentence to death or imprisonment or committed to prison in default of payment of the fine or furnishing sureties. In fact no juvenile dealt with under the provisions of the JJ Act 2000 is to be kept in a police sation or jail under any circumstances. The JJ Act 2000 specifies the person who may be present during the proceedings to save the children from stigmatization or adverse publicity. It prohibits publication of names identity and so on of the juveniles dealt with under the Act and penalizes violation of this provision. A juvenile cannot be tried together with a person who is not a juvenile.

The Act specifically emphasizes on counseling to the parents guardians and the juveniles. It also provides for participation in group counseling and in performance of community services. It provides for the child who has committed an offence of serious nature and also for keeping him/her in a place of safety which may be different from the special homes meant for other juveniles. All these offences offence are cognizable. The reason for this is to deter exploitation of the child.

The Act provides for social auditing of children homes, both by the central govt. and state govt. through various persons and institutions. The reasons for bringing in the central govt. along with the state govt. is because 50 % of the fund for running these institutions is being provided by the central govt. the act also provides for setting up of shelter homes for children in need of urgent support by reputed and capable voluntary organizations. The state govt. will establish or recognize after care organizations for the purpose of taking care of juveniles after
they leave special homes and for the purpose of enabling them to lead an honest industrious and useful life.

**PROCEDURE TO DEAL WITH CHILD IN NEED OF CARE AND PROTECTION:**

Public servants voluntary organizations social workers public spirited citizens and the child himself/herself are authorized to produce any child in need of care and protection to the CWC. The question whether a juvenile is neglected or delinquent is to be decided by the JJB and the CWC respectively. During the pendency of their proceedings juveniles may kept with their parent or guardian or in a place of safety or on observation home. The JJ act 2000 also makes provision for early discharge.

**UNCONTROLLABLE CHILDREN:**

Though the concept of uncontrollable children has been removed he present JJ act 2000 has introduced a provision in defining the child in need of care and protection as a child whose parent or guardian is unfit or incapacitated to exercise control over the child. Therefore, the concept uncontrollable has been shifted from the child to parent.

**REHABILITATION AND SOCIAL RE INTEGRATION:**

The act provides for various alternatives to child for his/her rehabilitation and social reintegration. The main principle behind this is to provide a family to such children who do not have one and also ensure their aftercare. Adoption is one of the methods for rehabilitation of orphaned abandoned neglected and exploited children. Other methods are foster care sponsorship and sending the child to an after care organization.

**CONCLUSION:**

The JJ Act. 2000 is child friendly and ensures the best interests of the child will go a long way in lifting the neglected and juvenile delinquents. Children are voiceless citizens. Children are also not able to enforce those safeguards that nay legislation may provide them. Hence while considering legislation for juvenile justice, it is extremely important to ensure that,

- Children do get adequate legal protection
- Legal provisions are made for children’s welfare that is their nutrition health and education and
- There is suitable machinery provided by law for the enforcement or implementation of these provisions.

    In the absence of such machinery for implementation care protection rehabilitation and social integration however well designed may prove ineffective. Ultimately it is the stat that can ensure justice for children.

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दोरीवरील उड्ड आणि सूर्यनमस्कार यांचा उंचउडी व लांबउडीतील प्राविण्य वाढविण्यासाठी होणासाठी परिणामांचा अभ्यास

शारीरिक शिक्षण विभाग प्रमुख,वस्त्रातून नाईक महाविद्यालय,वसरणी, नांदेड ता.जि. नांदेड.

प्रस्तावना:

पूर्वीच्या काळी आपले वंशज जेथे अतिशय रानटी अस्वेद आपले आयुष्य कंठस्वरूप असत तेचा यूँहे व्यायाम चांगले जीवनात राहण्यासाठी म्हणजे इतर जंगली हिंसा व्यापारिक स्वतंत्र रानटी दोळ्या यांचा हल्ल्यांधणून स्वसंरक्षण करण्यासाठी तसेच अन्न, वस्त्र, निवास या मुलभूत गरजांविरुढ्य रूपांतरणा करण्यासाठी अगदी सतत सहजतेने दररोज धावणे, फेकें, उड्ड वापर, या शारीरिक आराम आहे. कंव्हाच्याची गरज निर्माण होत यांचा परिणाम असा माला की, त्यांची ही तीन कौशले खूपच विकस भावूक आहेत.

अंथलेखिकस मध्ये ट्रेक एंड फिल्ड असे दोन भाग पडतात. ट्रेक या मार्गावर सर्व रनिंग, अडचण शर्यत, रिले रेस इ. स्पष्ट घेतल्या जातात.फिल्ड विभागात दोन उपविभाग पाडलेले दिसून येतात.

1. ^  2. फेकीचे प्रवकार, उड्डवाचा प्रकारामध्ये लांब उडी, तिहेरी उडी बाबू उडी येतात व फेकीचे प्रकारामध्ये गोळा फेक, थाली फेक, माला फेक, हातोडा फेक इ. बाबी येतात.

अंथलेखिक्स हे नव उच्चविद्यालयावरोध व मैदानी खेळाच्या प्रकारावर एक लंब वर्तुळाकार असलेले क्रिकेट आयुष्यांची प्रश्न, तिथि, वार्षिक क्रमांक, लाॅगून असलेले धावपतूक विशिष्टता हात वर कलन शरीरी सुरुवात सज्ज असलेला स्टारटर तसेच मोजमायणी करीत असलेले पंच असे दृष्टी उमे राहते.

