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Editorial

The basic and most important unit of the society has been the family from the beginning. For the empowerment and development of the country, first of all it is necessary to pay attention to the moral, social, economic and cultural dimensions of basic institutions like family. Balanced development of the family is very important for the development of the society. Therefore, if we want to have a complete and balanced development of the country, then we need to lay maximum emphasis on the basic institution called family. It is necessary that we should not make any discrimination between son and daughter in the family and we must explain this to our sons and get them involved in their activities. Even today, those who belong to the old belief believe that a woman cannot get any freedom, she cannot go anywhere alone, she cannot roam anywhere alone, but today's youth refuse to accept these values.

Some people also say that the importance of the walls in the house, the same importance is given to the education of the boys in the society. But how is a house made? Who are in the base of the house? The base of the house is our daughters, our girls, that means they are related to the roots. If our root becomes weak in the society, then our house or house cannot be strong at all. There is a need to understand this social context in reality.

The extent of favoritism is reached when we see discrimination in small tasks. Some people think that a girl is someone else's wealth, what job she should do. That's why some parents discriminate between boys and girls and this discrimination is visible somewhere in our behavior, in feeding and dressing. This is sheer injustice. God has given the same brain to boys and girls and today girls are proving it by bringing better results.

Girls stay at their parents' house for only a few days, so it is our duty to pay deep attention to their education, upbringing, only then we can fulfill the concept of a strong society. God has made us the trustee of our children so it is our duty to treat all members equally with full justice because both boys and girls have same power, same soul. So we should give them equal opportunities for development.

The basic objective of women empowerment is the development of women and communication of self-confidence in them. Women empowerment is important for the overall development of the society. Empowerment of women is the most important social phenomenon because they are the creators. If you empower them, make them strong, encourage them, it is better for the society. Women and men are the basis of creation and human society. Both complement each other. These are the wheels of the chariot of life by which the journey of life runs

smoothly. The role of both has been equally important for stability in family and society. The basis of change and development in a society depends on the mutual interaction of men and women, walking step by step and equal mobility of both. A chaotic situation is created in social life when any one side lags behind. The history of mankind is witness to this that where women have been neglected, the development of the society has been stunted. The role of women in creation of creation, education of children, upbringing of family is much more important than that of men, thus her position becomes central in the society. Therefore, without the progress of women, there can be no upliftment of mankind and society. As far as India is concerned "Yatra Naryastu Pujayante Ramante Tatra Devta" means where women are worshipped. The deities reside there. With this ideal any Indian woman can feel pride in comparison to the western woman. The ideal of learning in Saraswati, the ideal of wealth in Lakshmi, the ideal of valor in Durga, the ideal of purity in Ganga, even the ideal of creation in the form of Jagad Janani we find only in India.



Professor Akhilesh Shukla
Chief Editor

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Analysis of the concept of victimology with special reference to domestic violence

• Akhilesh Shukla

•• Aanchal Shukla

Abstract- *Theoretically, domestic violence raises questions about its impact on victims' life. During the last decades, an increasing interest is shown organisations and governments to address the different types of domestic violence, such as intimate partner violence, for empowering women's human rights protection. This paper initially surveys the literature and reports what domestic violence is and how domestic violence is related to victimology. The rights of the victim are also necessary to understand the facts and circumstances. The paper proceeds with the exploration of the sociolegal aspects of domestic violence identifying causes and effects accruing from the persistence of gender stereotypes. For this purpose, the paper draws on recent theoretical research to evaluate these causes and effects. Analysis shows the concept of victimization and criminal justice could go further to support women to deal with domestic abuse. This paper will also suggest the changes that could be brought in the Criminal Justice system to ensure victims' rights and to bring in the concept of victimology. Enacting laws for victims' welfare and ensuring them a conducive environment are some of the suggestions of the study.*

Keywords- domestic violence, victim, victimology, legal system, criminal justice

'Women are the only exploited group in history to have been idealized into powerlessness' - Karl Marx

Violence against the women is one of the most important threats in our world. In any part of the country domestic violence is been there. Domestic violence is still an burning issue. The violence against women is increased or decreased cannot be measure over the past decades but the number of incidences is increased in country. In every 1 hour there has been a violence done against women and every woman is a victim. Domestic abuse is not a recent issue in society. Intimate connection abuse includes physical, verbal, sexual, and financial misconduct. One in three women have experienced physical or sexual abuse at some point in their lives, and 30% of women have experienced such abuse as a result of romantic relationships, according to the World Health Organization. Male aggression towards women has a detrimental effect on both their emotional and physical wellbeing. In India, women worry about their safety in married

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homes. Because patriarchal culture doesn't provide women enough opportunities, this is the case. Their husbands, in-laws, or other people threaten them with harm.

The majority of women are being violated by their husband, they're in laws and other family members. From the study we have focussed on what is domestic violence, what different types of violence, causes, are and how victim can claim their rights in front of law. Domestic violence affects the lives of women in both the urban and rural areas. In rural areas women are not aware of the laws and they are being treated very badly but they should also know the laws which is being made for their benefits.

Violence against women is due to a variety of factors, not just one. Research has increasingly concentrated on the interconnectedness of diverse components, which should enhance our comprehension of the issue in many cultural contexts. Women have remained disproportionately vulnerable to violence against them due to a number of institutionalised, complicated, and interwoven social and cultural variables, all of which are reflections of historically uneven power relations between men and women. Socioeconomic forces, the family institution—where power relations are enforced—fear of and control over female sexuality, the notion that men are inherently superior, as well as legal and cultural restrictions—which have historically denied women and children an independent legal and social status—all contribute to these unequal power relations.

The following are the ongoing reasons-

1. cultural
2. economic
3. political
4. legal

There is no standard or singular cause of domestic violence. Domestic violence against women is a result of a complex interaction of sociological and behavioural, historical, religious, and cultural elements.

Factors related to sociology, behaviour, and culture include, among others, psychological instability (bipolar disorder, depression, stress, etc.), poverty, economic hardship, differences in social status, domineering nature, drug addiction, upbringing, and anger management issues or aggressive attitude. Domestic violence also results from the neglect of conjugal responsibilities brought on by extramarital affairs or a lack of trust.

Historical Factors- The intrinsic evil of patriarchy and the superiority attitude that has persisted among males for generations can be linked to historical factors.

Religious Factors- If not overt and obvious, a subtle kind of dominance over women is reflected in religion.

Cultural Factors- Desire for a male child is one cultural factor that contributes to marital violence. Domestic violence against women is caused by an obsession brought on by a lack of understanding and a sense of innate male superiority. This is not a complete list of causes, and other reasons may contribute to domestic violence.

Dowry is a type of sociocultural element. However, it is now crucial to bring it up individually due to the numerous domestic violence instances brought on by dowry demands that are illegal. The Domestic Violence Act's inclusion of dowry-related domestic violence as a separate category under "abuse resulting in domestic violence" helped the Parliament recognise this.

Consequences of Domestic Violence Against Women- Domestic violence can cause for short- and long-term basis and it effect the mental health also. The violence which has been done against women also affects their children, parents, and it causes a long-lasting impression on a family member.

There are many factors which are as follows-

1. **short term consequences** - Violence can have both small and significant bodily side effects that manifest quickly. They may include bruises, cuts, shattered bones, or wounds to internal organs and other body components. Without scans, x-rays, or other tests carried out by a doctor or nurse, it can be difficult or impossible to see some physical ailments. Long-term emotional and verbal abuse may have an impact on the woman's and children's moods in their daily activities and may also decrease productivity.
2. **Long term consequences** – Long-term health issues are associated with various forms of violence against women, including sexual and physical abuse. Violence against women can have long-term psychological impacts such post-traumatic stress disorder, depression, or anxiety. The issue of substance misuse and drug addiction may result from this. Sexual assault can cause permanent harm to the victim as well as a loss of self-worth.
3. **Effect on children-** There is growing recognition that a youngster who experiences domestic abuse during his upbringing will experience developmental and psychological problems. Domestic violence can cause a variety of emotional and behavioural issues in children, including an increase in aggression, anxiety, and alterations in how they interact with peers, family, and adults. In addition to a lack of abilities like problem-solving, issues with attitude and cognition can start to emerge in schools.

Who Are The Victim of Domestic Violence? It can be very challenging for a victim of domestic abuse to admit that abuse is occurring, especially if it's emotional or psychological abuse rather than physical. However, now is the time to be truthful with yourself and realise that you are not to blame. You don't make your abuser hit you or harm you in other ways; they are the ones who do that.

However, it has been found that there are some people who have been the victim of domestic violence as follow-

1. Who has a poor self-image
2. When a person is economically or emotionally depend upon the other one who is the abuser
3. Who has a low self esteem
4. The person who is facing violence can't handle or stop it.

When people hear about domestic abuse, they frequently assume that it just refers to physical assault-especially when that assault is what is still clearly evident. There isn't much discussion about verbal abuse. This causes the effects of verbal abuse to become more commonplace. However, before it escalates to a full-blown pattern of violence, domestic violence typically begins as verbal abuse. Verbal abuse is classified as domestic violence under Section 3 of the Domestic Violence Act. Because of this, verbal abuse of women is a recognised kind of domestic violence. Verbal abuse damages a person's soul and sense of value, which causes self-doubt. Any attack on one's self-worth also leads to sadness and psychological distress.

Landmark cases where women faced domestic violence-

1. Smt. Haimanti mal v. state of west Bengal (2019)

According to the Calcutta High Court, determining compensation must be based on logic and cannot be the result of conjecture. The High Court granted the wife compensation in the amount of Rs. 100,000. In this case, Justice Mitra made a ruling. The Calcutta High Court awarded the wife Rs. 1,000,000 as compensation for the mental suffering she had experienced as a result of her husband's activities. In the absence of any supporting documentation or materials, the award of compensation, however, cannot be substantiated. Section 22 of the Protection of Women from Domestic Abuse Act of 2005 offers compensation and damages for harms, such as mental torment and emotional distress, brought on by the respondent's domestic abuse acts.

2. Inder raj malik v. sunita malik

Facts of the case are as follow-

Sunita was complainant and inder raj was respondent and sunita was treated cruelly, beaten and she did not get the food by her husband and family. She was so tensed after the marriage. She was once subjected to severe physical and mental abuse in her marital house to the point of fainting, but no doctor was contacted for a check-up.

If Sunita Malik didn't force her parents to sell their land in Hauz Qazi, her mother and brother-in-law threatened to kill her and abduct her. As a result, it was determined that the complainant, Sunita Mailk, had endured terrible treatment from her husband and in-laws, including physical torture. To coerce Sunita Malik or anyone connected to her into fulfilling an unlawful obligation for both moveable and immovable property, harassment was used.

Issues involved in the case

- Are Section 498A of the Indian Penal Code, 1908, and Section 4 of the Dowry Prohibition Act, 1961, subject to the Double Jeopardy provision of article 20 (2) of the Indian constitution ?
- Is Section 498A of the Indian Penal Code, 1908, ultra vires?

Judgment

The Delhi High Court had to determine in this case whether a defendant may be found guilty under both Section 4 of the Dowry

Prohibition Act and Section 498A of the Indian Penal Code. The Court determined that a person is not subject to double jeopardy if they are found guilty under both Section 4 of the Dowry Prohibition Act of 1956 and Section 498A of the IPC. The Court determined that Section 498A, IPC, and Section 4 of the Dowry Prohibition Act are separate laws since Section 4 of the Dowry Prohibition Act only punishes acts of cruelty committed against newlywed women, whereas Section 498A also punishes the mere demand of dowry.

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State	No.of Incidence	No. of Victim	Crime Rate Per Lakh Population
Telangana	9468	9468	50.4
Andhra Pradesh	7092	7651	26.8
Kerala	4997	5079	27.1
Karnataka	2336	2408	7.1
Tamil Nadu	875	875	2.3

Can any Man Lodge A Case Against Domestic Violence? When there is discussion going on of domestic violence then there is only thing which comes into an mind is that women will be there who will be facing violence but no, there are so many men's also who are facing domestic violence. Now days, there are so many cases coming up where men's are also facing the same as women and they should get a equal protection as women get under so many acts. Since gender is a social construction, factors including race, caste, nation, class, culture, sexual preference, aptitude, traditions, etc. frequently have an impact on it. Gender roles are highly rigid in many south Asian nations, including India. Stereotypical ideas and gender biases are fostered by this rigidity. The Indian Penal Code of the country's penal laws, which are related to gender violence, do not apply to men who experience domestic violence at the hands of their wives or other close female partners.

Due in large part to the fact that the Domestic Abuse Act is essentially welfare law, the Domestic Violence Act, 2005 does not provide for men to file cases of domestic violence against women. However, under Section 13(1) (ia) of the Hindu Marriage Act, an unhappy male may seek for divorce or judicial separation on the grounds of cruelty.

Indian domestic violence laws contain no language addressing the need to protect men from domestic abuse. However, **in the cases** Hiral PHarsora vs. Kusum NarottamdasHarsoraand Narayan Ganesh Dastane vs. Sucheta Narayan Dastane, as well as more recently, the Supreme Court of India, recognised the necessity to safeguard men from acts of domestic abuse. In the former instance, the Apex Court acknowledged cruelty towards men for the first time. For a gender-neutral society, cruelty and violence towards men should be explicitly condemned by the law. Additionally, it is important that the domestic violence movement for men's right to safety from domestic abuse develops traction now that homosexuality is no longer a crime in India.

In the other country one out of every ten men are facing domestic violence and they are being treated very badly by their spouses and because of it their mental health also gets harm and physical health.

Here are the some facts which will tell how common it is against men now a days-

1. According to a survey of 1000 married males in rural Haryana villages ranging in age from 21 to 49, gender-based violence affects 52.4 percent of them.
2. In terms of hitting their spouses, Indian wives are third in the world. The top two nations are the United Kingdom and Egypt.
3. Under current law, men are not given even the most basic protection, such as having an aggressor who is either a man or a woman stay away from them (a restraining or protection order).
4. Only a man can be held accountable for cruelty to his wife, according to Section 498A of the Indian Penal Code 1860. There is no paragraph or clause in the legislation that makes a woman responsible for domestic abuse.
5. More men die from suicide, despite the fact that women are more inclined to consider it.
6. General male stereotypes, apprehension over phoney allegations, social and familial pressure, and denial are the top four reasons why domestic abuse instances against Indian men go unreported. The overall preconceptions against men, the worry of fabricated cases, cultural and familial pressure, and denial are the four most frequent causes of domestic abuse instances against Indian men not being reported.
7. Fear of fake cases is also an important thing that men think that it will create nuisance in the society.
8. Family and societal pressure.

There are many false cases when women falsely accuse a guy of rape or domestic abuse because of the discriminatory laws in the Indian Penal Statute that favour women. The sad issue is that these biased laws inherently assume that a male can never be the victim. Women do not need to provide any kind of evidence to back up their claims. The biased laws assume that they are real animals.

Biased laws in India

1. **Section 498A of the IPC-** only a man will be only held liable for their cruelty against a woman and in this section, there are no sub sections or provision which are in favour of men and no provision statues women to held liable for being cruel with his husband.
2. **Section 3 of domestic violence act-** this only protect women against the domestic violence. There is no provision in the full act hat safeguard the men against the violence. The whole act which are being made in India their main focus is that men are the wrongdoers and women are only the sufferers. It is true that women had faced a lot and how much women had faced no one else can face it but this does not give any justification to the violence against the men. There should be some laws which helps men also to take their stand in front of the court.

During the covid times, everyone is they're in the home and people were spending so much time with their families then also there are so many cases which has been came out where men is treated unequally.

Judiciary role in ensuring the right of victim- Justice exists during the process as well as in the final outcome. The only established principles of the criminal justice system in the past were control and prevention of crimes, punishment and rehabilitation of criminals, and protection of people and their property. Therefore, it is necessary to broaden the definition of justice. Justice must also work to win the trust of the witnesses in order to convict the guilty and, in particular, the victims of the crime. It should not be limited to the conviction or acquittal of the accused.

The criminal justice system was started by the victims by giving information about the crime, and for them, receiving justice is the biggest consolation. Due to the delay in collecting samples in rape cases, the entire case is rendered invalid, depriving the victims—who are typically women and children—of access to justice. Sometimes, in order to gather evidence, the rape victims are kept in protective custody without any sort of legal justification.

Although not a statutory entitlement in India, restitution of the victims must be established through legislation because it is insufficient to simply consider the victims' requests for redress or compensation for the harm they have endured. The Code of Criminal Procedure recognises victims' compensation as a right, but restricting it to the amount of fine that was actually realised and making it available only if a substantive sentence of fine is imposed limits the scope for compensation. **Although under section 357(3) of the CrPC**, a fine may be imposed by the Magistrate; courts are inconsistent in using this clause where one has not been.

The court is empowered to order the state to pay such compensations for the victim's rehabilitation under this section if the compensations awarded in accordance with section 357 of the CrPC are insufficient for the victim's rehabilitation or if the case results in an acquittal or discharge of the accused. Even if the offender is not put on trial, the victim has the right to ask

the State or District Legal Services Authority for rehabilitation. Only after it was required by the 154th Law Commission Report was Section 357A of the Criminal Procedure Code established or implemented. The important thing to remember is that it takes years to put a provision into operation, which is bad for a state because it delays victim justice.

In India, domestic violence affects women on a daily basis and is not just apparent. She is subject to violence from the moment her mother conceives her in the womb, and ever since, she has had to battle for her life in this brutal society. India's whole criminal justice system is focused on offenders. The rights of the accused or the criminal are frequently a source of concern for the judicial system, the legislative branch, and the executive branch. Justice for the victims must be served through the criminal justice system, and those who seek justice must have access to the legal system. Justice would only exist in letter and not in spirit if the system fails to ensure that the victims and witnesses can speak out without fear, participate in judicial procedures, and have their interests and rights safeguarded. Domestic violence laws in India only protect the women not the men and it clearly represent that men are perpetrators not the victim. The violence against the me is increasing day by day so they should also have a proper law. There should be special provision which will create gender equality. The most frequent causes of domestic abuse instances against Indian males not being reported are generalised negative preconceptions of men, fear of fabricated cases, cultural and familial pressure, and denial.

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Ecofeminism and Environmental Movements in India

• Rani Tyagi

Abstract- *A gendered study of this paper demonstrates the relation between women and natural environment, where women is closely related with nature because of their biological abilities, but in their substance link with the Earth as a source of life. In India there are several movements where you can correlate environment with women empowerment and role of gender in different issues related with environment destruction and conservation. In this paper, I will look at the main trends of ecofeminism and the critiques that have been levelled against them. This paper will correlate the Indian environmental movement and highlight the interconnections of caste, class and gender issues in it. The paper will also analyze the Indian environment movements according to a feminist perspective. It will also help us to understand the importance of women in major environmental movements with special reference to Chipko and Narmada Bachao Andolan.*

Keywords- Ecofeminism, Chipko Movement, Narmada Bachaon Andolan

Introduction- A large number of literatures were there on Ecofeminism related with gender and environment all over the world. In India protection against environment and forest degradation is directly linked with gender. Environmental Movements related with conservation of environment like the Chipko movement in India, Anti-Militarist movement in Europe and the movement in US against dumping of hazardous waste, and Green Belt movement in Kenya, are all labelled as “ecofeminist” movements. According to Ecofeminist Ynestra King: “Ecofeminism is about connectedness and wholeness of theory and practice... (it sees) the devastation of the earth and her beings by the corporate warriors, and the threat of nuclear annihilation by the military warriors as feminist concerns”

Ecofeminism in India- In India, the most important person related with of ecofeminism is Vandana Shiva. Vandana Shiva (1988) believes in the theory of modern science which follow western, patriarchal and colonial project, which is inherently violent and show this violence against women and nature. This model doesn't represent the traditional model of “prakriti” as a living and creative process, the “feminine principle”, from which all life arises. In the process of development, nature has been browbeaten harshly and the womanly principle was no longer associated with activity, creativity and holiness of life, but was considered meek and as a “resource”. This has led to marginalization, reduction, dislocation and ultimately the

dispensability of women. She points to the experiences of women in the Chipko movement in the Garhwal Himalayas – where women struggled for the protection and rejuvenation of the forests. Shiva points out the critical links between the different development perspectives, the change brought about by the development and its impact on the environment and the people dependent on it for their survival.

Women, in rural areas, are both victims of environmental degradation as well as play important role for the protection of the environment. The fact that women is closely related with nature and are most severely affected by environmental degradation, they have “naturally” positive attitudes towards environmental conservation is, therefore, not acceptable.

Indian Environmental Movement- The Indian environmental movement represents a wide range of social conflict over degradation of natural resources. It has grown swiftly over the past two decades and represents conflict within villages or spread across large areas involving large number of people. The propagation of voluntary groups working within the environmental movement, are mainly concerned with activities that destroy the environment and impoverish local communities: building dam on rivers, mining activities, fishing, poaching and destruction of forest. The Chipko movement is considered to be the first environmental movement for the protection of forest against timber contractors where people hug the trees for the large scale destruction of forest due to commercial lumbering. In no time movement spread all over the country and women's active participation was a very novel aspect of this movement. They worked jointly with the men of their community, and in some cases even against them, when they differed with them over the use of forest resources. Women are more worried about the advantages of saving the forest and environment, and hence, survival and existence issues, rather than short-term benefits through commercial projects. The scope of the movement highlighted issues of alcoholism, domestic violence against women, less representation of women in village councils, as well as against mining activities. It helped women recognize their correlation between nature and human provisions. The movement was carried forward largely by women using Gandhian techniques of protest. Much has been written about the Chipko movement (Bandhyopadhyay-Shiva 1987), and women's involvement in it is celebrated by some feminist scholars (Shiva 1988) as an expression of women's special relation to nature. However, scholars like Shobhita Jain (1984), Ramachandra Guha (1989), Madhav Gadgil and Ramachandra Guha (1992), have argued that it should be seen in the context of the peasant struggle of the region.

Bina Agarwal's “feminist environmental” perspective sees the relation between women and nature on the basis of production, reproduction and, distribution. Women, belonging to poor backgrounds, are both victims of environmental degradation as well as play an important role in movements for the protection of the environment. Natural resource destruction both in terms of quality as well as quantity, the increasing appropriation by the state and by private individuals, as well as the decline in

communally-owned property, has been major cause for the increased class-gender effect of environmental degradation. The turn down in community resource management systems, increase in population and mechanization of agriculture, resulting in the wearing away of local knowledge systems, have increased the class gender implications of the environmental degradation” (Agarwal 1992).

The problems of forest degradation, water scarcity and so on, have increased women's work as now they have to spend more time and walk longer distances to get fuel, fodder, food and, water. The degradation of forests and the increasing privatization have constrained the access of villagers to forests and village commons. It has reduced the number of items that women could gather from forests and village resulting in reduced income. The slight women earn through selling firewood is also reduced due to deforestation. This has a direct impact on the conditions of poor households. The turn down in the availability of fruits, firewood has strained people of poor households to shift to less nutritious food and decrease the number of meals eaten per day. Family related gender biases can lead to women and female children getting secondary treatment with regard to food and health care. (Rao, 2012:132).

Critiques- Ecofeminist literature points out the historical misuse and supremacy of women and nature as going hand in hand, and both are seen as fatalities of development. It is taken as evidence that any harm to nature harms women equally, since women are seen as closer to nature than men. None of the ecofeminist literature attempts to establish this relationship through strong evidence. These female oriented images of women, in fact “retain the patriarchal stereotypes of what men expect women to be. “The use of images of women as 'nurturing' – like the earth, and of the earth as female abound are regressive rather than liberating women” (Biehl 1991:17-19). They only reinforce stereotypes. What these arguments seem to overlook is that concepts of nature, culture and, gender are “historically and socially constructed and vary across and within cultures and time periods” (Agarwal 1992:123). Critics like Susan Prentice (1998) argue that highlighting the special relationship of women with nature and politics imply that men is doing negative to the environment, unlike women, thereby ignoring the fact that men too have a perspective or inclination towards nature conservation. It also fails to analyse free enterprise and its domination of nature. Therefore, it cannot develop an efficient strategy for change, since it ends in polarizing the worlds of men and women with different dimensions.

Conclusion- Issues of environment and ecology came into highlight after the Conference on Environment and Development, at Stockholm in 1972. It tinted the discrepancy rates of spending of natural resources by the developed and Third World countries, i.e., issues of global political economy. Remonstrations against environmental destruction and struggles for endurance highlight the fact that caste, class and gender issues are deeply enmeshed in it. It is the poor, lower class and lower caste, and within them, the peasant and tribal women, who are worst, affected and

hence, they are the most active in the protest. Women's interaction with nature and their responses to environmental degradation must be analysed and located within the material reality of gender, caste class and race based division of labour, property and power. Women are victims of environmental degradation as well as active agents in the rejuvenation and protection of the environment. (Rao, 2012:138). The nature and impact of the processes of environmental degradation and the seizure of natural resources by a small minority are based in the dominant ideas about development, gender division of labour, as well as on differential of property, power and, so on. Hence, there is growing resistance to such inequality and environmental degradation, as reflected in widespread grassroots resistance movements. Environment and gender issues need to be considered together. (Rao, 2012:138-139)

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Socio-Economic Conditions of Elderly Women Slum Dwellers

• Archana Mishra

Abstract- *The present paper will analyse the Socio-economic conditions of Elderly women slum dwellers in Kanpur City. Elderly women living in slum areas have different problems than elderly women in general. They suffer more marginalization and exclusion. Many of them suffer from depression because of unemployment, addiction, economic dependency, disturbed material status and lack of exercise. They also suffer frequently by domestic violence. Due to poor sanitation, lack of toilets, contaminated drinking water and open defecation, they easily succumb to many infectious diseases. Therefore this paper will analyse the condition of elderly women from socioeconomic angle.*

Keywords- *Elderly, Women, Slum, Deprivation Older, Socio-Economic*

Introduction- Gerontology is the science of study of old age. It includes three aspects of old age namely physiological, psychological and socio-economic. Gerontology has social aspect too which is related to reciprocal relationship between aged and society. As old age is subsequent stage of human life then why the need of such study arises. It is caused by globalization, industrialization and urbanization which bring drastic change in the society. These development, have both positive and negative aspects. On the positive side modern medical facilities increases the life expectancy of people on the other side it also left them in the stage of uncertainty. Uncertainty caused by the breakdown of joint family and joint income where older people get respect, affection and care. In the nuclear family system people have development individualistic approach and have no time for their immediate family members. Rapid employment of women further increases insecurity among older people as there is no one left for their care in the family. The old people think themselves as marginalised and consider themselves as burden of society.

The outbreak of COVID has further increased their problems. Due to sufferance from many ageborn diseases the old people easily become prey of corona virus and also have late recovery which further adds on their problems. So the old people are becoming the socio problem cases and needed welfare measures for their upliftment. The government has been taking many welfare measures for their upliftment but their condition remained unturned or has very little improvement. The government has passed the maintenance and

welfare of Parents and senior citizen Act 2007, but this is not sufficient to provide them dignified life. Many welfare schemes are also run by government but it brought a very little change in their condition.

Elderly women living in slum areas have different problems than elderly women in general. They suffer from marginalisation and exclusion. So there is a urgent need to consider the status of the elderly women slum dwellers in the light of present changing scenario. The present paper will study the socio-economic condition, of elderly women slum dwellers in Kanpur city.

Objectives of study- The present paper will study the socio-economic condition of elderly women slum dwellers and suggest measures for their upliftment.

Hypothesis:-

1. The elderly women slum dwellers have low socio-economic status.
2. Most of them are jobless and therefore depend on others for the fulfilment of their needs.
3. Most of them are illiterate and malnourished.

Limitations of Study- Due to constraints of time and money the author has taken Kanpur as the area of research. The author is a woman who resides in Kanpur city and there are many slums nearby to her workplace and her residence. She has a penchant for interacting with elderly women slum dwellers. The author followed covid guidelines while contacting with the respondents. Some respondents could not be contacted due to their sickness.

Review of Literature- Desai Vandana (2020) in her study revealed that the rich slum dwellers develop complex relationship outside the slum area to gain power. They use this power on poor slum dwellers to marginalize, displace and exclude them from slum areas. The author has taken 65 respondents in Mumbai Among 65 respondents 38 was widow. The author found that widows were more at risk because due to patriarchal society they lose their bargaining power and depend on their sons for decision making.

Chaudhary S. Suresh Y, (2020) in his study found out that Covid has brought a sudden shift in the lifestyle of elderly people. They are at most risk and likely to die of COVID-19. This pandemic left them lonely and vulnerable. They started feeling lonely and confined them in their firewalls. They were allured by the misinformation of miraculous cure of COVID – 19. Hashami Sana (2018) carried out the study of 40 elderly women of Aligarh city and found that only 8 out of 40 has taken the benefit of IGNOAP scheme. The underline cause of this is unawareness, ignorance of online processes, lack of paper documents and ID proofs.

Barua, Borah, Deka, Kakati (2017) in their studies conducted in Jorhat district of Assam among 125 elderly found that majority of elderly were suffering from arthritis and visual impairment. Most of the elderly thought their diseases are age related and took no consultation with the Doctor. They did not have money therefore practiced self-medication. The advocate the need of affordable health care services to elderly slum dwellers to ensure them active ageing.

Srivastava, Bavaskar, Chaudhary, Agrawal (2017) took the research on 336 aged women in the Mumbai slum areas. They studied the mental health of elderly women by 30 point depression scale. Study revealed that 60% of elderly women slum dweller were suffering from depression. The reason of depression was unemployment, addiction, economic dependency, disturbed marital status and lack of exercise.

Kadam MA (2015) revealed in her study that the major cause of ill health of women were poor sanitation, lack of toilets, contaminated drinking water, open defecation. The study revealed that in slum area women suffer frequently gender based violence because of their secondary status and negligence. She emphasized the need for specific upliftment policy for elderly women slum dwellers.

Thimmanna (2014) carried her study on the elderly women slum dwellers of Bellari city of Karnataka. Her study revealed that elderly women are marginalized and excluded in slum areas. Due to temporary status of their houses they constantly live under the threat of demolition of their houses. Their other worries were the poverty, health and weak government policies.

Jain, Pawan, Bansal 2012 carried out the study among 400 elderly people 60 years and above in the slum areas of Surat city. The study revealed that 90% of the people have worries about health. Poverty, livelihood, loneliness, threat of demolition of their illegal houses and recreation were other concerns of elderly people. The study emphasized the need of geriatrician and specific clinic to provide the active life to elderly.

Research methodology- The Study applied descriptive cum exploratory research design. The study is descriptive because it describes the socio and economic condition of elderly women. It is exploratory in a sense because it seeks new insight about the conditions of elderly women slum dwellers.

The researcher applied both primary and secondary sources for data collection. The primary sources were collected from field visits along with interview. The secondary data was collected through books, journals, newspapers, magazines, census survey reports and other research materials available in websites.

Interview schedule was developed which have all the questions related to socio-economic conditions of elderly women slum dwellers. The schedule have both open and closed ended questions. The researcher purposely selected 120 elderly women in Sanjay Nagar and Mahadev Nagar slum areas of Kanpur. The unit related for the study was women whose age were 60 years and above.

