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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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***Contemporary literature
regarding to legislation on Juvenile Delinquency
(A Socio- Legal Study)***

● Akhilesh Shukla

Abstract- An Act to consolidate and amend the law relating to children alleged and found to be in conflict with law and children in need of care and protection by catering to their basic needs through proper care, protection, development, treatment, social re-integration, by adopting a child-friendly approach in the adjudication. The aim of this paper is to review the contemporary literature regarding to legislation on Juvenile Delinquency. In this paper the development of Juvenile Justice Legislations in India has been discussed. The paper is based on secondary sources and main features of the acts enacted in this field have been discussed.

Key Words- Juvenile Delinquency, Juvenile delinquents, Criminal liability

Introduction- Juvenile delinquents are those offenders including boys and girls who are normally under 18 years of age. A Juvenile delinquent is a young person incorrigible or habitually disobedient. Act of delinquency include: Running away from home without the permission of parents, Habitual behavior beyond the control of parents, Spending time idly beyond limits, Use of vulgar languages, wandering about rail roads, streets market places, visiting gambling centers, committing sexual offences, Shop-lifting and Stealing etc. Juveniles may do such activities singly or through a gang. There are other social or environmental factors which leads them to be a delinquent. Now we shall discuss the development of Juvenile Justice Legislations in India and impact of international conventions.

The Apprentices Act, 1850- The Apprentices Act, 1850 is the first Act in India which was enacted in India to deal with the children. Its main features are-

1. The magistrates were empowered to commit children between the ages of ten and eighteen years as apprentices to employers, and provisions were made for controlling the relations between such children and the employers.
2. Children who were found to have committed petty offences used to be dealt with under this Act.

The Indian Penal Code, 1860 - The Indian Penal Code, 1860 contains the following provisions about child.

1. It exempts child from all criminal liability who is under seven years of age (Section 82).
2. It also exempts child above seven years of age and under twelve years, from all criminal liability, who has not attained sufficient

maturity of understanding to judge the nature and consequences of his conduct on that occasion (Section 83).

3. In the year 1959, the Indian Penal Code, 1860 was amended with a view to provide protection to child from possible abuse of kidnapping or maiming a minor for purpose of begging (Section 363-A).

The Police Act, 1861 - The Police act of 1861 contains the following provisions relating to duty of Police Officers towards the Child in the society.

1. The duty of police officer as mentioned in the Act is to obey and execute all orders and warrants lawfully issued to him by any competent authority; to collect and communicate intelligence affecting the public peace; to prevent the commission of offences and public nuisance, to detect and bring offenders to justice and to apprehend all persons whom he is legally authorised to apprehend and for whose apprehension sufficient ground exists; and it shall be lawful for every police officer, for any of the purposes mentioned above, without a warrant to enter and inspect any drinking-shop, gaming-house or other place of resort of loose and disorderly characters.
2. The concept of 'juvenile', 'delinquency', 'neglected', 'victimized', 'abused', 'uncontrollable' and 'children in need of care and protection' was unknown to the framers of Police Act.

The Reformatory School Act, 1876 (modified in 1897) - This act contains the following provisions-

1. It empowered government to establish reformatory schools. Under the Act, the sentencing court could detain boys in such institutions for a period of two to seven years but they would not be kept in the reformatory schools after they had attained the age of eighteen years.
2. There was also a provision to license out boys over fourteen years of age if suitable employment could be found.
3. In the Bombay Presidency, the Act was applicable to boys under sixteen years of age, while elsewhere it applied to boys under fifteen years of age.

The Code of Criminal Procedure, 1898 - The Code of Criminal Procedure, 1898 have provided for specialized treatment for juvenile offenders and Section 399 of the Code of Criminal Procedure, 1898 provided for commitment of juvenile offenders up-to the age of fifteen years to Reformatory Schools. The court may direct that such person, instead of being imprisoned in a criminal jail, shall be confined in any reformatory established by the State Government as a fit place for confinement, in which there are means of suitable discipline and of training in some branch of useful industry or which is kept by a person willing to obey such rules as the State government prescribes with regard to the discipline and training of person confined therein.

The Indian Jail Committee (1919-20)- The Indian Jail Committee's report contains the following remarks about Juveniles.

It condemned the practice of sending juvenile to jail and recommended for setting up of separate machinery for the trial and treatment of children and young offenders.

It concluded that imprisonment of child offenders should be prohibited and recommended the provision of Remand Homes, Certified Schools that approximate to ordinary schools.

The Committee recommended for the creation of children court for hearing of all cases against children and young persons.

The Committee suggested the child's release on probation of good conduct with or without supervision of a probation officer and also suggested provision of after-release supervision.

Sections 29 and 562 of the Code of Criminal Procedure, 1898 amended in 1923. Section 29-B of the Code of Criminal Procedure, 1898 stated that any offence, other than one punishable with death or imprisonment for life, committed by any person who at the date when he appears or is brought before the court is under the age of fifteen years might be tried by a District Magistrate or a Chief Presidency Magistrate, or by any Magistrate specially empowered by the State Government to exercise the powers conferred by Sub-section (1) to Section 8 of the Reformatory School Act, 1897, or, in any area in which the said Act has been wholly or in part repealed by any other law providing for the custody, trial or punishment of youth offenders, by any Magistrate empowered by or under such law to exercise all or any of the powers conferred thereby. Section 562 of the Code of Criminal Procedure, 1898 provided for probation of good conduct to offenders up-to the age of twenty-one. Section 562(1-A) provided that in any case in which a person is convicted of theft, and no previous conviction is provided against him, the court before whom he is so convicted, may, if it thinks fit, having regard to the age, character, antecedents or physical or mental condition of the offender and to the trivial nature of the offence or any extenuating circumstances under which the offence was committed, instead of sentencing him to any punishment, release him after due admonition.

As per the recommendations of Indian Jail Committee, Madras, Bengal and Bombay also enacted Children Acts in 1920, 1922 and 1924 respectively.

U N O - The General Assembly of the United Nations adopted and proclaimed the Universal Declaration of Human Rights on 10th December 1948 which contains the following provisions about children.

1. It endorsed that the motherhood and childhood are entitled to special care and assistance.
2. All children, whether born in or out of wedlock, shall enjoy the same social protection.

The Constitution of India - The Constitution of India contains the following provisions about child policy of the Nation-

1. Article 24 of the Constitution provides that no child below the age of

14 years shall be employed to work in any factory or mine or engaged in any other hazardous employment.

2. Article 39 (f) provides that the State shall direct its policy towards securing that children are given opportunities and facilities to develop in a healthy manner and in conditions of freedom and dignity and that childhood and youth are protected against exploitation and against normal and material abandonment.
3. Article 45 provides that State shall endeavour to provide free and compulsory education for all children until they complete the age of fourteen years.
4. The Constitution of India under clause (3) of Article 15, clauses (e) and (f) of Article 39, Articles 45 and 47 imposes on the State a primary responsibility of ensuring that all the needs of children are met and their basic human rights are fully protected.

U N O- The General Assembly of the United Nations adopted and proclaimed the Universal Declaration of the Rights of the Child on 20th November 1959 and endorsed that everyone is entitled to all the rights and freedoms set forth in this declaration without distinction of any kind, such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status.

The Probation of Offenders Act in 1958 - Its main features are as under-

1. It restricts courts in awarding imprisonment to offenders under twenty-one years of age and to direct removal of all disqualifications attaching to conviction.
2. Section 361 of the Code of Criminal Procedure, 1973 requires that in any case where the court could have dealt with the accused person under the provisions of the Probation of Offenders Act or under section 360 of the Code of Criminal Procedure, 1973 and yet the court decides not to do so, it shall record in its judgment, special reasons for not having done so.

The Central Children Act, 1960 - The Central Children Act, 1960 deals with the destitute and delinquent children separately through specialized institutions and the basic principles to deal with the destitute and delinquent children incorporated in the model Central Children Act, 1960 were also followed in the Juvenile Justice Act, 1986.

UNO- The General Assembly of the United Nations adopted the Convention on the Elimination of All Forms of Discrimination against Women on 18 December 1979 and it came into force on 3 September 1981. It states that States parties shall take all appropriate measures to ensure that family education includes a proper understanding of maternity as a social function and the recognition of the common responsibility of men and women in the upbringing and development of their children.

United Nations Standard Minimum Rules, 1985 (popularly known as Beijing Rules).

1. The general principles of the rules state that the Member States shall endeavour to develop conditions that will ensure for the juvenile a meaningful life in the community, which during that period in life

when he is most susceptible to deviant behaviour, will foster a process of personal development and education that is as free from crime and delinquency as possible.

2. Sufficient attention shall be given to positive measures that involve the full mobilisation of all possible resources, including the family, volunteers and other community groups, as well as schools and other community institutions, for the purpose of promoting the wellbeing of the juvenile, with a view to reduce the need for intervention under the law, and of effectively, fairly and humanely dealing with the juvenile in conflict with the law.
3. The Beijing Rules encourages:
 - a) The use of diversion from formal hearings to appropriate community programmes;
 - b) Proceedings before any authority to be conducted in the best interest of the juvenile;
 - c) Careful consideration before depriving a juvenile of liberty;
 - d) Specialized training for all personnel dealing with juvenile cases;
 - e) The consideration of release both on apprehension and at the
 - f) earliest possible occasion thereafter.

Juvenile Justice Act, 1986- Its main features are-

1. As a result of the experience of implementing the Central and State Children Acts over a considerable period, it was felt that there was a lack of uniformity in the provisions of the Children Acts. No minimum standard for basic needs, living conditions, therapeutic services etc. were maintained under the Children Act, 1960 programmes.
2. Therefore, keeping in view the United Nations Standard Minimum Rules for the administration of juvenile justice (Beijing Rules, 1985), the Government of India enacted the **Juvenile Justice Act in 1986** for the whole country to provide for the care, protection, treatment, development and rehabilitation of neglected and delinquent juveniles and for the adjudication of certain matters relating to delinquent juveniles.
3. The JJ Act, 1986 envisaged a comprehensive approach towards justice for children in situations of abuse, exploitation and social mal-adjustment and to lay down a uniform legal framework for juvenile justice in the country so as to ensure that no child under any circumstances is lodged in jail or police lock-up.
4. The JJ Act, 1986 replaced the traditional mechanism for dealing with children in conflicts with law under the various Children Acts in the States and Union Territories.