उंचउडी व लांबउडी मध्ये एखादा खेळाटून प्राविण्य वाढू इक्किच असेल तर त्याला शरीराची ताकद, मानसिक, एकाग्रता वेगाने धावणाऱ्या क्षमता असावी लागते. यासाठी त्याच्या स्नानात वाढविण्यासाठी उंच उडी व लांबउडीत प्राविण्य मिळविण्यासाठी दोरीवरील उड्ड आणि सूर्यनमस्कार यांचा सराव त्यास दिला तर त्याच्या प्राविण्यावर सकारात्मक परिणाम होतो का? अथवा काय घटित होतो? महून अशा संशोधनाची आवश्यकता आहे. तेव्हा मैदानी अभ्यासमध्ये उंचउडी व लांब उडीतील प्राविण्य वाढविण्यासाठी दोरीवरील उड्ड आणि सूर्यनमस्कार यांचा होणासाठी परिणामांचा अभ्यास हा सदर संशोधनाचा विषय हेतू आहे.
संशोधन समस्या:

“दोसीरी उड़चा आणि सूर्यनमस्कार यांचा उंचवडी व लांबउडीतील प्राविभ्य वादविवािािी होणासाठी परिणामाचा अस्माय” उंचवडी व लांबउडी एक उड़ोंच्या प्रकारातील एक वाव आहे. ज्या प्रमाणे बांबू उडी, तिथे ही उडी लयाच्यामाणे उंचवडी व लांबउडी हा एक अंबलेक्स किं क्रॉस प्रकार आहे. याच दिवस प्राविभ्य निदाविवाशाठी शारीरीची उठी कार्यकर्ता, व्यायामाचा सतत सराव यामुळे प्राविभ्य संपादन करता येते. याच कार्यकर्ता चांगली असेल व व्यायाम प्रकाराचा सराव असेल तर लवकर प्राविभ्य निर्माण होते हे प्राविभ्य म्हणजे मज्जासंस्था व स्नायू यंत्रांना सहकार्यात्मक विकासात अवलंबून असते, त्यामुळे दोसीरी उडचा आणि सूर्यनमस्कार या दोन व्यायाम प्रकारांना उंचवडी व लांबउडीत मुख्य दिवस गृहीत धरत हसद सदर संशोधनात्मक विषय “दोसीरी उडचा आणि सूर्यनमस्कार यांचा उंचवडी व लांबउडीतील प्राविभ्य वादविवाशाठी होणासाठी परिणामाचा अस्माय” सदर संशोधनाची विषय आहे.

संशोधनाचे महत्त्व:

† ज्या गुरुत अनेक साधारण महत्व प्राप्त असले आहे. वर्तमान परिस्थितीत खेळाडूंच्या विगत व तत्त्वाच्यात माणी आणि आधुनिक साहित्याखाने खेळाडूंच्या अभ्यास निर्माण आहे. त्यावरूनेच आजच्या काळात प्राविभ्य वादविवाशाठी प्रशिक्षक अहोरात्र मेंळत घेत आहे त्याच कोड संशोधनाची आहे.

दोसीरी उडचा आणि सूर्यनमस्कार यांचा उंचवडी व लांबउडीतील प्राविभ्य वादविवाशाठी होणासाठी परिणामांचा अस्माय हा सदर संशोधन अस्माय अंबलेक्स मधील खेळाइंतरील सरंच महत्त्वाचा आहे. यामुळे येणाऱ्याला निषेधातुंतुन खेळाडूंचा शारीरिक, मानसिक विकास वाचायाचा प्रवर्तन असल्यामुळे सदर संशोधनाचा महत्त्व प्राप्त होते.

संशोधन आरंभाचा:

प्रस्तुत संशोधनासंबंधित साहित्याचा व पूर्व संशोधनास पुढील संशोधन कार्याची योग्य दिशा मिळती. प्रस्तुत संशोधनासाठी इंडिया गांधी माध्यमिक विद्यालय, सिंधको नांदकु व सावधानीविभागी निवड करणार आलेली या माध्यमिक विद्यालयातील 12 व ओ० विद्यार्थी संशोधनातील उपेतांची विद्यार्थी बोट 16 ते 16 असा होता. 40 विद्यार्थीच्या नियंत्रित गट आणि 40 विद्यार्थीच्या प्रयोगिक गट तयार करणार आलेल्या व त्यांची प्रशिक्षणपूर्व प्रथमांक उंचवडी आणि लांबउडीतील प्राविभ्याची वाचायी घेणार आलेली व नोंद करणार आलेली. त्यांनेत प्राविभ्य गटात दोपीवरून लांब वृक्षांचा प्राविभ्याची वाचायी घेणार आलेली.
नमुना निवड पद्धति:

संशोधन करताना जनसंख्या/ न्यायरेखा (संपूर्ण) महत्त्व इंदिरा गांधी माध्यमिक विद्यालय, सिड्को नांदेग या शाक्ती गोपाल (मुले) घेतली गेली. मुलांची संख्या 80 होती व त्याचा व्यय 12 य्र16 अटकली.

संशोधन साहित्य:

प्रात्यक्षिक चारणीत उपयोगी साधने गुणपत्रकळे, खुच्चा, तेकअप बोर्ड, चुन, स्ऱंड व तॊस्वर, लंबूडी व उंचूडीचा रेटीचा खडा इ.

संशोधन पद्धति:

संशोधनासाठी लागणायचा कार्यान्वयन चैण्याचे चारणीमध्ये विद्यार्थ्यांच्या उंचूडी व लंबूडीटील प्राविधिक माहिती संख्या शायारीतील टी-टेस्टच्या सुरुवात व पद्धतीन साध्याचे बसून सदर माहितीचे पृथक्करण करण्यात आले व या माहितीतून साहित्यकंपनी पद्धतीने जे आकड्डवाती प्राप्त — एली किंवा जो परिभाषा जाणवला स्थान साविच विवरण संशोधनाच्या लेखनात स्पष्ट करण्यात आले.

संशोधनाच्या या भागात संशोधनासाठी 80 विद्यार्थ्यांची निवड करण्यात आली. त्याला 40 विद्यार्थ्यांसाठी निवडित गट व 40 विद्यार्थ्यांचा प्रायोगिक गट कसळ अशा दोन्ही गटातील प्राविधिक फलक पाहण्यासाठी संविकायरातील दृष्टीकोनातून मध्यम, प्रमाणविविल, मध्यम, दोन्ही परिक्षणातील मध्यमातील फरक व टी मूळे वांच्या सहाय्याने संबंधित संशोधनाचे संविकायरातील विश्लेषण करण्यात आले.

निष्कर्ष:

या संशोधनात असे दिसून आले की, तोरीवरील उडचा व सूर्यनमकार या व्यावाच्या सोडा आठवडेच प्रशिक्षणामुळे उंच उडी व लंब उडीटील प्राविधिक फलक होऊन त्याचा उंचूडी व लंबूडी या उडचा प्रकारात या दिसून आलं कारत करणार त्याचा सरासरी परिभाषा दिसून वेगा.
1. या संशोधनात उंचउडी व लांबउडीच्या प्राविष्णात वाढ करण्यासाठी, दोषीरोल उडचा व सूर्यनमस्त कर हे व्यायामप्रकार दिल्या गेल्या व याचा सकारात्मक परिणाम दिसून आला.
2. त्यामुळे अशा व्यायामप्रकाराचा इतरही क्रिया प्रकारात परिणाम तपासणे इत्य ठरेल.
3. हा प्रयोग मुलांवरच केला गेला.
4. हा प्रयोग मुलीवर सुधा केला.
5. † कारण या संशोधन बेगळ्या व्यायाम गटावर करण्यात येईल.
6. या व्यायाम प्रकाराचा प्रशिक्षण विशेष खेळांच्या बाबतीत केला होईल.
7. या प्रकाराचे संशोधन वेगळ्या व्यायाम गटावता व तिगाच्या विशेष खेळांजवळील केला.