The collected data was edited by the researcher and divided into different categories then the frequency and percentage was calculated after that tables were prepared. Interpretation and conclusions were drawn by analysing primary and secondary data.

Result and Discussion- The Study revealed that out of 120 elderly women 54% are earning. Most of them are between the age group of 60 to 75 years after that there is a slight decline of numbers. Most of the elderly women are wage labourers working in factory, construction workers and as domestic servants. Some have small shops in the slum areas. Few elderly women are

satisfied with their income. Most of them revealed that their monthly income is not enough to fulfil even their basic need. Some have taken debts from local moneylenders or depend on their children for monthly expenses. Income inadequacy left them with the inferior feeling. They regard themselves as unwanted, degraded and humiliated members of society.

Due to their low economic status the elderly women do not have access to health and nutritious food. This effect their health adversely which is further worsen by living condition of the slum areas. They drink contaminated water, live in crowd and damp houses which usually lack sanitation and sewage facilities. This weakens their immune system and they are easily prone to infections and chronic diseases. Out of 120 elderly women selected for the study 48% feel themselves healthy 45% are found sick and 7% are very sick. Healthy persons are more in lower age group. The researcher found the relationship between health and economic status. The healthy elderly women are able to work better and those who work are in a better position to maintain their health. Because they can afford three times meal per day. The respondents who have serious health problems suffer from tuber culosis, asthma, paralysis, rheumatism and blood pressure. Most of the respondents are consulting in private clinic. 75% of the respondents eared by their family members. The researcher found no positive relations between the health and marital status of elderly women.

Most of the elderly women are living with their children. 20% of the respondents are widow and 40% of the respondents are financially assisted by the children. The author has found out that 70% of the elderly women come from similar social milieu and have migrated from rural areas in search of better livelihood. 80% of the male members of their family are engaged in petty jobs and elderly women supplement income by doing domestic chores. These women worked day in and day out and wanted the well being of their family, their sons and grandsons daughter to do better but their megre incomes are spent in drugs, illicit liquor and gambling by their male members. Their condition remains deplorable as before. They remain unsung saviours of their homes.

Inspite of huge spending by government on urban slums, Pradhan Mantri Awas Yojana, Ujjawala, Jan Dhan, Aayushman Yojana, the real benefit do not reach them due to their low level of awareness and they develop trust deficit in government schemes and emulate others by paying heavily for private school, hospitals and are heavily exploited by them.

The author found that out of 120 elderly women 40% of them are often subjected to domestic violence and have no energy, time and support to report to police station as they fear vicious cycle of torture and reprisal at the hand of administration.

PMSBY (Prime Minister Surksha Beema Yojana) has given them a elusion and APY (Atal Pension Yojana) has secured their future. Only few people who are aware have taken advantage of there schemes and most of the elderly women depend on DBT of government old age pension schemes and Food security is provided by free return schemes of governors most of the schemes are in the name of Mahila member and this has further given them identity.

SBA (Swachha Bharat Yojana) has provided toilet to every house and this has gone a long way in providing healthy dignified life to elderly women. The urban slums have got a face lift in recent years due to providing of financial assistance for building/ upgrading their slum dwellings and the best part of this assistance comes in the bank account of elderly women of the household.

The author has also noticed during interaction with elderly women of urban slums that they have much complaint with the system yet they have become very assertive in asking for their entitlements. To raise their voices, they have developed SHG (Self Help Groups) where they are engaged in some economic activities and also discuss burning issues and problems with each other and help each other in finding solutions. Various NGO's are also working in urban slums and they all to mitigate their problems directly or indirectly. Awareness about nutritious life style, health in also given to them and they are also assisted in taking benefits of government welfare schemes.

Conclusion- The Elderly women of urban slums are mostly independent, self-confident yet they need to be supported well when they are not able to work or sudden face certain diseases. The family set up though now derives benefit in the name of elderly women yet not support them well in their bad days of ill health and they develop a sense of isolation, deprivation, being left out. Here family values and bonding should come to rescue. Government agencies can only provide financial inclusion but they will to live meaningfully depend upon positive, psychological support and family / societal sustenance.

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Public Health and the Disputed Issue of Subsoil Water in Colonial Bombay City: 1860–1900

• **Madhu Kelkar**

Abstract- *In 1860, the Vihar Water works introduced piped water supply in the city on Bombay. Even though the then Victorian sanitary paradigms, gave great importance to the removal of waste water, yet no effective drainage and sewerage were provided immediately after the entry of Vihar waters. Public health therefore continued to deteriorate. Measures to deal with these diseases, particularly malaria, plague and cholera, involved shutting down of tanks and wells, which not only gave additional land for construction but also entrenched the piped water supply system in the city. Further, the defective waste water systems, created again in the name of public health, only aggravated the problem of subsoil water leading to more death and diseases. This article argues, via a study of archival sources, that the issue of subsoil water, and the concomitant problems it produced, was neither properly understood nor dealt with seriously either by the Bombay Municipality or the Government. It asserts that the current problems of flooding and insanitation that the city faces can be traced to the faulty drainage and sewerage systems created in the colonial period.*

Keywords- *Bombay, Victorian, Public health, sub-soil water, tanks and wells*

Introduction- 19th century Bombay witnessed a rise in population due to rapid industrialization, particularly due to the employment demands of the cotton textile industry which increased from 13 in 1869 to 136 in 1900. Insanitation and diseases rampaged the city prompting the government to solve the problem partially by inaugurating a pure water supply in the form of Vihar water works in 1860. Though both, pure water supply through hydraulic systems and sewerage and drainage, were considered important pillars of sanitation, yet Vihar supply was not followed by commensurate planning or execution of the drainage system, since it was felt that water supply could take precedence over drainage. Even though it was acknowledged that the defective drainage of Bombay subjected a population of almost a million to malarious diseases and therefore was an evil of the first magnitude and despite the warnings of leading health officials, like W.J. Simpson, Municipal Health Officer, of Calcutta, and TS Weir, his counterpart in Bombay, of the urgent need for modern drainage and sewerage works, that the daily pouring of millions of gallons of water into Indian cities, without providing drainage, was inundating fetid subsoil with sullage and risked intensifying malaria and other deadly diseases, nothing was done. Weir greatly apprehended and feared the disastrous effects on public health from the extension of the water supply

with no commensurate increase in drains. Thus, as Ira Klein notes, the pure water movement contributed to circumstances which favoured the outbreak of plague. Gerry built quarters aggravated the spread of the disease.

The Trajectory of Drainage -1860- 1900- Drainage of Bombay city was a complex problem. Several drainage schemes submitted in the 1850s, were cast off on account of their cost, lack of perfection, or their sheer absurdity. The fact that drainage issues of the city were never considered independently but constantly and unfavorably compared with England did not make it easy either. In India, following the example of contemporary England, creation of drainage schemes proved to be difficult due to poor communication among various departments and differences among engineers regarding what would be the best for the country. While only a few select engineers were entrusted the task of designing, experience regarding the same was gathered via experimentation ultimately. Drainage and sewerage schemes of Bombay were referred to 'experts' in England who were least familiar with the city thereby resulting in gross errors. The drainage and sewerage of the island was even otherwise a difficult proposition since reclamations and its own geographical formation had made the island prone to flooding. Administrative procrastination, popular colonial prejudice against the available indigenous engineering talent in the city and delays in surveys further impeded performance in this area.

In the 1860s, schemes submitted by engineers such as Tracey and Russell Aitkins, suggesting the sewerage of the island with multiple outfalls on the eastern and southern sides, were rejected as it was feared that the harbor would be affected as a result. From the 1860s, the drainage and sewerage issues also came to be tied with the rising fortunes of the city as an important port and trading center. The sewerage issue, especially, hinged on the key factor of sewage disposal which was a knotty subject since it was difficult to decide the location of the outfall. The debates on this as well as the proposals for sewage irrigation, which received attention from engineers and doctors, indisputably bring out the experimental nature of sewage disposal, thought of by administrators at this time. The other disputed areas were underground drainage, type of drainage and night soil disposal. The Scoble Commission, appointed in 1869 to look into these issues precisely, maintained the status quo. But in the following decade, due to the spectacular growth of the city, especially towards the North, the need for additional land on the Flats (currently the area identified as Bombay Central), for building purposes and the insistence of the Army Sanitary Commission to remove the system of open drains which were associated with disease and death and costly to maintain, Governor Sir Richard Temple's reign saw the introduction of the new underground system of sewerage with the water carriage system, with the sewerage outfall at Love Grove in Worli. The choice of this outfall in 1877 was premised on the idea that it was a cheaper and flexible one; one where the sewage could be diverted elsewhere, if need be, or defecated if the project of sewage utilization materialized, although it was not known if the soil was compatible for such a plan.

Work commenced in December 1878 and was completed in May 1881. By the end of the first decade of the 20th century, the city contained about 200 miles of underground storm water drains and about 116 miles of sewers. By 1897, Mazgaon, Agripada, Parel and Chinchpokli were sewered on the Shone system at a cost of 13.24 lakhs. Malabar hill was also sewered at a cost of about 6 ½ lakhs, a portion of the sewage being dealt with by biological treatment. The effluent was discharged on the sea, west of the hill. More than 200 latrines were constructed mostly based on the water carriage system. By 1889, however, C W MacRury, Sanitary Commissioner reported that the drains laid in Bombay in the late 1880s were without any foundations. But since they were hidden from public view the latter was not aware of their condition. The subsoil of the most densely populated parts of the city as a result was excrement, sodden and water logged. He considered the then state of drainage and sewerage of the city a reproach to the municipal administration of the city. Far from being self-cleansing, Bombay drains, at this time were sewers of deposits, causing cholera. The abnormal rains of 1896 (the year in which plague broke out) bore testimony to the flaws of drainage system when 5 million gallons of water, which could not be drained, welled up through the manholes in places where it had never been seen before. In that year, fevers which stood at 6404 or 7.79 per 1000 of population were attributed to high levels of subsoil water. The report of the health officer for 1896 clearly indicted the insufficient drainage caused by an increase of sewage, subsoil water and the absence of connections between buildings and sewers; overcrowding; disposal of refuse on the flats; imperfect provision in the Municipal Act regarding rebuilding of houses on old foundations without space for ventilation and drainage being left on one side and the obstruction of sea currents around the island by the causeways and embankments at Bandra and Kurla, for the epidemic conditions in the city. Since 1892, with the onset of water from Tansa, the water to the island had increased from 16 ½ million gallons to 29 million gallons or more daily and no commensurate increase in drains. Even, T.S. Weir the health officer looked at the future of the health of the city with anxiety. At this time a complete drainage of the city and prevention of waste of water were deemed imperative for the health of the city. Colaba too witnessed the most extraordinary rise in subsoil water. Similarly, the north side of the Marine Lines had a huge reserve of subsoil water while the Tramway authorities grumbled about exactly the same on their ground opposite to Victoria Gardens. Evidence about the rise in subsoil water was the difficulty experienced in examining some of the water mains, without resorting to pumping, though the mains were laid only a few feet below the surface!

Defective Drainage, Public Health and Subsoil Water- High subsoil water favoured the creation of malarial conditions in the city and also set the stage for the attack of Plague. By the end of the nineteenth century, among the 7 wards of Bombay, the highest mortality was displayed consistently B and C wards consisting of Mandvi, Chakala, Umerkhadi and Dongri in B ward, Market Dhobi Talao, Fanaswadi, Bhuleshwar, Khara Talao and Kumbharwada in C

ward. Kamathipura though recently sewerred also surprisingly, showed a high mortality rate as also Byculla and Parel. This high mortality was attributed to the problem of increased levels of subsoil water, the drainage of which, many felt, had been neglected. This subject had been the focus of discussion since the introduction of Vihar waters. Water logging, a characteristic feature of the city, had been rendered much worse ever sincethen.

The issue of subsoil water and its alleged impact on public health excited much argument. But since it was vague, misunderstood and lacked satisfactory data to go upon, opinions on it were characterized by lack of unanimity among engineers who questioned whether the problem existed at all; the number of drains required to remove this water and whether they were required at all. Complaints had been made as early as 1865 by Mr. Walter Cassels, a councilor, who had steered the Act of 1865 through the Council, against the extravagant waste of Viharsupplies. Engineers like Mr. CB Braham endorsed Braham's views since the new hydraulic system fostered underground leakage, due to defective joints in the water mains, watering of gardens and so on. Others like Hector Tulloch and Rienzi Walton, who did not concur with the idea, ascribed it to storm water accumulation. Indian members of the Bombay Municipal Corporation attributed the water logging in the city to three probable reasons. Greater quantity of water being brought into the city than could be disposed of by the naturally and artificially constructed outlets; the obstruction caused in these outlets or a combination of both. The Impediments to the outlets were present in the form of the natural rocky prominence ahead of the outlet channels of the sluices at Love Grove, silting up of the storm water reservoir by the side of the race course, filling up of the Flats, construction of the Causeways, Vellard, and Harbour works.

The policy of filling tanks, which were considered fecund grounds of Malaria and cholera, was also held responsible for the problem. Filling in of the tanks had been done without any understanding of the subsoil streams of water that originally fed them. Consequently, the space thus created resulted in constant flooding as was evidenced by the road created on the Khandia tank. Engineers reluctant to fill the tanks had, opined that *'hesitation should always be exercised before filling up tanks and making reclamations throughout the city.'* The tanks were sinks to which surface and sub soil waters gravitated and therefore performed a very useful function which could not be 'lightly disregarded'. James Smith, special drainage engineer stated categorically *"I am convinced that no presently existing tank can safely be filled up until the drainage system be greatly improved and extended."* Bombay's public backed the opinion. Agitatedly it appealed to the government that *"wells and tanks besides being of constant use ordinarily and specially under emergencies are natural reservoirs or places for the accumulation of subsoil water whenever that nature of land is watery.... and Bombay land is watery. If they are filled in or the places of accumulation done away with, the sub soil water must naturally rise to the surface and do much harm and mischief to the general health."* Even the Parsis who were the most impacted by malaria protested against the measure. but all protests went unheard.

Baldwin Latham and Santo Crimp- Representations made to the Corporation and the urgency of the issue resulted in the visit of eminent sanitary engineer Mr. Baldwin Latham in 1890. After studying the drainage system of the city, he opined in his report 'Report on the Sanitation of Bombay' that the filling in of the Flats with kachra (solid waste of the city) had blocked the most important channels for the escape of the underground water, resulting in the rise of the ground water level in the lowest parts of the affected district. Latham confessed that *'it was a misfortune that the early sanitary works there were not designed in a better way.'* European rules had been applied to Indian towns which, in his judgment, were not sufficient for the purpose. Further he condemned, the outfall at Love Grove along with the engines, which caused the problem of silting of the main sewers and also showed the fallacy of the float experiments of engineer Mr. Jagannath Sadashiv. Since the main sewers had already been laid with a fall towards Love Grove, he recommended that all sewage should first flow to that place and from there be pumped into a high-level gravitating sewer running from Parel to Colaba and discharged at the latter place, at ebb tide only, beyond the Prongs Light House. But Latham's proposals were impossible to execute as they recommended the relocation of this sewage outfall at Colaba the bastion of the Navy!

By the last decade of the nineteenth century from the earlier 16 ½ million gallons to 29 million gallons a day, thanks to Tansa lake, without concomitant increase in drains. Water logging, a characteristic feature of the city, was rendered much worse as a result and contributed to the city's unhealthiness. Curiously however, experiments carried out by a small sub-committee appointed in 1898, of three of the best European experts and a native expert to investigate the subject, discovered that the level of sub-soil water in the city was lower instead of being higher than before. The appointment of two more Committees of the Corporation did not resolve the matter. Confounded by the contradictory evidence on the issue, the Corporation ultimately authorized the Commissioner to engage the services of Mr. W Santo Crimp to report on the whole question.

In 1899, Mr. Santo Crimp an authority on sanitary engineering, visited the city on the request of the Bombay Municipality, to advise on the various drainage questions, particularly, that of the disposal of the surface-water of the city, and that of the discharge of the sewers at the Love Grove outfall. For a long time, loud complaints had been made by public regarding the sewage discharged at that outfall, the smell being perceptible, particularly at the time of the ebb tide, all along the eastern foreshore of the Malabar Hill. Float observations taken by him showed that sewage discharged here was carried by the tide towards the coast in the direction of the Malabar Point. In order to remedy the nuisance, he recommended the extension of the existing outfall to deeper waters, treatment of the sewage, discharged during the first four hours of the ebb-tide, with electrolyzed sea water and Permanganate of Potash and extension of the outfall sewer to Worli Point, discharging at that point, all the sewage during the ebb-tide, and at the Love Grove outfall during the flowing tide. Although he discarded the

theory, of the unhealthiness of the city due to the lack of subsoil drainage, he however voiced the possibility of the introduction of Tansa water without adequate drainage as a distinct possibility for the state of affairs. Therefore, he advocated that the most important works that were required in the city was the completion of the drainage system, to prevent the moisture from sinking into the soil which would also prevent the recurrently increasing saturation of the soil with all types of filth which then escaped and soaked into it. Cementing of the gullies and side channels in the streets was also expected to accomplish the same. He approved of the proposal of carrying off the storm waters from the higher levels into the sea, to keep them from running on to the low-level area. These financially unviable suggestions were bound to be disregarded by the government and the BMC while the city continued to expand unabated in the next century.

Conclusion- It is evident from the above description that the drainage and sewerage of the city was a neglected area right from colonial times and works executed then were highly flawed in nature. The issue and gravity of subsoil waters was neither understood nor acted upon as the one and only principal of drainage, then, was to remove the sewage of the city to the outskirts of the contemporary core city, viz Love Grove. The foundations of the waste water systems laid then along with haphazard development continued to aggravate the problem and the city, once described as 'urbs prima in Indis' remains, till date, insanitary and flood prone.

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Rock Art of Keraha: A Critical Study

•Neha Singh

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Abstract- *Rock art can be defined as a human made markings placed on natural stone or any creativity on the rock like paintings on rocks and tools which are made from rocks by primitive people . The study of rock art is considered as the most important element to know about the prehistoric human because in the absence of any literary sources it is the only source through which we can get some information about the early humans. These art works are often classified into different forms such as Pictograph(drawings or paintings), Petroglyphs(carvings or inscriptions), Engravings(incised motifs), Petroforms(rocks laid out in pattern) and Geoglyphs (ground drawings).The rock art of India includes relief carving, engraving and paintings. Rock art sites have been reported from different geophysical zones of India and the largest concentration of rock art is documented in the central India specifically in the state of Madhya Pradesh reported from Bhimbetka, Daraki - Chattan, Indragarh, Rewa etc. Keraha is one of the most important site of rock art situated in Rewa district of Madhya Pradesh.*

Keywords- Rock art, Human made, Creativity, Information

Geographical Introduction of Keraha- Keraha is a small village situated in Rewa district. Rewa lies between 24°53' north latitudes and 81° 3' east longitudes. The site of Keraha is situated at the distance of 30km from Rewa at the Rewa-Siddhi road at the top of Argara hill which is 3 km away from the village named Keraha, in the series of Kaimur mountain range. To reach the rock art site of Keraha people have to follow the path which goes beside the school fig(I) in Keraha and has to continue to that path about 2 km and then they have to climb on the left side of mountain area . The people of this village referred these shelters as “**Baba ka Pathara**”, “**Pahari Baba**”, “**Baba ka Chur**” etc. The local villagers believes that these shelters were the place of mediation of great ancient saint and the figures or paintings on rocks were made by them with their blood. They relate this paintings with magic and superstitions.

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Fig I

Components of Rock Art of Keraha

(A) Shelters- Rock shelters can be defined as a natural shelter between or under rocks in which the debris and campfires of prehistoric peoples are found. The shelters are generally located on the steep side of hillocks, overlooking the deep valley on the bank of deep canyon or gorge. There are all together 5 shelters in Keraha and among them 2 shelters are painted. Both the painted shelters are side by side and faces in same direction (fig- ii). Painted shelters are located at the place which have access to some source of water, commanding view of entire area, difficult for wild animals to reach and availability of plenty of raw material for making tool and wild fauna. In the vicinity of both the shelters plenty of tools had been founded scattered on the surface or just below the top soil.

Rock shelter is considered as most important component of rock art because it is the place where primitive people reside and protect themselves from cold, heat, rain, wild animals and other problems. The primitive people who were living in the rock shelters of Keraha had capability to think logically and also had ability to make their life easy as they selected only those rock shelter for habitation which had access to daily needs like water, protection etc. Paintings of both the shelter indicates the habitation of primitive people on both the shelters. Some tools are also founded from the surface of the shelters and around the shelters.

Shape and size of shelter

Painted Shelter- SHELTER No.1 is 6 m 10 cm long, 4 m 3 cm high, 3 m wide and semi oval in shape. The face of shelter is in south east direction. SHELTER No.2 is 8 m 2 cm long, 10 m 2cm high and 5 m 1cm wide and contrasting stemmed in shape. The face of shelter is in south east direction.

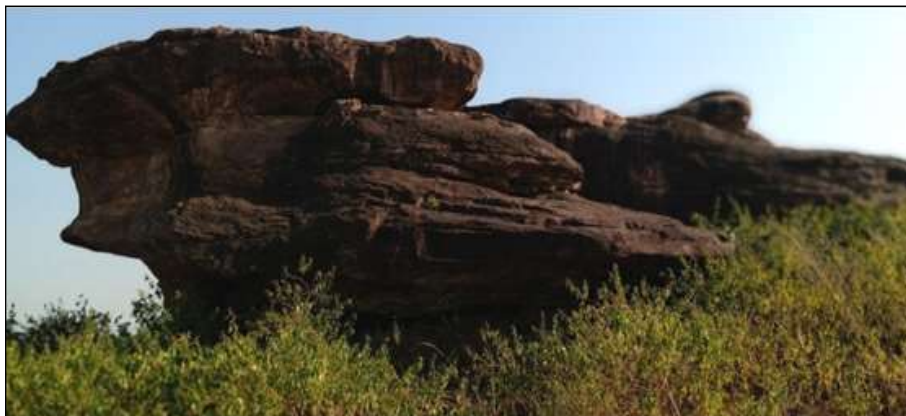


Fig II

Non Painted Shelter

SHELTER No.3 is 9 m 2 cm long, 7 m 1cm high and 5 m 7cm wide and crescent in shape. The face of shelter is in south east direction. SHELTER No.4 is 5 m 8 cm long, 6 m 2cm high, 4 m wide and semi circular in shape. The face of shelter is in north east direction. SHELTER No.5 is 7 m 9 cm long, 8 m 4cm high and 5 m 4cm wide and crescent in shape. The face of shelter is in North West direction.

(B) Rock Paintings

Rock painting can be simply defined as a paintings on rock (as a cave wall, cliff, or boulder) made by primitive peoples. It is largely synonymous with parietal art. The paintings of Keraha rock shelter is red in colour as they are painted with haematite(pigment) or geru and this colour may change due to chemical aging process which means that the colour which we are seeing today might not have been same when they are painted. There are more than 35 paintings in shelter no.1 and about 52 paintings in shelter no.2.

The rock paintings of the both the shelters includes the paintings of animals (fig-iii), symbols (fig-iv), human(fig-v), etc.

Paintings of shelter no.1

On the canvas of shelter no.1 there is a paintings of bird, deer, human, elephant, arrow and some symbols. The paintings are in scattered pattern.

Paintings of shelter no.2

On the canvas of shelter no.2 there are the paintings of fish, tiger, deer, elephant, human in groups, solo figure of human, bow and arrow, elephant, buffalo, ox, birds, symbols etc.



Fig-III



Fig-IV



Fig-V

Location of Paintings- Within a shelter, the paintings are usually executed on the walls (fig-vi). In shelter no.1 and 2 very artistic paintings of animals, humans, reptiles, birds and weapons had been executed. The canavas of the shelter is full of paintings from top to bottom. On the walls and ceilings paintings are placed in horizontal pattern. There are two paintings painted in floor (fig-vii) outside the shelter.



Fig-VI



Fig-VII



Fig-VIII

Significance of rock art of Keraha- Rock art of Keraha provides us information about the life of early humans and the way of their living in the absence of any literary record. The oldest drawings are more naturalistic or realistic and elegant and the later ones are more representational. Nearly all the drawings of animals and humans are shown in motion.

The primitive people who were living in the rock shelters of Keraha had capability to think logically and also had ability to make their life easy as they selected only those rock shelter for habitation which had access to daily needs like water, protection etc.

The rock paintings of Keraha throws light on the cultural and social aspect of primitive people. There is a hunting scene in which man is hunting deer using spears. The largest number of human representation is in hunting scenes. They are depicted solo or in group with bow and arrows, spears or harpoons. Group hunting was definitely a social event in which a large number of people participated. Generally big animals were hunted by a large group of person but small animal like deer is hunted by individual.

It seems that elephant was the domestic animal of early humans as there is a painting of elephant and human together. They might be using elephant for travelling from the one place to another or riding purpose in the form of transport or it might be hunted by the people for its skin, flesh or bones. There are images of humans in group which indicates that there is a feeling of socialism and cooperation among primitive people and solo figures indicates that they are also capable in dealing with the life alone. There are paintings of many symbols like claw, semicircle etc. Paintings of fish and deer indicate that early man used to hunt them for their food. In order to hunt animals they made various tools like bow and arrow, spears, swords etc to hunt or kill animals and blades to tear the flesh and cut vegetables, fruits and all edible items. They also make tools from rock or animals bones in order to protect their life from animals. Sometimes they use to cover their body from the flesh of animal in order to protect themselves from cold, rain etc.

Thus on the basis of rock art it can be said that rocks are the most precious gift which we had got through nature as rocks served as a solid platforms to primitive people in order to represent their feeling, emotions, activities in the absence of paper, pen, or any other sources. The styles of rock paintings of Keraha range from naturalistic to very symbolic or abstract. The early humans depict their ways of living through paintings and

they make their life easy by making tools and using it and critical study of rock art will help us to understand the cognitive development of early humans and the way of their living.

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Socio-Economic Inequalities in Chhattisgarh

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Abstract- *This paper is a review of the recent advances in the measurement of socio-economic disparities. Disparities can have several dimensions. Economists are mostly concerned with the income and consumption dimensions of disparities. Inequality is almost divided into income and non-income indicators, Income disparities include disparity in income and consumption. A non-income disparity includes disparity in skill, health, wealth, education, opportunities, happiness and others. The direct and indirect effects of inequality in non-income matters on earning and health, wealth, education, are discussed. This indicates that one should account for the interrelationship between the different dimensions in the measurement and analysis of inequalities. This paper only discussed only non-income their health, wealth, and education indicators etc.*

Keywords- Socio-economic disparities, Inequality, Income and consumption, Opportunities, Inequalities indicators, Analysis disparity, Interrelationship, Skill, Health, Wealth, Education, Opportunities, Happiness.

Introduction- A technical indicator that measures the relative position of the most recent closing price to a selected moving average and report the value as a percentage. A value greater than zero suggests that the assets are going upward momentum, while a value less than zero can be interpreted as a sign that selling pressure is increasing. Every major policy and plan documents has expressed such a perspective and concern. The NITI AYOJ objective of planning in India is to raise the standard of living of the people and to open them opportunities for a richer and mostly varied Hi-life, remove poverty and improve human development. Poverty is a state or condition where in the basic needs of an individual is not fulfilled owing to the lack of financial wellness. This paper may be ongoing and increasing interest in measuring and understanding the level causes and development health, education, wealth of inequality during the 2001 to 2011s. This shift is not only a reflection of technological change and raised human capacity to create growth, wealth and in the effective use of resource but also due to awareness of the growing disparity and importance of redistribution and poverty reduction. The growing disparity calls for analysis of possible trends in global income inequality. Inequality can have many dimensions. Economists are concerned specifically with the economic and monetarily-measurable dimension

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related to individual or household income and consumption and non-income health, wealth, education.

Disparities Indices- Disparities indices can be derived from the Lorenz Curve construction also give us a rough measure of the amount of inequality in the income distribution. It's called the Gini coefficient. The range of the variance is the two common statistical measure of desperation for a distribution in general. These are useful measurement in the context of income the range is defined as the absolute different between the highest and the lowest income levels divided by the mean income.

$$RGE = (X_{max} - X_{min})\mu$$

Anand (1997) discuss indices based on the Lorenz diagram and also several other indices. The Absolute Mean Difference index is among the indices based on the Lorenz diagram as an alternative definition to the Gini coefficient AGC is specified as:

$$AGC = 1/2 (AMDiff / \mu)$$

where $AMDiff = \int |x-y| f(x)f(y) dx dy$ is the absolute mean difference of two income distributions of x and y. AGC can also be defined as one-half of the relative mean difference:

$$AGC = 1/2 (AMDev / \mu)$$

Research Methodology- The present study is based on the secondary data. The entire study is based on the data shown in table 1 and 2. The study period is from 2001 to 2011. For analysis purpose eleventh periods are taken. The periods is considered from 2001,2002,2003,2004,2005,2006,2007,2008, 2009,2010,2011 respectively. The entire period taken together from 2001 to 2011 is considered under period 11 years. Through this study an analysis is made regarding the state income. Education and health of disparities during the different periods in Chhattisgarh. The paper deals with the analytical study using mean, standard deviation, coefficient of variation (using one models) of the above factors.

Instability and Relative Growth Trend Analysis

$$CV = \sigma / \mu \times 100$$

Where σ = standard deviation and μ = mean. By fitting exponential function, compound growth rate is calculated and shown below. For this purpose, models is considered.

Model- I

$$Z_t = a + bT$$

Where Z_t = Income, education or health, a = parameter, b = regression coefficient and T = time element.

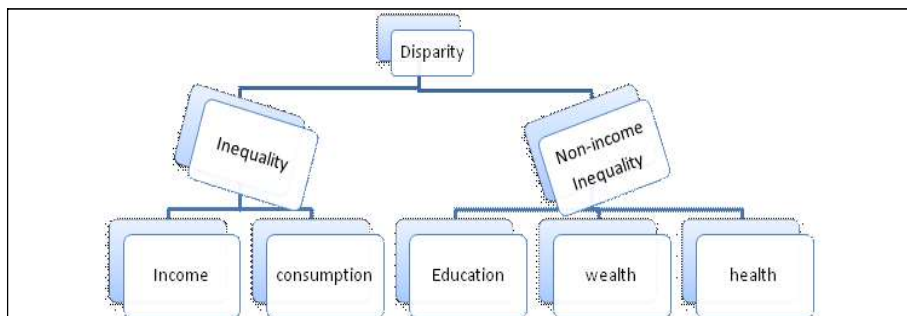
Objective Of The Study

1. The study of income and education in Chhattisgarh state.
2. The study of income and health in Chhattisgarh state.
3. The study of income relationship between education and health in Chhattisgarh.