Juvenile Justice (Care and Protection of Children) Act, 2000- The Juvenile Justice Act 2000 is intended to protect the best interests of juvenile. One of the objectives of the JJ Act 2000 is to introduce the juvenile justice system in the country in conformity with the United Nations Standard Minimum Rules (Beijing Rules, 1985) for the administration of juvenile

justice and the United Nations Rules for the Protection of Juveniles Deprived of their Liberty, 1990. Its Salient features are -

1. Disparity of age between male and female child has been removed and both have been kept at par i.e., 18 years of age.
2. Two terminologies for child i.e., juvenile in conflict with law and child in need of care and protection, have been used in the JJ Act 2000;
3. Two different systems for dispositions of juvenile in conflict with law and children in need of care and protection have been used through its Juvenile Justice Board and the Child Welfare Committee respectively;
4. Categories of children have been increased. Under the Central Children Act, 1960, there were five categories of children, one delinquent child and four types of neglected children. Under the Juvenile Justice Act, 1986, the categories of the children were retained. However, under the Juvenile Justice (Care and Protection of Children) Act, 2000, these have been increased to eleven, one juvenile in conflict with law and ten types of children in need of care and protection;
5. Classification and separation of juveniles in the special homes has been made on the basis of age and the nature of offences committed by them and their mental and physical status.
6. Juvenile Justice Board is empowered to provide counselling to juvenile, parent, guardian and direct the juvenile to participate in group counselling and similar activities.
7. Special Juvenile Police Unit will handle the juvenile in conflict with law or the children in need of care and protection.
8. Child Welfare Committee has been given statutory powers.
9. Special emphasis has been given to the protection of human rights of the child.
10. Award of sentence to death and life imprisonment to juvenile has been prohibited.
11. Protection has been provided to the juveniles from stigmatisation, publication of names etc. which may lead to identification of the juvenile before the Juvenile Justice Board.
12. It provides that the following orders cannot be passed in relation to a juvenile: -
 - a juvenile cannot be sentenced to death;**
 - a juvenile cannot be imprisoned for life; and
 - a juvenile cannot be committed to prison in default of
 - (i) payment of fine or (ii) furnishing surety.
13. Juvenile in conflict with law has been defined in the JJ Act 2000 as: a juvenile who has not completed the age of eighteen years and is alleged to have committed an offence.
14. A child below seven years of age or who is above seven but below twelve years of age, who has not attained the sufficient maturity to understand the nature and consequences of his/her conduct, cannot

be dealt with as a juvenile in conflict with law as he/she is incapable to understand the nature and consequence of his/her conduct on that occasion.

The Juvenile Justice (Care and Protection of Children) Act, 2000 is the primary legal framework for juvenile justice in India. The Act provides for a special approach towards the prevention and treatment of juvenile delinquency and provides a framework for the protection, treatment and rehabilitation of children in the purview of the juvenile justice system. This law, brought in compliance of Child Rights Convention, repealed the earlier Juvenile Justice Act of 1986. This Act has been further amended in year 2006 and 2010. Government of India is once again contemplating bringing further amendments and a review committee has been constituted by Ministry of Women and Child Development which is reviewing the existing legislation. Juvenile Justice Act is considered to be an extremely progressive legislation and Model Rules 2007 have further added to the effectiveness of this welfare legislation. However, the implementation is a very serious concern even in year 2012 and Supreme Court of India is constantly looking into the implementation of this law in *Sampurna Behrua Versus Union of India*.

Based on a resolution passed in year 2006 and reiterated again in 2009 in the Conference of Chief Justices of India, several High Courts have constituted “Juvenile Justice Committees” which are monitoring committees headed by sitting Judges of High Courts. These Committees supervise and monitor implementation of Juvenile Justice Act in their Jurisdiction and have been very effective in improving state of implementation. Juvenile Justice Committee of Delhi High Court is considered a model in this regard.

This Act, further amended in 2006 and is now known as the Juvenile Justice (Care and Protection) Act, 2000. Section 21 of the Juvenile Justice (Care and Protection of Children) Act, 2000 (56 of 2000) as amended by the Juvenile Justice (Care and Protection of Children) Amendment Act, 2006 (33 of 2006), states that: “Prohibition of publication of name, etc., of juvenile or child in need of care and protection involved in any proceeding under the Act-(1) No report in any newspaper, magazine, news-sheet or visual media of any inquiry regarding a juvenile in conflict with law or a child in need of care and protection under this Act shall disclose the name, address or school or any other particulars calculated to lead to the identification of the juvenile or child shall nor shall any picture of any such juvenile or child shall be published: Provided that for any reason to be recorded in writing, the authority holding the inquiry may permit such disclosure, if in its opinion such disclosure is in the interest of the juvenile or the child. (2) Any person who contravenes the provisions of sub-section (1), shall be liable to a penalty which may extend to twenty-five thousand rupees”.

While provisions relating to the Juveniles in conflict with law are very important from jurisprudence point of view, this Act becomes very crucial for Children in Need of Care and Protection, as they are very large in

number. Section 29 of the Act provides constituting five members District (Administrative unit in India) level quasi-judicial body “Child Welfare Committee”. One of the members is designated as Chairperson. At least one of the members shall be woman. The Committee shall have the final authority to dispose of cases for the care, protection, treatment, development and rehabilitation of the 'Children in Need of Care and Protection' as well as to provide for their basic needs and protection of human rights.

Juvenile Justice (Care and Protection of Children) Act, 2015- Juvenile Justice (Care and Protection of Children) Act, 2015 has been passed by Parliament of India amidst intense controversy, debate, and protest on many of its provisions by Child Rights fraternity. It replaced the Indian juvenile delinquency law, Juvenile Justice (Care and Protection of Children) Act, 2000, and allows for juveniles in conflict with Law in the age group of 16–18, involved in Heinous Offences, to be tried as adults. The Act also sought to create a universally accessible adoption law for India, overtaking the Hindu Adoptions and Maintenance Act (1956) (applicable to Hindus, Buddhists, Jains, and Sikhs) and the Guardians and Wards Act (1890) (applicable to Muslims), though not replacing them. The Act came into force from 15 January 2016. It was passed on 7 May 2015 by the Lok Sabha amid intense protest by several Members of Parliament. It was passed on 22 December 2015 by the Rajya Sabha. To streamline adoption procedures for orphan, abandoned and surrendered children, the existing Central Adoption Resource Authority (CARA) has been given the status of a statutory body to enable it to perform its function more effectively. A separate chapter on Adoption provides detailed provisions relating to adoption and punishments for noncompliance. Processes have been streamlined with timelines for both in-country and inter-country adoption including declaring a child legally free for adoption. This Act has further been amended by the Juvenile Justice (Care and Protection of Children) Amendment Act, 2021 which have come into force from 1 September 2022.

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Impact Of Education on Quality of Life in Rural Areas

• Ziaul Hasan Khan

Abstract- *Education is a critical factor in improving the quality of life in India. It promotes economic growth, social development, cultural enrichment, health and wellbeing, gender equality, and environmental sustainability. However, there are still significant challenges that need to be addressed to ensure that every individual in India has access to quality education. By addressing these challenges and investing in education, we can help to create a more equal and just society, where every individual has the opportunity to reach their full potential and live a life of dignity and fulfillment.*

Keywords- *Quality of life, education, rural areas*

Introduction- Education has been recognized as a vital tool for development worldwide. In India, it is even more crucial for rural areas where education has the potential to uplift and transform the lives of millions of people. This article will discuss the impact of education on the quality of life in rural areas of India.

India has one of the highest rural populations in the world, and the majority of its population resides in rural areas. According to the 2011 Census of India, 68.84% of the Indian population lives in rural areas. This number indicates that the development of rural areas is crucial for the overall development of India. Education is a key factor in the development of rural areas, and it can help bridge the gap between urban and rural India.

Education is an essential aspect of human life. It is the foundation upon which individuals build their future, and it plays a crucial role in determining their quality of life. In India, the relationship between education and quality of life is complex and multifaceted. While education is considered to be a key factor in improving the quality of life in India, there are still significant challenges that need to be addressed.

Education is not only important for acquiring knowledge and skills but also for promoting economic growth, social development, and cultural enrichment. In India, the government has recognized the importance of education and has made significant investments in the sector. The Right to Education Act, which was passed in 2009, guarantees free and compulsory education to all children between the ages of 6 and 14. The government has also launched several initiatives such as Sarva Shiksha Abhiyan and Rastriya Madhyamik Shiksha Abhiyan to improve access to education in

rural areas and promote skill development.

Despite these efforts, India still has one of the highest rates of illiteracy in the world. According to UNESCO, the adult literacy rate in India is 74.4%, which is significantly lower than the global average of 86.3%. The literacy rate in rural areas is even lower, at 71%, compared to 84% in urban areas. This highlights the need for greater investment in education and the importance of addressing the factors that contribute to the educational divide in India.

One of the main factors that contribute to the educational divide in India is poverty. Poverty is a significant barrier to education, as families living in poverty often struggle to provide basic necessities such as food and shelter, let alone education. Children from poor families are more likely to drop out of school or not attend school at all. This has significant implications for their future, as they are less likely to secure good jobs or achieve economic stability.

In addition to poverty, there are several other factors that contribute to the educational divide in India, including social and cultural norms, lack of access to quality education, and inadequate infrastructure. For example, in many parts of India, girls are still expected to prioritize domestic duties over education, which limits their access to education and hinders their future prospects.