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आर्थिक सूचारणा आणि शेती
प्रा. नागेश कांवेश
सहयोगी प्राथमिक, विसंस्तर नाइंक कला वाणिज्य व विनाम महाविद्यालय, वसरणी.

प्रस्तावना :-

प्राचीन काठपासुन कृषि है भारतीय अर्थव्यवस्थेयों प्रमूख क्षेत्र आहे. महात्मा गांधीच्या शब्दात संगावण्यावेजके गेले तर असे महत्त्वाच्य तंत्र को "भारतीय संस्कृति ही भारतीय लोकांच्या उपजाविकं" के प्रमूख अस्तित्वाचा भाग होता.  राष्ट्रीय नमूना सर्वेक्षण समस्याचा अहवालाच्या सामान्य अनुमानाने 6,38,588 गांवांमधून देशाची जनगणन 64 टक्के लोकसंख्या ही सेतूवर अवलंबून आहे. या लोकसंख्येकंपी जनजागरणात 40 टक्के लोकसंख्या ही शेतकांनी वर्गीकृत 24 टक्के लोकसंख्या ही शेतकांनी वर्गीकृत मोडते. कृषि क्षेत्राचे अर्थव्यवस्थेतील चोगदान लक्षण पेटं 1950-51 च्या काळात ते जनजागरण 56.46 टक्के ते इतके होते. त्यानांतर आर्थिक विकासाच्या प्रक्रियेत या शेतकांनी महत्त्व कमी होतून ते 2007-08 च्या काळात जनजागरण 18.4% टक्के एकेदेके -सते आहे. राष्ट्रीय उत्पाद वाचक कृषि क्षेत्राचा वाढा कमी होत जाणे हे आर्थिक विकासाचे लक्षण मानले जाते.

किंवा बर्जेर या अर्थव्यवस्थागार कृषि क्षेत्र कर्ते प्रकाश आर्थिक विकासाचे मदत करते हे स्पष्ट करण्यासाठी खाळील सह मूळपानच्या उल्लेख केलेला दिसून पेटं.

1. कृषि क्षेत्र हे ओळोगीक क्षेत्रकला श्रमिकांचा पुरवठा करते.
2. ओळोगीक उत्पादनासाठी कच्चा माल निर्माण करते.
3. उद्योग व सरकारसाठी बचत निर्माण करते.
4. कृषि क्षेत्र कर भरु सकते.
5. कृषि क्षेत्रांचे विद्यार्थी शताब्दी प्राप्त होवडू शकते.
6. महाविज्ञेय क्षेत्रांना भाडळवली उपकरण तसेच कच्चा माल पूर्वक शकते.

प्रो.कोलिन क्लार्क चौंचं संपूर्ण अर्थव्यवस्थेयांत्रिका क्रियानांना तीन भागात विभाजन केले आहे. पहिल्या आर्थिक क्षेत्र आहे दुसरे द्वितीय शेतक आणि तिसरे मनजे तीतीय क्षेत्र होय. यामध्ये कृषि क्षेत्र हा आर्थिक क्षेत्राचा अत्यंत महत्त्वपूर्ण भाग आहे. प्राथमिक क्षेत्रांमध्ये कृषि व्यापार करणार बसो, पश्चिमात, लालचंद उक्ष आणि मासेमारी बांधा देखील संपादन होतो. या क्षेत्राचा बहुतांश द्वितीय व तीतीय क्षेत्र अवलंबून असतात. त्यामूळे तिसेच क्षेत्र प्राथमिक क्षेत्र हे महत्त्वपूर्ण ठरते. जर विकृत करते त्यांचा इतिहास पाहिला तर आपणास असे दिसून पेटं को. त्यावेळा प्रथम कृषिचा
विकास -सलेला आहे. इंग्रजी मधील ओळखांच्या विकास हा कृषी क्षेत्रातील विकासामूल्य घडून आला, तसेच फ्रान्स, बेल्जियम, जर्मनी व रिच्युड व देशातील वाढत्या कृषी उत्पादनांचे विकास -सल्याचे दिसून येते.

1991 ला भारत सरकारने नवीन आधिकारिक धोरणांचा स्वीकार केला. 1990 ते 2000 या 10 वर्षांच्या काळात नवीन सल्याची घडून 5.8% टक्के एनढाळ लागली. त्यात 1995-96 मध्ये 0.9% टक्के इतकी 'XXX' उत्पादनाची वृद्धी चा दर 9.6% टक्के इतकी प्रबंध घट -सली, पूर्ण 2000-01 या साली 0.2% टक्के पावत घट -सली. सर्वसामायिकपणे विचार करता 1980 ते 1990 या दशकात शेळी उत्पादनाच्या वृद्धी दर 3.9% टक्के प्रतिवर्ष असा होता तर 1990 ते 2002 या दशकात 6% टक्के एनढाळ होता याचे कारण, लक्षात घेता असे महत्त्वाचे येईल की कृषी उत्पादनाचा वाढ ही अग्रायती होती कारण लोकानांचा अनुभव इतर उत्पयूर्ती वेस्ट पूर्वी राज्यांच्या हेच मुख्य क्षेत्र आहे वापरणे सिद्धीलीकरण, खानपाकरण आणि उद्दीपन करणे नवीन वातावरणाचा व अनुसंधानाचा होणारा आधिकारिक सुधार सरलीकरण कृषी क्षेत्रात होणारा परिणाम लक्षात घेणे गरजेचे आहे.

† भारतीय सूचकांकह ले विकासाचा विचार करता विविध वर्गांचे तीन टप्पास विभागणी केली जाते.

1. हरित क्रांती पूर्वी कालावधी (1951-66).
2. हरित क्रांती नंतर कालावधी (1962-84).
3. आधिकारिक सूचकांकह ले विकासाचा विचार (1985 नंतर).