Disparity Index Indicators Important And Common Trading Strategies Used- The disparity index is a technical momentum indicator that compares market price to a time defined moving average of market price. Trends and analysts that used the disparity index to look for signals of trend stretch and

the possibility of coming exhaustion others used to a spot overbought for oversold positions for a given security they are over thought when the index returns a value greater than are equal to the upper bound level. The disparity index relies on the relationship between the current dreading price and its most recantsclosing price. Differences as expressed as a percentage helping to avoid misinterpretation based on strange trading volumes or ranges. As with any momentum indicator disparity index is best used along with other tools when trying to confirm trendiness or possible reversals.

Technical analysts and trends use the disparity index to spot abnormal or rapid movements in security is price-showing possible over thought and oversold positions. If function by camping the most recants closing price of an assets to a prior moving average price. The index has a base line of zero and returns value as a either a positive or negative percentage. Upward momentum increases as the values move further above zero. Downward movements are similarly highlighted by negative percentage value. Very few trends are willing to take the opposite side of a closing position when price move to dramatically toquickly. These buyersmust lower their prices and sellers must rise their leading to short-term price reversals.



Non-Income Inequality- Income inequality is just one dimension of disparities. Other dimensions included inequality in skill, education, wealth, health, life year, welfare, assets and social mobility. A selection of studies analyzing different non-income inequalities their relationship and their relation with income inequality found and the economic and sociology literature are briefly given.

(a) Relationship between inequality in income and education: Education has positive effects on earning to income. Differences in opportunities to invest in human capital, its level and quality together with poor redistribution policies may result in increased in inequality. Educational attachment and more equal distribution of education should in hence socio-economic growth and more equal income distribution.

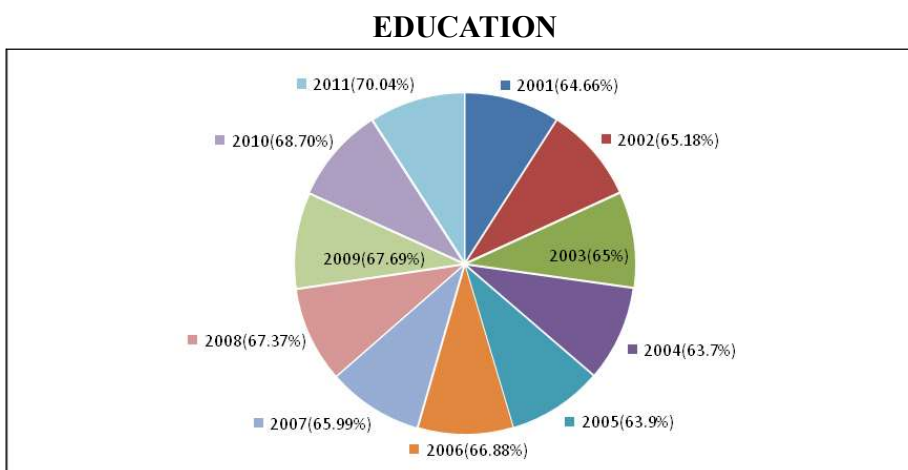
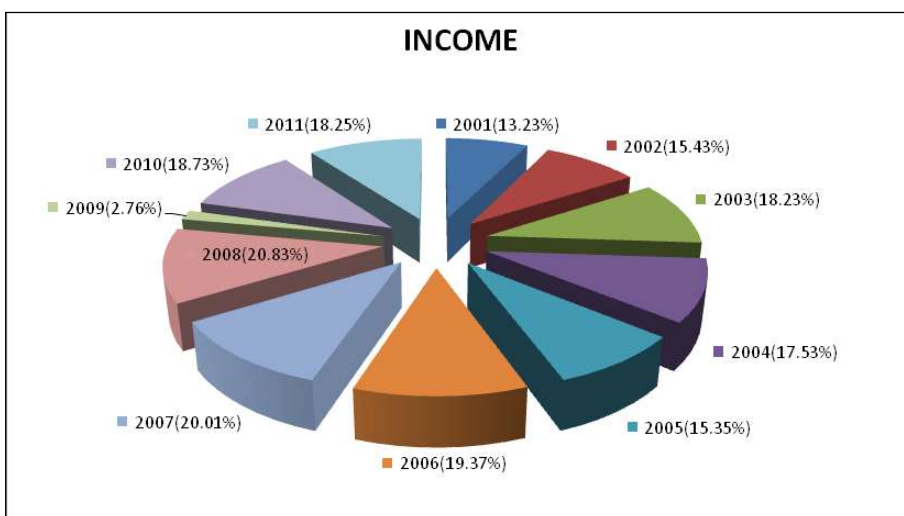
Castello and Domenech (2002) provide new measurement of human capital inequality for a panel of countries.

$$Gini^h = 1/2H \quad Gini^h = 1/2H = 1/2H \sum_{i=0}^3 \dots \sum_{j=0}^3 \dots |X_i - X_j| \quad n_j m_i = n_0 + n_1 x_1 (n_2 + n_3) + n_3 x_2 (n_1 + n_2) \quad n_1 x_1 + n_2 (x_1 + x_2) n_3 (x_1 + x_2 + x_3)$$

Table 01
Income and education
in Chhattisgarh state since 2001 to 2011

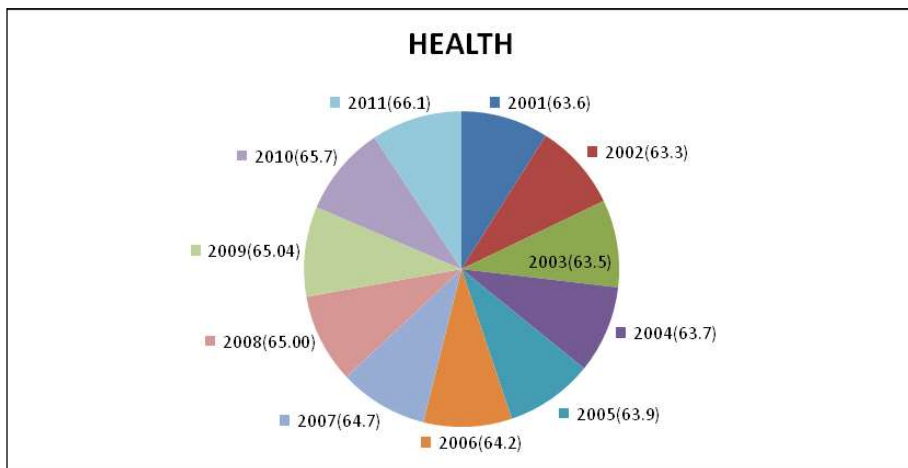
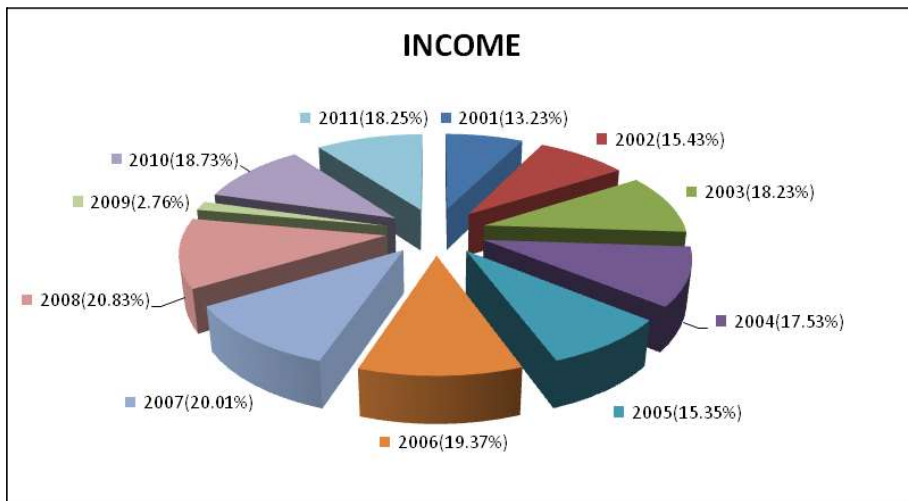
S.No.	Year	State income in % (In crore)(SGDP)	State education % (literacy rate)
1	2001	43075.70(13.23%)	64.66 %
2	2002	54107.30(15.43%)	65.18 %
3	2003	59059.32(18.23%)	65.11 %
4	2004	72048.58(17.53%)	66.37 %
5	2005	77035.32(15.35%)	66.57 %
6	2006	79123.03(19.37%)	66.98 %
7	2007	80255.11(20.01%)	65.69 %
8	2008	96972.18(20.86%)	67.37 %
9	2009	99364.26(2.76%)	67.69 %
10	2010	117978.30(18.73%)	68.70 %
11	2011	139514.05(18.25%)	70.04 %

Source: SRS based Arbitrage life table 1999-2003, 1998-2002.



S.No.	Year	State income in % (In crore) (SGDP)	State health (life expectancy)
1	2001	43075.70 (13.23%)	63.6
2	2002	54107.30 (15.43%)	63.3
3	2003	59059.32 (18.23%)	63.5
4	2004	72048.58 (17.53%)	63.7
5	2005	77035.32 (15.35%)	63.9
6	2006	79123.03 (19.37%)	64.2
7	2007	80255.11 (20.01%)	64.7
8	2008	96972.18 (20.86%)	65.0
9	2009	99364.26 (2.76%)	65.4
10	2010	117978.30 (18.73%)	65.7
11	2011	139514.05 (18.25%)	66.1

Source: Annual Economic Review 2012-2013, Directorate of economic and statistics govt of Chhattisgarh, SRS based Arbitrage life table1999-2003,1998-2002



Result And Discussed- Instability for Income, education, health, of socio-economic disparities of a Chhattisgarh in terms of C.V. presented in table 3. Coefficient of variation (C.V.) for income, education and health of socio-

economic inequality for different period in Chhattisgarh. Result of modle –I

Table 03

S.No.	Year	State income in % (In crore)	State education % (literacy rate)	State health (life expectancy)
1	2001	13.23	64.66	63.6
2	2002	15.43	65.18	63.3
3	2003	18.23	65.11	63.5
4	2004	17.53	66.37	63.7
5	2005	15.35	66.57	63.9
6	2006	19.37	66.98	64.2
7	2007	20.01	65.69	64.7
8	2008	20.86	67.37	65.0
9	2009	2.76	67.69	65.4
10	2010	18.73	68.70	65.7
11	2011	18.25	70.04	66.1
Mean		16.3309	66.7773	64.4309
Standard division		5.05328	1.63062	.94176
C.V.		30	2.44	1.14

$$C.V. = \frac{S.D.}{MEAN} \times 100$$

$$INCOME = \frac{5.05322}{16.3409} \times 100 = 30$$

$$EDUCATION = \frac{1.63062}{66.7773} \times 100 = 2.44$$

$$HEALTH = \frac{.94176}{64.4309} \times 100 = 1.44$$

Above the analysis of the income presented in table 3 it can be observed that instability in income is less compound of education and health for socio-economic in Chhattisgarh in different period.

Conclusion- It is the clear that various dimensions of economic and sociology disparity – urban rural social class religion gender have agreed in the secret period when Chhattisgarh has been achieving accelerated economic growth and has been emerging as a national player this trend if not arrested and reversed fast will have serious adverse implication for the Chhattisgarh economy society and polity as a present a majority of Chhattisgarh citizen have been by passed the process of economic development either are able to contribute to the growth process or receive any tangible benefits

Disparity can have different dimension economics are mostly canceled with the income and consumption dimension of disparity among of the non income inequality dimension how can include include inequality in skill education opportunities happiness health life years mature and assets. How can we make the economic growth in Chhattisgarh inclusive the backward regions the rural areas the magnified social classes and the women indeed this is the principal theme being addressed in the 11th five year plan with an appropriately titled approach paper ``towards faster and more inclusive growth` plan document being finalized deals with strategic

initiatives for inclusive development three areas are dealt in great details child care empowerment thought education and health , wealth etc. Finally those who believe in trickle down theory argue that poverty is coming down and no one is worse off as a result of high growth then why worry about increasing disparities? But in a vibrant democracy even illiterate people are aware of the highly inequitable shaving of the benefits of development they expressed their resentment against the Chhattisgarh shining in are countries

The effects on in quality in economic income factors an earnings can be summarized variously inequality in education explains a minor fraction of differences in cross count earnings inequality the impact differs by the level of education and depend on the economic development and skill intensive nature of production technologies it also negatively affects the invested rate and growth rate of income unlike in case of income inequality with in county health inequality is a domination source of inequality.

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The Study of Augmented Reality Advertising and growing trends in India

• Rita Khatri

Abstract- *Augmented reality is the new form of innovative technology that help the users to make desired purchase decision. It is applied almost in every sector but more prominently it is used in marketing and promotion of products. The potential of Augmented Reality advertising lies within the ability of the technology to engage the audience and reach them in a way that medium cannot. The objective of this study is to understand the growing trends of augmented reality advertising in India. The study observed that today customers prefer interactive mode of advertisement that provide them all information that are necessary for making purchase decision. Marketers now have multi screening challenges before them. Audience or consumers seek information from various sources therefore it is challenging for the advertiser to choose the right medium to reach the consumers.*

Keywords- Augmented Realty, advertising, customer engagement.

Introduction- Augmented Realty advertising is the new form of innovative technology to attract consumers towards the product promotion. It uses mobile ad units and with the help of smartphone camera superimpose the virtual objects or 3D model of the product. Augmented Reality incorporated showcasing digital objects in 2D and 3D space so that the user can get the vision of the environment which making desired purchase decision. According to the Valio (1998) AR is the combination of virtual objects and real world and the users are given a chance to interact with these objects in real time. It is an excited technology which is based on computer vision to augment sound, video, graphic and other sensors based on the visual and real word object that are using camera. It is the most interactive method use in the real world.

The potential of Augmented Reality advertising lies within the ability of the technology to engage the audience and reach them in a way that medium cannot. The very fact that the message is not forced on to the user and the downloads it at his own will begin the engagement with the brand. Also, the user is completely in charge of the message navigating it to his liking. Thus, seeking only, the information that he wants. Moreover, it enables the marketers to send very targeted message as these messages are delivered to people who access the message themselves.

Objectives of the study

- To understand the concept of augmented reality advertising.

- To understand the growth of augmented reality advertising in India.
- To understand the impact of augmented reality advertising on consumers.

Review of Literature-

Singh Poonam & Mrinalini Pandey (2014) through their study attempted to understand the reason as why augmented reality is good choice for marketers and it has been found that most of the seller are now aligning to augmented reality as their marketing strategy. The paper studies the changes in the media consumption and its implication for the marketer and goes on to suggest why augmented reality could be an answer to the problem of engaging customers meaning full.

Obst and Troller(2009) through their study has discussed that superimposing virtual imagery sound and theoretically even other sensorial enrichment over real-world environment in real time, augmented reality serves as a tool to ever more enhanced a human being's awareness and performance”

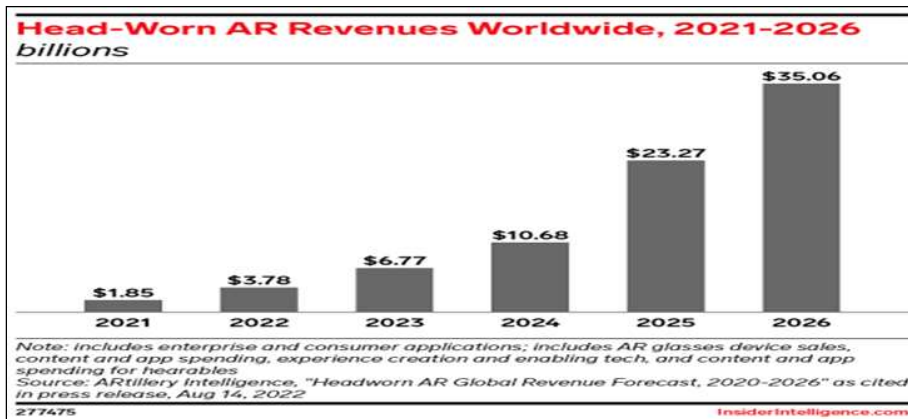
Biocca et al 2007 suggest that knowledge of object or situations of the environment as provided by augmented reality could be very critical for the user. Mobile Augmented Reality new opportunities based around hyper local marketing because consumers are moving away from traditional media and most purchase decision are driven by social media and they are reluctant to pay for digital content and want advertising funded media.

History of Augmented Realty- Augmented reality first appeared in 1950 when Mr Morton Heilig a cinematographer who thought of a cinema the activity that has the ability to draw the attention of the viewers into onscreen activity. In 1962 Heilig built a prototype of this vision which he described as the “Cinema of the future” named as Sensorama that predated digital computing. To take up this further Ivan Sutherland invented the head mounted display in 1966. Sutherland was the first one to create augmented reality system using an optical see through head mounted display. While in 1975 Myron Kruger created the videoplace a room that allows users to interact with virtual object for the first time. Later Tom caudell and David Mizell from Boeing coin the phrase augmented reality that can help workers assemble wires and cable for an aircraft. In the same year L B Rosenberg developed one of the functioning of AR System called Virtual Fixtures and demonstrated its benefits on human performance. In 1997 Ronald Azuma writes the first survey in AR providing a widely acknowledged definition of AR by identifying it as combining real and virtual environment while both providing widely acknowledged definition of AR by identifying the real and virtual environment. The first outdoor mobile AR games was developed by Bruce Thomas in the year 2000. Slowly and gradually studies were conducted on AR and in the year 2005 Horizon report it was predicted that AR technologies will emerge as the future technology in next four to five years.

Trends of Augmented Reality- The global Augmented reality market size has been estimated to about \$25.55 billion in 2021 and is expected to increase at the compound growth rate of 40% from 2022 to 2030.

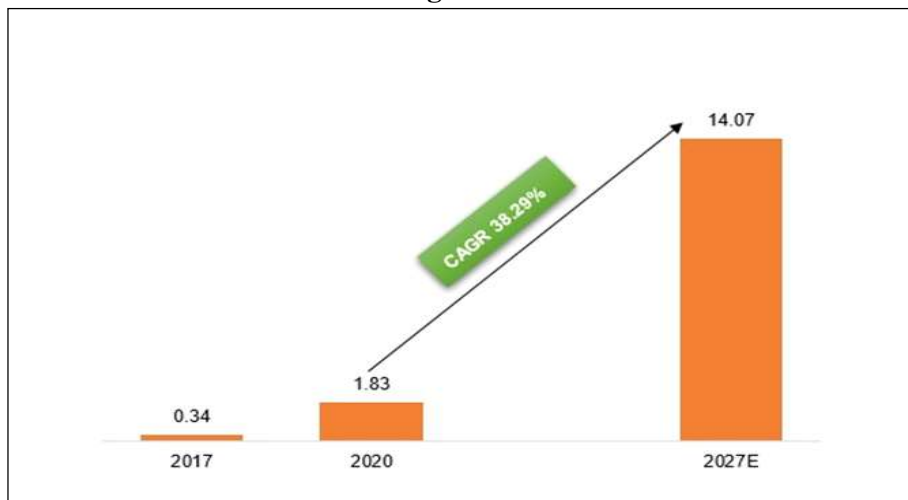
Companies across the globe are finding out unique ways to explore the potential of Augmented Reality technology so as to provide unique interactive experience to their customers. The penetration of smart phone, handheld devices and subsequent increase in the use of AR Technology to provide a more immersive experience are expected to contribute to the growth of the market. Mobile AR will generate **\$36.26 billion** in 2026, though with revenues forecast to reach **\$16.58 billion** this year, the increase is less steep.

Figure 01



Trends in India- As per research the total market size of Av/VR in India is estimated to advance at the CAGR of 38.29% to US \$ 14.07 billion in 2027 driven by increased smartphone penetration and wide spread internet connectivity and this trend is expected to continue. As of 2021 India had 1.2 billion mobile subscribers of which 750 million were smartphone users. Most of the Young population in tier 2 and Tier 3 cities have created high tech literacy which has enabled companies/app providers to offer AR based experiences. AR/VR technology is widely used in retail, education, gaming and health care.

Figure 02



Role of Augmented Reality in advertising- In the world of advertising augmented reality involves users downloading the application and holding the object in front of the webcam or smart phone camera. The camera pick up the printed device and the augmented reality content which is usually a 3D model or an animation appears on the screen. Due to augmented reality it is possible for the customer to interact and virtually examine the object more closely. Augmented reality has effectively contributed towards positive customer brand relationship and to customer satisfaction through the creation of perceived experiential value.

Many brands in India have used Augmented Reality Advertising including Ford Figo, 7Up, HSBC, Nike, Fiat Punto, Cadbury, Philips, Toyota, Shoppers Stop and Nestle. Content in these applications ranged from information about the product, an audio visual, a 3D model etc. These applications engage the customer with the brand for a longer period than other passive mediums and compels them to think about it.

Findings and Conclusion- The study observed that today customers prefer interactive mode of advertisement that provide them all information that are necessary for making purchase decision. Marketers now have Multi screening challenges before them. Audience or consumers seek information from various sources therefore it is challenging for the advertiser to choose the right medium to reach the consumers. Augmented reality has become the answer to tackle this problem. It is the interactive medium that keep the customer engaging and well informed. Customers can access this advertisement from any medium. Augmented reality has many advantages that make it an attractive proposition to generate enough curiosity for the audience. It not only makes the brand more innovative but also enhances the perceived value of the product. It is more appealing to young tech lovers who are usually sceptical of traditional advertising. Augmented advertising is cost effective than any other form of traditional medium.

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Drug Abuse and the Criminal Justice System

• Ajay Kumar Dwivedi

Abstract- *A drug is a substance that can be taken into the human body and, once taken, alters some processes within the body. Drugs can be used in the diagnosis, prevention, or treatment of a disease. Some drugs are used to kill bacteria and help the body recover from infections. Some drugs assist in terminating headaches. Drug addiction, also called substance use disorder, is a disease that affects a person's brain and behavior and leads to an inability to control the use of a legal or illegal drug or medicine. Substances such as alcohol, marijuana and nicotine also are considered drugs. The International Narcotics Control Board calls on all Governments, when determining their national drug control policies, to recognize the important contribution of criminal justice systems in preventing and controlling the illicit supply and consumption of drugs. There are several ways in which the criminal justice system can assist in the struggle against drug production, trafficking and abuse and drug-related crime. It is aimed at convicting and punishing the guilty, thereby deterring criminal conduct, as well as offering to the abuser an opportunity for treatment and rehabilitation. By making drug seizures, it reduces the quantity of illicit drugs in circulation, thus making it more difficult for users to obtain such drugs. Freezing and confiscating assets derived from drug trafficking not only deprive traffickers of the proceeds of their activities, but can also provide an additional source of revenue for law enforcement activities.*

Keywords- *Drug Abuse, Criminal, Justice System, Drugs, Treatment*

Introduction- In short, drugs can be related to crime if they cause a mental or physical state conducive to lawbreaking, lead to a perceived need that results in the motivation to steal, or result in a decrease in access to formal mediation and a corresponding increase in predatory and retaliatory crimes. The relationship between drugs and crime has a long history and is a mainstay of fiction, widely documented in media reports, and the subject of substantial scientific investigation. Drugs are not always illegal, and their sale and use does not always lead to crime. Nevertheless, drugs and crime are related to each other in at least three ways. First, the immediate effect of drugs on the mind and body may create mental or physical states that somehow facilitate aggression or theft. Second, drugs are connected to crime when a drug user has a pressing need to consume them but lacks the necessary funds to do so; such situations may lead to predatory crimes, including burglary, robbery, or theft, among others. A third way in which drugs and crime are

related is that some psychoactive substances are illegal to use, trade (buy or sell), or grow/manufacture. When drugs are illegal, illicit market participants are unlikely to report being victimized to the police, which means that predators are more likely to prey on them; in turn, there may be retaliation when this happens. In short, drugs can be related to crime if they cause a mental or physical state conducive to lawbreaking, lead to a perceived need that results in the motivation to steal, or result in a decrease in access to formal mediation and a corresponding increase in predatory and retaliatory crimes.¹

Drug addiction, also called substance use disorder, is a disease that affects a person's brain and behavior and leads to an inability to control the use of a legal or illegal drug or medicine. Substances such as alcohol, marijuana and nicotine also are considered drugs. When you're addicted, you may continue using the drug despite the harm it causes. Drug addiction can start with experimental use of a recreational drug in social situations, and, for some people, the drug use becomes more frequent. For others, particularly with opioids, drug addiction begins when they take prescribed medicines or receive them from others who have prescriptions. The risk of addiction and how fast you become addicted varies by drug. Some drugs, such as opioid painkillers, have a higher risk and cause addiction more quickly than others. As time passes, you may need larger doses of the drug to get high. Soon you may need the drug just to feel good. As your drug use increases, you may find that it's increasingly difficult to go without the drug. Attempts to stop drug use may cause intense cravings and make you feel physically ill. These are called withdrawal symptoms.

Help from your health care provider, family, friends, support groups or an organized treatment program can help you overcome your drug addiction and stay drug-free.

There are high rates of substance use within the criminal justice system. 85% of the prison population has an active substance use disorder or were incarcerated for a crime involving drugs or drug use. Inmates with opioid use disorder are at a higher risk for overdose following release from incarceration.

What is the law for drug abuse in India?- It came into force on 14 November 1985 as The Narcotic Drugs and Psychotropic Substances Act, 1985 (shortened to NDPS Act). Under the NDPS Act, it is illegal for a person to produce/manufacture/cultivate, possess, sell, purchase, transport, store, and/or consume any narcotic drug or psychotropic substance.

The Narcotic Drugs and Psychotropic Substances Act, 1985, commonly referred to as the NDPS Act, is an [Act](#) of the [Parliament of India](#) that prohibits a person the production/manufacturing/cultivation, possession, sale, purchasing, transport, storage, and/or consumption of any [narcotic drug](#) or [psychotropic substance](#). The bill was introduced in the Lok Sabha on 23 August 1985. It was passed by both the Houses of Parliament, received assent from then President [Giani Zail Singh](#) on 16 September 1985, and came into force on 14 November 1985. The NDPS Act has since been amended four times — in 1988, 2001, 2014 and 2021. The Act extends to the

whole of India and it applies also to all Indian citizens outside India and to all persons on ships and aircraft registered in India.

The [Narcotics Control Bureau](#) was set up under the act with effect from March 1986. The Act is designed to fulfill India's treaty obligations under the [Single Convention on Narcotic Drugs](#), [Convention on Psychotropic Substances](#), and [United Nations Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances](#). There are 6 Chapters and 83 Sections in NDPS act 1985.

India had no legislation regarding narcotics until 1985. Cannabis smoking in India has been known since at least 2000 BC¹ ([^ Marihuana and medicine](#), p. 3) and is first mentioned in the Atharvaveda, which dates back a few hundred years BC. ([^ P. Ram Manohar, "Smoking and Ayurvedic Medicine in India" in *Smoke*, pp. 68–75](#)) The Indian Hemp Drugs Commission, an Indo-British study of cannabis usage in India appointed in 1893, found that the "moderate" use of hemp drugs was "practically attended by no evil results at all", "produces no injurious effects on the mind" and "no moral injury whatever". Regarding "excessive" use of the drug, the Commission concluded that it "may certainly be accepted as very injurious, though it must be admitted that in many excessive consumers the injury is not clearly marked". The report the Commission produced was at least 3,281 pages long, with testimony from almost 1,200 doctors, coolies, yogis, fakirs, heads of lunatic asylums, bhang peasants, tax gatherers, smugglers, army officers, hemp dealers, ganja palace operators and the clergy. ([^ "Recreational use of marijuana: Always a way of life in our country - Times of India". *The Times of India*.](#))

Cannabis and its derivatives (marijuana, hashish/charas and bhang) were legally sold in India until 1985, and their recreational use was commonplace. Consumption of cannabis was not seen as socially deviant behaviour, and was viewed as being similar to the consumption of alcohol. Ganja and charas were considered by upper class Indians as the poor man's intoxicant, although the rich consumed bhang during [Holi](#). The [United States](#) began to campaign for a worldwide law against all drugs, following the adoption of the [Single Convention on Narcotic Drugs](#) in 1961. However, India opposed the move, and withstood American pressure to make cannabis illegal for nearly 25 years. American pressure increased in the 1980s, and in 1985, the Rajiv Gandhi government succumbed and enacted the NDPS Act, banning all narcotic drugs in India. ([The joint campaign: Should we not legalize recreational use of Cannabis? - Times of India". *The Times of India*.](#))

Anyone who contravenes the NDPS Act will face punishment based on the quantity of the banned substance.

- where the contravention involves a *small quantity*, with rigorous imprisonment for a term which may extend to 1 year, or with a fine which may extend to ₹10,000 (US\$130) or both;
- where the contravention involves a quantity lesser than *commercial quantity* but greater than a *small quantity*, with rigorous imprisonment for a term which may extend to 10 years and with fine

which may extend to ₹1 lakh (US\$1,300);

- where the contravention involves a *commercial quantity*, with rigorous imprisonment for a term which shall not be less than 10 years but which may extend to 20 years and also a fine which shall not be less than ₹1 lakh (US\$1,300) but which may extend to ₹2 lakh (US\$2,500).

The table below lists the current definition of a small quantity and a commercial quantity for some popular drugs. ("[Archived copy](#)" (PDF). Archived from [the original](#) (PDF) on 6 July 2016. Retrieved 1 May 2015.)

Drug	Small quantity	Commercial quantity
Amphetamine	2 grams (0.071 oz)	50 grams (1.8 oz)
Charas	100 grams (3.5 oz)	1 kilogram (2.2 lb)
Cocaine	2 grams (0.071 oz)	100 grams (3.5 oz)
Ganja(Marijuana)	1 kilogram (2.2 lb)	20 kilograms (44 lb)
Heroin	5 grams (0.18 oz)	250 grams (8.8 oz)
LSD	2 milligrams (0.031 gr)	100 milligrams (1.5 gr)
Methadone	2 grams (0.071 oz)	50 grams (1.8 oz)
Morphine	5 grams (0.18 oz)	250 grams (8.8 oz)
Opium	25 grams (0.88 oz)	2.5 kilograms (5.5 lb)

An Act to consolidate and amend the law relating to narcotic drugs, to make stringent provisions for the control and regulation of operations relating to narcotic drugs and psychotropic substances , to provide for the forfeiture of property derived from, or used in, illicit traffic in narcotic drugs and psychotropic. How can we prevent drug addiction? Know your triggers

- Avoiding places where you know drugs and alcohol will be available.
- Surrounding yourself with friends who don't use drugs.
- Knowing how to resist temptation.
- Learning how to cope with stress and relax without drugs.
- Distracting yourself with activities like exercise or listening to music.