Despite these challenges, education has the potential to transform the lives of individuals and communities in India. Education promotes economic growth by providing individuals with the knowledge and skills they need to secure good jobs and contribute to the workforce. Education also promotes social development by empowering individuals to participate in civic life and make informed decisions about their future.

Education can also promote cultural enrichment by exposing individuals to new ideas and perspectives, fostering creativity and innovation, and promoting tolerance and respect for diversity. In this sense, education is not only important for improving the quality of life of individuals but also for promoting social cohesion and unity in India's diverse society.

In conclusion, education is a key factor in improving the quality of life in India. However, there are still significant challenges that need to be addressed, such as poverty, social and cultural norms, and lack of access to quality education. The government, civil society organizations, and the private sector need to work together to address these challenges and ensure that every individual in India has access to quality education. By doing so, we can help to create a more equal and just society, where every individual has the opportunity to reach their full potential and live a life of dignity and fulfillment.

Apart from the factors mentioned above, there are several other ways in which education impacts the quality of life in India. Education plays a crucial role in promoting health and wellbeing, as individuals with higher levels of education are more likely to adopt healthy behaviors and make informed decisions about their health. For example, individuals with higher

levels of education are more likely to seek medical care when needed, adopt healthy diets, and avoid harmful behaviors such as smoking and drug use.

Education also promotes gender equality by empowering girls and women to participate in the workforce, engage in civic life, and make decisions about their future. Girls with access to education are more likely to delay marriage, have fewer children, and secure better-paying jobs, which can improve their economic and social status.

In addition to these benefits, education has also been shown to have a positive impact on the environment. Individuals with higher levels of education are more likely to be environmentally conscious and engage in sustainable practices. They are also more likely to advocate for policies and practices that promote environmental sustainability.

However, despite these benefits, there are still significant challenges that need to be addressed to ensure that every individual in India has access to quality education. One of the main challenges is the lack of access to quality education in rural areas. Many rural areas lack basic infrastructure such as schools, teachers, and educational materials, which makes it difficult for children in these areas to access quality education.

Another challenge is the quality of education itself. While the government has made significant investments in education, there is still a need for greater focus on improving the quality of education. Many schools lack qualified teachers, and the curriculum often fails to prepare students for the demands of the workforce.

In conclusion, education is a critical factor in improving the quality of life in India. It promotes economic growth, social development, cultural enrichment, health and wellbeing, gender equality, and environmental sustainability. However, there are still significant challenges that need to be addressed to ensure that every individual in India has access to quality education. By addressing these challenges and investing in education, we can help to create a more equal and just society, where every individual has the opportunity to reach their full potential and live a life of dignity and fulfillment.

In addition to the challenges mentioned above, there are also issues related to the accessibility and affordability of education in India. While education is a fundamental right in India, many individuals, especially those from marginalized communities, still face barriers to accessing education. These barriers can include poverty, caste discrimination, gender discrimination, and lack of access to transportation.

Furthermore, the cost of education can be prohibitively high for many families, especially for higher education. This has led to a significant disparity in educational attainment between different socioeconomic groups in India. According to a report by the World Bank, only 10% of the poorest students in India complete their secondary education, compared to 60% of the richest students.

Another issue is the quality of education in private schools, which are often seen as the preferred option for parents who can afford them. While private schools may offer better facilities and resources than government schools,

they are often criticized for their lack of accountability and focus on rote learning rather than critical thinking.

Despite these challenges, there have been significant efforts to improve the quality and accessibility of education in India. The government has launched several initiatives, such as the Sarva Shiksha Abhiyan and the Rashtriya Madhyamik Shiksha Abhiyan, to increase enrollment and improve the quality of education in primary and secondary schools.

The government has also introduced several measures to make higher education more accessible, such as the establishment of new universities and the expansion of scholarships and other financial assistance programs.

Non-governmental organizations (NGOs) and civil society groups have also played a crucial role in promoting education in India, especially in rural areas. Many NGOs are working to improve the quality of education by providing teacher training, educational materials, and infrastructure support.

In conclusion, education plays a critical role in improving the quality of life in India, promoting economic growth, social development, cultural enrichment, health and wellbeing, gender equality, and environmental sustainability. While there are significant challenges that need to be addressed, there are also significant opportunities for improving the accessibility and quality of education in India. By investing in education and working together, we can help to create a more equal and just society, where every individual has the opportunity to reach their full potential and live a life of dignity and fulfillment.

Impact of education on income and employment- Education has a direct impact on income and employment in rural areas. Education provides people with skills and knowledge necessary to access better job opportunities. People with higher education are more likely to secure jobs that pay well and provide a secure source of income. Education also provides people with the skills necessary to start their own businesses and become entrepreneurs.

According to a study conducted by the World Bank, an additional year of education can increase a person's earnings by up to 10%. This increase in earnings has a positive impact on the quality of life of individuals and their families.

Education and Health- Education has a positive impact on health outcomes in rural areas. Education provides people with knowledge about health, hygiene, and nutrition. It can help people make better decisions about their health and well-being. Educated individuals are more likely to take preventive measures and seek timely medical attention when needed. They are also more likely to adopt healthy lifestyles.

A study conducted by the National Sample Survey Organization (NSSO) found that the literacy rate among women in rural areas was 49.2% in 2018. This number indicates that there is a significant gender gap in education in rural areas. However, educating women has a profound impact on the health and well-being of families. Educated women are more likely to

make informed decisions about their health and the health of their children.

Education and Social Empowerment- Education plays a critical role in empowering people in rural areas. Education provides people with the knowledge and skills necessary to participate in social and political life. It helps people understand their rights and responsibilities as citizens. Education also provides people with a platform to voice their opinions and concerns.

Education is particularly important for women in rural areas. Educated women are more likely to challenge gender norms and take on leadership roles in their communities. Education provides women with the skills and knowledge necessary to participate in decision-making processes that affect their lives.

A study conducted by the National Bureau of Economic Research (NBER) found that education has a significant impact on political participation in India. The study found that education increased political participation among both men and women.

Education and Environment- Education plays a crucial role in promoting sustainable development in rural areas. Education provides people with knowledge about the environment and its resources. It helps people understand the importance of conserving natural resources and promoting sustainable practices. Education also provides people with the skills necessary to implement sustainable development practices.

A study conducted by the United Nations Environment Programme (UNEP) found that education is essential for promoting sustainable development in rural areas. The study found that education can help people understand the link between economic development and environmental sustainability.

Conclusion- In conclusion, education has a significant impact on the quality of life in rural areas of India. Education can improve income and employment opportunities, health outcomes, social empowerment, and environmental sustainability. However, there are still significant challenges to education in rural areas. Gender disparities in education, lack of infrastructure, and poor quality of education are some of the challenges that need to be addressed. To address these challenges, the government needs to increase investment in education in rural areas, especially for girls. The government should also focus on improving the quality of education in rural areas by providing better infrastructure, trained teachers, and updated curriculum. Non-governmental organizations (NGOs) and private sector companies can also play a significant role in improving education in rural areas by investing in education and providing scholarships to deserving students. Education is not just a means to acquire knowledge, but it is also a tool for development and social change. Educated individuals are better equipped to make informed decisions and contribute to their communities. Education is the key to unlocking the potential of rural areas in India and transforming them into thriving communities.

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Social Media & Freedom of Speech (expression)

• Thakur, Sugandha Shekhar

Abstract- *This research attempts to educate the public on how free speech has been exercised in social media and how the Indian Constitution and legal system support it. The research was carried out in India's Punjab state using an imperial research design and an easy sampling technique. Data were gathered by telephone and in-person interviews. The outcome demonstrates that Imperial users accept posts without considering the content in order to receive likes from respondents. The responder utilises a variety of social media sites and mostly enjoys political, mixed, and communal or caste-related content. They don't want a ban on it and are willing to accept the government's and developers' choice. Men exhibit hostility by favouring free speech. According to the report, the government should create a complaint portal, developers should impose restrictions, and users should realise that hate speech is a form of commercial speech.*

Keywords- hate speech, social media, freedom of speech, Indian Constitution, cyber crime

Introduction- People now frequently read and exchange news and information through social media sites like Facebook, WhatsApp, Twitter, Instagram, YouTube, and others as a result of technological advancements. Social media is defined as a mobile and web-based technology that uses a variety of online communication channels to build social networks in the virtual world. People from one region of the country can access information posted by a person from another, thanks to social media technologies. Every person has the freedom to hold beliefs without hindrance and to use any media, regardless of boundaries, to seek for, receive, and share information and ideas. Every citizen in a democratic nation like India has the freedom to use social media to express themselves and spread information (Bansal A, et al 2021).¹

There are a number of valid differences of opinion on social media and its effect on society. One of the more concerning aspects of how social media has changed public discourse is the spread of horrifying content, from child abuse to revenge porn. It is therefore possible that social media could change from platforms that allow countless voices to reach infinite audiences into platforms where only a few potent voices can reach large numbers of people if these disputes are used as an excuse to restrict freedom

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of expression (Singh, 2019).²

For those who wanted to express themselves freely without worrying about being shot at, India was, in large part, a safe haven. Even though Indians have much better personal circumstances than their counterparts in other countries, the image no longer has the same calming and captivating impact on them. For the sake of this discussion, I'm mostly talking to the use of so-called cyber laws, like as Section 66A of the 2000 Information Technology Act, to restrict free speech and expression on social media sites, like Facebook (Jones, 2021).³

Fundamental Rights of Indian Constitution- Our fundamental right, presently we are having 6 rights given to all the citizen of India by Originally, the Indian Constitution.¹

- I. Right to equality (Articles 14–18)
- II. Right to freedom (Articles 19–22)
- III. Right against exploitation (Articles 23–24)
- IV. Right to freedom of religion (Articles 25–28)
- V. Cultural and educational rights (Articles 29–30)
- VI. Right to constitutional remedies (Article 32)

Under the Right to freedom (Articles 19–22), below it is explained

- a) Article 19 - Protection of six rights regarding freedom of:
 - (i) Speech and expression,
 - (ii) Assembly,
 - (iii) Association,
 - (iv) Movement,
 - (v) Residence, and
 - (vi) Profession
- (b) Article 20 - Protection in a conviction for offences.
- (c) Article 21 - Protection of life and personal liberty.
- (d) Article 21A - Right to elementary education.
- (e) Article 22 - Protection against arrest and detention in certain cases.