1. भारतीय पूर्वी कालावधी (1951-66)

या कालावधीत कृषी उत्पादन वाढविण्यासाठी जे उपाय योजनेच गेले त्या उपायांमधून एकूण कृषी उत्पादनाचा 49% टक्के एचड़ा वाढ -सली. यामध्ये अग्रायज्याचा उत्पादनाचा 46% टक्के वाढ -सली तर एकूण कृषी उत्पादनाचा सरासरी वाढविण्याचा 3.84% टक्के एचड़ा होता तर अग्रायज्याचा वृद्धी 3.73% टक्के एचड़ा होता याची अग्रायज्याची वाढ अतिरिक्तांची गैर अग्रायवनसांचा उत्पादन जास्त होते. या कालावधीत पटकत जमीनवर लागवडलेली आणि व्यवसायमुक्त पोक उत्पादनाचा वाढ -सली परंतु वृद्धी हेक्टर उत्पादकतेतील कृषी ही एकूण उत्पादनाची वृद्धी एकूण प्रमाणात कमी होती.

या कालावधीत उत्पादनवाची महत्त्वाचे संस्थान संपूर्ण व तत्त्वात्मक बदल याचा महत्त्व हिले. याचाच अक्षर महत्त्वाचे सामूहिक विकास योजना (Community Development Programme) राज्यांमधून आधार तल्याच नवीन वाहनांनी व्यवस्था करणे, सहकारी संस्थांचे पूर्ण गठन करणे इ.उपाय योजनांचा समावेश करणाने आला. 1980-81 सालात आधार किमतूनुसार भारतीय कृषी उत्पादनाचा एकूण वृद्धी हेक्टर 48.7% टक्के एचड़ा होता. तो 1960-61 ला 45.9% टक्के एचड़ा -सली भूमिज व्यापार सवर्ण राज्यांमध्ये समावृत -सलेला दिसून येत नाही.

2. भारतीय नंतर कालावधी (1962-84)
भारतमें हरित क्रूर की पृष्ठीय कालावधि का तुलनात्मक योग्य उपन्याय क़ृत्न  
-सलेटी दिसुन देता कारण या कालावधि आधुनिक तंत्र-गान विविध राज्याच्या संस्थेच्या जाती, खेती, फ़क्तनाशक व सिंचनाच्या विविध संस्थेच्या वापर -ाल्यामध्ये पीक उपन्याय बाहेर -सलेटी परंपरा या कालावधी तंत्र-गान में परिवर्तन वेळात भी लक्ष देऊनार असल होती होते तेव्हा मात्र साध्य करता आलेले नाही. सन 1961-62 91.979-80 या कालावधी एकाख कृषी उपन्याय धार्मिक क्षेत्राचे लक्ष 2.8 % टक्के एक धारा करता परंपरा हरित क्रूर की पृष्ठीय कालावधि कृषी दरमी तुलना करता (3.84 % टक्के) तो कमी असल्याचे दिसुन येतो मात्र अनुदानाच्या धार्मिक क्षेत्राचे लक्ष हे गै अनुदान 2.8 हा धार्मिक क्षेत्राच्या जाता असल्याचे दिसून येते. या कालावधी तंत्र-गान में परिवर्तन होतो जिम्मेवारी क्षेत्रफ़्णाचा धारा 1961-62 93.65 % टक्के तर 1977-78 ता 2.41 % टक्के एक धारा -2.6 धारा लक्ष ।  
  हरित क्रूर कृषी मूळ आधुनिक विविध राज्याच्या, नववन तंत्र-गान धारित एवं विविध राज्याच्या तसेच एकाख राज्यातील मोद्या शेतक-यांच्याच -माम.विविध राज्याच्या तसेच एकाख राज्यातील मोद्या व लहान क्षेत्रफळ कृषी उपन्याय वाहतूक में तरी तफावत दिसून येते. या कालावधी तंत्र-गान, हरितांचा, परिक्षेत्र उत्तरदेश या राज्यातील शेतक-यांचा उ 1985-90 राज्यातील शेतक-यांचा उपन्याय जाता आहे तसेच या कालावधी में परिवर्तन होतो दररोज उपभोक्ता विशेष 3.23 -मोद्याचे दिसून येते नाही.  
 3. आधिक पूर्णाण्वयन कालावधी (1985 तंत्र)  
  तक्ता क्र.1 भारतातील कृषी उपन्याय धार्मिक धारा (आकडवारी दशलक दर)  

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1980 तंत्र भारतीय कृषी विकासाचे देग धर्मता, या क़त्त अनेक सूचनांचा करणार आलो शहरून या कालावधील आधिक सूचनांचा कालावधी असे संबंधित जाते.या कालावधी कृषी उपन्याय वाहतूक अनेक स्वतंत्र धारांना राज्यविभागात आली.1985 तंत्रच्या कालावधीत सातवी पंचवार्षिक योजना (1989-90 91.992-93), द एक पंचवार्षिक योजना (1992-93 91.996-97), नववी पंचवार्षिक योजना (1996-97 92.001-02) आणि दहावी  

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1980 च्या दशकातील अखंड उपादनातील वाणिज्य कृती दर हा 2.31 % तकने एक्षेत्र होता तर तो 1990 च्या दशकात 2.64 % तकबे। 30% संपादनांचे महत्त्वाचे कारण धोणणे या कलावधीत गेले, किंवा तयाचे दाटीचा उपादनांत येणे वाढ -स्तोत होते. तसेच गेले अखंड उपादनांच्या उपादनांचे वाणिज्य कृतीदराचे प्रमाण हे अन्य पिक्चार्ज उपादनांपेक्षा जास्त आलेले. "सार्वत्रिक व चक्रवर्ती (Sawant & Chakravarty) पाण्यांना मते तेल्याचा आणि कापसाठी पिक्चार्ज जास्त उपादनांवाढीमुळे ही वाढ दिसून येते व अशा प्रकारे गेले अखंड उपादनातील वाढ ही देशाचा आधुनिक क्षेत्रात विकासाचा सहाय्य कुल उत्तर असते. भारतात आधुनिक सूचारुणांला काळात (1990-91 तारीख) अखंड व गेले अखंड पिक्चार्ज उपादनांचा कृतीदराचा घट -स्तोत वाच मूल्य कारण महणज 1990-91 तारीख देशात काही वर्ष दूरकाल पडल्या होता, तसेच खटकंतरंत अनुसाराने सरकाराने कर्म केली होणारी या कालांनी गेले अखंड पिक्चार्ज उपादनांकडेला जीमिनिया क्षेत्राचा वाढ -स्तोत. या क्षेत्रातील गेले अखंड उपादनांच्या तुलनेत गेले अखंडाचे उपादन वाढणे गेले अखंडाचे उपादन वाढणारे प्रमुख कारण महणजे वर्ष किस्म केल्या प्रमाणे ते संचालित बी-ब्याणे, क्षेत्र, किटकनाशके, आधुनिक तंत्रज्ञान. इ. हाय तसेच भारत सरकाराचे 2004 मध्ये कृती उपादनाची नियत वाढविवाढवाढ एक विशेष कृती उपादन योजना सुरू केली व या योजनेच अंतर्गत फट्टे, पूले, भाजीपासून, कृदंतपालन, दूसराहतन पदार्थ, नंतर उपादन इ. उपादन वाढवलेलेच विशेष प्रयत्न केले वाच.