Drug abuse carries with it a stigma from the society in India as in any other country of world resulting into adverse impact over human rights of abusers/addicts. Origin of concept of human rights is as ancient as doctrine of natural rights (outcome of natural law itself). Issue of violation of human right of drug abusers is a growing concern as more than three lakh cases have been registered in last decade. The NDPS 2 Act 1985 leaves scope of arbitrariness by police while enforcing it in field. Therefore criminal justice system of India is not untouched with it and drug abusers are therefore victims of it. However a shift has been noted in the approach of neo-criminologist from looking drug abuse as a form of victimless crime to manifestation of death, neglect and killing as immediate harm. Therefore

author will discuss persist challenge in preservation of human rights of drug addicts in criminal justice system of India and protection and preventive measures will be suggested. It also intends to focus on rehabilitation of the victims of drug abuse as a way towards "demand reduction" of drugs with the help of the law enforcement agency i.e. the police as also envisioned by the NDPS Act. Criminalization and punishment theories will also be focused upon by analyzing psychological and rational choice of drug abusers/addicts for the purpose of analyzing ongoing intervention model of law enforcement bodies in relation to society, offenders and victims of drug abuse. (https://www.researchgate.net/publication/355584669_Challenges_in_Protection_of_Human_Rights_of_Drug_Abused_and_Addicts_in_the_Criminal_Justice_System_of_India_2)

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Theory of basic structure in reference to the amendment of the Indian constitution (An observation)

• Om Dutt

Abstract- *Provision for amendment of the constitution is made with view to overcome the difficulties which may encounter in future in the working of the constitution. No generation has monopoly of wisdom nor has it a right to place fetters on future generation to mould the machinery of government according to their requirements. If no provisions were made for the amendment of the constitution the people would have recourse to extra constitutional method like revolution to change the constitution. It has been the nature of the amending process itself in federation which has led political scientist to classify federal constitution as rigid. A federal constitution is generally rigid in character as the procedure of the amendment is unduly complicated. But, the framers of Indian constitution were also aware of the fact that if the constitution was so flexible it would be a playing of the whims and caprices of the ruling party. The amendment of the constitution necessarily contemplates that the constitution has not to be abrogated. The word amendment postulates that the old constitution survives without loss of its identity despite the change and continues even though it has been subject to alteration. As a result of the amendment the old constitution cannot be destroyed and done away with, it is retained though in the amended form. The words amendment of the constitution with all their wide sweep and amplitude cannot have the effect of destroying and abrogating the basic structure or framework of the constitution.*

Keywords- *Basic structure and amendment of the continuation of India*

Introduction- The idea upon which a constitution is based in one generation may be spurned as old fashioned in the next generation. It thus becomes necessary to have some machinery, some process, by which the constitution may be adopted from time to time in accordance with contemporary national needs. Indian constitution upholds certain principles which are the governing rules for the parliament, any amendment cannot change these principles and this is what the doctrine of basic structure upholds. The principles as we have today been not present always but over the years it has been propounded and upheld by the judicial officers of the country. In this article, we would dwell in detail on the evolution of the doctrine of basic structure and also the procedure of the amendment of the Indian constitution. With this we would also discuss that which features of the Indian constitution those have been regarded as part of basic structure by the honorable courts.

Provisions for amendment of the constitution is made with a view to overcome the difficulties which may encounter in future in the working of the constitution. No generation has monopoly of wisdom nor has it a right to place fitters on future generations to mold the machinery of government according to their requirements. If no provisions were made for the amendment of the constitution, the people would have recourse to extra constitutional method like revolution to change constitution.¹

“It has been the nature of the amending process itself in federation which has led political scientist to classify federal constitution as rigid. A federal constitution is generally rigid in character as the procedure of amendment is unduly complicated. The procedure of amendment in American constitution is very difficult. So is the case with Australia, Canada and Switzerland. It is a common criticism of federal constitution that is too conservative, too difficult to alter and that is consequently behind the time.”²

Meaning of basic structure- About the essentials of the basic structure of the constitution yet the judges enumerated certain essentials of the basic structure of the constitution, but they also made it clear that they were only illustrative and not exhaustive. They will be decided on the basis of the fact in each case. In *M. Nagraj V. Union of India*.³ 5 judge's bench of Supreme Court has explained the theory of basic feature of this theory again in detail as follows. Basic structures are systematic principles underlying and connecting provisions of the constitution. They give coherence and durability to constitution. These principles are part of constitutional law even if not expressly started. This principle has essentially developed from the German constitution. It is not based on lateral words. Theory of basic structure is based on the concept of constitution identity. The main object behind the theory is continuity and within that continuity of identity. In the seminal *KeshvanandaBharti's case*.⁴ SIKRI C.J. mention the following as the “basic foundation and structure of the constitution.

1. Supremacy of the constitution.
2. Separation of power among the legislature, the executive and the judiciary.
3. Republican and democratic form of government.
4. Secular character of the constitution.
5. Federal character of the constitution. SIKRI C.J. maintained that the above features are easily discernible not only from the preamble but the whole scheme of the constitution.
6. The dignity of the individual secured by the various fundamental rights and the mandate to build a welfare state contained in the directive principles.
7. The unity and integrity of the nation.⁵
8. Parliamentary system.

The above features have been mentioned as only illustrative and the list is not by any means exhausted. Weather a feature of the constitution is 'basic' or not is to be determined from time to time by court when the

question arises. Since Keshvananda, the matter has been considered by the Supreme Court in several cases and the court has had occasion to declare several features of the constitution as fundamental features or basic structure of the constitution.

So it is generally agreed that all fundamental right do not constitute basic structure. For example in KeshvanandaBharti itself it has been held that the right to property does not pertain to the basic structure of the constitution. Now that article 31 has been replaced, and article 300A included in the constitution, right to property has erased to be a fundamental right, as well as basic feature of the constitution. Now it is nearly as a constitutional right.⁶

In a case of KihotoHollohon⁷, The Supreme Court has declared: “democracy is a basic feature of the constitution and election conducted at regular prescribed intervals is essential to the democratic system envisaged in the constitution. So is the need to protect and sustain the purity of the electoral process. That may take within it the quality, efficiency and adequacy of the machinery for resolution of electoral disputes.

Sawant and Kuldeep Singh JJ. Has observed in the case of SR Bommai⁸ that democracy and federalism are essential features of our constitution and are part of it basic structure “this view is supported by Ramaswami J. who has observed that federalism envisaged in the constitution of India is a basic feature.⁹

In the same case the Supreme Court has ruled that secularism is the basic feature of the constitution. The concept of secularism is embedded in the constitution. The concept means that the state is to accord equal treatment to all religions and religious sects and denominations.¹⁰

“Secularism” is also regarded as a fact of equality. How can the concept of equality are promoted if the state prefers and promotes one particular religion, race or caste which necessarily means being less favorable to other religious groups, sects or casts.

In Indira Gandhi V. Rajnarain¹¹ the Supreme Court has unequivocally ruled that the preamble to the Indian constitution guarantees equality of status and of opportunity and that the rule of law is the basic structure of the constitution. The concept of equality which is the basic rule of law and that which is regarded as the most fundamental postulate of republicanism are both embedded in Article 14 of the constitution. The doctrine of equality enshrined in article 14 of the constitution, which is the basic rule of law, is the basic feature of the constitution.¹²

In a plethora of cases such as Bhagwati J. in union of India V. Sankal Chand HimmatlalSethAIR 1977 Sc. 2328 (1977)4 SCC 193 and the Gupta cases AIR 1982 Sc. 149, Kumar Padma Prasad V. union of India AIR 1992 Sc. 1213: (2000)4 SCC 640 and state of Bihar V. BalMukund Shah, AIR 2000 Sc. 1296 etc. the Supreme Court has asserted that independence of judiciary is a basic feature of the constitution as it is the *sine qua non* of democracy. It is the most essential characteristic of a free society. This means that the judiciary ought to be kept free from the influence of political considerations and therefore, several articles in the constitution, such as

article 32, 136, 226, 227 guarantee judicial reviews of legislation and administrative actions.

It is for the judiciary to uphold the constitutional values to enforce the constitutional limitations. That is the essence of rule of law which *enter alia* requires that the exercises of powers by the government whether it be the legislative or the executive or any other authority, be conditioned the constitution and the law. The power of judicial review is an integral part of our constitutional system and without it there will be no government of laws and the rule of law would become a teasing illusion and a promise of unreality. I am of the view if there is one feature of our constitution which more than any other is basic and fundamental to the maintenance of democracy and the rule of law, it is the power of judicial review and it is unquestionably, to my mind part of the basic structure of the constitution.

Procedure of amendment of the constitution- The idea upon which a constitution is based in one generation may be spurned as old fashioned in the next generation. It thus becomes necessary to have some machinery, some process by which the constitution may adopted from time to time in accordance with contemporary national needs. The framers of the Indian constitution were keen to avoid excessive rigidity. They were anxious to have a document which could grow with a growing nation, adopt itself to the changing need and circumstances of a growing people. The nature of the amending process envisaged by the framers of our constitution can best be understood by referring the following observation of the late prime minister Pt. Nehru 66 while we want this constitution be as solid and permanent as we can make it, there is no permanence in the constitution there should be certain flexibility. If you make anything rigid and permanent you stop the growth of nation, of a living, vital, organic people. In any event we could not make this constitution so rigid that it cannot be adopted to changing condition when the world is in a period of transition what we may do today may not be wholly applicable tomorrow.

But the framers of Indian constitution were also aware of the fact that if the constitution was so flexible it would be a playing of the whims and caprices of the ruling party. They were, therefore, anxious to avoid flexibility of the extreme type. Therefore they adopted a middle course. It is neither too rigid to admit necessary amendments, nor flexible for undesirable changes.

The modes of adopting the constitution from time to time to new circumstances may either be informal or formal. Informal methods are judicial interpretation and conventions the formal method is the constituent process. In judicial interpretation the constitutional text does not change, but its interpretation undergoes a change. The words in the constitution having one in one context may be given somewhat different meaning in another context. While the language of the constitution not change the changing circumstances of a progressive society for which it was designed yield new and fuller import to its meaning.¹³ except this the operation constitutional provisions may be modified by the growth of conventions, practices and observations. Both of these processes are of slow and gradual metamorphosis of constitutional principles and are somewhat invisible.

Now we talk about the formal method of constitutional amendment. This consists of changing the language of a constitutional provision so as to adopt it to the changed context of social needs. One can therefore safely say that the Indian federation will not suffer from the faults of rigidity of legalism. Its distinguishing feature is that it is a flexible federation.¹⁴ For the people of amendment the various articles of the constitution are divided into three categories.

1. Articles that can be amended by parliament by simple majority as that required for passing of any ordinary law. Such as articles 5, 169 and 239-A these articles are specially excluded from the preview of the procedure prescribed in article 368.
2. Articles of the constitution which can be amended by special majority as lay down in article 368. Most of the constitutional amendments other than those referred to above, come in this category.
3. Under this category those articles come which require, in addition to the special majority mentioned above, ratification by not less than $\frac{1}{2}$ of the state legislature. The states are given an important voice in the amendment of these matters. These are fundamental matters where states have important power under constitution and may unilateral amendment by parliament may vitally affect the fundamental basis of the system built up by the constitution. This class of articles consists of amendments which seek to make any change in the provision mentioned in article 368. The following provisions require such ratification by the states such as :-
 1. Election of the president article 54 and 55.
 2. Extent of the executive powers of the union and states article 73 & 162.
 3. Articles dealing with judiciary, Supreme Court, High Court in the states and union territories article 124 to 147 and 214 to 231 & 241.
 4. Distribution of legislative powers between the central and the state article 245 to 255.
 5. Any of the lists of the 7th schedule.
 6. Representation of states in parliament 4th schedule.
 7. Article 368 itself.

Procedure for amendment- A bill to amend the constitution may be introduced in either house of parliament. It must be passed by each house by a majority of the total membership to that house and by a majority of not less than $\frac{2}{3}$ of the members of that house present and voting. When a bill is passed by both houses it shall be presented to the president for his assent who shall give his assent to bill and there upon the constitution shall stand amended¹⁵ therefore it is clear that most of the provisions of constitution can be amended by an ordinary legislative process. Only a few provisions which deal with the federal principle require a special majority in addition to the

ratification by the states. The procedure to amend these provisions is in conformity with the federal principle. The procedure to amend the constitution is however, not as difficult as in America or Australia. The difficult procedure of referendum followed in Australia and Switzerland or constitutional conventions followed in America have not been adopted in the constitution of India.

Amendment of Fundamental Rights- The question whether fundamental rights can be amended under article 368 firstly came for consideration of the Supreme Court in *Shankari Prasad V. Union of India*¹⁶ in this case the Supreme Court held that the power to amend the constitution including the fundamental rights is contained in article 368, and that the word “Law” in article 13 includes only an ordinary law made in exercise of the legislative powers and does not include constitutional amendment which made in exercise of the constitutional power. So a constitutional amendment will be valid even if it abridges or takes any of the fundamental rights.

In *Sajjan Singh V. state of Rajasthan*¹⁷ the validity of the 17th amendment act 1964 of the constitution was challenged. The Supreme Court approved the majority judgment given in *Shankari Prasad's* case and held that the word “amendment of the constitution” means amendment of all the provisions of the constitution.

In *GolakNath V. state of Punjab*.¹⁸ the validity of the constitution (17th amendment) act 1964. Which inserted certain states acts in ninth schedule was again challenged. The Supreme Court by a majority of 6 to 5 prospectively overruled its earlier decision in *Shankari Prasad's* and *Sajjan Singh* cases and held that parliament had no power from the date of this decision to amend part-3 of the constitution so as to take away or abridge the fundamental rights. The chief justice said that the fundamental rights are assigned transcendental place under our constitution and therefore they are kept beyond the reach of parliament. The chief justice applied the doctrine of prospective overruling and held that this decision will have only prospective operation and, therefore the 1st, 4th and 17th amendment will continue to be valid. It means that all cases decided before the *GolakNath's* case shall remain valid.

The minority however held that the word 'law' in article 13(2) referred to only ordinary law and not a constitutional amendment and hence *Shankari Prasad's* and *Sajjan Singh* cases were rightly decided. According to them, article 368 deals with not only the procedure of amending the constitution but also contains the power to amend the constitution.

In order to remove the problems created by the decision of Supreme Court in *GolakNath's* case parliament enacted the (24th amendment) act. This amendment has made several amendments. This amendment not only restored the amending power of the parliament but also extended its scope by adding the words “to amend by way of the addition or variation or repeal” any provisions of this constitution in accordance with the procedure laid down in this article.

Test Of Basic Structure- With these pronouncements the existence of the doctrine of basic structure in our constitutional law is no more a matter of

dispute. The only dispute remains about its contents. Some of the contents seem to have settled, while others are in the process of settling down and still some others will settle in course of time. From *KeshvanandBharti* to *Samabamurthy*¹⁹ judicial review clearly emerged as one of the aspect of the basic structure principle. But in *KihotoHollohon V. Zakillhu* the Court left this issue open. Finally in *L. Chandra Kumar*²⁰ has settled that judicial review is part of the basic structure of the constitution.

After having enumerated several basic features of the constitution in different cases in *M. Nagraj V. union of India*²¹ the Court has tried to formulate a general test to decide if an amendment is against the basic structure of the constitution. In the matter of application of the principle of basic structure, the Court held that “twin tests have to be satisfied namely the 'width test' and the test of identity.” Upholding the validity of three amendments in article 16 inserting clause (4-A) and (4-B) and making an amendment in the former as well as in article 335, a five judges bench of the Supreme Court unanimously held that applying the “width test” we do not find obliteration of any of the constitutional limitations. Applying the test of 'identity' we do not find any alteration in the existing structure of the equality code. Relying upon the earlier cases specially *KeshvanandBharti* it clarified that not an amendment of a particular article but an amendment that adversely affects or destroys the wider principles of the constitution such as democracy, secularism equality or the one that changes the identity of the constitution is impermissible:²² to destroy its identity is to abrogate the basic structure of the constitution concluded the Court. A little later in *I.R. Coelho V. State Of T.N.*²³ a nine judges bench unanimously reemphasizing the identity test varied it in respect of the fundamental rights. While according to *I.R. Coelho* and *Nagraj* held that in respect of the amendments of the fundamental rights, not the change in a particular article but the change in the essence of the rights must be test for the change in identity. In *I.R. Coelho* the Court held that if the “triangle of article 21 read with article 14 and article 19 is sought to be eliminated not only the essence of right test but also the right test has to apply.²⁴ pointing out the difference between the rights test and essence of right test the Court observed that both form part of application of the doctrine of basic structure but when in a controlled constitution conferring limited power of amendment an entire chapter is made inapplicable the essence of right test as applied in *M. Nagaraja* case will have no applicability. In such a situation to judge the validity of law it is the rights test which is more appropriate.

Conclusion- So on the basis of the above observation and in light of the Supreme Court's finding of different cases one of the main architects of basic structure doctrine had said that as the amending power is intended to be very wide only clearest cases of transgression would justify judicial intervention as a remedy of last resort. Regularly such cases will be discernible by an element of abuse of power of some collateral purpose appearing behind the purported scope of the amendment of the constitution. In the absence of such elements a general presumption of constitutionality must operate even more than in the case of ordinary legislation. By its very nature basic structure will

remain vague to be worked out in each and every case. It consists of some sorts of external values located in the constitution. The presumption is that except in extra-ordinary situations as existed during 1975-77 emergencies when it may be influenced by the exigencies of the situation the amending body knows and respects these values. The eternal values are not static with the growth of constitution associated with the growth of society the will also grow and vary. With the maturity of our democracy they will be crystallized and will be discernible more easily. These values cannot be anti-democratic by their very nature; they must sustain and nourish democracy.

So the basic structure of fine balance between flexibility and rigidity given to the constitution by its makers has been well preserved by the doctrine of basic structure as is evident from the number of amendments since Keshvanand Bharti case.

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24. (2007)2 SCC. 1, 108, 111.

A Comparative Study on The Anthropometrical Variable of Volleyball and Basketball Players of Senior Secondary School

• Mohammad Muqarram

Abstract- *The present study attempts to investigate the physical variations between volleyball and basketball players. A sample comprised of 60 volleyball and basketball players (boys) from different senior secondary school competition of J&K board by using simple random sampling technique. In which 30 volleyball players and 30 basketball players. The age of players ranging from 16 to 18 years. The Steel measuring tape were used for measuring the biceps muscles girth and calf muscles girth. To compare the biceps muscles girth and calf muscles girth volleyball and basketball players t-test was applied. The result of the study showed that there was a no significant difference was found between volleyball and basketball players of senior secondary school in their calf muscle girth. No significant was observed between volleyball and basketball ball players of senior secondary school in their biceps muscles girth.*

Keywords- *Biceps muscles girth, Calf muscles girth, Volleyball players and Basketball Players.*

Introduction- Human movement is a related scientific discipline that studies human movement in all contexts including that of sport. The study of Sport Science traditionally incorporates areas of physiology, psychology, motor control and biomechanics but also includes other topics such as nutrition and diet, sports technology, anthropometry, kinanthropometry, and performance analysis. Sport scientists and performance consultants are growing in demand and employment numbers, with the ever increasing focus within the sporting world on achieving the best results possible. Through the study of science and sport, researchers have developed a greater understanding on how the Introduction human body reacts to exercise, training, different environments and many other stimuli.

Anthropometry is the science of measuring human body and its parts. It is used us an aid to the study of human evaluation and variation. The study of human physical measurements is deal by another science anthropometry, which has wide application as one of the essential parameters constituting the selective diagnostics of any game or sport. The study of “Body Type” has a significant place in the field of sports.

Anthropometry is the science that deals with the measurement of size, weight, and proportions of the human body, as body size and proportions,

physique, and body composition are important factors in physical performance and fitness. A standard anthropometrical analysis during a physical fitness assessment would involve determining the height, mass, somatotype and body fat percentage of an individual or athlete (Maud and Foster, 1995).

Objectives of the study-

1. To compare the biceps muscles girth of volleyball and basketball players of senior secondary schools.
2. To compare the calf muscles girth of volleyball and basketball players of senior secondary schools.

Hypotheses of the study-

1. There is no significant difference in the biceps muscles girth of volleyball and basketball players of senior secondary schools.
2. There is no significant difference in the calf muscles girth of volleyball and basketball players of senior secondary schools.

Methodology- For the purpose of this study two sample groups were formed. 1st group comprises of 30 volleyball players and 2nd group comprises of 30 basketball players (boys) were selected from the different secondary school competition of J&K with the age group of 16 to 18 years.

Tools-

Biceps muscle girth in cm- The subject was made to raise his right arm to the horizontal position in the sagittal plane with the fully supinated forearm flexed at the elbow to an angle of 45°. The subject was encouraged to 'Make a muscle' by fully tensing his biceps. The measurement was taken with the help of a measuring tape wrapped at right angles to the long axis of the upper arm where the maximum girth was affected.

Calf muscle girth in cm- The subject was made to stand erect with body weight equally supported on both legs. The measuring tape was wrapped around the right lower leg and measurement was taken at right angles to the axis of lower leg where it was maximal.

Design of the Study- Design of the study was random group design, as the volleyball and basketball players were randomly selected from those who were taking part in the senior secondary school and comparison of biceps muscles girth and calf muscles girth between volleyball and basketball players was done.

T-test was used to test whether there is any significant difference among the chosen biceps muscles girth and calf muscles girth variable of volleyball and basketball players of senior secondary school board competition J&K.

Analysis of data- A statistical analysis was carried out and the result obtained is given below.

Objective 1. To compare the biceps muscles girth of volleyball and basketball players of senior secondary school.

Null Hypothesis 1. There is no significant difference in the biceps muscles girth of volleyball and basketball players of senior secondary school.

Table 01
Comparison of biceps muscles girth between volleyball and basketball players of senior secondary school

Variable	Group	N	Mean	Std. Deviation	t-Value	df	Sig.
Biceps Muscles Girth	Volleyball	30	28.70	2.41	-2.369*	58	.602
	Basketball	30	30.31	2.82			

**Significant at 0.05 level*

Group	Mean	SD
Volleyball	28.70	2.41
Basketball	30.31	2.82

Figure 01

Comparison of Means & SD of biceps muscles girth between volleyball and basketball players of senior secondary school

Interpretation- In order to examine the difference of arm strength between volleyball and basketball players of senior secondary school independent sample t-test has been used. The result of the above the t-test can be seen in table 1, which is calculated as $t(58) = -2.369$, $p = .602$, which is statistically significant at 0.05 level of significance. The result shows that the scores of basketball players ($M = 30.31$, $SD = 2.82$) was higher as compared to volleyball players ($M = 28.70$, $SD = 2.41$) regarding their biceps muscles girth. The above figure (1) graphically represents the mean and std. deviation difference between the biceps muscles girth of volleyball and basketball players. So, the null hypothesis (1), i.e. “*There is no significant difference in the biceps muscles girth of volleyball and basketball players of senior secondary school*”, is **accepted**.

Objective 2. To compare the calf muscles girth of volleyball and basketball players of senior secondary school.

Null Hypothesis 2. There is no significant difference in the calf muscles girth of volleyball and basketball players of senior secondary school.

Table 02
Comparison of calf muscles girth between volleyball and basketball players of senior secondary school

Variable	Group	N	Mean	Std. Deviation	t-Value	Df	Sig.
Calf Muscles Girth	Volleyball	30	31.91	2.64	3.933	58	.245
	Basketball	30	29.46	2.17			

Significant at 0.05 level

Group	Mean	SD
Volleyball	31.91	2.64
Basketball	29.46	2.17

Figure 02
Comparison of Means & SD of calf muscles girth between volleyball and basketball player of senior secondary school

Interpretation- As shown in Table 2 that there is an indication of significant difference between volleyball and basketball players of senior secondary school. The obtained result of independent sample t-test $t(58) = 3.933$, $p = .245$, which is not statistically significant. The result found that volleyball players ($M = 31.91$ & $SD = 2.64$) and basketball players ($M = 29.46$, $SD = 2.17$) show minor difference in their calf muscles girth. Above figure (2) clearly shows that the value of mean and SD of volleyball and basketball players of senior secondary school. Thus, the null hypothesis (2), i.e., "There is no significant difference in the calf muscles girth of volleyball and basketball players of senior secondary school" is **accepted**.

Discussion- As in the present finding, basketball players scored higher mean value in their biceps muscles girth as compared to volleyball players of senior secondary school. This finding is contradictory to the study concluded by Sunil & Anand (2017), who indicated that mean biceps muscle girth and calf muscle girth of high performance kabaddi players were significantly greater than theme an biceps muscle girth and calf muscle girth of low performance kabaddi players. Where as insignificant differences were observed in the mean thigh muscle girth of the two groups.

Findings of the study

1. A significant difference was observed between senior secondary school volleyball and Basketball players regarding their biceps

muscles girth (measure). The mean value of senior secondary school volleyball players was lesser than their counterparts, i.e. basketball players of senior secondary school.

2. No significant difference was found between senior secondary school volleyball and basketball players regarding their calf muscles girth. Thus, it can be concluded that both (volleyball and basketball) players had equal calf muscles girth.

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Effect of Anxiety and Achievement Motivation in Sports Performance

• Alok Kumar Pandey

Abstract- *To find out the effect of anxiety and achievement motivation in sport performance. The sample of the present study 60 (30 were male and female) subject were selected on random basis from the Department of Physical Education University of lucknow who have played at the district level and inter collegiate level. For the measurement of anxiety Sinha's comprehensive Anxiety Test (SCAT) developed by L.N.K Sinha and L.K.P Sinha was used and for the measurement of Achievement Motivation Scale adapted. Result Shows that there is a positive correlation found between anxiety and achievement motivation. that the level of anxiety differs in male and female athlete significantly and the same results are found for achievement motivation. But there is no significant difference found at the level played by the athletes i.e. up to District level and Inter- Collegiate level.*

Keywords- *Anxiety, Achievement motivation, Performance*

Introduction- In terms “motivation” refers to an internal state that activates and gives direction to our thoughts .some motivate such as hunger are clearly based on internal physiological state .but other motives ,such as motive to succeed sate not base d on simple internal physiological state .external cues play an important role in such motive. Psychology and physical factors play an important role in determining the performance level (Grange & Kerr, 2010; Schilling & Hyashi 2001) Numerous studies have demonstrated the impact t of psychological factors on sports performance (Crespo, 2002)

Achievement motivation is a desire to accomplish difficult task to in an area with a standard with excellence (Murray, 1938). It is the Psychological need for success in school sports, occupation and other competitive situations. Individual with a high need for Achievement (*n Ach*) generally experienced little anxiety or fear failure but tend to choose jobs and other challenges in which they have a realistic chance for success. And when Success is achieved, the high *n Ach* enjoys the fruit of his or her labor more than an average person (Atkinson, 1957; McClelland, Atkinson, Clark Lowell, 1953).

The achievement motivation pushes us to success and significant accomplishment in our lives studies have shown that people who rate high in achievement motivation tend to work much work harder and more personality on tasks and they tend to achieve more than those who rate low in achievement motivation (Atkinson & Raynor, 1978; Cooper, 1983).

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Whether a person will work hard on a particular task depends to upon his or her expectations to success and how much he/she value the task (Athinson, 1957; Molden & Dweck, 2000).

Anxiety (also called angst or worry) is a psychological and physiological state charted by somatic, emotional, cognitive, and behavior components (Seligman, Walker, & Rosenhen, 2001). It is the displeasing feeling or fear and concern the root meaning of the word anxiety is 'to vex or trouble in either press or absence of psychology stress anxiety can create feeling or fear worry unions and dread it is also associated with feeling of restlessness fatigue, concentration problem and muscle tension. Anxiety is considered be a normal reaction to a stressor it may help an invalided to deal with a demanding situation by prompting them to cope with it.

So the anxiety and achievement motivation both are psychological terms and have their impact on each other so to study the effect of these variables the present study is designed.

Methodology- The sample of the present study selected from the Department of Physical Education University of Lucknow. For the purpose of the study 60 subject were selected on random basis and among them 30 were male and female. Within these 20 subject (10 male and 10 female) played at the inter-collegiate level and 40 subject (20 male and 20 female) played sat the District level.

Table 01
Showing the Description of the sample.

Level played	MALE	FEMALE
District	10	10
Inter-Collegiate	20	20

N=60

Procedure- For the measurement of anxiety Sinha's comprehensive Anxiety Test (SCAT) developed by L.N.K Sinha and L.K.P Sinha was used and for the measurement of Achievement Motivation Scale adapted from <http://www.wwnorton.com/college./psych/psychosci/media/survey.html> was used. Mean, Standard Deviation, Correlation and were calculated for the analysis by using SPSS software.

Results

Tables 02
Showing the Mean and Standard Deviation.

	Mean	Std. Deviation	N
Anxiety	24.5500	10.89927	60
Achievement Motivation	14.6833	2.10320	60

Table 03
Showing the Correlation between the variables.

		Anxiety	Achievement Motivation
Anxiety	Pearson Correlation	1	.407
	Sig. (2-tailed)		.001
	N	60	60
Achievement Motivation	Pearson Correlation	.407	1
	Sig. (2-tailed)	.001	
	N	60	60
** Correlation is significant at the 0.01 level (2-tailed)			

Table 04
Showing the multivariate analysis (ANOVA).

Source	Dependent Variable	Sum of Squares	Df	Mean Square	F	Sig.
Gender	Anxiety	1261.008	1	1261.008	12.567	.001
	Achievement Motivation	22.533	1	22.533	5.313	.025
Level (From District to Inter-collegiate)	Anxiety	39.675	1	39.675	.395	.532
	Achievement Motivation	.133	1	.133	.031	.860
Gender & Level	Anxiety	429.408	1	429.408	40279	.043
	Achievement Motivation	.533	1	.533	.126	.724

Discussions- As the results indicate that the mean of the anxiety is 24.55 and for the achievement motivation is 14.68, the standard deviation for anxiety and achievement motivation are 10.89 and 2.10 respectively. As result shown in the table the value of Pearson correlation .407 which is significant at .01 level which highly significant and showing that there a positive correlation found between anxiety and achievement motivation. Because optimum level of anxiety is always better to attain the goal. As the Yarkis-Dodson law states that as the anxiety increases the performance of the person will also increase. But when it reaches to the peak the performance will start deteriorating. After the analysis of variance (ANOVA) as shown in table 4, it can be stated that there is significant difference found between anxiety on account of gender, because the value for this is $F=12.567$ with $df=1$ which is significant at .01 level and for the achievement motivation the value is $F=5.313$ with $df=1$ which is significant at .05 level. It shows that the level of anxiety differs in male and female athlete significantly and the same results are found for achievement motivation. But there is no significant difference found at the level played by the athletes i.e. up to District level and Inter-collegiate level. It shows that level of playing does not play any significant role in the anxiety and achievement motivation. It indicates that no matter at what level the athlete is playing he or she feels equal amount of anxiety and achievement motivation.