How social media is Define-

- Social media is the internet based interactive platform, where users generate their post in text, pictures, or video form & data-based material.
- Online interaction is the main part of this media.
- It is the internet-based tool where user spreading his or her thought in different way. They post it to another person timeline or to a group which he joined by his or her own wish.

Social Media Vs Traditional Forms of Communication-

- Social media gives voice to your thought in virtual world.
- Sometime for the selective motive like branding of person, political parties, institutions etc, people with different profile come together.

- Social media is a platform for virtual friends or virtual followers.
- On social media people involve themselves like real world, where they mark their presence and show their popularity in numerical form.
- User tells his/her personal details which he wants to disclose by his wish on social media platforms.
- Speech, image or video posted by the user on their timeline can be easily contextualised in many aspects.

Social Media and Freedom of Speech and Expression- Thanks to the Internet and social media, people can freely express themselves and share their thoughts with the rest of the world. In the past year or so, there has been a growing movement on a global scale in favour of reform, justice, equality, the accountability of the powerful, and the respect for human rights (Jones, 2021). The Internet and social media have played a crucial part in many of these movements due to how simple it is for people to interact and exchange information on these platforms. In the current media environment, which is dominated by the internet and mobile devices, the United Nations Human Rights Committee has also attempted to put the concept of freedom of expression into effect. **(Kaplan, et al 2010).**⁴

Regulating social media rather than restricting it should be done to avoid it becoming a source of conflict. However, India's current cyber laws are insufficient and neither adequate. According to the conclusions, an evaluation of current IT regulations on cyberspace security shows that the government has unchecked and vast control. However, merely keeping an eye out for abuse on social media won't suffice to stop it. Therefore, specific regulation is needed to control social media. **(Bansal, et al 2021)**¹

FREEDOM OF EXPRESSION IN INDIA CONSTITUTION- The right to free speech is a complicated one. The law might take into consideration some limitations on how freedom of expression may be used because it isn't free and comes with a number of obligations. Since the Greek Athenian period, which began more than 2400 years ago and continues today, references to "freedom of expression" have essentially been around **(Buyse, 2014).**¹⁰

Individuals have a fundamental right to freedom of opinion and expression, which includes the ability to communicate one's thoughts through any medium and without regard to public lines. Everyone should have the opportunity to offer their opinions freely without fear of being offended. The Universal Declaration of Human Rights states that everyone has the right to "the opportunity to seek, obtain, and spread information and ideas of various kinds without regard to frontiers, whether expressed orally, recorded in writing or on a hard copy, in imaginative construction, or by any other method for his decision." By Freedom of speech and expression we got a right to express our thought by any media tool, without any interference, censorship and reprisal. Article 19 (1) a of the Constitution of India tell us

about the proper to freedom of speech and expression. In this article we are free to opinions freely by words, writing, printing, pictures, or in against of anything. Article 19 (2) and Article 21.

As Per Article 19 (2) of The Constitution of India, Restrictions on The Correct to Speech and Expression- Our Freedom Has Some Restriction Also Which We Have to Follow.

1. Sovereignty and integrity of India
 2. Security of the State
 3. Friendly relations with foreign states
 4. Public order
 5. Decency or morality
 6. Contempt of court
 7. Defamation
 8. Incitement to an offense
- Social media is a powerful tool, but we are seeing increase in an unlawful activity from all section or class of society. This act is performed by individual or group against the individual or specific categories.
 - Social media need a formal censorship, because we are watching violation of civil right and freedom.
 - We need a committee to form a guideline. With the mutual understanding of IT expert, civil services expert, & law expert. Which help us to save the civil rights of citizens, especially the freedom of speech and expression.

A Chronological Order of Such Events is as Follows⁹- April 2012, Ambikesh Mahapatra, arrested for the reason of posting a cartoon of WB chief minister on social media. May 2012, air India employees arrested by posting a picture of trade union leader & politician on social media. November 2012, Shaheen Dhada arrested for questioning the shutdown of Mumbai due to the death of Bal Thackeray on social media.

Social Media & Statistics for India.⁸

1. In 2018, the number of social media users in India is at 326.1 million. (statista)
2. By end of 2019, we estimate to reach to 351.4 million.
3. Indian user spends 2.4 hours on social media. But globally it is 2.5 hours. (Source: The Hindu)
4. 290 million of the social media users uses his mobile. (Source: Hootsuite - We Are Social report)
5. 97% of Indians only use internet to watch video online.

Cyber Laws- New category of crime is introduced due to internet is cyber-crime. To handle this The Information Technology Act, 2000 was implemented. Its prime motive is enabling secure place for commercial use

of I.T. The IT Act tells us the act which is punishable.

Cyber Crimes Under the It Act:

- Tampering with Computer source documents - Sec.65
- Hacking with Computer systems, Data alteration - Sec.66
- Publishing obscene information - Sec.67
- Un-authorized access to protected system Sec.70
- Breach of Confidentiality and Privacy - Sec.72
- Publishing false digital signature certificates - Sec.73

Cyber Crimes Under IPC and Special Laws:

- Sending threatening messages by email - Sec 503 IPC
- Sending defamatory messages by email - Sec 499 IPC
- Forgery of electronic records - Sec 463 IPC
- Bogus websites, cyber frauds - Sec 420 IPC
- Email spoofing - Sec 463 IPC
- Web-Jacking - Sec. 383 IPC
- E-Mail Abuse Sec.500 IPC

Cyber Crimes Under the Special Acts:

- Online sale of Drugs under Narcotic Drugs and Psychotropic Substances Act
- Online sale of Arms Act

Steps To Prevent Cyber Crimes

- Do not disclose personal information on social media.
- Avoid sending personal video and image to stranger or friend.
- Avoid using your banking details on non-secured website.

Procedure Of Data Collection

- First Contact
- Visiting or phone calls.
- Shared the details of the study and fixed up the appointments.

Objective

1. Does user exploit their freedom of speech?
2. Does user take hate speech as a common on social media?

Sampling- Convenient sampling: As it is a sensitive matter so we go for convenient sampling. Imperial research is also a part of this research.

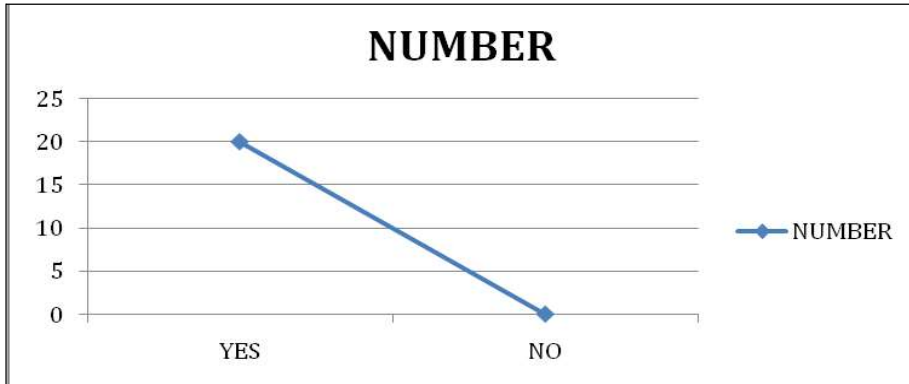
Universe- Universe is neighbourhood: We go to known women who are comfortable and known to researcher.

1.Are You on social media

A) Yes

B) No

Response	Number	Percentage
Yes	20	100%
No	00	00%

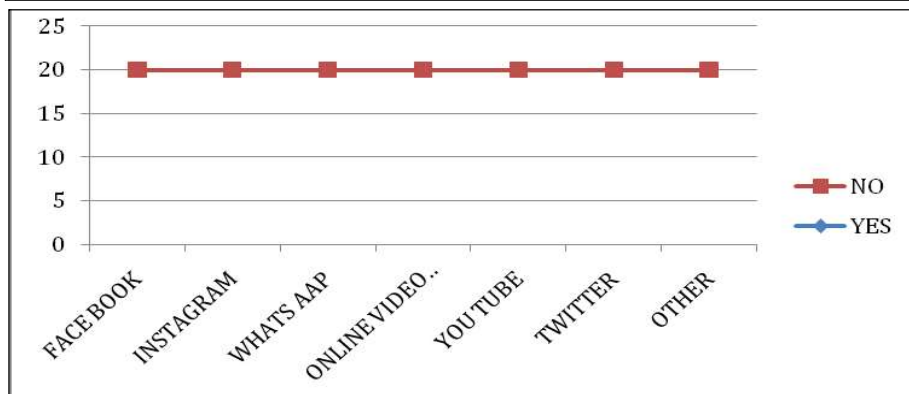


All the respondents are using social media platform. To know what's happening in their surrounding or with the people in their social world.

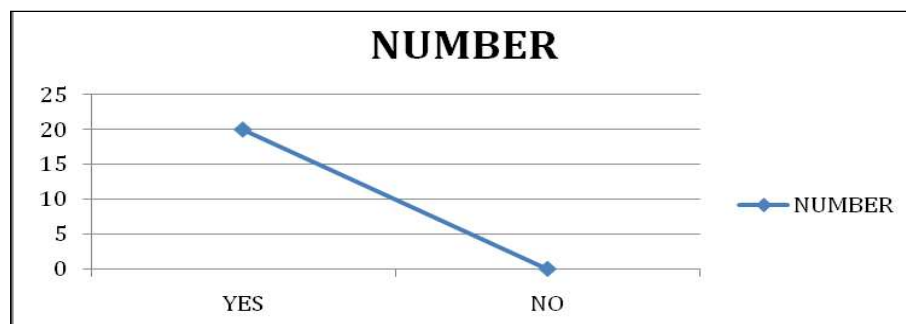
2. Please tick your social media account platform

- A) Face book
- B) Instagram
- C) What's Aap
- D) Online Video Platform
- E) You Tube
- F) Twitter
- G) Other

Social Media Account	Yes	Percentage	No	Percentage
Face Book	20	100	0	0
Instagram	20	100	0	0
Whats Aap	20	100	0	0
Online Video Platform	20	100	0	0
You Tube	20	100	0	0
Twitter	20	100	0	0
Other	20	100	0	0



Response	Number	Percentage
YES	20	100%
NO	00	00%



Majority of the respondent like the hate speech in their entire life of social media.