70 ते 80 च्या दशकात या बोटच्या भोरणाच्या (सांपट पोलिसी) चक्रामुळे शोक-यांचे सरकारांनी तयार केले. काही कृती असल उपादन व काही विकासांच्या अकार्यांमध्ये त्याची परिसंधान महणून रुपचार खविन्याच विविध विविध प्रमुख कृतीदराचे बदल करायला मिळाले. त्यासाठी गंगे के मूलता WTO व NAFTA या सारख्या अंतर्राष्ट्रीय संस्थानांनी पृथक पृथक घेणार आले.2000 साली मांडलेले कृती धोणणे हे कृतीले सरकार साठी दूरगामी विकार मोडपसून पहिलाच प्रवत्त होता.1966 पासून ते 2000 च्या कृती धोणणे दस्तावेजन त्यासाठी होईले विविध धोणणार्धक निवेदन घडवून गेले आले.त्यामध्ये इतिहास्यक कर्मकार इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ. विद्यांचे इ.
EXPORT AND IMPORT OF PULSES FROM INDIA
AND THEIR ECONOMIC IMPACTS

Dr. Rajesh G. Umbarkar
India is largest producer and consumer of Pulses. Pulses are a major source of protein for an overwhelming number of Indians. Thus the availability and prices of pulses have an important bearing on the health and well-being of the people. As the incomes rise, people will demand more and more of non-cereal food and hence the demand for pulses is also expected to rise in future. With the rise in demand, prices rise; Government of India allows import of pulses from time to time to neutralise prices. With respect to pulses, apparently no major research work has been undertaken to study the causes of import. This paper attempts to analyse import of various category of pulses after the onset of economic reforms since 1991 and also determinants of import of pulses. Economic development is generally accompanied by an increase in living standards, improvement in food habits, with gradual reduction of dietary deficiencies, thus refining the nutritional requirements of even the lowest strata of the country’s population. Pulses being a major plant-based protein supplement to high-nutritional food supplies can play a strategic role in the health and productivity of the people in general, and the workforce in particular, in such a nation. The demand for pulses necessarily depends on the availability and prices of pulses of diverse varieties. Apart from the farming technologies to improve the supply-side problems, such as productivity and yield, the demand-side market of pulse products have also to be explored to understand the impact on production and growth of these crops. It is against this backdrop that the present paper attempts to examine the price issue of pulses.

The methodology adopted for studying this matter involves analyzing the key factors that affect the global supply–demand situation in pulses that determine their equilibrium prices, as this may further assist in understanding the future of pulses. Pulses constitute an important commodity in the export–import market, especially for a country like India, with its large vegan population. Hence, the policymakers in major pulse-producing countries need to be assured that the production of pulses is promoted with a favourable platform for efficient marketing, including export–import marketing, and proper pricing discovery. As pulses are traded throughout the world, and, India being a major player in the global market, it’s imperative to study the world pulses trade and industry to understand the forces shaping the pulses markets.

Keywords: Indian Economy; International Trade; Agriculture; Agriculture trade; pulses;

INTRODUCTION:

Pulses are seeds of annual legumes that include plants such as Bambara beans, dry beans, horse beans, dry chickpeas, cow peas, dry lentils, lupins, dry peas, pigeon peas, and vetches that are used for feeding humans as well as cattle. Pulses play an important and varying
role in farming systems and in the diets of poor people worldwide. They are ideal in achieving three developmental goals in developing countries—improving nutrition and health conditions, reducing poverty through higher food security, and enhancing ecosystem resilience. Besides their nutritional benefits and use as cattle feed, pulses production provides a number of agronomic advantages to the producers. The rotational benefit of pulses tends to raise the supply of soil nitrogen, reducing, as a result, the requirement of not only additional nitrogenous chemical fertilizers for the following crops, but also that of chemical pesticides and weedicide, disrupting thereby the periodical crop disease and insect cycles. A multi-layer planning horizon by farmers would capture such benefits through pulses cultivation for the crops grown the year after pulses, realizing their optimum yields, and lower, consequently, the cost for herbicides and fungicides. The world’s major producers of pulses are India (23.1%), Canada (6.7%), China (12.08%), Myanmar (7.57%), and Brazil (4.03%), which together account for half of the global output.

IMPORTANCE OF PULSES:

1. Pulses production and consumption are important in maintaining food security
2. They occupy an important place in human diet
3. Pulses contain more protein than any other grains and vegetables
4. Cultivation of pulses helps to maintain soil fertility through the nitrogen fixation
5. They are cultivated in many parts and consumed in all parts of the world

PULSES ECONOMY OF INDIA:

1. India is the world largest pulses producer accounting for 27-28 per cent of global pulses production.
2. India harvests between 12 and 15 million tonnes of pulses each year.
3. But, yield of the pulse crops is much low and static for the last many years.
4. Pulses are largely cultivated in dry–lands during the winter seasons.

Even though India is the world largest producer of pulses, the county is importing a large amount of pulses to meet the growing domestic needs.

During 2007, India imported 2.79 million tonnes of various pulses, especially from the countries like China, Canada, Australia and Myanmar. India is one of the exporter of pulses. Now, Indian government banned the export of pulses to meet the growing domestic demand.