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Significance of projection

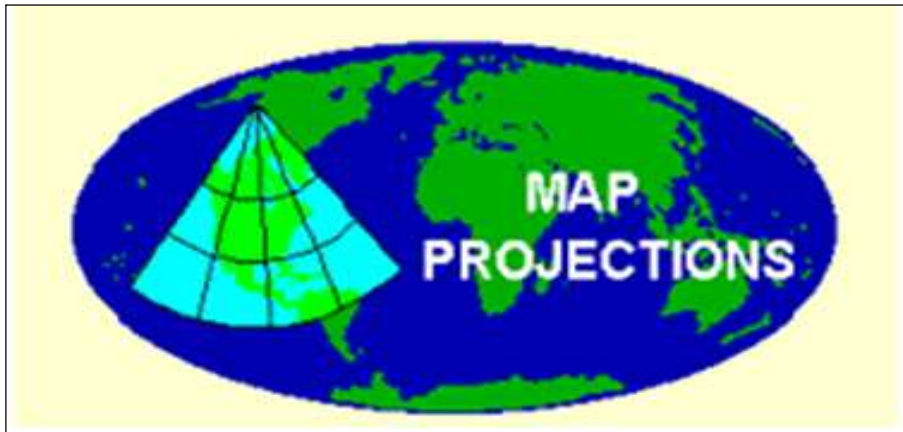
• **Mohammed Imran Khan**

Abstract- *As we live on the Planet earth It was very important for us to find the area of that Planet. Scholars knit a network of lines on earth to assess the area. Which we call the earth grid, we also call it Projection, Meaning is earth grid & projection complement each other. The method of transferring latitude, longitude lines to a flat surface (paper) Is called projection study or research on earth is an important depiction of a territory of the earth. So project military science, DRDO, Geography, Geology is the most significant for NITI Aayog. Which I have launched in my research paper, I can give information to the common man By telling more useful and at the save time it is my effort to create new projection too.*

Keywords- *Map, Earth, Latitude, and Significance*

Aim

- How can the entire world map be prepared by projection?
- Why is the study of the obliquity necessary and how its use and importance can be explained?
- Project is absolutely necessary to determine the time and situation of a country.
- How the significance of projection can be explained to the common man.



Erwin Raisz

A Projection can be defined as only orderly system of Parallel's and meridians

On which a map can be drawn.

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The projection literally mean's showing the shape made on a transparent film

Or paper on the wall on cloth Screen with the help of Light. But the figure made from the Grid Create by Geometry & Graphical Method is called map projection.

F. J. Monkhouse

A map projection is the representation of the earth parallels and meridian as a net or graticule on a Planet surface. Therefore the ward's Projection and map projection have two sides of a coin.

A map or projection is some method of representing on a sheet of paper the lines of latitude and longitude of the Globe.

(John Bygott)

Previous –Work

In the Second Century after B.C. *morinus* first displayed places according to their latitude and longitude in one projection.

Edrisi -Created a rectangular projection in 1154 on the basis of which they made a map of world.

Martin wald esemuller-composed the earth similar to Bone projection in 1507.

Iretasthanease -measured the circumference of the earth including (7) Latitude & 7 Longitude line. Change and amend these latitude and longitude, on the basis of which he made a rectangular map.

Gnomonic Projection Produced by *Thales* was used for astronomer maps.

Methodology

Construction of map projection

Two methods are used for the Creation of the Projection, which are as follows. “

Mathematical method (trigonometry)

Graphical Method

Mathematical method is used by trigonometry Formulas.

It is very important for the trigonometry to be known to the trigonometry ratio. Trigonometry literally means triangle measurement.

Trigonometry Ratio

The sides of the right angle are a ratio in the sides this ratio is called triangular ratio. Formulas are used to find the length of the latitude circle in the mathematical methods

(A) $2\pi r \cos$ –

(B) $2\pi r \sin$ - co latitude angle

The three formulas are used in both

Graphical and mathematical methods

Which are as follows?

Radius of the earth

R= -----

Denominator of RF

Length of equator = $2\pi r$

Distances between two attach longitude line =
 $2\pi r \times \text{distance}$ $2\pi r \cos \times \text{distance}$

$$\frac{\text{-----}}{360^\circ} \quad , \quad \frac{\text{-----}}{360^\circ}$$

Here means

R= radius and the earth

RF= representation fraction

$\pi = 22/7$

Distance means – interval given a question

Graphical method

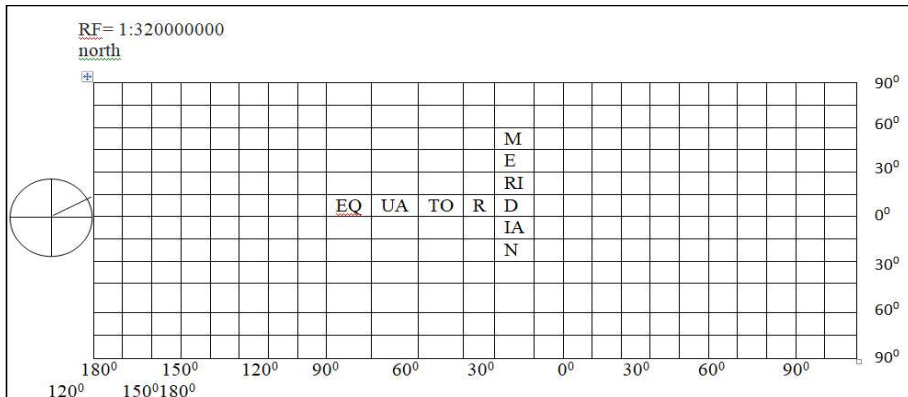
Graphical method is easier than mathematical method the above three formulas are also used in this method.

Draw a simple cylindrical projection with following statement

RF= 1:320000000 projection distance 15°

Simple cylindrical projection

RF= 1:320000000



north

120° 150° 180°

south

Diagram 1.1

Solution by graphical method (diagram 1.1)

Step first

Calculate radius

$$R = 635000000/320000000$$

$$R = 1.98 \text{ cm}$$

Step second

Length of equator = $2\pi r$

$$2 * 22/7 / 1.98 = 12.43 \text{ cm}$$

Step third

Distances between two attach longitude line =

$$2\pi r \times \text{distance}$$

$$\frac{\text{-----}}{360^\circ}$$

$$2 * 22/7 / 1.98 * 15/360^0$$

$$12.43 * 15/360^0 = 0.51 \text{ cm}$$

Firstly, draw a circle 1.98 cm

Secondly circle divided 15^0

Thirdly draw a graticule

Thus, this projection is composed

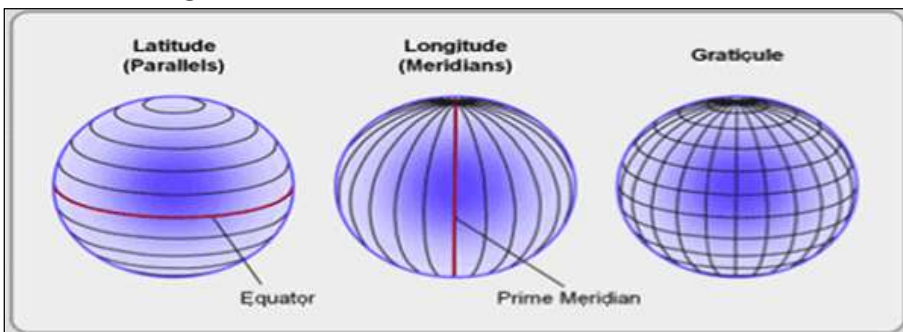
Observation- The planet we live. in the shape of that planet is three dimensional this shape we call geoid but Map interpolation is required to display the circular earth on flat paper. Only by projection we can latitude longitude line can lunch on the flat paper and surface. Therefore demarcation of the map is not possible without projection construction.

Before the creation of the projection we also need to understand the meaning of the following words.

Which are as followers?

Latitude – latitudes are horizontal lines that measure distance north or south of the equator.

Longitudes- longitudes are vertical lines that measure east and west of the in Greenwich, England.

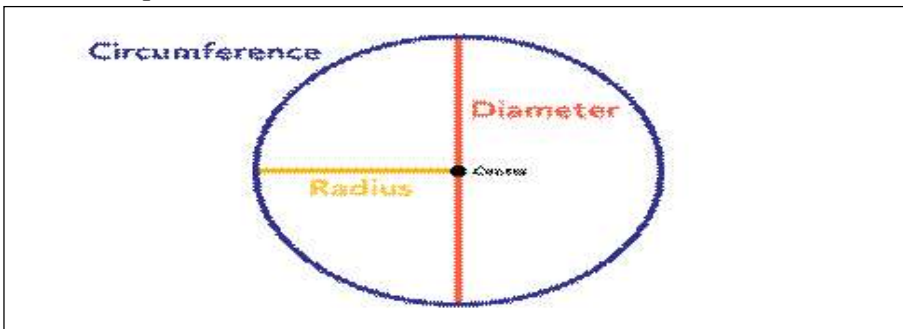


Together- latitude and longitude enable cartographers, and other to locate points our places on the globe.

Diameter- A diameter of a circle is any straight line segment that passes through the center of the circle and

Whose end points lie on the circle?

Radius – A radius of a circle or sphere is only of the line segment from its center to its perimeter.



Circumference –the circumference is the perimeter of a circle or ellipse.

Zone – the area between two successive parallels of latitudes.

Core – the area between two successive meridians of longitude

Equator- Is the imaginary line around the middle of the earth

Meridian – the prime meridian is the imaginary line drawn north to south at (Zero) 0° longitudes

After understanding the meaning of these words, we can easily build map projection.

The creation of a projection is also fixed based on latitudinal segments.

0° - 23.5° cylindrical projection is useful for the study of 0° to 23.5° north and south latitude area.

23.5° - 66.5° conical projection is useful for the study of 23.5° to 66.5° north and south latitude area.

66.5° - 90° gnomonic or zenithal projections are useful for the study of 66.5° to 90°

north and south latitude area.

Here one more thing is necessary to understand that the shape of the projection is distorted when the distance from the equator increases.

Most of the projections made for fulfilling purpose are conical.

In the competition exam of upsc, psc, defense services, many questions related to the projection are asked. Projection is intensively studied by the scientist in search of new areas.

Weather map, storm, Cyclone, sea, current hazard has a significant role in map projection.

It is clear from all these facts that the projection has its own meaning.

This is the essence of my research paper to clarify the importance.

Conclusion-

The significance of Projection in my research paper has been the major point; we have many benefits by projection.

The area of any area of the earth can be easily understood by a projection.

The path of the air route especially from the projection is directed.

Rail route is displayed of from conical projection.

Therefore, there is a significant use of projection in the construction and road demonstration of

transport routes. It is clear from the above facts that projection for transport routes is absolutely necessary.

Mollweide projection is suitable for the distribution of population.

Indian weather map is presented on Mercator projection; the significance of projection is increasing day by day.

The projection provides important information to target the enemy country in war.

The interpolation is made from both graphical and mathematical method.

The study of the projection presents the latitude and longitude on the globe by intensive

Observation to each point of their net. Therefore, if the common man has to give information about time and distance in the world scenario, then the use of the projection is very significant. We can see the progress of the country's economic development from the graph manufactured by projection.

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Tourist places in Meerut District: an over View

• Poonam Chaudhary
•• Anchal

Abstract- *This study is to find and analyze the tourist place and their importance. Meerut is rich in tourist places like historical heritage, culture, food and craft etc. This can be offered to tourists. Meerut has historical sites of Mahabhart, 1857 revolution related historical place, many cultural sites are presented here. Many religious places are presented here, like Jain Teertankara's birth place at Hastinapur, Sikh's Panch Pyare Gurudwara in Saifpur, Hastinapur village and Christian's Sardhana Church . The basic purpose of this research paper is to identify tourist place and their importance. The study will help to attract tourist in Meerut district which will help to improve life style and increasing job opportunities for local people. This study will also help to government for infrastructure development and policy making.*

Keywords- *Historical heritage, Craft, Revolution, Tourist, Teertankara.*

Introduction- Tourism is a activity of tour one place to another for recreation and amusement. **The UN World Tourism Organization** defines tourism, " Tourism refers to the activity of visitors. A visitor is a traveller taking a trip to a main destination outside his/her usual environment for less than a year, for any main purpose (business, leisure or other personal purpose) other than to be employed by a resident entity in the country or place visited."

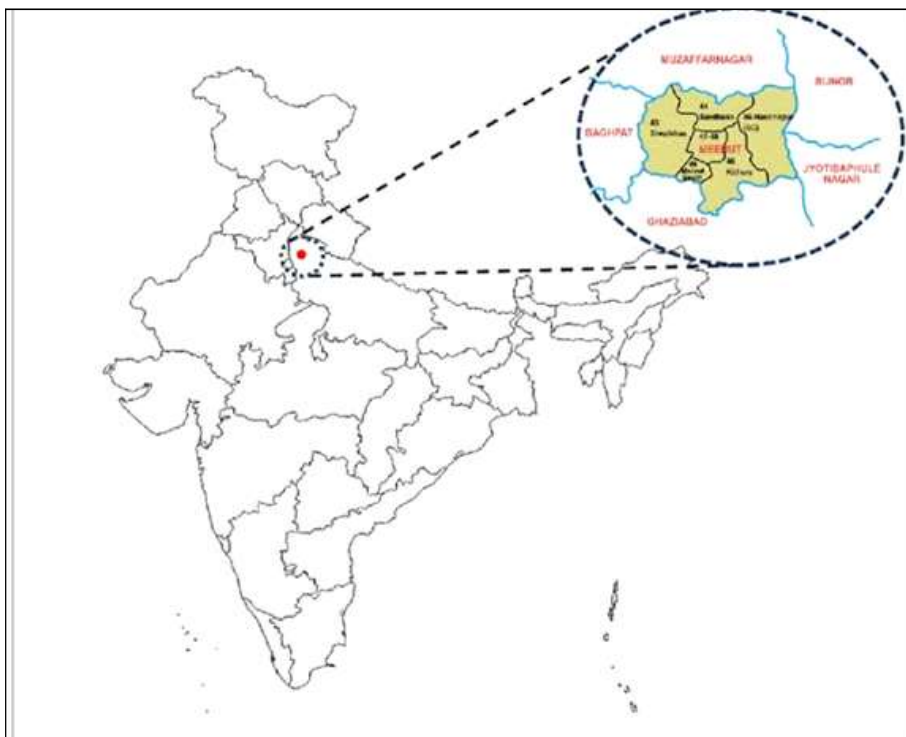
In other words, Tourism is a major social and economic phenomenon of present time. It provides employment and helps to improve economic condition of country. Tourism is main source to reduce poorness in developing countries. In 2020 the total travel and tourism sector in India contributed around 4.7% to the total GDP of the country. In 2019 it was 6.9%. Due to covid tourism has been affected a lot. India is rich in tourist places. Like India, Meerut district also example of unity in diversity because of various cultural and religious diversities.

Meerut District is land of many historical events like 1857 revolution. There are many historical heritage sites for tourist visit in Meerut District. India is a land of earliest civilization that's why India has rich cultural and historical background. Different parts of India are under the reign of many rulers and dynasties. Which have resultantly that India is rich

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in various cultures, heritage and arts. Historians always interested in tourist sites of India. In the series of historical tourist places and other tourist attraction, Meerut District plays an important role to attract domestic and foreign tourists. Archeological sites of national and international importance are situated in Meerut; Like, epic Mahabharata and Ramayana related events and monuments which is related to Hastinapur and Parikshit garh block of Meerut District. There are many tourist sites which have their Historical and religious importance. Meerut is the land of various religious place like: Hindu, Muslim, Sikh and Christian etc. That's why Meerut District is famous tourist attraction place.

Field of Study- Given Study is a part of Meerut district which is part of Ganga-Yamuna plain. It is situated between 28°18' to 29°18' North latitude and 77°7' to 78°7' eastern longitude. It is a 26th most populous city of India. It's geographical area is 2569 square Kilometers. Meerut district has total population of 3,443,689 of which male and female were 1,825,743 and 1,617,946 respectively in 2011. The average sex ratio of Meerut district is 886. As per census 2011 out of total population, 51.1% people lives in urban areas while 48.9% lives in the rural areas. The total literacy rate of Meerut district is 72.84%. Meerut is hub of many historical events, monuments and various religious relicts. Each of them has their own popularity.



Source: Reseachgate.net

Objective of the study

- I. To identify the tourist sites in Meerut District.
- II. To identify historical and religious importance of tourist sites.

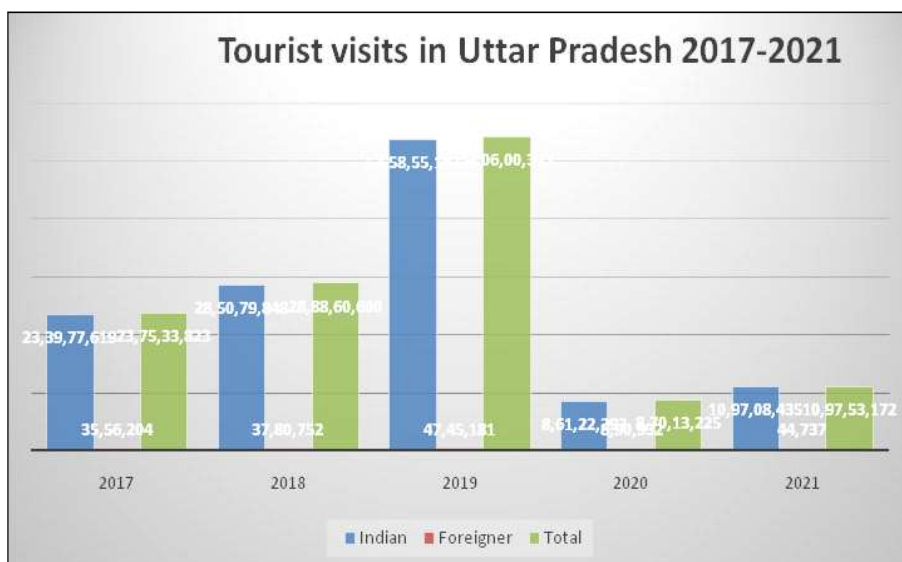
Present status of Tourism in India and Uttar Pradesh- India was ranked 54th within the Travel and Tourism Competitiveness Report 2021. In term of GDP during 2019-20, tourism contributed 5.19%. India received 677.63 million domestic tourist visits in 2021. Due to pandemic limitations, India received 1.05 million foreign tourist visitors in 2021. Two states with the most domestic tourists visiting are Tamil Nadu and Uttar Pradesh, with 140.65 million and 86.12 million, respectively.

Table 01
Tourist visits in important
places of Uttar Pradesh in Year 2017-2021

Year	Indian	Foreigner	Total
2017	23,39,77,619	35,56,204	23,75,33,823
2018	28,50,79,848	37,80,752	28,88,60,600
2019	53,58,55,162	47,45,181	54,06,00,343
2020	8,61,22,293	8,90,932	8,70,13,225
2021	10,97,08,435	44,737	10,97,53,172

Source: Annual Tourist visits statistics (2017-2022) department of tourism Uttar Pradesh

Figure 01



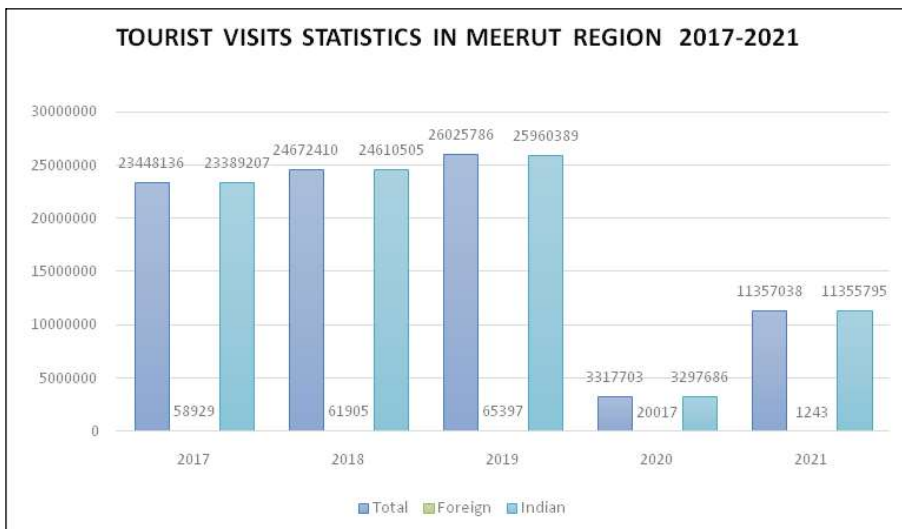
According to Table 01, Uttar Pradesh is 2nd largest domestic tourist visiting State in India. The peak point year of tourist visit in Uttar Pradesh was 2019 in given data, after 2019 the number of tourists decreased due to pandemic period. In 2021 tourist numbers increased again because of normal situation after pandemic periods.

Table 02
Tourist visits statistics
in Meerut Region 2017 -2021

2017			2018			2019			2020			2021		
IN DI AN	FO REI GN	TO TA L	IN DI AN	FO REI GN	TO TA L	IN DI AN	FO REI GN	TO TA L	IND IAN	FO REI GN	TO TA L	INDI AN	FO REI GN	TO TA L
233 892 07	589 29	234 481 36	246 105 05	619 05	246 724 10	259 603 89	653 97	260 257 86	3297 686	200 17	331 770 3	1135 5795	124 3	113 570 38

Source: Annual Tourist visits statistics (2017-2022) department of tourism Uttar Pradesh

Figure 02



According to table 02, the total number of tourists in Meerut region was 2 crore 35 lakh in 2017 which increased to 2 crore 60 lakh in 2019, after that due to pandemic periods limitations the number of tourists decreased to 33 lakh in 2020. The numbers of tourists increased to 1 crore 14 lakh in 2021 after getting relief from covid -19.

Tourist Place of Meerut District

Historical Tourist Place- *The Government freedom Struggle*, Museum Located in Meerut Cantonment area. The Museum was established with a motive of preserving the memories of the war and the dioramas of the events of the war time; *Shaheed Smarak*, is mainly built in the memory of the Martyrs who sacrificed their lives in the first war of independence of 1857; *Mustafa Castle*, Built by Nawab Mohammad Ishak Khan in memory of his father who was one of the most distinguished notable of the last Mughal Emperor Bhadur Shah Zafar's time. He was great poet and critic; *Anthony kothi*, is the house of Italian architect who built the Basilica of Our Lady of Grace in Sardhana; *Begum Samru' s palace*, it is situated in Sardhana.

Begum Samru who is known for constructing the Basilica of Our Lady of Grace northern India's largest church; *Shapir ka Maqbara*; Shapir was teacher of Mughal Emperor Jehangir and advisor of queen Noor Jahan; *Abu ka Maqbara*, built in 1688, 354-year old red stone tomb. Abu was Wazir at the court of Aurangzeb.

Religious Tourist Place- Meerut city and Cantonment area, *Augharnath temple* also known as Kali PultanMandir. It has a great significance as the first war for Indian Independence, the revolt of 1857 began from here. This temple also has a cultural significance; the legend goes like Shiva Linga embedded in this temple has emerged on its own. *Suraj Kund temple*, Baba Manoharnath Temple, Chandi Devi Temple and Mansa Devi Temple are famous temple of Suraj Kund. *St. John Church*, it was founded by British army Chaplain the Rev. Henry Fisher. *Seeshe Wala Gurudwara*, The gurudwara was established in 1972. It is related to Punjab regiment which was posted in Meerut between 1929 to 1976. After Indo-Pak war of 1971. *Baleshwar Temple* (Rawan's wife Mandodari's worship place), *Mansa Devi Temple*, this is oldest temple which is dedicated to Goddess Durga. Every Sunday fair is organized. Devotees come here for fulfilment their wishes. *Bhole ki Jhal*, it is a dam that is responsible for providing electricity to Meerut region. There is temple of lord Shiva. These are various religious tourist attraction in Meerut city and Cantonment area.

Kila Parikshit Garh, Epic Mahabharata period relics and evidence are still in Parikshit Garh. *Ghandhari Sarovar*, *Parikshit Garh Fort*, *Queen Navalde Well*, *Shrag Rishi Ashram* which are historically and religiously attracts the tourists are still exist here.

Hastinapur, It is the birth place of three Jain Teerthankara. It was the capital of the Kuru kingdom. Most of Mahabharata incidents have taken place here. There are various sites as *Digamber Jain Temple*, it is old Jain temple dedicated to Shri Shantinatha, 16th Jain Teerthankara. *Astapad*, it depicts Shree Ashtapad Teerth. *Jambudweeb*, this is built under the blessing of Gyanmati Mataji in 1972. It is depiction of Jambudvipa and Kailash Parvat Rachna. *Baradori*, *Pandeshwara Temple*, *Draunadeswa Temple*, *Karna Temple*, *Draupadi Ghat*, *Karna Ghat*, *Vidhur ka Tila*, *Draupadi ki Rasoi*, *Punchpyre Bhai Dharm Singh Gurudwara Saifpur* etc. are many other tourist places in Hastinapur.

Sardhana, *Basilica of Our lady Of Grace Church* which was built by Begum Yohana Samru. It is related to Christian. This church is famous foreign tourists attraction during Christmas time.

Park And Recreational Tourist Place- *Hastinapur wild Life sanctuary*, Spread in 2073 sq. km. area. Mammals, Reptiles, Amphibian, Herbs and Shrubs are conserve here in huge numbers; *Ghandhi Bag*, Oldest park set up by East India Company. It is famous British spot with greenery and various kind of trees; *Fantasy World*, It is a water park for amusement with three vibrant section of land rides, water ride and children's ride; *Ecological Park*, it was built for recreation and sustainability purposes by the Indian Army posted at Meerut; *Pine Children Park*, it is centrally located in Meerut and it is famous for variety of flowers and plants.

Fair and festival- Nauchandi fair; the Nauchandi fair is an annual fair held at Nauchandi ground in Meerut. The fair stretches for about a month and is organized by the Municipal Corporation of Meerut. It generally starts from the second Sunday after Holi.

Gago Tirth Fair; According Ramayana, Lord Rama and Lakshmana were taken by sage Vishvamitra to his ashram to kill demons. That place is the Gagol shrine which was the penance of Vishwamitra. A fair of Khichdi Baba is held at Gagol Shrine. A lot of crowd reaches here during Chhat pooja. A large number of devotees comes here for Ganesh visarajan, immersion of Durga idols.

Makhdumpur Kartik Purnima Fair; it is organized at Ganga ghat in Hastinapur. Devotee comes here for Ganga Snaan and lamp donation on Kartik Purnima.

Tourist Infrastructure in District Meerut

Accommodation- One can easily find a place for shelter in Meerut. There are around three two- star hotels in Meerut. Dharamshalas have been made to stay in Jain temples in Hastinapur.

Restaurants- Local eateries and Dhabas are available near tourist sites. Which provide fast food and local famous foods?

Hospital- LLRM Medical College is located at Garh Road in Meerut District, two state level hospitals run by government, 604 primary health center, many private hospitals are servicing in Meerut District.

Bank- Allahabad Bank, Bank of India, Punjab National Bank, Syndicate Bank and Union bank of India and many private banks are available in Meerut District. ATM service is available within one Kilometer.

Transportation-

Air Route- Delhi is the nearest airport 120km from Meerut. Tourists can reach tourist sites easily from here.

Train Route- There are two railway stations in Meerut. Meerut city station – 72 trains departure from this station to other parts of Uttar Pradesh. Meerut Cantt- 28 train's departure from here to others parts of Uttar Pradesh.

Road Route- Regular bus services from Delhi to Meerut and other parts of Uttar Pradesh. which helps the tourists to reach at tourist place easily.

Conclusion- Meerut district is rich in historical heritage with religious place. It is land of all religion's holy places. Example- Hindu, epic Mhabhartaand Ramayana related Hastinapur, Kila Parikshit Garh, Gagol Tirth, Kali Paltan Temple and many other temples which are related to Hindu religion; Sikh, Panch Pyare Gurudwara, Seeshe Wala Gurudwara; Jainism, Digambar Jain Mandir, Hastinapur Jain Temples; Christian, Sardhana church, St. John Church. Hence we can say that Meerut District is an example of Unity in diversity. It is best place for tourist attraction because of religious and historical tourist sites. Some of them are well managed but most of historical and cultural heritage sites of Meerut region needs to be preserved and should be well managed with modern facilities such as transportation, hotel, restaurants, tourist guide and some basic need things etc. Government should develop policies according importance of tourist sites to attract more tourists.

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***Give to All an Equal Liberty:
A Study of Abolitionist Sentiments and Anti-Slavery
Historiography in the Anti-Slavery Alphabet (1847)***

• Anirban Guha Thakurta

Abstract- *Campaigns for abolition of slavery were regular in 19th century America. However, such regularity was in no way a proof of the abolitionists' campaigns being viewed with wide-spread admiration, especially in the Southern states where the cotton-based fertile economy was heavily dependent on slavery. Abolitionists were often viewed as anarchists, and racist prejudices against the blacks, normalized by academic, civil and often religious institutions remained as pivotal impediments before the adequate fruition of abolitionist sentiments. The abolitionist movement needed to have mass support and in forms that were sometimes organized and sometimes scattered, several attempts were made to extract that mass support. Several societies, members of which were mostly whites, came to be established that campaigned against racial discrimination and slavery, and unique forms of protests against slave-holding traditions were exhibited by these societies. The Anti-Slavery Alphabet was one such unique alphabet book published by the Philadelphia Female Anti-Slavery Society in 1847 meant to be sold at the Anti-Slavery Fair, 1847. The present paper is a study of the Anti-Slavery Alphabet and its way of blending language acquisition methodology, abolitionist propaganda, anti-racist and anti-slavery dogma and alternative historiography of slavery in America.*

Keywords- *Alphabet book, Slavery, Abolitionism, Racism, Historiography.*

Introduction- The present paper is a study of the politics and poetics of an alphabet book published by Philadelphia Female Anti-Slavery Society. Officially designed with the intention of helping children at language acquisition, the alphabet book also offers a look into the recesses of language and power. Language and power work hand in hand to normalize ideas, institutions, hierarchies and discourses of a socio-political locale. Thereby language and discourse produce and organize power relations and with the same are often expected to validate the hegemonic code of order and hierarchy based on coercion. The mechanism of the introduction of ideas and discourses through alphabet books usually alters as per alterations in religious, political, socio-economic and cultural priorities. The introduction to alphabets thus is primarily meant to be a tool of socialization by virtue of transforming the infant psychological *tabula-rasa* into an accommodative echo of the dominant narratives of contemporary times and regulating the infant subject to pursue conformity. The ever-shifting and yet continuously contemporarized

and naturalized pattern of the alphabet books finds a unique reversal of the accepted and traditional mainstream in *Anti-Slavery Alphabet* composed by Mary and Hannah Townsend.

Even before we identify the *Anti-Slavery Alphabet* as a text meant for children education and aiding language acquisition, we must recognize the same as a political dogma and abolitionist propaganda. Recognition of the text as anti-slavery propaganda exhibited at the stalls of Anti-Slavery fair naturally leads us to unveil what surroundings inspired its production. In this regard we must first acknowledge the fact that the need to produce propaganda of this sort was perhaps pressed by a discursive stereotyping of the abolitionist persona as anarchist and the wide-spread misinformation about abolitionist and anti-slavery ideologues. Thus, a historical survey of the immediate circumstances involving pro-slavery and anti-slavery sects and their ideologues in the contemporary American society would serve our purpose of historicising the politics and aesthetics of anti-slavery sentiments and historiography in the text.