Form of hate speech you liked at social media platform

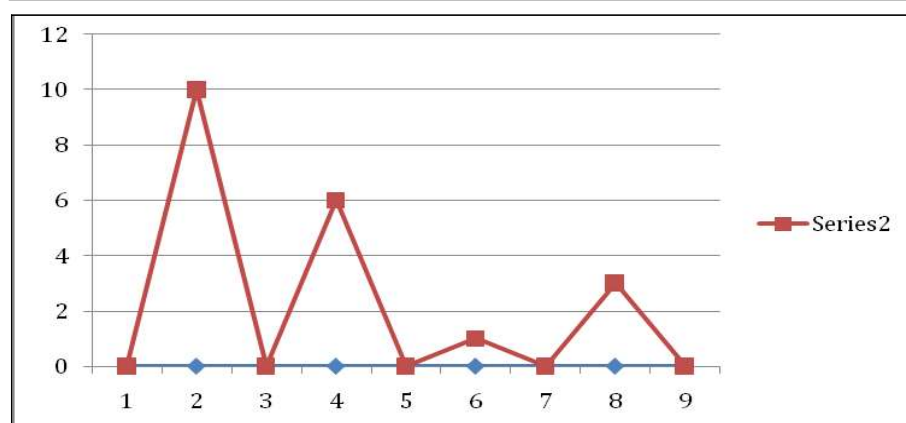
Community/ Caste specific statements

Political/ Political party related statements

Gender/ Body related statements

Other statements

Response	Number	Percentage
Community/ Caste Specific Statement	10	50%
Political/ Political Party Related Statement	06	30%
Gender/ Body Related Statement	01	5%
Other Statement	03	15%



Majority of the respondent like hate speech when it is caste or community specific, following by the political hate speech form, they also like the hate speech related to gender, and rest speech they like is from different categories.

Post you liked on social media platform is posted by;

Friends

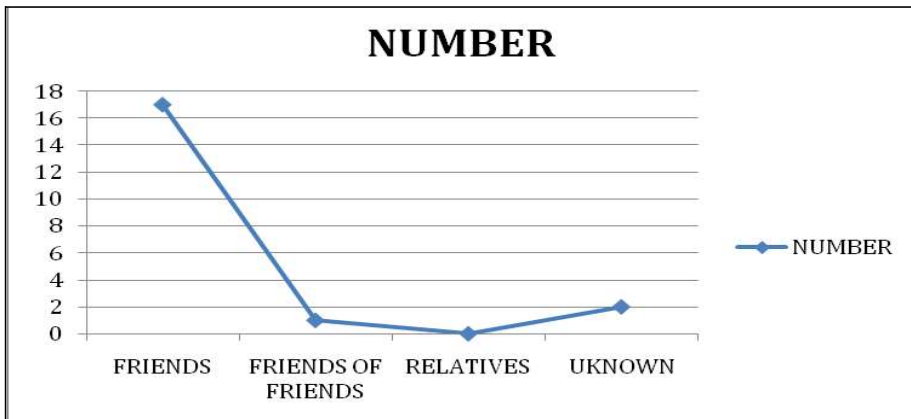
Friends of Friends

Relatives

Unknown

Majority of the respondent like speech posted by their friend or like

Response	Number	Percentage
Friends	17	85%
Friends Of Friends	01	05%
Relatives	00	00%
Uknown	02	10%



by their friend of friend post. They don't go with relatives in this case but to unknown person they liked it if they like the content.

Please explain your reaction

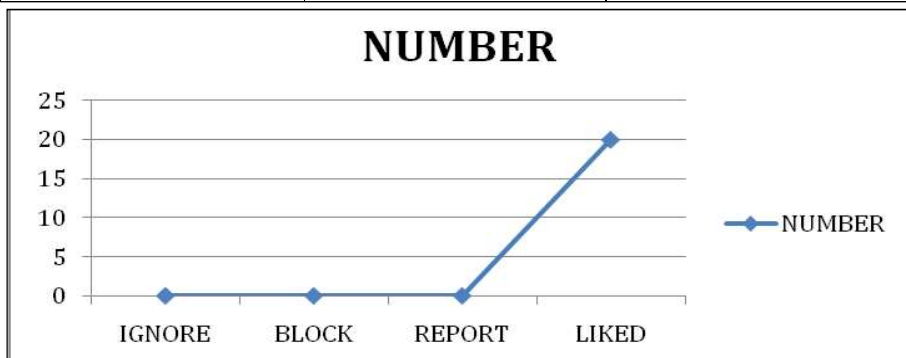
Ignore

Block

Report

Liked

Response	Number	Percentage
Ignore	00	00%
Block	00	00%
Report	00	00%
Liked	20	100%

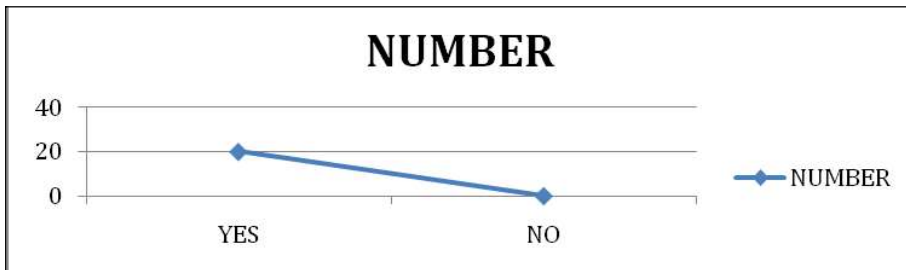


Respondent liked it always when it comes to hate speech. Weather it relates to any topic. Another point to though in this case is they just hitting the like button without looking to content. They never go with report, block & ignore.

Do you feel social media platform is perfect place to express your feeling in form of speech.

- Yes
- No

Response	Number	Percentage
Yes	20	100%
No	00	00%

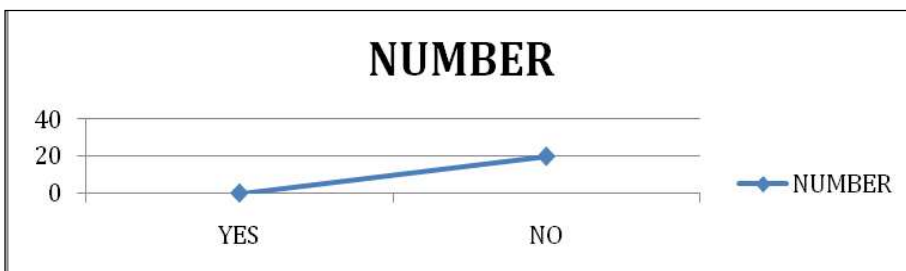


Majority of the respondent feel that it is the best mode to express their feeling weather the topic is anything. Sensitive or non-sensitive is not in their thought.

Social media platforms should ban freedom of speech in negative way.

- Yes
- No They don't find anything negative in hate speech, or in a mood

Response	Number	Percentage
Yes	00	00%
No	20	100%

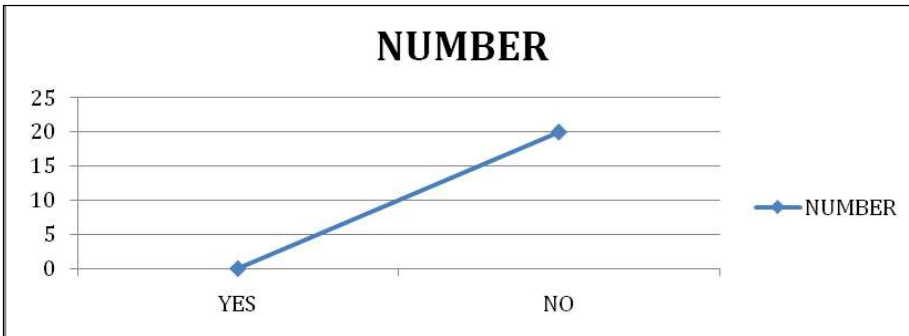


to accept ban on negative thought on social media.

Do the subscribers are violating fundamental right of freedom of speech.

- Yes
- No

Response	Number	Percentage
Yes	00	00%
No	20	100%



They don't feel that the subscriber or the users violating the freedom of speech by using social media.

Please suggest the one measure to make it more social friendly

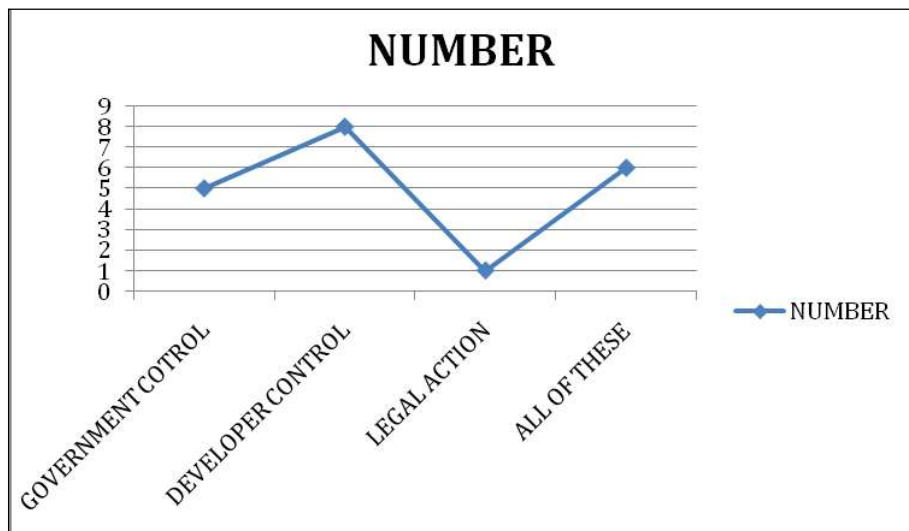
Government control

Developer Control

Legal Action

All of these

Response	Number	Percentage
Government Cotrol	05	25%
Developer Control	08	40%
Legal Action	01	05%
All of These	06	30%



Respondent want the developer of the platform or the government to take control or action on their hand they are not in a mood to take a legal action. They want a body to control this irrelevant or improper behaviour by

the user. Any action by all of the above they are ready to accept.