Problem:

Even though India is the largest pulses producer of the world, it imports large amount of pulses from rest of the world. So, it is important to analyze, how the inflow and outflow of pulses from India is changed over period of the time; why India is importing a considerable amount of pulses; examine the impact of inflow of pulses in terms of area under cultivation, quantum of production, prices and net food grains availability for the consumers.
OBJECTIVES:

1. The paper has the following specific objectives:
2. To understand the changes in inflow and outflow of pulses of India with rest of the world during the period between 1991 and 2007;
3. To examine the trends in area under cultivation, yield and production of pulses in India in the above said period.
4. To examine the impact of inflow and outflow of pulses on area under cultivation, domestic prices, net food grains availability.

METHOD:

Necessary data for the study are import and export of pulses, area under cultivation of pulses crops, production of pulses, yield of different pulses crops, price index of the different pulses and net food grain availability of India. Time series data for the above said variables have been collected from the publications of The Directorate General of Commercial Intelligence and Statistics (DGCI&S), Ministry of Agriculture and Cooperation, Directorate of Pulses Development, and other relevant sources. Collected data are analysed with simple analytical tools like percentage, coefficient of variation and trend analysis. Data have been collected generally for the period of 17 years staring from 1991.

PULSES EXPORTS:

Pulses export has increased from 0.34 lakh tonnes in 1992 to 1.64 lakh tonnes in 2007; There are sudden hikes appeared for the years 2000, 2004 and 2005. In those years the quantity of pulses exports comes closer to either 3.0 lakh tonnes or exceeds 4.0 lakh tonnes.

Annual change in pulses exports both in terms of quantity and value is mostly positive, except years next to the sudden increases have appeared.

Export as a percentage to the pulses production is also increased consistently to one percent during the first ten years. After that the percentage has fluctuated between one and 4 percent.

According to the Pulses Meet Resolution of India (2008), on one hand India is the largest importer, producer and consumer of pulses. But, on the other hand, India is also the largest pulses processor, as pulses exporting nations such as Myanmar, Canada and Australia, do not have adequate pulses processing facility. The reason is that these countries do not have much domestic consumption of pulses and therefore, they have never attempted to develop domestic processing industry. Due to this India re-exports a considerable amount of pulses.

The Indian pulse export ban of 2006 occurred on June 28, 2006 when the Finance Minister of India declared a ban on exports of sugar, pulses and wheat until the next harvest,
due to domestic shortages. The ban was later extended until March 31, 2007. To augment availability and check prices, the Central government extended the ban on export of pulses, except kabulichana, by another year till March 31, 2009.

**PULSES IMPORT:**

With stagnant area under cultivation and production, India has permitted unrestricted imports of pulses with low duties for about 20 years. India was the world's largest pulses importer.

For many pulses, large shares of import, including desichickpeas, pigeon peas, mungbeans, black matpe, and kidney bean, come from Burma. Importers favor Burma because it offers many varieties with qualities similar to those produced in India as well as reasonable prices, low freight rates, and relatively fast delivery.

Canada and Australia are major suppliers of dry peas and kabulichickpeas to the Indian market, each supplying about one-third of India's pea imports.

Historically, Canada has shipped green and yellow peas. Australia is a supplier of chickpeas and low-priced dun peas. Most kabulichickpeas come from Mexico, Australia, Canada, Turkey and Iran. Nepal and Syria account for the largest shares of Indian lentil imports.

Import of pulses generally increased over the period between 1991 and 2007. Volume of import has increased from 3.13 lakhto 27.91 lakhtones during the above said period. Negative annual change in import of pulses has appeared 7 out of 17 years in the above period. But, mostly they are marginal in size. There have some sudden hike in the quantum of imports appears during the years of 1997, 2001, 2005 and 2006.

But, in value term the import of pulses increases continuously in most of the years. Import as a percentage to the total production has sharply increased from 2.6 in 1991 to as high as 18.5 per cent in 2007. These facts evidently show that India largely imports different varieties of pulses and the rates of import have increased very sharply.

**PRODUCTION OF PULSES:**

Production of pulses in India has slightly improved, thanks to marginal improvement in the yield of the crops. Volume of pulses production has increased from 12.02 million tonnes in 1991 to 15.12 laktonnes in 2007.

Five-yearly average figures worked out for the production of pulses for the above period. It also confirms that there is a marginal improvement in the production. Analysis of season-wise production of pulses gives some remarkable points.
Even though there are some sort of equality in the area under cultivation of pulses in two seasons, the production of pulses is significantly high in the Rabi season, as a result of relative higher rate of yield in that season.

Index numbers of production of pulses, and index number for production of all crops and food crops are worked out. When compared to all agricultural crops as well as for food crops, the production of pulses has increased very slowly. Index numbers (with the base of 1993-94 = 100) of production of pulses has increased from 117 to 129 during the period between 1993 and 2006. At the same time index numbers for production of all agricultural crops has increased from 123 to 160, and it has changed from 135 to 154 in the case of food grains.

**YIELD OF PULSES:**

Yield of pulses crops in India is less when compared to the world average. However, the average yield of pulses crop in the country has increased gradually over the period under analysis. It has increased from 533 kgs./ha. in 1991 to 638 kgs./ha. in 2007. Yield of these crops has increased with much fluctuation in the above said period. Pulses yield has crossed 600 kgs./ha. level during the years 1994, 1996, 1998, 1999. After that the yield has closely fluctuates to 600 kgs. level and attained some stability in the later period.

Kharif pulses give lesser yields when compared to Rabi pulses. Yield of Kharif pulses ranges between 393 and 512 kgs./ha. But, the yield of Rabi pulses ranges between 654 and 756 kgs./ha. Yields of both the seasons have increased over the period of time, significantly.

In individual cases of pulses, the rate of yield is higher in the case of peas and beans, and followed by gram, tur, masur, lathyrus, urad, and kulthi. Yield of moth is very less when compared to other pulses crops.

**TRENDS IN WHOLESALE PRICES OF PULSES:**

Price index for the group of all commodities has increased from 132.8 to 215.7 per cent. At the same time, the wholesale price index for total pulses has increased sharply from 145.9 to 243.

This shows that the prices of pulses have increased in a faster manner. Among the individual pulses crops, price index for urad has increased very sharply from 175.3 in 1997 to 403.8 in 2006. Increase in price index is relatively lesser for the cases of gram and arhar.