Discussing the 'Slavery and the Slave' in the 19th Century Southern States, Samuel Eliot Morison writes that:

On the one hand (as stated by Jefferson Davis in his reply to Lincoln's Emancipation Proclamation) these "several millions of human beings of an inferior race" [the slaves] were "peaceful and contented labourers in their sphere.... On the other hand, it is the fashion for Negro intellectuals to describe their forebears as the most oppressed and exploited labour force in modern history, held down by fear and force, constantly striving for escape from slavery. (505)

With the economy of the Southern states deeply dependant on slavery, pro-slavery sentiments were popular and were further legitimised by even labelling slavery as an institution beneficial towards the blacks. While even Morison unequivocally presents the sites of whipping posts and flogging, instruments of exploitation and dehumanization associated with the institution of slavery in the southern states, he also maintains, echoing the pro-slavery thinkers that:

It should not be forgotten that the African slave trade began among the Negroes themselves in Africa; that to be reduced to slavery was a common expectation in the Dark Continent, and that victims of the system who were shipped to America, provided they survived the passage, were better off than those who remained in bondage in Africa. (505)

It should be noted that here the historian's emplotment of the slavery narrative is a mixture of sympathetic engagement with the slaves' plight and a justification of slavery as a more humanitarian one compared to their supposed denigration in his 'Dark Continent'. If such partially-racist historical documentation is available in Morison's book in 1965, it is not at all hard to imagine the way the slaves and the antislavery campaigners or abolitionists were discursively stereotyped during the times that shaped *The Anti-Slavery Alphabet* as a counter-discourse and an alternative anti-slavery historiography.

If on one hand the pro-slavery campaigners justified slavery for economic reasons, social stability, racial hierarchy and legitimised the institution by branding it beneficial towards slaves themselves, on the other hand it served to silence anti-slavery and abolitionist view-points. An image about this lack of information regarding the abolitionists is gained in the autobiography of Frederick Douglass, himself an ex-slave and anti-slavery campaigner. As Douglass writes about his first encounter with the word 'abolitionists' he mentions how he, as a slave, was kept ignorant about who were referred to by the term and what their philosophy was (108), and though the dictionary offered him not much help in understanding the term and the figures it alluded to, when he knew much about the term through newspapers he found 'HOPE' in the word (109). At the same time he highlights how he 'saw that there was fear as well as rage in the manner of speaking of the abolitionists' (110). This mixture of fear and rage about the abolitionists reflected in popular psyche was naturally stirred by the fact that the group's militarism was beginning to unite slaves and white anti-slavery campaigners and that was identified as a potential catalyst capable of overhauling the exiting slavery-fed economy. Threatened and enraged by such developments that may fracture the exiting social hierarchy the pro-slavery campaigners often branded abolitionists as anarchists and potential threats and thereby many abolitionists as well as their campaigns were attacked ideologically as well as by brute physical force. For example, On September 17, 1838, John Bennington Mahan was arrested in Sardinia, Ohio, on the charge of "aiding and assisting certain slaves, the property of William Greenhouse, to make their escape from the possession of said William Greenhouse... (Rivington 45)

We, in fact in Morison himself, get some pictures of how the abolitionists were seen and how violence was often inflicted on them. As Morison mentions:

Advocates of Negro emancipation were attacked furiously in the free states. Whether in city or country, New England, New York or the Middle West, devoted men and women addressing an abolition meeting were assailed by rotten eggs and stones, and their voices were drowned by tin horns, drums, and sleighbells....

Philadelphia was far from unique in violence. On 21 October, 1935 William Lyoyd Garrison was paraded around Boston with a rope around his neck, by what was called a "broadcloth mob"; and on the same day delegates who met at Utica to organize an antislavery society were dispersed by a mob of "very respectable gentlemen" led by a congressman and a judge. (518)

Resisting lack of awareness about the abolitionist idealism, fighting misinformation and negative stereotyping of the abolitionists and also the fact that 'as the abolitionist movement grew in the North, some openly challenged the church's tolerance of slavery- but Southern churches, largely dependent on the support of white slave owners, almost never questioned the morality of owning human beings' ('Slavery in America' 14), Hannah and Mary Townsend's *Anti-Slavery Alphabet* advocated in favour of abolitionism and in the process defamiliarized the usual English alphabet

book available in contemporary times. It intended to encourage abolitionist sentiments in the mind of the children first, while the same could also impress and inform the minds of the adult audience. In a preface written in the form of a nursery rhyme-like poetic ejaculation, Hannah and Mary write:

Listen, little children, all,
Listen to our earnest call:
You are very young, 'tis true,
But there's much that you can do.
Even you can plead with men
That they buy not slaves again,
And that those they have may be

Quickly set at liberty. (*The Anti-Slavery Alphabet*)

Quite significantly, the cultural militarism involved in the production of this alphabet book utilises the sphere of children's literature for both instruction and entertainment of the infant, and yet the advocacy of anti-slavery discourse is prominently evident. The abolition of slavery definitely required an illegalization of slavery, and it could only have been arbitrated by a legal apparatus. However, developing a mass consciousness that could act as the backbone of such an illegalization could only have been achieved if a sense of oneness between the members of the slave-holding race and the slaves could be forged. In this regard it is important to highlight the choice of the form of an alphabet book as a medium of political pamphleteering. While the book in its form appears to be an alphabet book that is usually regarded as one meant for children's language acquisition, it must be taken into account that the words/terms that it often introduces and defines while introducing the individual alphabet are necessarily part of adult experience. In this way the alphabet book naturally defamiliarizes the regular idiom and attributes of regular alphabet books. Additionally, though irregular and unusual in the domain of normative historiography and political philosophy, the Townsend sisters recognized the possible and probable agency of the children in shaping the political climate and order of the society. Their choice, apparently playful, was perhaps a result of in-depth political scrutiny and psychoanalysis. In this regard it is useful to focus on two significant issues. First, the alphabet-book must necessarily be viewed as a medium of socialization or introduction to the system of social contract. Two, since the addressees of the alphabet book were white children and children, in general, were expected to remain outside (or at least removed from) the effects of dominant pro-slavery discourses or racist prejudices that were mostly available voluminously in the world of the adult, propagation of abolitionist sentiment to children still remaining unaffected by the mechanisms that normalize slavery through the alphabet book could positively alter the existing social contract to get itself removed from racial discrimination and slavery. On the other hand, the alphabet book design also probably enabled the abolitionist propaganda to find easy entry into white households because of its surface innocence and playfulness associated with the child and children's literature.

While describing the slave-holding master Captain Anthony, Douglass writes:

he [Captain Anthony] was not by nature worse than other men. Had he been brought up in a free state, surrounded by the full restraints of civilized society --- restraints which are necessary to the freedom of all its members, alike and equally, Capt. Anthony might have been as humane a man as are members of such society generally. A man's character always takes its hue, more or less, from the form and color of things about him. The slaveholder, as well as the slave, was the victim of the slave system. (50)

Townsend sisters' attitude towards slavery system, the white slaveholders and the institutional advocacy in favour of slavery was perhaps reflecting the position of Douglass, since they, in their bid to eradicate slavery, did not choose to identify the slave-holding class as necessarily 'evil' but as victims of a long-lasting system of slavery that blinded them with racist prejudices to the extent that they failed to recognize the inhumanity and immorality of the slavery system. The *Anti-Slavery Alphabet* was thus designed to be a vaccine against slavery system for the children and a medication to cure the racial prejudices and pro-slavery syndrome in the adults. And in this way, *Anti-Slavery Alphabet* naturally blends history, morality, political propaganda and religious dogma.

Attempting to delegitimize the normative identification of the Abolitionists as anarchists, the Townsend sisters introduced the alphabet 'A' with the word 'Abolitionist' and placed 'B' to carry 'Brother' to identify the black slaves:

A is an Abolitionist—
A man who wants to free
The wretched slave—and give to all
An equal liberty.
B is a Brother with a skin
Of somewhat darker hue,
But in our Heavenly Father's sight,

He is as dear as you. (*The Anti-Slavery Alphabet*)

In *Anti-Slavery Alphabet*, the moralistic tone is ever-evident. There is a tendency to invalidate slavery as anti-Christian. Douglass wrote about his childhood and how he was 'told' 'that “*God up in the sky*” had made all things, and had made black people to be slaves and white people to be masters' (56). Children's literature most naturally conflates ethical teaching and knowledge mediation. This attribute is best utilized by Townsend sisters who reiterate the fact that God did not mandate in favour of slavery and the blacks are as dear as the whites. The identification of the slave as 'brother' naturally places the blacks as human, antithetical to slavery-driven prejudices that objectified, subhumanized and dehumanized them. In this connection, it is important to allude to John Milton whose rewriting of the Christian account of creation of Man naturally places the human being as superior to other living beings. Milton writes:

Let us make now Man in our own image, Man
 In our similitude, and let them rule
 Over the Fish and Fowl of Sea and Air,
 Beast of the field, and over all the Earth,

And every creeping thing that creeps the ground. (Quoted in Borlik 1).

Though to Borlik, Milton's rewriting of Genesis 'exposes the invidious axis between Christianity, patriarchy, and anthropocentrism' and justifies 'the stature and lowly status of beasts, whose posture constitutes proof of their ontological inferiority' (2), in our case we can refrain from the eco-critical reimagining of the Christian myth of Creation for the time-being and identify the existing order of anthropocene wherein the non-human is indeed, though unjustifiably, identified as lowly and ontologically inferior. That disturbing understanding is important in the context of slavery system. The strategic stereotypification of the blacks as non-human or not-fully-human or as beasts of burden played an important role in the justification of slavery as their status as ontologically inferior to man /the white man could normalize slavery as the Man's 'rule Over the Fish and Fowl of Sea and Air,/ Beast of the field' as an institution pre-ordained by the almighty and the Creator. However, with identification of the blacks as Brothers in distress there is a potential attempt at rehumanizing the blacks in popular psyche and thus there is in the process of introducing the alphabet 'I' a similar condemnation of dehumanization of the blacks.

I is the Infant, from the arms
 Of its fond mother torn,
 And, at a public auction, sold

With horses, cows, and corn. (*The Anti-Slavery Alphabet*)

On the other hand, while the Townsend sisters introduce the alphabets 'Y' with Youth and 'Z' with 'Zeal' respectively, they use the terms like 'Sin', 'Just', 'True' that are overtly reflect a moralist dogma. They identify the slavery as 'sin', condemning the un-Christian agency of dehumanizing the Blacks and abolitionists as truly 'zealous', 'true' and 'just' Christian crusaders against 'sin'.

While critically analysing *Anti-Slavery Alphabet* we must always recognize how it presents an alternative historiography of slavery and visualizes the sites of historical injustice and oppression. 'COTTON WAS KING in the South from 1815 to 1861; and the principal bulwark of his throne was Negro slavery' (Morison 500). *Anti-Slavery Alphabet*, while it introduces the alphabet 'C', alludes to 'Cotton-field, to which/ This injured brother's driven,/ When, as the white-man's slave, he toils,/ From early morn till even' (*The Anti-Slavery Alphabet*). Similarly, 'Flogging with a rawhide or blacksnake whip was the usual method of punishing slaves. Imprisonment lost the master their time, and short rations impaired their health. Most Southern towns had a public flogger with a regular tariff for laying on the number of lashes prescribed by the culprit's owner' (Morison 507). And while introducing alphabets like 'W', 'L', 'M', 'K' and others *Anti-Slavery Alphabet* clearly outlines how the slaves were exposed to 'lashes' at the 'whipping post', how they were forced to be bought and sold as lifeless

objects or subhuman creatures by 'Merchants', abused by 'Kidnapers', how they were transported like beasts of burden in ships, how only being a 'Fugitive' (while introducing alphabet 'F') the slave could escape his dehumanization and how the master's trained 'Hound' (while introducing alphabet 'H') could always bring back the fugitive slave trembling. At the same time, the alphabet book refers to 'Sugar' and 'Tobacco' (while introducing alphabets 'S' and 'T') plantations wherefrom the luxuries such as candy for children, 'pie and tea,/ Your candy, and your cake' (*The Anti-Slavery Alphabet*) and tobacco for 'Gentlemen' who ignorantly 'chew' the fruits of slavery. These images clearly radicalized the anti-slavery propaganda in the alphabet book and they also critiqued the passivity of those white gentlemen who chose to remain unaffected by the inhumanity, immorality and obscenity associated with slavery. Such alternative historiography pushed into white households through the children must have had played its part in eradicating racial prejudices and developing a consensus for the abolition of slavery.

Anti-Slavery Alphabet may not qualify for a trustworthy alphabet book if we take into account the fact that the terms that it uses to introduce the individual English alphabets are often far more complex compared to simple monosyllabic or disyllabic words that are found in regular alphabet books which are primarily devoted to the sole purpose of helping language acquisition. It must be reiterated that *Anti-Slavery Alphabet* was never meant to be a simple teaching-tool of language-acquisition. The purpose was political, and it was aimed at attacking slavery and forging a counter-discourse. Language-acquisition is the entry-point wherefrom the infant who is the future citizen enters the world of normalized discourses. The book's packaging as an alphabet book must thus naturally be viewed as a way of pamphleteering in a camouflaged form that invites others to rethink about the power of language in popularising and validating discourses as well as the power of discourses that validate slavery. And through the counter-discursive initiation to language-acquisition that the book proposes such discourses that validated slavery for generations could have been countered. The Townsend sisters were after all members of the Philadelphia Female Anti-Slavery Society (PFASS) established in 1833 and article 1 of its constitution states that:

The object of this Society shall be to collect and disseminate correct information of the character of slavery, and of the actual conditions of the slaves and free people of color for the purpose of including the community to adopt such measures as may be in their power to dispel the prejudice against the people of color, to improve their condition and to bring about the speedy abolition of slavery. (Quoted in Cain 4)

Anti-Slavery Alphabet conforms to the sentiments and strategies of PFASS in its advocacy in favour abolitionism, racial equality and harmony. Its uniqueness lay in its form which transcended the identifying marks of an ordinary alphabet book and defamiliarised it to subvert pre-existing and normalized pro-slavery advocacies. Utilizing the playfulness of verses meant to be consumed by white infants, *Anti-Slavery Alphabet* managed to

blend abolitionist sentimentalism, ethical education and an alternative subaltern, often unspoken and unspeakable, historical exposition. However, when we fully recognize *Anti-Slavery Alphabet's* respectful recognition of the probable agency of white children in uplifting abolitionist sentiments and eradicating slavery, we must also identify dispassionately that in its act of addressing the white child, *Anti-Slavery Alphabet* prioritised the agency of the whites only in its program of abolishing slavery. It was designed to arouse pity for the blacks in the minds of whites and to stimulate whites to abolish slavery. *Anti-Slavery Alphabet* was meant to be thus an educative potion for the whites that may have benefitted the blacks indirectly, but effectively. There is inevitably a dismissive attitude towards blacks' agency to eradicate their own slavery and self-empowerment through education³. However, this must also be taken into account that literacy among slaves were almost non-existent in contemporary America and the first step towards emancipation of the slaves was always to find a peaceful consensus in favour of abolition of slavery, which in the contemporary historical, social, economic and cultural context certainly demanded an unfailing agency of the whites' prerogative. Thus, in its attempt at pushing anti-slavery propaganda into white-households in the guise of an alphabet book that mediates a knowledge far different from the one aimed at simple language-acquisition, uplifting a moralistic campaign in favour of abolitionists and their cause and in sensitizing the whites to arrive at a consensus that may benefit blacks and a inclusive race-neutral society *Anti-Slavery Alphabet* naturally played its part in the long struggle of abolitionist politics and poetics.

Notes:

¹ The quoted section is from *Anti-Slavery Alphabet*. It is used by the Townsend sisters as they introduce the alphabet 'A'.

² The 1847 version of *Anti-Slavery Alphabet* that this paper uses as primary material bears no evidence of the text being written by Hannah and Mary Townsend. The text, as it appears in the same version, was printed for the Anti-Slavery Fair in 1847 and Project Gutenberg describes it anonymous (*The Anti-Slavery Alphabet*). However, De Rosa concludes after referring to his own *Domestic Abolitionism and Juvenile Literature, 1830-1865* and Doris O'Keefe and other materials, that the same was composed by Hannah and Mary Townsend (De Rosa 71). The paper therefore refers to Hannah and Mary Townsend as the authors of the text.

³ It is significant here to refer to the cover illustration of Number VIII of *The Slave's Friend*, produced by the American Anti-Slavery Society that presents the portrait of a white man educating black children.

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Supplementary effect of methionine on the growth and survival Channa punctatus

• Umesh Shukla

Abstract- *The effect of supplementary methionine was studied in Channa punctatus. Maximum growth was observed in fourth diet containing 3% of supplementation. Minimum length and weight was recorded in control diet which has no supplementary methionine. The results show that increasing amount of supplementation stimulates the growth and survival of the fry.*

Keywords- *Methionine, Channa punctatus, Growth*

Introduction- *Channa punctatus* is a tastiest edible fish, available in all seasons. The larval rearing is an important part in all hatchery systems because *C. punctatus* juveniles are sensitive and mainly accept only zooplankton at the earlier stage after that it accepts only animal protein diets due to its carnivorous feeding habit. Nose (1999) studied the methionine requirement in Japanese eel and common carp. Halverson *et al.* (1991) studied the methionine requirement in *Catla*. This paper presents some preliminary results on the supplementary effects of dietary methionine on the growth and survival of *C. punctatus* fry.

Materials and Methods- In this experiment, fry were collected from the river and kept in plastic troughs. All the time of the experiment, the fish were transferred into five-liter plastic troughs. Each trough contained ten fish. Four supplementary test diets were given with duplicate treatments and plankton were also given regularly.

Chicken intestine is a major ingredient in all test diets. It consists of 61.62% of protein, 9.61% of carbohydrate, 14.93% of lipid and 7.62% of Ash (Arockiasamy, 2017). Chicken intestine was completely washed, then boiled and ground well after it became a paste-like material, then binder (1%) and supplementary methionine in different concentrations were added (D.L. methionine – $C_5H_{11}NO_2S$) such as Diet I – 0%, Diet II – 1%, Diet III – 2%, Diet IV – 3%. The study was carried out for 30 days and growth was determined.

Results and Discussion- The growth rate was slowly increased in ascending order (Table 1). Maximum growth in length and weight was obtained in the fourth diet-fed animals. (Growth in length 43.18% and growth in weight 209.5%). The minimum growth was obtained in the control diet containing no supplementation of methionine. Maximum survival was obtained in the fourth diet and minimum was observed in the control diet.

Table01
Shows mean weight, length growth and survival of *C. punctatus* fry fed with different percentage of supplementary methionine diet and plankton.

S.No.		Diet I	Diet II	Diet III	Diet IV
1.	Mean weight (mg) at stocking	105	105	105	105
2.	Mean total length (mm) at stocking	22	22	22	22
3.	Number stocked (no)	20	20	20	20
4.	Rearing days	30	30	30	30
5.	Mean weight (mg) at harvest	172	174	248	325
6.	Mean total length (mm) at harvest	26	27.5	28	31.5
7.	Survival rate (%)	50	63	70	85
8.	Growth in length (%)	18.18	25	27.27	43.18
9.	Growth in weight (%)	63.81	65.71	136.19	209.52

The maximum growth and survival was observed in the fourth diet because the source of methionine is only dietary since body cannot synthesis methionine and it is very essential for growth and its deficiency caused cataract in rainbow trout (Cowey *et al.*, 2012). In the case of prawn *P. japonicus* the supplementation of based diet containing squid meal, squid meal extract and squid liver extract by 0.53% methionine gave better growth rates (Kitabayski *et al.*, 1991). The acceptance of the supplementation is slowly increased upto maximum requirement level in all cases.

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Random-amplified polymorphic DNA profiling of isolates from dung sample of camel for sorting out distinct isolates

• Shikha Tiwari

Abstract- *In the present study microbial diversity of camel dung was studied. Total 1500 bacteria were isolated from camel dung of fourteen camels. Serially diluted samples were spreader on different media plate like CMC agar plates, starch agar plates, pseudomonas agar plates, Luria bertani agar plates, wheat straw agar plates and lignin agar plates. There are 120 bacterial isolates out of 400 bacterial isolates that were giving above enzyme activity index over 3 Later on, RAPD was conducted and 15 distinct isolates were obtained.*

Keywords- *Camel dung, cellulose and RAPD.*

Introduction- Cellulose is one of the most abundant biomass on the earth and possesses great potential to resolve energetic and environmental demands of bio energy (Khatiwada et al. 2016). Cellulose is the major constituent of plant cell wall and most abundant cost efficient renewable energy source with maximum annual output. Cellulose rich plant materials obtained as agriculture byproducts and industrial residues are the most abundant inexpensive and renewable resource on the earth. Cellulose production is estimated to be more than 220 billion tons annually (Ren et al. 2009).

In present study we are Isolation and screening of microbial diversity in camel dung found in cellulase activity. Molecular characterization of DNA sample by using Random Amplification of Polymorphic DNA (RAPD-PCR).

Materials and Methods

Sample collection- Camel dung was provided , in which Fourteen camel dung given was taken as a sample Then 500mg weight to each camel dung then Appropriately diluted sample were spreaded on different media plate like CMC agar plate , starch agar plates , pseudomonas agar plate , wheat straw agar, lignin agar plate , Luria bertani agar plate , reinforced clostridia agar plate then screening of cellulolytic bacteria. Freeze. For culturing 30gram dung sample was collected without any filtration (Mixture of liquid and solid fraction).

Spreading the samples- 14 Samples are diluted menace 100 ul sample 900 ul phosphate buffer saline. After serial dilution of the sample (10^{-1} to 10^{-7}), 100 ul of each diluted sample was spread on CMC agar plate (1% CMC, 2.5% agar), starch agar plate(1% starch, 2.5 %agar), pseudomonas agar plate

(1% pseudomonas 2.5% agar), lignin agar plate (1% lignin bacterium, 2.5% agar), Luria bertaini agar plate (1% Luria bertaini, 2.5% agar), reinforced clostridia agar granulated plate (1% reinforced clostridia 2.5% agar), and wheat straw agar plate (1% wheat straw, 2.5% agar). After spreading Luria bertaini agar plate, and reinforced clostridium agar plate are incubated at 37°C of an anaerobic condition in an anaerobic jar. Another plate like carboxyl methyl cellulose (CMC) agar plate (1% CMC, 2.5% agar), starch agar plate (1% starch, 2.5% agar), pseudomonas agar plate (1% pseudomonas 2.5% agar), lignin agar plate (1% lignin bacterium, 2.5% agar), wheat straw agar plate (1% wheat straw, 2.5%), are incubated at 37°C in aerobic condition. For 24 hours to 48 hours.

Colony Isolation- After incubation for 24 hours all media plates 24 hours to 48 hours at 37°C colony are grown on plates. Isolated colonies are picked on the basis of their morphology and biological change like color, shape, size, etc. and transferred to 800 µl Luria Bertaini broth media and incubated at 37°C for 48 hours to 72 hours.

RAPD Procedure-

- Isolation and extraction of template DNA was done by NT-DNA method
- The RAPD 'reaction master mixture' was prepared for total reaction volume of 25 µl (single reaction) using 'Takara' kit.
Reaction mixture for single reaction:
- Add 15.25 µl autoclaved distilled water, 2.5 µl 10x buffer, RAPD, 2.5 µl primer use 60s primer ((5'-CAGCAGCAGCAG-3'), dNTP-2.0 µl, 0.25 taq polymerase.
- Then 22.5 µl of reaction mixture was added in a single PCR vial followed by addition of 2.5 µl of template DNA to make total reaction volume of 25 µl.
- After that, PCR vials were put in thermo cycler and allowed for random amplification by using RAPD 60S primer.
- Agarose Gel Electrophoresis

After solidify gel carefully take on gel electrophoresis tank, tank are filled with TAE buffer prepare the tank dip electrode then take RAPD sample and add dye then load the sample and run at 150v for 2 hours. After 2 hour check image.

Results and Discussion- Cellulose bacteria were isolated from 14 camels. Using dung samples. Appropriately diluted samples were spreaded on different media plate like CMC agar plate, starch agar plates, pseudomonas agar plate, wheat straw agar plate, lignin agar plate, Luria bertaini agar plate, reinforced clostridia agar plate. Based on the colony morphologies, total 1500 isolates were obtained from dung samples. Total numbers of isolates from the individual. The total number of isolates obtained on CMC media were 400 respectively. LB count and number of isolates from each dung sample and isolates obtained from CMC media from the individual are mentioned.

RAPD profiling of isolates- RAPD of the microbial isolates displaying

EAI>3 (0 day sample) revealed 15 distinct isolates on band pattern analysis. RAPD profiling of isolates from remaining lot is under process. RAPD was performed with Isolates which give clear zone around there colonies. Based on RAPD results identify the genetic variability among the 120 bacteria isolates of camel dung samples. Find 15 bacterial isolates were distinct out of 120 isolates for the help of bionumeric dendrogram.

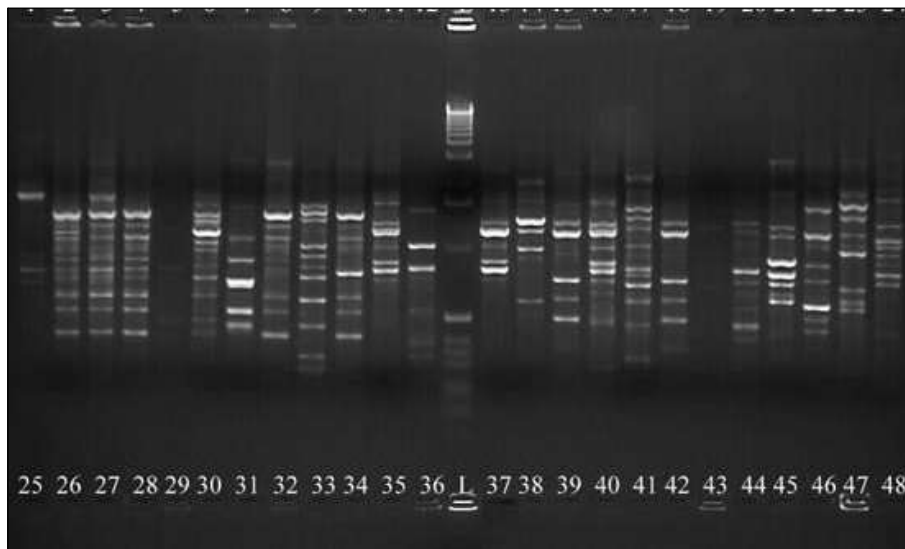


Fig 01: RAPD (random-amplified polymorphic DNA) profiling of 120 isolates from dung sample of camel for sorting out distinct isolates.

Results and Discussion- Cellulose bacteria were isolated from 14 camels. Using dung samples. Appropriately diluted samples were spreaded on different media plate like CMC agar plate, starch agar plates, pseudomonas agar plate, wheat straw agar plate, lignin agar plate, Luria bertani agar plate, reinforced clostridia agar plate. Based on the colony morphologies, total 1500 isolates were obtained from dung samples. Total numbers of isolates from the individual. The total number of isolates obtained on CMC media were 400 respectively. LB count and number of isolates from each dung sample and isolates obtained from CMC media from the individual are mentioned.

Similarly 1982 (48.86%) bacterial colonies showed positive results for amylase production, of these 159 bacterial colonies high EAI. Similar study was done for screening amylase producing bacteria where only 5 (50%) colonies showed positive results for amylase production out of 10 bacterial colonies (Singh, and Kumari 2016). In this study 60 samples were collected from different locations of Paonta sahib. A sum total of 17 (28.33%) pure isolate of different amylase producing bacteria were isolated. (V.Singh et al.2015)

Conclusion- Provided the fourteen camel dung as a sample. then each camel dung 500 mg weight after this . Then serial dalution of each camel dung. Then performed isolation,congo red screened after isolation.Then RAPD the enzyme activity index which was above three. 1500 bacterial Isolates

were extracted from camel dung, 1500 bacterial isolates were then screened, Then 400 positive bacteria were found in 1500 isolates, Out of 400 bacteria, 120 were bacteria giving enzyme activity index over three. Then performed an RAPD of 120 bacteria and extracted 15 bacteria distances from it.

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***Estimation of nitrogen
fixation by different genera of Azotobacter and
Azospirillum spand effect of herbicides
on nitrogen fixation of Azospirillum in malate
medium under laboratory conditions.***

•Vandna Krishna

Abstract- Nitrogen is one of the most limited plant nutrient in Indian soils and our soils are poor in both soil organic matter and nitrogen. Therefore to obtain optimum yields of important cereal crops, maintenance of activity of nitrogen fixing organism at a higher level to raise the soil fertility status is of paramount importance. Chemical fertilizer nitrogen is an expensive input for the medium and marginal farmers. In this context the investigation on the role of non-symbiotic bacteria such as *Azo spirillum* which can tolerate the use of herbicide and fix a good amount of nitrogen in soil are required. The present investigation was undertaken to test the relative efficiency of selected isolates of *Azospirillum* and *Azotobacter* for nitrogen fixation in presence of different doses of herbicides. The efficiency of different strain of bacteria was seen in lieu of further use of these bacteria as Biofertilizer in different crops to reduce the chemical fertilizer.

Keywords- *Azotobacter, Azospirillum, Arelon, Tribunil, Dosanex*

Introduction- *Azospirillum* sp. and *Azotobacter* sp. were used as biofertilizer and as an inoculants In this study. Trials conducted by Smith and Co-workers in 1974 and 1978 showed that 80% and 60% more protein in *Panicum maximum* and *Digitaria decumbens* was found in comparison of uninoculated ones. Dewan and Subbarao 1979 have noted increase in the yield of root biomass of rice by mixed inoculant of *Azospirillum* and *Azotobacter*. Nuret. al. 1980 conducted trials under greenhouse conditions on *Zea mays* and found increase in dry matter, yield and total nitrogen content. Tilak and Murthy 1983 reported the response of barley inoculation with *Azospirillum*. Brasliens results of the trials indicate that the marginal saving of 20 -30 kg N/ hectare is possible by the application of *Azospirillum*.

Before using as an inoculant in different crops their efficiency for supplementing the nitrogen needs for field crops were tested. The effect of different herbicides on nitrogen fixation of different strains of *Azospirillum* sp. Materials and methods- The estimation of nitrogen fixation by different bacterial isolates of *Azospirillum* and *Azotobacter* was done in semisolid sodium malate medium (Dobereiner and Day 1974) and Jenson liquid media (Jensons, 1961) respectively. The effect of three herbicides

viz. Arelon, Tribunil and to Dosanex was examined on two strains of Azospirillum and three strains of Azotobacter. The herbicides were applied at two dosages....(1/2x) and (x).

Azospirillum- One ml of 48 hours old culture of different isolates were inoculated into 100 ml conical flask containing 50 ml nitrogen free semi solid sodium malate medium (Dobereiner and Day 1974). The medium had the following composition in per litre distilled water.