Conclusion- We are answering conclusion in two ways outcome of Sampling, Imperial and Physiological way.

Imperial Outcome- Do the user having barter game on social media, they like the post only because in return their post is liked by the respondent. Not liking the post of their relatives somehow pointing towards this idea. Or in the next way they just follow their duty by liking the post of the respondent without looking for content.

Sample Outcome- The entire respondent uses all form of social media platform. The entire respondent liked the hate speech, majorly posted by friends or friend of friends, they don't entertain that kind of speech if it is by relatives, but they liked the post of unknown person too. Communal or caste related speech is mostly liked by them followed by political, they don't go for gender specific post but rest mixed categories' is also liked by them. The respondent feels it is the best place for the expression in the form of speech and they don't want ban over it and they also feel that they are violating their fundamental rights. And they are also ready to accept the decision taken by developers and government related to hate speech.

Physiological outcome- Men like the adventure in their life by reading hate speech they have come in excited mode and start feeling himself as warrior of this incident. And show his aggression by liking the freedom of speech.

Some measures taken by the government or by the developers:

1. Account related to hate speech automatically deactivated. And made a list of such misleading words in all languages used this world.
2. Government should setup online complaint portal and take immediate action.
3. Developers have to restrict the users to misbehave on their platform.
4. User should understand that this kind of speech is a business for the posting person.

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A Brief Study of Natural Disasters in Assam And Its Mitigation and Preparedness

• Mahananda Pathak

Abstract- Assam has been regarded as the bio-geographical gate-way to diverse array of flora and fauna. Assam has been lagging behind on many aspects of development due to various hurdles. It experiences a number of natural Disasters almost every year. Natural calamities, occurrence of floods, earthquakes, landslides, cyclones, dams, Droughts are the main problems of Assam. In this study, emphasis has been given mainly on the impact of Natural Disaster in Assam. It has been tried to highlight the process of Mitigation and Preparedness in the affected area based on survey method and field observation.

Keywords- Factors, Geo-graphical location, public awareness, Modern technology, Decade for natural disaster reduction.

Introduction- In the great development of science and technology, human beings are still suffers by the Natural Disasters. The natural disaster is one of the main problems of Assam. Repeated disasters exert pressure on the socio-economic condition of that state, erode resource base and in a poor people of low-income groups are the worst sufferer. However, efforts are on throughout the World for predictor and management of Natural disaster. Environmental degradation due to natural disasters in Assam is the principal objective of the study.

Definition- Any event, natural or man-made which causes unimaginable destruction or loss of its immediate surrounding is called a disaster. WHO defines disaster as any occurred causing damage, ecological disruption, loss of human lives, deterioration of health services and health, on the scale sufficient to warrant any extra ordinary intervention from outside the affected country.

Classification of Disaster- Natural Disaster may be classified as

1. Meteorological such as cyclone, hurricane, tornadoes typhoons, thunderstorms, flood and drought.
2. Topographical such as landslides, A valances.
3. Infestation such as locust innovation of crops, epidemics.
4. Man-made disasters like forest fires, sometimes it is natural.
5. Miscellaneous such as tsunami.

Methodology- To achieve this study survey method have been adopted. The survey methods have been made on the basis of both primary and secondary data collection with field observation.

The primary data have been collected from the affected Districts of Assam and the secondary data have been collected from different sources including Government publications, Research Journals, NEAC (National Environment Awareness Campaign) reports by the Ministry of Environment & Forests, Govt. of India and other related publications of corporation bodies with NGO. Etc.

Study area- The Assam state, which is located in north east (NE) India and lies between 24°88'N and 27°10'N latitude and 89°42'E and 96°10'E longitude. Assam is bounded by Bhutan and Arunachal Pradesh in the North, Nagaland and Manipur in the east, Bangladesh, Meghalaya, Tripura and Manipur in the south.

The Land of Assam consists of valleys and hills and mighty rivers like the Brahmaputra and Barak. Assam has a geographical area of 78438 square kilometer as on 00 hrs. of 1st March, 2011 census stands at about 31,169,272 People comprising of 15,954,927 males and 15,214,345 Females.

The principal language of Assam is Assamese although a large number of other languages are spoken such as Bodo, Karbi, Rabha and Dimesa. The effective literacy rate for Assam as per 2011 census comes to 73.18 percent while it is 78.81 percent for males and 67.27 percent for females. Assam is almost entirely isolated from India.

Factors Responsible for Increase of Disasters- Population explosion, urbanization, industrialization and environmental degradation among others, have been suggested to be the main causes of the increase in disasters.

Increased population has driven people to settle in disaster prone areas. In Assam, increased population has made people to settle in 'Char' or river island areas which are inundated by flood every year. People are also living on the hill-side or hill slopes where land slide is frequent. People are also illegally encroaching forest areas, causing deforestation and environmental degradation.

Poverty, dearth of land for cultivation, scarcity of essential items for living has made people migrate to cities. This has caused shanty towns to grow around the cities which are vulnerable to natural and man-made hazards.

Increased urbanization and industrialization have led to the concentration of people, production centers and economic activities in areas which might be susceptible to natural hazards and terrorist activities.

Natural Disasters in Assam- Flood, earthquake, landslides, cyclones, dams; droughts are the natural disaster in Assam.

Floods- Assam is one of the floods affected states of India. Floods occur frequently during the rainy season in Assam with some districts suffering from two or three waves of floods in a year. Flood hazards occur regularly in about 14 districts of the Brahmaputra Valley, 2 districts of Barak Valley. These result in destruction of roads leading to disruption in transport. The environment gets polluted and the flood –affected people face great hardships. There are loss of lives and property. During floods people are exposed to the risk of contagious diseases like cholera, diarrhea and

influenza. The destruction of large forest arrears leads to many animals and birds losing their shelter and they face death. The current floods have affected Assam's economy and have caused considerable environmental degradation. All this has resulted in the government of India declaring the annual floods of Assam as a 'natural calamity.'

It is noticed that about 2,900,000 Ha. of land in Assam alone is flood prone. It is estimated that average annual loss due to destruction of crops alone by floods in North East India stands at about Rs.15 cores. Besides, there are destruction of roads, railways, bridges and human settlements and loss of human and animal life.

Earthquakes- Earthquakes occur suddenly and without warning. They are principal caused by the movements of the earth's crust. The lower Himalayan region of India is prone to earthquakes. The "Assam earthquake" of 15th august 1950, is one of the biggest natural disasters in recorded history. Many of the area hit by the earthquake subsided and were filled with water and were changed to ponds and wetlands. The massive flooding which followed the earthquake changed the topography of North-Eastern India.

On the basis of severity of earthquake risk, the whole country has been divided in to five zones. North-East India comes under the severest zone V. Infect; North-East India is recognized as one of the six most hazardous zones of the world so far as earthquakes are concerned. Historical documents and earthquake catalogues indicate the occurrence of destructive earthquakes in the region in the years 1548, 1596, 1642, 1663, 1696, 1869, 1875, 1897 (M=8.7+), 1918 (M=7.6), 1930(M=7.1), 1950(M=8.7) and 1988 (M=7.3) but earthquake related studies are in a very poor state in this region. In spite of the best efforts of the Assam science society and GVM (Gramya Vikash Mancha, Nalbari), no earthquake research center is coming up in this state. It is widely believed that next big earthquake of the reason will occur in northeast India. As a result, scientists, astrologers and quakes are predicting earthquake in the region in 1980, 1986, 1992, 2004 and 2005 (January). But no earthquake has occurred. The last two predictions were taken by the state government very seriously.

Landslides- Deforestation and mining activates in hilly areas cause the soil cover to become loose. This loose soil slides down the hillside causing landslides. Incessant rain, swift water currents, floods and thunderstorms also cause landslides in Assam. Landslides may also be triggered by earthquakes. The areas bordering the Himalayas are prone to frequent landslides. Landslides cause loss of life and destroy roads. Frequent landslides block the roads linking the towns and villages with one another thus causing great inconvenience to transport and communication and trade and commerce of the region.

Cyclones- Cyclones are extremely fast-moving winds. High wind speeds are the principal cause of a cyclone destructive force. Only a small effect is produced by the cyclone in the Brahmaputra Valley. Main destruction in this region occurs due to strong wind and hail storm, generated locally.

Dams- Dams are constructed across rivers and the water which collects is used for irrigation generating electricity, as well as for providing water

supply to remote areas. The collapsing or breaching of these dams causes massive flooding in the neighbouring areas as well as places located downstream.

Droughts- About 16% of the country's total area is drought-prone and about 50 million people are affected by drought. Irregular monsoon is the main cause of drought in India which occurs at least once in 15 years. In Assam drought occurs at the interval of 7-to-10-year period. In fact, in the Brahmaputra valley months from Nov. to February are water deficit month due to the depletion of soil moisture. Proper watershed management, cultivation of drought resistant varieties of crops and irrigation can reduce the adverse effects produced by drought.