**NET FOOD GRAIN AVAILABILITY:**

Since the pulses are important protein supplier, it is important to know the share of pulses in net food grain availability. Table 12 presents net per capita annual availability of food grains and pulses. Net per capita annual food grains availability in India in the year 1991 is 186.2 kgs. and it fluctuates remarkably in the successive years, and it has reached 160.4 kgs. in
the year 2007. In a similar manner, net annual pulses availability for Indians has drastically decreased from 15.2 kgs. in 1991 to 10.7 kgs in 2007. Percentage share of pulses in net food grain availability also decreased slowly from 8.16 per cent to 6.67 per cent, during the above said period. So, the facts show that the availability of pulses has decreased drastically in India.

**EXPORT / IMPORT / DOMESTIC AVAILABILITY OF PULSES:**

India has banned export of all pulses since 2006 except Kabuli Chana. We observed 1.70 lakh MT export of Kabuli Chana during 2011 – 12, which was significantly lower than previous year (2.01 lakh MT during 2010 – 11).

Import of pulses in 2011-12 was 34.96 lakh MT compared to import of 27.80 lakh MT, in 2010-11 and 37.64 lakh MT in 2009-10. Import in 20010-11 had come down due to significant increase in production. Total availability of pulses for domestic consumption (production + imports - exports) in 2011-12 was 205.26 lakh MT which is close to availability of pulses in the previous year. A summary position of production, export & imports and net availability is presented in the following table:

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<tr>
<td>Production</td>
<td>133.9</td>
<td>142.0</td>
<td>147.6</td>
<td>145.7</td>
<td>147.0</td>
<td>182.4</td>
<td>172.10</td>
<td>175.20(T)</td>
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<tr>
<td>Export</td>
<td>4.54</td>
<td>2.64</td>
<td>1.82</td>
<td>1.45</td>
<td>1.29</td>
<td>2.06</td>
<td>1.75</td>
<td>0.66 (Apr-Sep)</td>
</tr>
<tr>
<td>Import</td>
<td>19.94</td>
<td>25.04</td>
<td>29.45</td>
<td>25.8</td>
<td>37.64</td>
<td>27.80</td>
<td>34.96</td>
<td>16.74 (Apr-Sep)</td>
</tr>
<tr>
<td>Total Availability</td>
<td>149.3</td>
<td>164.4</td>
<td>175.23</td>
<td>170.05</td>
<td>183.35</td>
<td>208.14</td>
<td>205.31</td>
<td>191.28(Apr-Sep)</td>
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**Export/import/domestic availability of different pulses**

Production and export/import of major pulses grown in India is given the following tables:

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<td>145.7</td>
<td>147.0</td>
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<td>208.14</td>
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<tr>
<td>Gram</td>
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<td>63.3</td>
<td>57.5</td>
<td>70.6</td>
<td>74.8</td>
<td>82.20</td>
<td>75.80</td>
<td>79.60(T)</td>
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<tr>
<td>Export</td>
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<td>0.60</td>
<td>1.60</td>
<td>1.30</td>
<td>0.95</td>
<td>2.01</td>
<td>1.70</td>
<td>0.62 (Apr-Sep)</td>
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<tr>
<td>Import</td>
<td>2.80</td>
<td>1.30</td>
<td>1.50</td>
<td>2.00</td>
<td>3.40</td>
<td>1.00</td>
<td>2.06</td>
<td>0.90 (Apr-Sep)</td>
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<tr>
<td>Total Availability</td>
<td>56.90</td>
<td>64.20</td>
<td>57.90</td>
<td>72.7</td>
<td>74.85</td>
<td>80.67</td>
<td>76.16</td>
<td>79.88(Apr-Sep)</td>
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<td>Urad and Moong</td>
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<td>29.8</td>
<td>22.1</td>
<td>19.2</td>
<td>35.6</td>
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<td>31.60(T)</td>
</tr>
<tr>
<td>Export</td>
<td>Neg</td>
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<td>Neg</td>
<td>Neg</td>
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<td>0.008</td>
<td>0.009 (Apr-Sep)</td>
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<tr>
<td>Import</td>
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<td>3.3</td>
<td>3.3</td>
<td>4.4</td>
<td>7.1</td>
<td>4.3</td>
<td>4.30</td>
<td>2.98 (Apr-Sep)</td>
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<tr>
<td>Total Availability</td>
<td>22.8</td>
<td>28.9</td>
<td>33.1</td>
<td>26.5</td>
<td>26.3</td>
<td>39.9</td>
<td>39.69</td>
<td>34.57(Apr-Sep)</td>
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</table>
Other Pulses (Rajama, Yellow Peas) (Quantity in lakh MT)

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<td>13.3</td>
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<td>15.30</td>
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<tr>
<td>Other Rabi</td>
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<td>22.9</td>
<td>20</td>
<td>22.3</td>
<td>22.9</td>
<td>22.7</td>
<td>25.0</td>
<td>23.10</td>
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<tr>
<td>Total Other</td>
<td>28.5</td>
<td>30</td>
<td>29.5</td>
<td>30.3</td>
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<td>36</td>
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<td>38.40</td>
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<tr>
<td>Export</td>
<td>2.8</td>
<td>1.2</td>
<td>Neg</td>
<td>Neg</td>
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<td>Neg</td>
<td>Neg</td>
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<td>0.03</td>
</tr>
<tr>
<td>Import</td>
<td>14.0</td>
<td>17.9</td>
<td>21.5</td>
<td>14.4</td>
<td>23.3</td>
<td>19</td>
<td>23.90</td>
<td>10.06</td>
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<td></td>
<td></td>
<td>10.06</td>
</tr>
<tr>
<td>Total Availability</td>
<td>38.44</td>
<td>46.63</td>
<td>51.05</td>
<td>44.7</td>
<td>51.22</td>
<td>53</td>
<td>58.16</td>
<td>48.43</td>
</tr>
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Source: agricoop.nic.in

CONCLUSION:

The inflow and outflow of pulses from India to the rest of the world have brought certain important impact on country’s economy. Particularly liberalized and subsidized import of pulses of India helps to meet demand-supply gaps, which occurred because of stagnation in the area under cultivation, very slow growth in yield, poor increase in production and speedy increase in population. These imports also help to slow down the faster increase in the prices of different types of pulses items. Import of pulses helps to slow down the decrease in the net per capita availability of food grains. Ban on export and re-export of pulses make the closure of Indian pulses processing units. Problems of Indian pulses economy can be solved with the increase the sources of production. Effective and continuous efforts are needed to increase the area under cultivation as well as the yield of pulses.