KH ₂ PO ₄ .	0.4 g
K ₂ HPO ₄ .	0.1 g
MgSO ₄ .7H ₂ O.	0.2 g
NaCl	0.1 g
CaCl ₂ .	0.02 g
FeCl ₃ .	0.01 g
Na ₂ MoO ₄ .2H ₂ O.	0.002 g
Sodium malate.	5.0 g
Agar.	1.75 g
pH.	7.0

The flasks were incubated at 37 degrees centigrade for 7 days. The amount of atmospheric nitrogen fixed by different isolates was estimated by micro kjeldahl method. The amount of nitrogen fixed was expressed as mgN fixed/ g malate used.

Azotobacter- 0.1 ml of 48 hrs old broth culture of different isolates were inoculated into 100 ml conical flasks containing 50 ml Jensen's liquid medium (Jensen 1951). The flasks were incubated at 28 degree centigrade for 10 days. The amount of nitrogen fixed by different isolates was estimated by micro kjeldahl method. The medium had the following composition in per litre distilled water.

Sucrose.	20 g
K ₂ HPO ₄ .	1.0 g
MgSO ₄ .7H ₂ O.	0.5 g
FeSO ₄ .7H ₂ O.	0.1 g
NaCl.	0.5 g
Na ₂ MoO ₄ .	0.005 g
CaCO ₃ .	2.0 g
pH.	7.0

The effect of three herbicides viz. Arelon, Tribunil, and Dosanex was examined on Azospirillum culture (two strains of Azospirillum lipoferum..12,254) and three of A. brasilense-9,304,201,154). The herbicides were applied at the following dosages:

Arelon at 0.25 ppm (1/2x) and 0.50 ppm (x)

Tribunil at 0.50 ppm (1/2x) and 1.0 ppm (x)

Dosanex at 0.30 ppm (1/2 x) and 0.6 ppm (x)

The herbicides were added to 50 ml of sodium malate medium in 100 ml conical flasks. The flasks were sterilised at 15 lbs pressure for 20 minutes. One ml of 48 hrs old cultures of different isolates were inoculated in above flasks. The flasks were incubated at 37 degrees centigrade for 7 days. Each

treatment was triplicated.

Nitrogen was estimated by micro - kjeldahl procedure.

Results- Nitrogen fixation by different genera under laboratory conditions:

Azospirillum- The nitrogen fixing ability of isolates of *Azospirillum* spp has been presented in Table 1 which showed wide variation when they were grown in semi solid nitrogen free malate media.

The maximum amount of nitrogen fixed by the isolate no 1 obtained from sugarcane root was 19.50 mg/ g malate used whereas minimum amount was only 10.0 mg/ g malate fixed by isolate number 201 from jowar roots. The nitrogen fixing capacity of isolate from wheat

(C3 plants) roots and rhizosphere was similar to isolate of sugar cane ,maize, jowar and bajra(C4 plants) showing nitrogen fixation by isolates of diverse origin

Azotobacter- The nitrogen fixing capacity of isolate of *Azotobacter* was also determined.. Table 2.

The ability for nitrogen fixation of these isolates ranged from 8.20 mg to 19.00 mg/g sucrose used. Both lower and upper limits of nitrogen fixed by *Azotobacter* isolates were comparatively less than those of *Azospirillum* isolates .Sugarcane isolate were probably better isolates in nitrogen fixation than the isolates from other plants.

Table 01
Nitrogen fixation by *Azospirillum* spp.

Name of Organism	Isolate No	Source	mg N/g malate
<i>Azospirillum brasilense</i>	1	Sugarcane roots	19.50
<i>Azospirillum lipoferum</i>	2	"	11.50
<i>Azospirillum brasilense</i>	5	"	10.40
<i>Azospirillum lipoferum</i>	6	Sugarcane rhizosphere	12.50
<i>Azospirillum brasilense</i>	8	"	10.50
<i>Azospirillum brasilense</i>	9	"	10.08
<i>Azospirillum brasilense</i>	11	Wheat rhizosphere	15.10
<i>Azospirillum lipoferum</i>	12	"	12.64
<i>Azospirillum brasilense</i>	15	"	10.06
<i>Azospirillum brasilense</i>	18	Wheat roots	13.80
<i>Azospirillum lipoferum</i>	20	"	19.00
<i>Azospirillum lipoferum</i>	102	Maize roots	13.50
<i>Azospirillum brasilense</i>	151	Maize rhizosphere	12.00
<i>Azospirillum brasilense</i>	154	"	19.00
<i>Azospirillum brasilense</i>	201	Jowar roots	10.00
<i>Azospirillum brasilense</i>	251	Jowar rhizosphere	19.00
<i>Azospirillum lipoferum</i>	254	"	11.00
<i>Azospirillum brasilense</i>	304	Bajra roots	11.55
<i>Azospirillum brasilense</i>	354	Bajra rhizosphere	16.50
<i>Azospirillum lipoferum</i>	353	"	11.50

Table 02
Nitrogen fixation by *Azotobacter chroococcum*

Name of Organism	isolate number	Source	mg malate N/g
<i>Azotobacter chroococcum</i>	1 S	Sugarcane rhizosphere	18.00
“	4 S	“	15.89
“	6 S	“	17.10
”	8 S	“	13.00
“	1W	Wheat rhizosphere	15.00
“	2W	“	13.00
“	3W	“	14.50
“	4W	“	19.00
“	2M	Maize rhizosphere	17.10
“	4M	“	13.00
“	5M	Maize	15.00
“	2J	Jowar rhizosphere	8.20
“	4J	“	15.00
“	6	“	14.50
“	3B	Bajra rhizosphere	10.00
“	4B	“	19.00
“	6B	“	16.50

In the present study the effect of Arelon, Tribunil and Dosanex at the rate of approximately field rate(x) and half of it(1/2x) was a studied on nitrogen fixation by different *Azospirillum* strains.

In case of *A. lipoferum* (12) Arelon, Tribunil and Dosanex at ½ x and x rates were significantly toxic for nitrogen fixation(10.84 ,6.72, 10.45 ,7.94, 5.55 ,5.3 mg N/g malate) than control(12.64 mg N/g malate) respectively. Likewise, Arelon proved to be less toxic and the observations were non-significant at different intervals by another strain of(254).

The pesticides approximately at field rate suppressed the nitrogen fixation to a greater degree than pesticide applied at half of its field rate. The nitrogen fixation by strains of *A. brasiliense* (strain number 9 ,304 ,201) were not significantly affected by Arelon at 1/2x rate as compared with no Arelon while there was significant reduction in case of (154) with Arelon applied at the same rate.

The field rate application of Arelon reduced nitrogen fixation(5.94, 9.05, 9.84 mgN/g malate) significantly over their control(10.08 ,10.61, 14.56 mg N/g malate) with all strains of *A. brasiliense*(strain numbers 9, 304, 154)except strain number 201 where Arelon did not affect nitrogen fixation at all. The nitrogen fixation activity of all *A. brasiliense* strains were reduced significantly at both the rates of Tribunil and Dosanex. However, Tribunil at field rate completely suppressed the activity of two strains (201,154) of *A. brasiliense* while their activity at half the rate was significantly reduced.

Table 03
Effect of different herbicides on nitrogen fixation by
different *Azospirillum* strains (mg N/g malate

Treatments	Isolate no.	0	1/2x	X	0	1/2 x	x	0	1/2x	x
<i>A.lipoferum</i>	234	10.45	9.55	9.7	10.45	8.77	7.09	10.45	6.55	5.75
<i>A.lipoferum</i>	12	12.64	10.84	6.72	12.64	10.46	7.84	12.64	5.55	5.30
<i>A.brasilense</i>	9	10.08	9.85	5.84	10.08	6.72	6.72	10.08	4.48	4.48
<i>A.brasilense</i>	304	10.61	9.61	9.05	10.61	7.84	5.60	10.61	6.85	4.29
<i>A.brasilense</i>	201	7.84	7.84	7.84	7.84	2.80	--	7.84	3.24	2.16
<i>A.brasilense</i>	154	14.56	12.84	9.84	14.56	5.6	--	14.56	8.72	6.91

Arelon.	Tribunil.	Dosanex
S.em.	0.50.	0.19
C.D. 5%.	1.44	0.56
		0.28

Discussion- Three substituted ureas (Arelon, Tribunil and Dosanex) at normal field rate and it's half dose were found to be toxic for nitrogen fixation by *Azospirillum lipoferum* (Strain 254 and 12) and strains 9, 304 and 154 of *A.brasilense* (Table..3). The field rate of Arelon Tribunil and Dosanex suppressed the nitrogen fixation to a greater extent than the herbicide applied at half of their field rates. At half field rate, Arelon proved to be less toxic than Tribunil and Dosanex.

Arelon at half dose could reduce nitrogen fixation significantly only in case of two isolates—

A. lipoferum (12) and *A. brasilense* (154), out of six tested. The results showed the variability in the tolerance capacity of the isolates. The maximum toxicity was caused by field rate of Tribunil since nitrogen fixation was completely inhibited in two cultures of *Azospirillum brasilense* (201 and 154). Dosanex proved to be more toxic to *A. brasilense* (9 and 304) and *A.lipoferum* (12 and 254) than Tribunil but the latter was more inhibitory to two remaining strains of *A. brasilense* (201 and 154) than the former.

Eisenhardt (1975) reported reduction of non-symbiotic nitrogen fixation in soil inoculated with *Azotobacter macrocytogenes* was reduced by 10, 100 and 1000 ppm phoxin after 14 days to 82, 55 and 8% of untreated respectively. Huae (1979) reported the treatment of soil with Tribunil led to a decrease in the number of anaerobic nitrogen fixing bacteria in the sandy soil. Linuron inhibited the development of microorganisms in soil (Minenko et.al., 1980). On the other hand Jagnow et.al. (1981) reported that application of thidiazuron had little adverse effect on nitrogen fixation and other processes.

As Dosanex was found to be more toxic to *A. lipoferum* (12) in pure cultural studies than Tribunil by micro kjeldhal method, the same way the nitrogenase activity of soil inoculated with *A.lipoferum* was inhibited more in presence of Dosanex than Tribunil and Arelon.

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Duration of parental care received by fawns of Antilope cervicapra in captivity

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Abstract- Blackbuck (*Antilope cervicapra*) is an antelope belonging to family Bovidae. It is indigenously found in the plains of India. The behavioural attributes observed in blackbucks are territoriality, lekking, parental care, foraging, etc. The research was conducted to study the detailed analysis of the duration of parental care in blackbucks in the captivity. The study area selected is Kamla Nehru Prani Sangrahalaya, Indore, Madhya Pradesh. The present investigation was done using visual observations. Parental care is a type of behavioural and evolutionary strategy adopted by animals. It involves parental investment made to the evolutionary fitness of offspring. Parental care differs in different animal groups in terms of how parents care for offspring, and the amount of resources invested by parents. The parental care is generally displayed in blackbucks till 2 months of age. The blackbuck juveniles upto the age of about 2 months remain closely connected to their mother. The type of parental care seen in blackbucks is maternal care as only mothers care for the young and the fathers (male parents) have no role in parental care. The first fifteen days of the fawns are wholly spent with the mother blackbuck and in the next fifteen days fawns were seen performing various activities with their mother which include following, playing, feeding, etc. The duration of parental care and beginning of weaning was observed in 10 subject fawns and the average was calculated. The duration of parental care in blackbucks is about 2 months in captivity. Soon after weaning begins, the parental care ceases.

Keywords- Captivity, behavioural, weaning, maternal, duration

Introduction- Blackbuck (*Antilope cervicapra*) is an antelope belonging to family Bovidae. It is indigenously found in the plains of India. Blackbucks are completely Indian sub-continental in terms of distribution (Rahmani, 1991). The blackbuck belongs to the same tribe (Antilopini) that includes the springbok, the gerenuk and gazelles. Wild Blackbuck population is likely to continue to decline; the population of blackbucks is declining as a consequence of poaching, hunting, shrinkage of natural habitats and deforestation, and predation with probably fewer than 25,000 individuals in their native range. The Blackbuck acts as an indicator for natural disturbances in the forest habitat (Rajagopal, 2009). Adult male blackbucks have long horns that are V-shaped and spirally twisted. There is a wide difference seen in

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coloration of adult males and females. Adult males are black and white in color while the adult females are reddish yellow in color. Immature males also look reddish yellow in color. This type of contrast in coloration is not seen in any of the blackbuck's tribal relatives. Blackbuck is also known as the Indian antelope. It is very commonly found in India, Nepal, and Pakistan.

Blackbucks are primarily grazers and form herds which are characteristically loose and unstable associations; the number of individuals in herds can range from less than ten individuals to several hundred (Rajagopal and Archunan, 2016). Prasad (1985) stated that blackbucks spend a large amount of time in foraging almost 34%. Chiefly blackbucks are found frequently in open short grassy regions. Generally, woodlands and shrublands are avoided by them. When the grass is sparse, they browse for it as they love green grass. In the semidesert areas of Rajasthan, the blackbucks drink water twice a day. Day time is the time when they are most active and seek shade for hardly 2 to 3 hrs in mid-day. They can normally tolerate hottest sun. The blackbucks are called diurnal animals. Meena et al. (2017) reported that blackbucks are mainly active during the day; they live in small herds of around twenty to thirty members most of the time.

Major behavioural activities observed in blackbucks are foraging, walking, standing and resting; foraging includes both browsing and grazing. Three types of groups, generally small are found. They are of females, males and bachelor herds. Males attract females for mating by lekking. Lek is a gathering of male individuals that engage in competitive displays and rituals of courtship to entice females for mating. Other males are restricted from such places. Lekking takes place at spots where females go for foraging. So, at those places males can attempt to get a mate and can undergo mating. Blackbucks are herbivores and mostly prefer low grasses and found browsing for substantial time.

Blackbucks have prominent eyesight by which they avoid capture. Blackbucks run very fast, so that they outrun most of their predators. Blackbuck is the major wild prey of wolf in India. The only predator which blackbucks can't outrun is the cheetah. Mughals once used cheetah for the sport of coursing blackbucks and gazelles. The chief predators of blackbuck now are jackals and pariah dogs. The captive Indian Blackbuck also varies highly within captive populations; there is a need to increase their breeding in captivity. Extremely high levels of visitor density influenced various behaviours; the affected behaviours were moving, resting, reproductive, social, and aggressive behaviors (Rajagopal et al., 2011). The behaviour of an animal is influenced by environmental factors as well as social interactions (Isvaran, 2005).

Study area selected is Kamla Nehru PraniSangrahalaya, Indore, Madhya Pradesh. Indore, formerly spelled Indur, is a city located in western part of Madhya Pradesh state, central India. Indore is the most populous city and the largest city of Madhya Pradesh; it serves as the headquarters of both Indore District and Indore Division. Indore is situated at an average altitude of 553 meters (1,814 ft) above sea level and located on the southern edge of Malwa Plateau. Among the major cities of Central India, it has the highest

elevation. Indore is situated 190 km (120 mi) west to Bhopal; Bhopal is the state capital of Madhya Pradesh. According to 2011 census, estimated population of Indore is 1,994,397 (municipal corporation) and 3,570,295 (urban agglomeration). The land area of the city is 530 square kilometres (200 sq mi); this value makes Indore the most densely populated major city in the central province. Indore zoo or Kamla Nehru PraniSangrahalaya is a zoological park situated in Navlakha, Indore, Madhya Pradesh; it is managed completely by Indore Municipal Corporation which looks after its management, maintenance and administration. Kamla Nehru PraniSangrahalaya is a well recognised zoo, even recognised by CZA (Central zoo authority of India). Indore zoo is also known as "Land to many wildlife wonders". Indore zoo is the most advanced zoo of India for many reasons; it deploys online booking of tickets and it powers animal health app. The blackbucks are also introduced to the Ralamandal Wildlife Sanctuary. The Ralamandal Wildlife Sanctuary is located in Indore, Madhya Pradesh; Madhya Pradesh is the state located in the heart of India. The Ralamandal Wildlife Sanctuary was established in 1989 and one of the most popular wildlife reserves in India.

Materials and methods- The research was conducted to study the detailed analysis of the duration of parental care in blackbucks (*Antilope cervicapra*) in the captivity (Indore zoo). The present study was mainly based on the behavioural attributes of blackbuck relating to parental care; study was mainly conducted to find the duration of the parental care provided to the fawns. The present investigation was done using visual observations. The field binoculars were the important tools used throughout the study to conduct observations. All the important activities were keenly observed and noted down. In this study, certain activity refers to any action which resulted into a change in the position of the creature in relation to space. Whenever a group or individual animal came into the sight the observational information were recorded in the data sheet. A safe distance was maintained for observing the animals. The changes in the various aspects of behaviour were also studied taking various parameters in consultation such as activities which are performed exclusively by fawns, the companionship of fawns with mother and many other activities. Cameras were used at different spots and different angles and their activities were monitored. For live observation, binoculars were used. With the help of binoculars, the objects located far from us can also be observed clearly.

Results and discussions- Parental care is a type of behavioural and evolutionary strategy adopted by animals. It involves parental investment made to the evolutionary fitness of offspring. Patterns of parental care are widespread and highly diverse across the animal kingdom (Kokko and Jennions, 2008). Parental care differs in different animal groups in terms of how parents care for offspring, and the amount of resources invested by parents. For illustration, there may be significant variation in the amount of care invested by each parent. In some animals, mother invest more in parental care while in some fathers care more for the offsprings and in some investment may be shared equally by both the parents. Gonzalez-Voyer and

Kolm (2010) reported that many hypotheses have been proposed to describe this variation and patterns in parental care that exist between the sexes, as well as among species. Parental care is beneficial in cases when it increases the parent's inclusive fitness by activities such as by improving offspring survival, quality, or reproductive success (Klug and Bonsall, 2010). Parents make sure that any investment is well-spent because parental care is costly and often affects the parent's own future survival and reproductive success. Parental care is the set of behaviours that contributes to offspring survival. It includes activities such as building a nest, provisioning offspring with food, or defending offspring from predators. Young of reptiles need almost no care as they are produced self-sufficient but some hatchling birds may be helpless at birth, relying on their parents for survival. Parental care may be of mainly four types: maternal or paternal care, biparental care and alloparental care (Kokko and Jennions, 2008).

Paternal care is the type of parental care where the main investment is done by the male parent for the offspring's fitness and health; it is most commonly observed in very few bird species where males care for the eggs after they are laid. Maternal care is the type of parental care where mothers care for the offspring the most; the most evident form of maternal care is seen in mammals. In mammals, the female parent (mother) undergoes gestation and also shows lactation; gestation is the period from fertilization of gametes to form zygote to delivery of the young and lactation is feeding the mother's milk to the young as preliminary food. Biparental care is the type of parental care in which both parents (mother and father) contribute almost equally for the care of the young. Remes et al. (2015) noted that this type of parental care is common in animals where the adult sex ratio is quite balanced.

Silver (1983) reported that nearly all the species of birds have monogamous relationships and they display biparental care. Alloparenting is a type of parental care in which the parents care for the young that are not theirs; the offspring are non-descendants of the parents. This type of care is selfless but it costs the parents the reproductive benefits. Mating may cause sexual conflict and further familial conflicts may continue after mating when there is parental care of the eggs or young. Conflicts may arise between male and female parents over how much care each should provide; conflict may arise between siblings also over how much care each should demand, and conflicts may arise between parents and offspring over the supply and demand of care (Parker et al., 2002). The evolutionary fitness of the offspring receiving the care is benefitted, but it produces a cost for the parent organism as parents spend energy on caring for the offspring; this may result into loss of mating opportunities (Bednekoff, 2010; Fox et al., 2018). Parental care is a costly mechanism so it only evolves only when the costs are outweighed by the benefits (Klug and Bonsall, 2014).

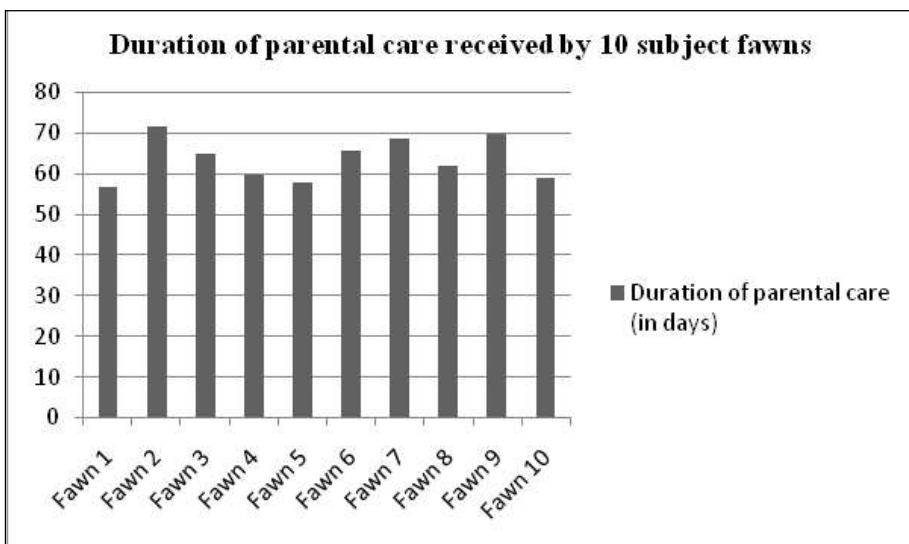
Blackbucks are the mammals that belong to family Bovidae; they inhabit grassy plains and lightly forested areas. Blackbucks show clear sexual dimorphism as the males have long ringed horns and their body is dark brown coloured with white colour in underparts and the insides of the

legs while the females and fawns are very light brown colored. The blackbucks are usually sexually active throughout the year and the litter size is 1. The female blackbucks give birth to usually one young at a time.

The parental care in blackbucks was well observed; the parental care is generally displayed in blackbucks till 2 months of age. The blackbuck juveniles upto the age of about 2 months remain closely connected to their mother. The type of parental care seen in blackbucks is maternal care as only mothers care for the young and the fathers (male parents) have no role in parental care. The relationships are not monogamous but polygamous in blackbucks. The male blackbuck distances itself from the female blackbuck just after the mating. The mother takes care of the offspring alone for around 2 months. For the time period of those 2 months, the fawns completely derive their nutrition from mother's milk. Lactation is the process of secretion and yielding of milk by females after giving birth. The milk produced during lactation is contained in the mammary glands; the growth of mammary glands takes place during gestation due to the ovarian and placental hormones (Donovan, 2022). The milk is produced in the mammary glands during gestation but is held in them without release, by the action of combination of estrogen and progesterone; estrogen and progesterone inhibit milk secretion by blocking the release of prolactin from the pituitary gland and by making the mammary gland cells unresponsive to this pituitary hormone (Donovan, 2022). The stimulus of nursing or suckling supports constant lactation; it is done by the secretion of prolactin and also leads to release of oxytocin, which causes the contraction of muscles around the alveoli in the breast and ensures the ejection of milk (Donovan, 2022). After about 2 months, weaning starts in fawns. Weaning is the act of switching from mother's milk to other food options by the fawn. Once the weaning begins and the fawn gets accustomed to the outside food options, the mother moves away from the fawn. This marks the end of the parental care in blackbucks.

The fawns, till about 15 days of the age, spend their whole time in company of their mother and it is hard to find such young fawns away from their mothers. In zoo, the environment is free from predators, so there is no chance of spotting any young fawn without his mother; however, in wild, the young fawns may be found alone or without their mother in case when their mother is being preyed by some predators. The male blackbuck moves away from the female just after the copulation, so the males never get connected to neither the females nor their offsprings. This is because of the existence of polygamous relationships in blackbucks. The first fifteen days of the fawns are wholly spent with the mother blackbuck and after this period, the fawns develop a little more strength so, they were observed performing various activities with their mother which include following, playing, feeding, etc. The duration of parental care and beginning of weaning was observed in 10 subject fawns. The values were recorded in a table and average was calculated.

Duration of parental care received by 10 subject fawns	
Subject Fawns	Duration of parental care (in days)
Fawn 1	57
Fawn 2	72
Fawn 3	65
Fawn 4	60
Fawn 5	58
Fawn 6	66
Fawn 7	69
Fawn 8	62
Fawn 9	70
Fawn 10	59



The average duration of parental care in blackbucks in zoo was 63.6 days which is nearly equal to 2 months. There is a difference in days of parental care received due to early weaning in some fawns (such as in Fawn 1) and delayed weaning in other fawns (such as in Fawn 2). Though there is a good difference in cessation of lactation and weaning in fawns, the physical health of the fawns is not affected by it. At zoos, the animals are well-nourished so, the fitness of a fawn which receives parental care for few days more is almost same as the fitness of a fawn which receives parental care for few days less than others. After the beginning of weaning, the parental care faded and then disappeared as the female (mother of the fawn) left the fawn and resumed its other behaviours except the parental care.

Conclusion- The blackbuck (*Antilope cervicapra*) are mammals that belong to family Bovidae and are exclusively found in the Indian subcontinent. The blackbucks show a clear sexual dimorphism as the males have horns while usually females lack horns and also there is huge difference in colouration in males and females. The blackbucks mate round the year and they give birth to just one offspring at a time. The offspring is being cared by its mother only as the blackbucks show maternal care. Maternal care is a type of parental care in which only the female parent takes care of the young to support its fitness and health. The young, during first 15 days of its birth, remains stick to its mother; it starts showing different activities with the mother such as feeding, playing, etc., after the age of 15 days. For the first about 2 months of its life, the fawn is taken care by its mother. The parental care ceases in blackbucks when the weaning starts. Due to weaning, the fawns start consuming food other than the mother's milk; it is this time during which the mother distances herself from the fawn and fawn starts living its life on its own without depending on its mother for any need.

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Salinity tolerance on germination and growth of chickpea (*Cicer arietinum* L.)

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•• Archana Mishra

Abstract- Chickpea is a prominent Indian legume crop and cheap source of protein in human diet. The present study was conducted to evaluate the effect of salt stress on germination of different cultivated genotypes of chickpea. The growth pattern of these genotypes was also compared with four different types' wild species under salt stress conditions. Some physiological changes in leaves were observed under salt stress and germination percentage also reduced. CSG8962 and K-850 genotype showed better results in some treatments in comparison to other genotypes. Wild type species *C. Judacum* perform better at low salt concentration as well as others. The aim of this study is how to utilize the salty area for chickpea production and can contribute to increase the production of chickpea.

Keywords- Chickpea, Germination, Nacl, Salinity

Introduction- Chickpea is a diploid and self pollinated crop. It offers excellent grade protein and also good source of minerals and unsaturated fatty acids. It is the most prominent crop of Mediterranean region and increases the inputs of combined nitrogen in soil (Herridge et al 1995). Chickpea is very sensitive to soil salinity (Lauter and Munns 1986, Mars 1986). This crop plays important role in agriculture system and today ranking third in world among pulses production. Systematic collection and evaluation of wild species for useful traits has revealed presence of diverse gene pool tolerant to the biotic and abiotic stress (Rakesh et al 2013). In worldwide more land is affected by salinity and limit the crop production. About 80 million hec. land worldwide is prone to stress (Flower et al 2010). Salinity is the major environmental stress which declines growth and yield of crop (Munnis and Testa 2008, Jha et al 2014). Due to these reasons yield is severely affected due to these reasons low land farmers face many problems. The aim of this study is to overcome the stress by using these cultivars and may help breeders to increase the productivity of chickpea.

Material and Method- To perform these experiments different chickpea genotypes i.e C-235, K-850, BG-256, Bio 201, CSG-8962, CSG-88101 and four annual wild species i.e *Cicer cuneatum*, *Cicer raticulatum*, *Cicer judacum* and *C.echinospermum* were taken for screening against salt

treatment. 0 % NaCl (control), 0.25 % NaCl, 0.5%NaCl, 0.5% NaCl: CaCl₂ (1:1), 0.5% NaCl: CaCl₂ : MgCl₂ (2:1:2), 0.5% NaCl : CaCl₂ : MgCl₂ (5:3:1), 1% NaCl and 1% NaCl, CaCl₂ (1:1), treatment concentrations were taken as T₁, T₂, T₃, T₄, T₅, T₆, T₇ and T₈ respectively. For growth experiments, seeds of wild species were grown in pots containing soil. One month old seedlings were treated with above mentioned solution mixture. For germination, genotypes were surface sterilized by sodium hypochlorite solution followed by washing with distilled water (Sauer and Burroughs 1986). 5 seeds were taken for experiments and transfer on petriplate containing 2-3 layer of Whatman's paper. Petridishes and Whatman's paper sterilize in hot air oven (Muhammad N. Hussain 2010) on these petriplates 15 ml solution of each treatment mixture were poured to analyse the growth. The experiments were taken three replications under room temperature.

Result and discussion- In order to evaluate and screening of different wild species of chickpea under various salt stress mixtures, the effects of salt stress was observe as yellowing and browning on lower part after 15 days of salinization. *C. judiacum* perform better against 5:3:1 of NaCl: CaCl₂: MgCl₂ (T₆) and 30% on 1:1 of NaCl: CaCl₂. Similarly results were observed in cultivated genotype of chickpea CSG 8810 and other genotypes. In wild species *C. Judaicum* and *C. Cuneatum* were showed best result for survived under T₆ and T₈ treatment. All species are survive under T₂, T₃, T₄, T₅ except yellowing start after two interval of higher salt solution.

In this research the effect of salt stress on germination of certain chickpea cultivars was investigates. The effect of salt stress on seed germination parameters were shown positive & negative results. The plumule (P) and radicle (R) response better growth in seed germination after 10 and 15 days of interval. Length of P/R is comparatively reduce as higher concentration of salt treatment, T₃, T₅ and T₇ showed less growth of radicle. All genotypes of chickpea showed similar growth reduction. Length of radicle was observed in CSG8962 (3.156 and 3.4), BG.256 (2.0 & 2.25) is T₈ treatment as compare to control. Similarly. Plumule length also increases in same treatment. On the other hand T₇ showed less growth. In conclusion that CSG8962, K850, BG256 given resist to initial level of salt as compare to higher dose. But when mixture i.e. MgCl and CaCl₂ is added to NaCl response positive. Dev *et al.* 2020 and Flower *et al.* 2014 also found similar result in chickpea.

It was observed that on increasing the salt concentration germination percentage decreases. 0.5% NaCl and 1% NaCl concentration was the most effective concentration which severely decline germination comparison to controlled condition. But when a mixture of 1:1 NaCl: CaCl₂ (T₅) was given then germination increased. From these results it is concluded that the toxicity of NaCl may decrease by adding CaCl₂ excess Na⁺ and Cl⁻ ions from the solution create ionic stress and produce toxicity and reduce germination. According to (Judin *et al.* 2017) salinity is also associated with reduce photosynthetic activity. The result indicated that significant difference was observed in germination percentage, germination

rate, radical **length and plumule length parameters under** salinity condition. These results showed that toxicity of NaCl may decreased by adding CaCl₂ and MgCl₂.

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Serum sodium level in men and Women belonging to different blood groups

• Umesh Shukla

Abstract- Fifty normal and healthy men and women belonging to 25-35 years age groups were associated with this investigation. Sodium concentration in serum of men of different blood groups was found higher in comparison to the women of same blood groups. Among the different blood groups of man and women blood group 'B' shows the highest concentration of sodium level and 'A' blood group shows the lowest level.