Thrust Areas in Disaster Mitigation and Preparedness- The following are the thrust areas that need to be considered in disaster mitigation and preparedness-

1. **Public Awareness, Community Participation and Publicity:** Appropriate community preparedness programmes through awareness campaigns, involvement of schools, Colleges and local institutions like Panchayat, local community and voluntary organizations (NGO) to cope with the disaster may reduce social vulnerability in disaster prone areas. The organizations mentioned are the real bridge between the Government and people at large.
2. **Use of Modern Technology:** Geographic Information system (GIS) global positioning system (GPS) and satellite imagery may be used extensively to assess risk to property due to earthquake, cyclone and flood. Satellite remote sensing has been widely used in forecasting, warning of calamities and assessment of damage.
3. **International Decade for Natural Disaster Reduction (1990-2000):** Various studies made and conferences held during the decade helped to understand the natural disasters and determines action plan to meet the challenges poised by the disasters. The International Decade for Natural Disaster Reduction (IDNDR) was essentially a campaign to encourage governments to reduce the impact of natural calamities. The “Yokohoma Strategy and Plan of Action for a Safer World” (1994) containing guide-lines for natural disaster prevention, preparedness and mitigation, which was adopted by the “Yokohoma world conference on natural Disaster (1994)” has reiterated the following action plan:
 - (1) Comprehensive national assessment of risks from natural hazards and integration development plans.
 - (2) Mitigation plans at national and local levels that address long term prevention, preparedness and community awareness.
 - (3) Ready access to global, regional, national and local warning systems.

India is committed to goals and objectives of IDNDR. A special plan –programme is now implemented for development of human resources, encouraging research and documentation and enhancing community awareness in the field of natural disaster.

Concluding remarks- The unique geographical location and geophysical setting make the Districts of Assam vulnerable to disasters like flood, earthquake, landslide, dams and droughts. Repeated Natural Disaster has given a chance to apply and learn the effectiveness of the various disaster mitigation programmes adopted by our state and central Government. Unfortunately, in all the cases, it has been found that hazard preparedness in our state is still in the rudimentary stage and need great improvement. North Eastern Social Research Centre and an institute; in the line of IASST (Institute of Advance Study in Science and Technology) should also be setup in Assam for the study and research on problems related to Natural disaster.

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Health Issues and Drug Addiction

• Rajat Kumar
•• Richa Chowdhary

Abstract- *“Some may think that abusing prescription drugs aren't dangerous, but that is very opposite from the truth. It is very addictive and dangerous to your health.”. Addiction is a multifarious condition, a brain ailment that is displayed by habitual substance use despite harmful result. Short Definition of Addiction: “Addiction is a primary, chronic disease of brain reward, motivation, memory and related circuitry. Dysfunction in these circuits leads to characteristic biological, psychological, social and spiritual manifestations. This is reflected in an individual”. People don't plan to get addicted to drugs, but when they initially take a drug, they might alike how it makes them feel. They believe they can control how much and how often they take the drug. However, drugs can alter/change the brain. While the definite physical and psychological special effects of drug use ailments tend to vary based on the certain substance involved, the universal effects of addiction to any drug can be disturbing. Psychologically, drunkenness with or withdrawal from a stuff/drug can cause everything from excitement as with alcohol, Frenzy, or inhalant intoxication, to paranoia with marijuana or steroid intoxication, to severe depression or suicidal thoughts with cocaine or amphetamine withdrawal. In terms of effects on the body, intoxication with a drug can cause physical effects that range from noticeable sleepiness and reduced breathing as with drunkenness with heroin or sedative hypnotic drugs, to the rapid heart rate of cocaine drunkenness, or the tremors to seizures of alcohol withdrawal.*

Keywords- *Addiction, Depression, Suicidal thoughts, Tremors, Seizers.*

Introduction- “It's difficult to believe in yourself because the idea of self is an artificial construction. You are, in fact, part of the glorious oneness of the universe. Everything beautiful in the world is within you.”

-Russell Brand

Health- Health is the level of functional and metabolic efficiency of a living organism. In humans it is the ability of individuals or communities to adapt and self-manage when facing physical, mental, psychological and social changes with environment. The World Health Organization (WHO) defined health in its broader sense in its 1948 constitution as "a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity". He who has health has hope, and he who has hope has everything.” Health is more than just a good or bad feeling, an external

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aesthetic look, or numbers on a medical chart. Health is the all-encompassing state of who we are as individuals. Unfortunately, health has been misconstrued in our society, misrepresented by the media, and warped to be used synonymously with things like thinness or physical strength. In reality, true health is the intersection of our physical, mental, emotional, social, and spiritual state of being at any one time. With the help of my paper, I'm going to share with you details about, that define health and my interpretation of them. Health is the most important aspect of our existence. It affects us every moment of the day, can change instantly or overtime, and is the number one determinant of the trajectory our life takes. But what is it really? Health is defined by wellness in the following areas.

Physical Health- Physical health is the state that your bodily structures and systems are in at any given time. It encompasses what you feel and what you sense. When your physical health is not in homeostasis you experience signs and symptoms internally and externally. This can include pain, headaches, rashes, or anything that manifests itself physically on or within your body.

Mental Health- Mental health refers to the condition of your mind and your ability to balance your emotions. It includes how you respond to daily stress, the life situations you encounter, and how self-aware you are. Poor mental and emotional is harder to recognize, and more controversial to acknowledge, than physical health. People may be aware of their poor mental health but unwilling to do anything to correct or heal it. Mental health issues are not something to be ashamed of however, and are just as critical as physical health problems. Seeking counselling, pharmaceutical assistance, or practicing daily self-care is nothing to be ashamed of.

Health Issues- The topics included here represent common health concerns for college students, including those that students reported as impacting their academics in the Colleges. Also included here are some less common, but important issues that can have a significant impact on students' health and well-being.



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Stress, Anxiety & Depression- Stress, anxiety, and depression are not uncommon among college students. Find out more about these topic and campus resources for these concerns.



Colds, Flus & Sore Throats- The common cold, flu, and sore throats are common, yet irritating health issues that are very prevalent across college campuses. Find out how to prevent, identify, and treat these illnesses.

Common Illnesses- Living in close proximity with others can increase your likelihood of getting sick. Find out how to

diagnose, treat, and seek help for common illnesses such as allergies, and nausea/vomiting.

Overview of Alcohol and Other Drugs- Provided here is information about the health effects of these substances, how the body processes alcohol, and how to prevent excessive intoxication or alcohol poisoning.

Difficulty Sleeping- Sleep difficulties are one of the top issues affecting student health and academic performance. Find out how to obtain enough sleep to feel rested and improve your well-being.

Extracurricular Activities- Extracurricular activities can enrich and enhance your life, but remember that over commitment can have a negative impact on your academics. Find out some healthy and balanced ways you can participate positively in all activities.

Homesickness- Though College is a time for new experiences and growth as an individual, you may experience loneliness or homesickness during your time. With the help of some practical solutions to help you cope with these feelings.

Roommate and Relationship Difficulties- One third of college student have problems each year with roommates, and the same number report having relationship difficulties. The issue impacts academics in of students. Learn how to manage personal relationships and how to help others do the same.

Sexual Assault & Relationship Violence- University has a number of resources available for students who experience sexual assault, relationship violence, or stalking. Learn the warning signs and what to do if you or someone you know has been a victim of sexual assault.

Sexual Health- College is a place in which the rich human, personal, and spiritual values of sexuality are often explored, and questions are bound to arise. Resources and support regarding sexual health topics are available. Look here for information and resources around sexual health and how to deal with a possible sexual health concern.

Acute Illnesses- Acute illnesses are those that have a very rapid onset and, in many cases, can be serious. Find out how to prevent acquiring such illnesses. Information about symptoms, treatments, and available resources are also included here.

Mumps- Mumps is a viral disease that is contagious. The mumps virus is transmitted through direct contact with infected respiratory secretions, which can be released through coughing or sneezing. Students who develop symptoms or who have questions or concerns should contact the Student Health Centre.

Mental Health- Anonymous self-screen of the most prevalent mental health issues on campus, including depression, bipolar disorder, generalized anxiety disorder, eating disorders, and alcohol use disorders.

Drugs- A drug is a chemical that interacts with proteins in the body to affect a physiological function. This is the general idea behind all medicine. Once these chemicals are absorbed into the systemic circulation they bind with certain proteins and this changes the functioning of the cell slightly. For example, anticancer drugs bind to proteins on the surface of cancer cells this

stimulates the cells to die. In this case cell death is the physiological action of the drug.

Drug Abuse- Drug abuse is a serious public health problem that affects almost every community and family in some way. Each year drug abuse causes millions of serious illnesses or injuries among peoples. Abused drugs include Methamphetamine, Anabolic, steroids, Club, drugs, Cocaine, Heroin, Inhalants, Marijuana. Prescription drugs, including opioids Drug abuse also plays a role in many major social problems, such as drugged, violence, stress, and child abuse. Drug can lead to homelessness, crime, and missed work or problems with keeping a job. It harms unborn babies and destroys families. There are different types of treatment for drug abuse. But the best is to prevent drug abuse in the first place.

Why Do People Take Drugs- There are many reasons people will take drugs.

Enjoyment- Although there are clearly risks involved in using drugs and negative side effects can be experienced, the evidence of drug use within youth culture suggests it is often a pleasurable experience. People who use drugs may like the feelings of excitement, confidence and connection with others which some drugs can elicit. Drugs may also help relieve feelings of boredom.

Environment- Many young people live in communities which suffer from deprivation, with high unemployment, low quality housing and where the infrastructure of local services is poorly resourced. In such community's drug supply and use often thrive as an alternative economy. As well as any use that might be associated with the stress and boredom of living in such communities, young people with poor job prospects may recognize the financial advantages and status achievable through the business of small-scale drug supply. However, drug use is certainly not restricted to areas of urban deprivation. As the press stories of expulsions from private schools and drug use in rural areas show, illicit drug use is an aspect of our society from top to bottom and in all regions.

Curiosity- Humans are naturally curious and want to experiment with different experiences. For some, drugs are a good conversation point.