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The famous Boudh scholar Dharmanand Kosambi has done a ceaselessly knowledgeable penance. He had a strong faith on Buddha and his Buddhism, but this faith was perceptive. Because of this faith he has faced various difficulties, lived in foreign and studied Boudh religion and its literature. In the first 1500 years Boudh religion had fallen deep impact on the half of the world but from the 1890 there was no any Buddhist scholar in India. Dharmanand Kosambi has left his home for the sake of studying Buddhism. He has visited throughout the India and lastly went to Srilanka, where he learned Pali and studied its literature. Then he went to Brahmadesh for studying meditation. He came to India as a Buddhist scholar and tried to reestablish the Buddhism, which was disappeared from the India. After that there was a motivation for the Boudh study and research. Under the guidance of the Dharmanand Kosambi many students became the Buddhist scholar. Among them C V Rajwade, Dr. P V Bapat, Chintamanrao Joshi, Prof. N K Bhagwat are important. Dharmanand Kosambi had imbibed the modern historical view and research methodology; therefore he has given the detailed verdict on actual essence of Buddha and Buddhism. He has well decided the reality and myths from the biography of the Buddha. In his books, Dharmanand Kosambi had beautifully arranged the grand view on Buddhism. From the 6th century B C Boudh revolution was started in India and spread it on the half of the world. He has given the information of the ideological powers behind it. So through his works, he has contributed lot for Buddhism.

Bhagwan Buddha is the best known book of the Dharmanand Kosambi among all his books on Buddhism. Here Dharmanand Kosambi was explained the various contents of the texts like Tripitaka and Atthakatha. In the preface Dharmanand Kosambi has described the biography of the Buddha. According to him the whole biography of the Buddha was not consisted in one place in the Tripitaka, but it finds in the Atthakatha, which was written in the 5th century B.C. This biography of the Buddha was written with the help of Lalitvistara. According to the Dharmanand Kosambi Lalitvistara might be written in the 1st century or before it. It was composed with the help of Mahapadan Sutta of the Dighnikaya. In that Sutta there was detail information about the Vippassi Buddha. That’s why Lalitvistara was taken different stories
which were labeled to the biography of the Buddha. Along with it, Dharmanand Kosambi has also touched some philosophical terms like Atmawad and Ishwarwad through this book and tried to prove their connection with the Lord Buddha

**ATMAWAD:**

In the seventh chapter Dharmanand Kosambi was commented on the Atmawad. According to him Buddha left the Atmawad and built his philosophy on the base of the Truth. Therefore his followers did not catch in the trap of the Mara. There are two effects of the Atmawad, first to feel happiness in luxurious life and second is to trouble the body through the hard penance. However Lord Buddha didn’t accept both ways of the ease life and hard penance. Therefore he thought that through it nobody could remove the sorrow of the people, because Atmawad is responsible for that. So Lord Buddha has discovered new way. There is much sorrow in this world which is the fruit of the desire and Buddha was tried to remove the desire through the Noble Eight fold Path. This new way did not understand with the Atmawad. There is a reference in the Khandh Sanyuta that Buddha was preached Anatyawad to the five Bhikkhus along with the Four Noble Truth.

According to the Dharmanand kosambi Lord Buddha tried to avoid giving explanation about the Soul that is it mortal or immortal? Therefore Buddha had analyzed Soul into the five Skandas. They are Jad Padarth, Vedana, Sandnya, Sanskara and Vidnyan. When we studied it then we realized that Soul is not mortal or immortal because all these five Skandas are the changeable and sorrowful.

**ISHWARWAD:**

According to some people that Lord Buddha didn’t believe on God so he was called as atheistic. However Dharmanand Kosambi was studied the Boudh literature as well as ancient Upnishad and came into the conclusion that there is no any reality in the above mentioned statement. According to him the term of Ishwar was mentioned by the Tiknipata of Aguntarnikaya and Deodehsutta of Majjimnikaya. In the first Sutta Lord Buddha had told that happiness, sorrow and neglectfulness are created by the Ishwar or God. Deodeh Sutta also mentioned the same. As per Dharmanand Kosambi major God of Buddha’s period was the Brahma, but he was not like the God of Bible. He was not there before the creation of the world, but he came after that. Here Dharmanand Kosambi has given one reference from the Brahmajal Sutta and proved that Brahmanas were tried to make Brahma as a creator of the God.

For concluding above mentioned statement, Dharmanand Kosambi told that concept of Ishwar or God is different. It was brought into India by the Shaka, because it didn’t find in the previous ancient literature. Therefore calling Buddha as an atheistic was wrong. Lord Buddha
was criticized on casteism, that’s why Brahmans called him as a slanderer of the Vedas. According to the Dharmanand Kosambi, there was no any importance for the Ishwarwad in the Buddha’s period. However some people believed on Karma instead of the Ishwar and sometimes criticized on Buddha that he was not Karmawadi but the atheistic.

Dharmanand Kosambi has put the light on the theistic and atheistic issues of the Lord Buddha. At that time when Brahmans and Kshatriyas were tired of domestic life, they left the home and practiced hard penance. Therefore when Gotama left home nobody was surprised. However after getting enlightenment when Buddha was started to protest pleasure life as well as hard penance, at that time there was criticism on him. Brahmans were wanted to run contemporary social system, so they did not want to disturb it. Some people thought that birth was the sorrowful and it comes through the sinful act of the previous birth and for removing this sin one should practice hard penance. But the Buddha was protested the hard penance, therefore some puritanical Brahmans called him as ‘Akriyawadi’. Buddha was sacrificed arms so he was the ‘Akriyawadi’ for the Brahmans and he left the hard penance so he was the ‘Akriyawadi’ for the Mendicants.

Although Dharmanand Kosambi thought that Gotama left home not for the salvation, but for the creation of the good society, which would work without arms and with the reconciliation of each other. When he realized that there was no any result from the hard penance, he left it and discovered the middle path. Therefore Dharmanand Kosambi here compared Lord Buddha with the revolutionaries. According to him political leaders and religious people were called revolutionaries as a nihilist. As the same way in the contemporary society established people were called him as ‘Akriyawadi’. So from the writings of Dharmanand Kosambi we can conclude that whatever the Myths or factionary stories of the Buddha, here Dharmanand Kosambi was succeed to present the actual reality of the Buddha and his Buddhism.

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