Keywords- Women, Blood, Serum

Introduction- Sodium is the major cation of the extracellular fluid and is largely associated with the chloride and bicarbonate in the regulation of acid-base equilibrium. Sodium ion is also important in the maintenance of osmotic pressure of body fluids and thus in protection against excessive fluid loss. Extreme sweating due to high environmental temperature or exertion may cause a considerable loss of sodium chloride from the body.

Appreciable retention of sodium and water during luteal phase of premenstrual phase was observed (Smith *et al.*, 1959). Salt and water retaining effect during luteal phase could be attributed due to increase estrogen and not due to progesterone (Barlow and Roger, 2016; Duncan *et al.*, 1956 and Landau and Lugibihl, 1964). A relationship between the adrenals and the metabolism of sodium has been established. In addition to this, the different blood groups may also affect directly or indirectly the serum sodium concentration. Keeping the above idea in mind it was planned to prepare a report on the serum sodium level in different blood groups of women and men.

Materials and Methods- 100 normal, healthy human subjects (50 men and 50 women) of 25 to 35 years were engaged in this investigation. According to the ABO blood grouping system they were divided into four groups A, B, AB and O. Blood was collected from different subjects. Serum separated after coagulation was analyzed for electrolytes by flame photometry method.

Results and Methods- As the table 1 shows, sodium concentration in case of men was found higher in comparison to women belonging to different groups. Among the different

Blood groups (A, B, AB and O) blood group B shows the highest concentration of sodium both in men and women and lowest in blood group A.

Table 01
Variation in blood sodium
level in men and women of different blood groups.

S.No.	Age (in year)	Blood group	Blood Sodium Level meg/dl	
			(Mean ± S.E.)	(n)
1.	25-35	A	131.5 ± 1.08	(10)
2.	25-35	B	+++ 143 ± 1.07	+++ 138.7 ± 1.81 (17)
3.	25-35	AB	139.6 ± 1.30	137.7 ± 1.36 (8)

As shown in table 1 it is evident that serum concentrations of sodium have a relationship with different blood groups and the blood groups have their genetical control which influences the endocrine system of the body. Ovarian hormone estrogen has effect on water and electrolyte balance. Appreciable retention of sodium and water during luteal or premenstrual phase was also observed by Throne *et al.*, (1938). Further it can be assessed that the different blood groups having different genetical control may be responsible for different endocrinological status. The lower concentration of sodium ion in women may be due to the additional effect of ovarian hormones.

High blood sodium level in blood group B and low in blood group A both in men and women might be preliminary findings and it may be correlated with genetical effects.

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The Mystery of Maharaas, the Cosmic Dance

• Patel Nilaben Alpesh kumar

•• Yogesh Bhatt

Abstract- *Five chapters, 29 to 33, of the Tenth Canto of Shrimad Bhagavat are known as “RaasPanchadhyayi”. The Tenth Canto of Shrimad Bhagavat is the heart of the God with Raasleela as its Pran (life). There are five Prans in the heart. This Raas Panchadhyayi is panch Prans. In the Raasleela legend only, the eligible soul can see the meeting of the individual soul with the Supreme Soul. This Canto contains the story of “Nirodhleela”. Nirodh consists in detachment from negation of the world and absolute attachment with the God. Jivatma, the individual soul, is a part of Paramatma, the Supreme Spirit. When one is blessed with the grace of God or the guru, the wind of meditation on scriptures blows away the ashes enveloping the fire of individual soul, re-igniting the fire it becomes self-illuminated and emancipator... and gets absorbed in the Supreme Spirit.*

Keywords- *Shrimad Bhagavat, God, Raas Panchadhyayi, Jivatma*

Introduction- ShrimadBhagavat is a unique book of true religion and transcendent Bhakti (Devotion), especially its truly devotional Ninth Canto. In this chapter Bhakti chases the form of God. But in the Tenth Canto, the God manifests Himself and performs several exploits by bringing out minds, senses, lives and souls of the devotees from the worldly pursuits and matters and absorbs them in Himself. In every body both the individual soul and the Supreme Spirit reside. So the individual soul's joy is bhakti also, and the Supreme Spirit's joy is power of the mind (chittashakti) also where the soul's inclinations appear in the form of love, and the Supreme Spirit's inclination manifests as bliss. This fusion of love and bliss creates a unique heart-throb which is called Raasleela. This Raasleela is not an ordinary act, it is the Great Union of the Jivatma the individual soul with Paramatma, the Supreme Soul accomplished after a number of birth cycles. So Maharaas is the joyous play of the ever-longing devotee with the God.

Maharaas Mystery:

Bhagvanpi ta ratri: Shardotfullimallika: |
Vikhsyantumanshckreyogmayamupashrit: ||
(Bhatt, 10:19:1)

Fragrant flowers were emitting smell in the Sharad season, one of the six seasons of the Indian calendar. All nights indicated by Lord Krishna at the time of “pulling of robes” (cheerharan) are shining as one night. At this

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time, the God performed the RaasKreedaa to satisfy his devotees. God's abundant grace is needed to know this mystery

Kathopnishad:

NaymatmaPravchneLabhyo N Meghya N BahunaShruten |
YamevaishVrunute Ten Labhy: Tasyeshvivrunuyettanu swam ||
(Shankarabhashya, 1:2:23)

According to this, one gets the power to understand the essence of Raasleela by the God's grace otherwise the Jiva, the individual soul remains infatuated in the outward illusion. One must be favored by the God to comprehend the essence of God's love. The word "go" in Gujarati means "senses", so the individual soul who longs to quench the thirst by senses is "Gopi". Only 'Sakhio' (females) are allowed entry in the grove. When the sense of being a Purush (soul) is wiped out and the consciousness of absolute surrender is awakened and the heart's mechanism to receive the divine grace (mahabhaav) is created then only one gets entry into the grove.

In Vraj two types of Gopis are found:

- (1) Nitya Siddha.
- (2) Saadhan Siddha.

According to Padma Puran, sages of Dandakaranya were spell-bound after darshan of Shri Ram and Sitaji. The craving was born in them to enjoy Sitaji-like pleasure of meeting Shri Ram then during the Lord's incarnation as Krishna they appeared as Gopis at the time of Raasleela. (Goswami, p. 244)

Gopi is a sacred soul purified from the cover of the illusory world. Even to witness this divine Raasleela, Naradji and Lord Shiv had to become Gopis.

"SharadpoonaamniraatraliamanichandochadyoAakash
Vrijmaanvaagevansaladi...(Rajarshi-2019, p.125)

On the night of Sharadpoona the God plays flute and the sound reaches ears of the Gopis and they are convinced that Lord Krishna is calling them.

Invoking the deity for commencement of the Raasleela, Shridhar Swami says that after defeat of Brahma and other gods, the arrogant Kaamdev came to fight Lord Krishna, and got defeated. So He became known as Madan Mohan, the one who bewitches the Kaamdev (Madan). Raasleela is an act of vanquishing Kaamdev, the Cupid. Despite the self-willed/uncontrolled play with Gopis He remained desireless and unattached. By making the innocent Gopis the efficient cause, Lord Madan Mohan performed Raasleela in order to show the helpless Jivas, wandering for a number of birth-cycles, how to attain the joyful form of the God. Raasleela is the intimate act effecting the meeting of the individual, the Jiva, with the Supreme Spirit. Kaam, the sensual enjoyment, is the most powerful of the six internal enemies (shadripu) and the victory over it is Raasleela. Raasleela is the act of kaamvijay. (Mehta, p. 477). There are two aspects in Raasleela:

- (1) Internal: Enables tasting of the divine pleasure
- (2) External: Defeats the Kaam, the tendency for worldly pleasures

No one other than Lord Krishna in the whole universe has defeated the Kaam. Therefore, the individual soul does not become eligible to witness or listen to the Raasleela with vanquishing the Kaam.

When the contented Lord's flute-notes invited the Gopis on an evening in the Sharad season, it is the beginning of the first chapter of RaasPanchadhyayi.

“Aabhmaanoogyochhepoonam no chandra
vaansalivaagevaalamni.....(Kripalu, 2006, p.175)

In the pleasant night of the Sharadpoornam when the moon is in full bloom then Shyamsundar recalls his promise to Gopis for playing with them and sends them invitation by playing the flute. The Lord's flute converts inanimate into animate, immobile into mobile, and puts the distracted into a trance. The worship of name (of the God) and sound (as God) purifies the mind. Flute is the worship of Naadbrahma (sound as God). Hearing this sound, the Gopis would leave the work on hand and would rush for the Lord's darshan without a moment's delay. How quick it is to give up dharm, arth, kaam for single minded devotion of the God, has been described in this sacred book.

When the mystified Gopis appeared before the Lord, He asked them, “Why have you come here leaving behind the domestic duties? You should go back.” When the God preached them the worldly duties, the Gopis explained the spiritual duty saying that the husband was the lord of the body but Lord Krishna was the owner of the spirit. The Gopis solicited: “You are an ocean of mercy, how can you be so hard-hearted. O Lord, accept us and extinguish the fire of our hearts.” Hearing such prayer of the Gopis, Lord took them in His refuge. Although perfect Himself, Krishna indulged in this jest with the Gopis. In the second chapter, the Raas-play commences. In course of the Raas-play, the Gopis develop a subtle pride, so to humble them, the Lord disappeared from the scene. Having attained the union with the Supreme Spirit once, the Jiva, the individual soul, does not get separated. This was just the Lord's leela. Parmatma is to be searched within. The Gopis' mystification on the God's disappearance is the absorption in the great meditation. MaharshiPatanjali has termed this as the Supreme Yoga. The absorption in the Supreme God which generally people achieve through yama, niyama etc. has been achieved by the Gopis with Premyoga.

The word Radha is not clear in ShrimadBhagavat but it has been indicated in the language of samaadhi as “Anayadadaradhitonanam”. It is a profound mystery that Radha is the God's power of exhilaration. Whichever devotee, intoxicated in God's love, follows the footsteps of the God attains His power of exhilaration.(Shastri, pp. 30-35)

In the third chapter, the devotees, longing to attain the God by surrendering all worldly desires and possessions at His feet, indulge in the talk of separation from the God. It is Gopigeet where separation (from God) only nourishes the union (with Him). By the God's will only the sense of respect and pride had entered the minds of Gopis, and the God had disappeared. Proximity with the God cannot be achieved as long as sense of

respect and pride resides in the heart. Bewildered by separation from the God, the minds, bodies and souls of Gopis have fully dissolved. The song of intense passionate love of God is the GopiGeet.

In the fourth chapter, in view of the superhuman passionate love of the Gopis the God appeared in the form of the Cupid incarnate. The sweet union of the devotee with the God is not possible as long as the individual soul, the Jivatma, has egoism, the God cannot be seen even if He may be close by. The God openly acknowledged His eternal indebtedness for their love. The reason for His disappearance was to make their love brighter and richer. Thereafter the Maharaas started again. (Shastri, pp. 36-37)

In the fifth chapter, the Maharaas commences. The Gopis got arranged in a round circle. To match the number of Gopis, the God multiplied Himself from one to as many “Ekohambahusyami”. Completed the universe with Naad brahma, the sound as God. This is the act of union of the Jiva and Shiv, the individual soul and Supreme Soul. In the whole circle every Gopi has a Krishna with her as companion.

Ekkaanrameekgopinisath ma...(Rajarshi, 2019, 124)

Every soul is in person with the Parmatma also in human form. When the accomplished Yogis with yogic powers can multiply into several bodies at different places and perform different actions, then it should not be surprising if the Lord of the yogis, the YogeshwarShri Krishna multiplies into several forms and plays Raas with several Gopis individually at the same time!!! Krishna also plays, along with Gopis, in the Maharass which is a special part of the joyous act of sweetness of the symptom of love. After becoming one in the great absorption of the Maharaas it is not possible to remember anything as the remembrance itself is a tendency.

The root of raas is ras. Ras is the God Himself. “*Ra So VaiSah*”. One ras multiples into many in this divine play and the participant tastes the eternal ras. In this Maharaas the Gopis merged in Krishna, and the gods, sages, gandharvas watch this with rapture. The moon has also forgotten its course and has stood stand-still in the sky.

God accomplished the Raasleela with his magical power of yoga.
(Bhatt, p.289)

As a result of the Maharaas the Gopis were liberated from life. Liberation from life has three characteristics: manonaash, avidyanaash, tatvagyanaodaya. As a fruit of this knowledge, they attained Shri Krishna.

Conclusion- This is the joyful essence of the exalted love of Gopis' Maharaas with Shri Krishna. Raas is the name of the aesthetic divine leela of the total ras incarnate God. In the fifth chapter the God's divine sound of flute, His disappearance before Raas, the Gopigeet, God's re-appearance, the Maharaas etc. acts are described in the human language but are absolutely Divine. Shri Krishna is the soul of all persons. Their perpetual flow of eternal joy derived from being absorbed in Soul is the Raas.

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A New Dimension of Leadership: Ethical Leadership

• Parul C. Dave

Abstract- *The world is full of strong leaders. However leadership is a neutral term. It can be good or bad. Stalin, Hitler, Mussolini and Mao Tse Tung were regarded as good political leaders but the history has proven, however, that each was guilty of an immoral use of the tremendous power his leadership afforded him. Today it is a great question that is our business leaders leading their companies in an ethical way? And perhaps we are not sure about it. So with all this thoughts here the researcher tries to focus on a new concept of leadership which is known as ethical leadership. Here the various points like its meaning, its process or steps as well as its benefits are discussed. In the present era ethical leadership is very beneficial to organization, employers, and consumers and also to the nation. So it is important to think seriously on this particular topic.*

Keywords- *Leadership, Neutral, Legacy, Regulatory, Culture*

Introduction- Leadership is the source of motivation. Human relations are developed through clever leadership. It plays a great role in each institution. But today we feel that in much area we cannot found such leader who helps the people in their development and it happen because of the lack of ethical leadership. May be this is the new concept in Indian society but at present we must need this type of leader for our great future. So here we will discuss some important points of ethical leadership.

Meaning of Ethical leadership- Ethical leadership is leadership that is involved in leading in a manner that respects the rights and dignity of others. Leaders who are ethical demonstrate a level of integrity that is important for stimulating a sense of leader trust worthiness, which is important for followers to accept the vision of the leader. Individual values and beliefs impact the ethical decisions of leaders.

Qualities of Ethical leaders-

1. Leaders who are ethical are people-oriented.
2. They are aware of how their decisions impact others.
3. They use their social power to serve the greater good instead of self-serving interests.
4. They motivate the followers to put the needs or interests of the group ahead of their own.
5. Ethical leaders assist followers in gaining a sense of personal competence that allows them to be self-sufficient by encouraging and

empowering them.

Steps for Ethical Leadership- Setting the ethical tone of the organization is a leadership function. And to perform this function successfully the leader must know the steps for ethical leadership.

1. Reflect on Values. To focus the appropriate attention on the ethical tone of the organization, a leader must “draw on their own fundamental values and capabilities” in order to optimize their leadership potential. To do this, leaders must find time to reflect and identify their own personal moral compass as well as to ask themselves what are the key ethical questions and dilemmas facing their organizations. Just as a manager must take time to understand their market, budgets, production timelines, etc., an ethical leader must take time to understand his/her own personal values, the values of the team, what the value statements of the organization should be identify the gaps that exist in aspired goals and current behavior within the organization.

2. Establish Trust. Build an environment of trust with employees in order to create an environment where employees feel free to discuss ethical dilemmas and issues with management.

3. Establish a Shared Ethical Vision. To ensure buy-in and commitment from the organization, include members from various levels of the team to help create a “Code of Conduct” that is aligned with the Ethical Vision of the organization.

4. Communicate the Ethical Vision and Code of Conduct. A leader must ensure that the vision and code is communicated to everyone within the organization. This can be done through policy manuals, training events, one-on-one and team coaching, newsletters, team meetings, etc.. “Communicating the program frequently is another important success factor, as is establishing a way for employees to communicate their concerns back to management in a safe and confidential manner.

5. Act. To be effective, the leader must show that all to organization is serious about ethical behavior. All reports of unethical behavior must be investigated thoroughly. Furthermore, all violators of ethical standards must be punished equally and justly throughout the organization, regardless if the perpetrator is a senior executive or first line hire. In addition to punishing negative behavior, effort should be made to reward and recognize positive ethical behavior. Just as a good manager knows that rewarding employees for reaching goals is important, the ethical leader will recognize that equal importance must be given to recognize those who exemplify by ethical behavior within the organization. Acting also means leading by example by letting ethical behavior guide the actions of the leaders at all times. Doing so will help establish and sustain a culture of ethical behavior.

6. Monitor and Sustain Ethical Behavior. The leader must consider ethical leadership a key aspect of their role as a manager. It cannot be seen as a passing organizational fad. Effort must be made to gather feedback through surveys, focus groups, one-on-one interviews, etc., to identify employee concerns regarding the ethical environment where they work. This should be a continuous improvement process to identify concerns and to improve the overall ethical environment.

Organizational benefits from ethical leadership- As never before, there are huge organizational advantages from behaving ethically, with humanity, compassion, and with proper consideration for the world beyond the boardroom and the shareholders:

1. Competitive advantage- Customers are increasingly favoring providers and suppliers who demonstrate responsibility and ethical practices. Failure to do so means lost market share, and shrinking popularity, which reduces revenues, profits, or whatever other results the organisation seeks to achieve.
2. Better Staff Attraction and Retention- The best staff wants to work for truly responsible and ethical employers. Failing to be a good employer means good staff leaves, and reduces the likelihood of attracting good new-starters. This pushes up costs and undermines performance and efficiency. Aside from this, good organizations simply can't function without good people.
3. Investment- Few and fewer investors want to invest in organizations which lack integrity and responsibility, because they don't want the association, and because they know that for all the other reasons here, performance will eventually decline, and who wants to invest in a lost cause?
4. Morale and culture- Staffs who work in a high-integrity, socially responsible, globally considerate organisation are far less prone to stress, attrition and dissatisfaction. Therefore they are happier and more productive. Happy productive people are a common feature in highly successful organizations. Stressed unhappy staff is less productive, take more time off, need more managing, and also take no interest in sorting out the organization's failings when the whole thing implodes.
5. Reputation- It takes years, decades, to build organizational reputation – but only one scandal to destroy it. Ethical responsible organizations are far less prone to scandals and disasters. And if one does occur, an ethical responsible organisation will automatically know how to deal with it quickly and openly and honestly. People tend to forgive organizations who are genuinely trying to do the right thing. People do not forgive, and are actually deeply insulted by, organizations who fail and then fail again by not addressing the problem and the root cause. Arrogant leaders share this weird delusion that none can see what they're up to. Years ago maybe they could hide, but now there's absolutely no hiding place.
6. Legal and regulatory reasons- Soon there'll be no choice anyway – all organizations will have to comply with proper ethical and socially responsible standards. And these standards and compliance mechanisms will be global. Welcome to the age of transparency and accountability. So it makes sense to change before you are forced to.
7. Legacy- Even the most deluded leaders will admit in the cold light of day that they'd prefer to be remembered for doing something good, rather than making a pile of money or building a great big empire. It's

human nature to be good. Humankind would not have survived were this not so. They greedy and the deluded have traditionally been able to persist with unethical irresponsible behavior because there's been nothing much stopping them, or reminding them that maybe there is another way. But no longer Part of the re-shaping of attitudes and expectations is that making a pile of money, and building a great big empire, are becoming stigmatized. What's so great about leaving behind a pile of money a great big empire if it's been at the cost of others' well-being, or the health of the planet? The ethics and responsibility zeitgeist is fundamentally changing the view of what a lifetime legacy should be and can be. And this will change the deeper aspirations of leaders, present and future, who can now see more clearly what a real legacy is.

Conclusion- Traditionally the view of leadership has been that the main goal of leaders is to increase production and profits. The traditional view of leadership is slowly diminishing, as more theorists are asserting that leaders also have the responsibility for ensuring standards of moral and ethical conduct. Good leadership refers not only to competence, but to ethics and transforming people as well. So here a new concept is discuss and we hope that the present Indian society will get benefits from ethical leaders in the various fields.

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Impact of COVID – 19 Pandemic on Perceptions towards Physical and Mental Health

•Bhavna L. Gajera

Abstract- *The Covid 19 pandemic is a major health crisis that has changed the life of millions globally. The pandemic had affected to everyone globally. This paper analyzes how perceived vulnerability to the COVID – 19 pandemic is associated with women's perception of their health. Due to this pandemic people had coped with the restrictions of the lockdown, leaving them to their fears, insecurity and isolation. On the other hand, due to afraid of this pandemic women are highly concentrated toward their mental as well as physical health. These perceptions would contribute to personal physical and during the pandemic.*

Keywords- *Covid-19, Pandemic, Perceptions, physical health, Mental Health*

Introduction- Covid -19 has resulted in an increase in known risk factors for mental health problems. There are so many actors which affected mental health. The covid 19 pandemic has led to dramatic social and economic changes in daily life. In extreme cases people may suffer from depression characterised by low mood, tiredness, pessimism, poor sleep and appetite, feeling helpless, guilty and hopeless with a gradual reduction in work output.

Statement of the Problem- It is important to catch the research problem. Present study was commenced with the following title:

Impact of COVID - 19 Pandemic on Perceptions towards
Physical and Mental Health

Objectives- The objectives of the study provide a direction to research and researcher also. On the basis of the objectives, researcher carried out data collection, data analysis, drawing interpretation and conclusion of the research. Research processes are dependent on the objectives. The objectives of the study are as follows:

1. To know the impact of COVID - 19 Pandemic on Perceptions towards Physical and Mental Health.

Research Questions- The study starts with the following questions:

1. Does Covid – 19 pandemic have any impact on women's perception towards mental health?
2. Does Covid – 19 pandemic have any impact on women's perception towards physical health?

Variables Included in the Study- There are some variables related to the

research. It is necessary to identify these variables to know the relations between them. Following is the detail of the variables included in the present research.

Independent variable:	Covid 19 pandemic		
Dependent variable:	perceptions towards physical and mental health		
Controlled variable:	Year	:	2022-23
	Area	:	Rajkot city
	Gender	:	Women

Scope of the Research- The scope of research of the present study was related with so many fields, which are given below-

1. Education
2. Mental Health
3. Research
4. Physical Health
5. Educational Psychology

Delimitations of the Study-

1. Present study was delimited to Rajkot city only.
2. Present study was delimited to academic year 2022-23 only.
3. Present study was delimited to women only.
4. Present study was delimited to age group of above 30.

Limitations of the Study- Every research has some limitations. In the present study may be social and economical factors would be affected, but the present study was limited to the impact of covid - 19 only.

Type of Research- The type of present research was qualitative research according to its implementation form.

Population- Women whose age of above 30, who had suffering from Covid - 19 and lived in Rajkot city during the academic year 2022-23 were selected as population.

Sampling- To fulfil the purpose of the study total 50 women were selected as a sample. Convenience sampling method was used for the study.

Research Method- The research method of present study was descriptive research method well as analytical method. Descriptive research design describes the way of overcoming the facts, problems.

Research Tool- The research is the collection of adequate, accurate, and reliable facts about the problem under investigation. Interview schedule was used as a research tool in present study.

Development of the Interview Schedule- For good communication and understanding researcher has taken prior appointments and briefly introduced the purpose of study and also discussed with them the importance of the study before conducting the personal interview. An appropriate interview schedule was developed on the basis of the formed objectives of the study and library research. The schedule consisted of different questions related with physical health and mental health in reference with covid - 19.

Data Collection- Data were collected through primary sources to obtain the objectives of the research. The data was collected through interview

schedule. Comprehensive literature reviews was also referred to analyze the impact of covid - 19 in women's perceptions.

Data Analysis and Interpretation- The result and discussion have been presented under the following research questions:

Question no. 1 - Does Covid – 19 pandemic have any impact on women's perception towards mental health?

According to respondents response women's perception had total changed after covid – 19. During this pandemic most of women suffering from stress, depression, anxiety, tension and many or disease of mental health related. Most of women said before this pandemic they had not aware about their mental health and after this pandemic they all could understand the value of mental health. Most of women regularly did asana, pranayama and meditation to increase their mental health.

Question no. 2 - Does Covid – 19 pandemic have any impact on women's perception towards physical health?

From the response analysis from the respondent's researcher have drawn the conclusion that before this pandemic women were not conscious about their physical health and they were not give much more importance to their physical health. After this pandemic women had changed their perceptions towards their physical health. They have so heavy schedule and so busy with their family and kids but they allocated some times for exercise like aerobics, dance, garaba, zumba, cycling, running etcetera. Due to this pandemic women could understand the importance of health. They understood very well how fitness helps to prevent, cure and fight against diseases.

Conclusion- This study was conducted to analyze impact of COVID - 19 pandemic on women's' perceptions towards physical and mental health.

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New Education Policy in reference with Physical Education and Sports

• **Minaxi Masukhbhai Patel**

Abstract- *India is growing rapidly as a global super-power. To face the challenges of the century and to keep up with the pace of the world, maintaining health is of prime importance. Giving thrust to healthy society, Physical Education, Sports and Yoga are of great significance in today's world. The Government of India insists on Physical Fitness, Mental Health and Overall Development of Personality for every citizen. In these lines, the Government has launched Fit India Movement, Khelo India, TOPS and National Sports Day, International Day of Yoga etc. These initiatives have given impetus and awareness among general public, professional and academicians. However, creating efficient and skilled human resource in the field of Physical Education, Sports and Yoga is identified as the need of the hour. The National Education Policy 2021 strongly emphasises including sports and physical education as a part of the curriculum. It is recognized as a subject to be taught and the physical aspects are limited to physical education sessions. The idea is not much different from what already exists. The changes in the Indian education system were much needed and hence, the introduction of the New Education Policy in India in 2021 has been welcomed by many parents and educationists alike. The idea of holistic development forms the basis of the new policy. This means, for a change, co-curricular are being given equal attention to as academics since the policies get implemented.*

Keywords- *Education Policy, Physical Education, Sports, Awareness, Public*

Introduction- But what are its effects on sports? Hence, many budding talents are lost even before they get the chance to bloom. The National Education Policy 2020 which was approved by the Union Cabinet in July seeks to restructure the education system of India and looks to address the structural issues in the Education System today. Union Minister of Education and Skill Development, Dharmendra Pradhan said that the National Education Policy (NEP) 2020 envisages sports as a part of curriculum and lays emphasis on sports-integrated learning as well as adopting fitness as a lifelong attitude. According to the official statement, Pradhan said that India is in the process to include sports and its various aspects into school curriculum. He said the country will soon be rolling-out National Credit Framework with due weightage to sports. Award of academic credits for sporting activities will act as a catalyst in popularising sports, he added. Further, he shared that the Education Ministry has sought inputs from the Youth Affairs and Sports Ministry that can be included in

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these books on sports and youth-related subjects.

New education policy in reference with Physical Education and Sports- National Education Policy (NEP) 2020 gives special attention to sports-integrated learning for students to adopt fitness as a lifelong attitude as envisaged in the Fit India Movement. Almost every child enjoys a certain type of sports. If not a sport, they usually have hobbies they love more than academics. It has been witnessed that children tend to perform better in subjects or curriculum they love to do. This is an essential concept that is neglected when we study the NEP 2021. It does not truly work towards nurturing this love and enjoyment children have while playing, thus failing to hold the attention or interest of youngsters. Sports education builds the personality and develops many life skills for children. Team sports or individual games, be it indoor or outdoor- contribute largely to this multi-faceted development. By being a part of a sports school, children get the scope to find out their calling in specific types of sports while trying out different options. At the same time, their academics do not get neglected. But more than anything, the child has an overall physical and mental development that brings out the best in them as an adult later in life. The comprehensive academics and sports training for future athletes at sports schools are also gaining popularity with parents who are recognizing the advantages. So even with the conceptual gap in NEP regarding sports, concerned parents still can get a solution when they look for true holistic development of their child.

Lack of Sports Infrastructure- This is one of the most important factors for the apathy of the sport in India. Since infrastructure is necessary for training and organizing games, its non-availability and its access to only a few sections of the society have adversely impacted the sport participation and the quality of sports persons. Social and economic inequalities have a negative impact on the Indian sport. Denial of access to sports infrastructure due to poverty, concentration of stadiums and other sports avenues only in cities, lack of encouragement to girls to participate in sports etc., have impaired the development of a positive sports culture in the country. Sports infrastructure plays a crucial role in achieving excellence in the global arena of sports. It not only helps in producing sports persons of international repute, but also encourages the young population of a country to participate in sporting activities with the objective of creating a culturing of sports. In India, the standard of sports infrastructure is not at a satisfactory level for a number of reasons. The lack of infrastructural facilities is one of the major constraints in the process of development of sports in India. The objective of this article is to analyse the present state of sports infrastructure of the country and propose a possible road map for its development. According to the Constitution of India, sport is a State subject. The state governments allocate funds for the development of sports and sports infrastructure as per their priority. There is no comprehensive approach for the development of sports infrastructure uniformly throughout the country. The support from the central government was substantially withdrawn with the shift of the schemes, related to sports infrastructure, to the states in the Tenth Five Year

Plan. This has created further problem. The non-availability of land for building sports infrastructure is another major obstacle. Moreover, not much initiative has been observed till now in promoting sports-specific infrastructure by adopting PPP model to ensure the sustainability of these facilities. The commercial aspects for generating revenue from these infrastructural facilities have not yet been explored properly.

Lack of a hierarchy of sports from Local to Global- Another big issue with Indian sports is the lack of a hierarchy of sports from the local level to the national level. There is no suitable system in place to develop talent at the school, block, and district levels before elevating the best athletes to the state and federal levels. As a result, many talented athletes lose their way and are unable to compete at the highest levels of their respective sports. Additionally, the lack of grassroots sports infrastructure makes matters worse. Sports associations should be set up at the block and district levels as a remedy, and they will be responsible for supervising the local sports academies. These associations should have qualified staff to administrate sporting facilities at academies as well as other demands of athletes such as correct nutritional plans, anti-doping awareness campaigns, fair and timely selection trials, conditioning camps, foreign exposure, and so on. These academies should serve as a breeding ground for future champions.

Lack of Physical Education Teacher sand Job Security- There is so many educational institutes which have no physical education teachers. Without physical education teacher the value of infrastructure is zero. Sports are a result of human nature, which strives for excellence and perfection, but due to the absence of financial compensation and job stability for athletes, the sports sector is not viewed as a viable career option in India. As a result, parents are hesitant to choose it as their child's profession and instead place more emphasis on academic excellence. Furthermore, contrary to norms around the world, there are no seats reserved for athletes in the nation's premier educational institutions. The elite Ivy League Schools, for instance, is a centre of athletic prowess in addition to academic excellence and consistently produce a large number of Olympians and world champions in sports, in contrast to the IITs and IIMs in India, which place a sole emphasis on academics.

Conclusion- These are some of the major obstacles in building and sustaining sports infrastructure in India. It is a pity that majority of the children going to schools in India do not get the opportunity to take part in sports due to the lack of infrastructure or even open spaces. Who will solve this? A joint effort is needed. We all are waiting for a change in the mindset for improving sports in the country.

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