The defense mechanism / self-medicating- Some people will use drugs to help them forget about their problems including any traumatic experiences they may have had. Drugs may also be seen as a way to help people relax and deal with stress, or to help deal with anxiety, depression and other mental health problems.

Natural rebellion- With young people in particular, taking drugs can be part of natural rebellion. Drug use may act as a means of defiance or may be associated with belonging to an alternative culture.

Promotion, availability and medical use- Drugs are all around us and people are often seen smoking and using alcohol on television. Alcohol marketing is also prevalent, including at sports fixtures. People may be prescribed drugs for medical reasons, such as tranquilizers or opioid painkillers, which they then become dependent upon. People can now purchase drugs off the dark web which can be sent to their homes in the post.

Peer pressure- There is considerable pressure to use legal substances. Being around others who are using drugs can make people feel like they have to follow suit to fit in. For example, it may be hard to abstain from alcohol in a pub where everyone else is drinking.

Cost- Value for money is often a factor as to which drug to use. Cannabis sufficient for a few joints would cost about £5. In terms of how long the effects last, this compares favorably with an average price for a pint of lager of around £3-4. By the same token, ecstasy of highly variable quality is still selling for up to £7 a tablet and many drug users have been voting with their wallet and turning to cheaper drugs.

Addiction- Addiction is a condition that results when a person ingests a substance (for example, alcohol, cocaine, nicotine) or engages in an activity (such as gambling, sex, shopping) that can be pleasurable but the continuation of which becomes compulsive and interferes with ordinary responsibilities and concerns, such as work, relationships, or health. People who have developed an addiction may not be aware that their behavior is out of control and causing problems for themselves and others. The word addiction is used in several different ways. One definition describes physical addiction. *“This is a biological state in which the body adapts to the presence of a drug so that drug no longer has the same effect, otherwise known as tolerance. Another form of physical addiction is the phenomenon of overreaction by the brain to drugs.”* (or to cues associated with the drugs). An alcoholic walking into a bar, for instance, will feel an extra pull to have a drink because of these cues. However, most addictive behavior is not related to either physical tolerance or exposure to cues. People commonly use drugs, gamble, or shop compulsively in reaction to stress, whether or not they have a physical addiction. Since these addictions are not based on drug or brain effects, they can account for why people frequently switch addictive actions from one drug to a completely different kind of drug, or even to a non-drug behavior. The focus of the addiction isn't what matters; it's the need to take action under certain kinds of stress. Treatment requires an understanding of how it works. When referring to any kind of addiction, it is important to recognize that its cause is not simply a search for pleasure and that addiction has nothing to do with one's morality or strength of character. Experts debate whether addiction is a "disease" or a true mental illness, whether drug dependence and addiction mean the same thing, and many other aspects of addiction. Such debates are not likely to be resolved soon. But the lack of resolution does not preclude effective treatment.

Physical and Mental Effects of Drugs- Soon after use, heroin causes a rush or surge of pleasurable sensation. The intensity depends on how the drug is taken, how pure it is and how much tolerance to the drug a person has developed. Injecting heroin provides the biggest rush. When a person is a chronic user and does not have much money, he (or she) may just be able to get his hands on enough heroin to keep withdrawal sickness from kicking in. An addict will refer to this as “getting well.” There is no rush of euphoria in



this situation. The person is just coping with the urgent need for the drug and is not able to get enough of the drug to get high.

The other effects of heroin include: Warm flush Dry mouth Heavy feeing in the extremities Nausea Vomiting Itching. The primary effect of long-term use of heroin is addiction. While there are a few heroin users who manage to function, care for families and hold jobs, the vast majority of heroin addicts suffer severe declines in health, relationships, financial situations, personal integrity and responsibility for others. Many are lost to productive society completely. They turn to theft, assaults, prostitution and other crimes to keep their habits going.

Prevention or Solutions- While it's practically impossible to prevent anyone and everyone from using drugs, there are things we can all do to avoid drug and/or alcohol abuse. By sharing this knowledge with those closest to you, you yourself may be able to prevent them from doing drugs, too. Here are the top five ways to help prevent drug abuse.



too. Here are the top five ways to help prevent drug abuse.

1. Effectively deal with peer pressure. The biggest reason teens start using drugs is because their friends utilize peer pressure. No one likes to be left out, and teens (and yes, some adults, too) find themselves doing things they normally wouldn't do, just to fit in. In these cases, you need to either find a better group of friends that won't pressure you into doing harmful things, or you need to find a good way to say no. Teens should prepare a good excuse or plan ahead of time, to keep from giving into tempting situations.

2. Deal with life pressure. People today are overworked and overwhelmed, and often feel like a good break or a reward is deserved. But in the end, drugs only make life more stressful — and many of us all too often fail to recognize this in the moment. To prevent using drugs as a reward, find other ways to handle stress and unwind. Take up exercising, read a good book, volunteer with the needy, create something. Anything positive and relaxing helps take the mind off using drugs to relieve stress.

3. Examine the risk factors. If you're aware of the biological, environmental and physical risk factors you possess, you're more likely to overcome them. A history of substance abuse in the family, living in a social setting that glorifies drug abuse and/or family life that models drug abuse can be risk factors.3. Seek help for mental illness. Mental illness and substance abuse often go hand-in-hand. Those with a mental illness may turn to drugs as a way to ease the pain. Those suffering from some form of mental illness, such as anxiety, depression or post-traumatic stress disorder should seek the help of a trained professional for treatment before it leads to substance abuse.

4. Keep a well-balanced life. People take up drugs when something in their life is not working, or when they're unhappy about their lives or where their lives are going. Look at life's big picture, and have priorities in order.

Conclusion- By adopting an evidence-based public health approach, we have the opportunity to take genuinely effective steps to prevent and treat substance-related issues. Such an approach can prevent substance initiation

or escalation from use to a disorder, and thus reduce the number of people suffering with addiction; it can reduce the number of substance-related deaths. A public health approach will also reduce collateral damage created by substance misuse, such as infectious disease transmission and motor vehicle crashes. Thus, promoting much wider adoption of appropriate evidence-based prevention, treatment, and recovery strategies needs to be a top public health priority.

Making this change will require a major cultural shift in the way we think about, talk about, look at, and act toward people with substance use disorders. Negative attitudes and ways of talking about substance misuse and substance use disorders can be entrenched, but it is possible to change social attitudes. This has been done many times in the past: Cancer and HIV used to be surrounded by fear and judgment, now they are regarded by many as simply medical conditions. This has helped people become comfortable talking about their concerns with their doctors, widening access to prevention and treatment. By coming together as a society with the resolve to do so, it is similarly possible to change attitudes toward substance misuse and substance use disorders. There is a strong scientific as well as moral case for addressing substance use disorders with a public health model that focuses on reducing both health and social justice disparities, and it aligns strongly with an economic case. Now is the time to make this change, for the health and well-being of all us.

“When everything seems to be going against you, remember that the airplane takes off against the wind, not with it.” – Henry Ford

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Emotional Intelligence of Students in Relation to Gender Differences

• Fahmeeda Zaidi

Abstract- *The purpose of the present study was to explore the impact of gender differences on emotional intelligence. To fulfill the purpose, 200 students were selected as a sample. The sample consisted of 100 female students and 100 male students. The age range of participants was 18-20 years. To measure the emotional intelligence of participants, Emotional intelligence Inventory developed by S.K. Mangal and Shubhra Mangal (2008) was administered. Statistical analysis of the data was done by calculating Mean, SD and t-test. The effect of gender differences on the emotional intelligence was found in the study. On the basis of the result, it has been concluded that the emotional intelligence of female students greater than male students.*

Keywords- *Emotional intelligence, Gender differences*

Emotional intelligence (EI) is the affective aspect of intelligence. It is such an ability of a person, which enables a person to understand and evaluate his own and others' feelings accurately. A person who has this ability is able to express emotions effectively, Control emotions well and use their emotions appropriately. According to Colman and Andrew (2008) the ability to recognize the feelings of self and others, to differentiate between different feelings and to make accurate use of feelings is called emotional intelligence.

The term emotional Intelligence became popular all over the world after the publication of Daniel Golman's (1995) book 'Emotion intelligence'. According to him, emotional intelligence is the ability to recognize and manage one's own and others' emotions. It enables a person to build positive relationship with others.

According to Golman (1995) emotional intelligence is a combination of five components (i) The first component of emotional intelligence is self-awareness. It means a deep understanding of one's feelings, weaknesses and motivations. Individuals with a high level of self-awareness have an understanding of how their emotions affect themselves others and their own actions. (ii) The second component of emotional intelligence is self-regulation. It is the ability to control one's own emotions that saves a person from drowning in emotions. Those who have more self-regulation, they take thoughtful decision instead of taking wrong decisions under the impulse of emotions. (iii) The third component of emotional intelligence is motivation. This component incites the person to achieve the

goal. People who have more motivation are always looking for better and do not give up hope even after failure. (iv) The fourth component of emotional intelligence is empathy. The meaning of empathy is understanding of the feelings of others. People who have empathy are able to develop good relationship with others. (v) The fifth component of emotional intelligence is social-skill. People who have high social-skill behave according to the demand of the society. They are good friends and influential in society.

There can be many psychosocial correlates of emotional intelligence such as - socioeconomic status, personality traits, motivation, physical and mental health, cultural factors, education, age and gender differences etc. Many studies have been done to find out the relationship of various variables with emotional intelligence. Mayer et al. (2000) found a positive correlation of emotional intelligence with life satisfaction and subjective well-being. Diener, Locus & Oishi (2002) found out the correlation between emotional intelligence and mental health. Nasir M. & Masrur R. (2010) conducted a Study to examine the effect of age, gender difference and academic achievement on emotional intelligence. They found a significant correlation between emotional intelligence and academic achievement. No significant correlation was found between emotional intelligence and age. In this study no significant difference has been also found in the emotional intelligence of boys and girls. Fariselli, Ghini and Freedman (2006) found a low positive correlation between emotional intelligence and age in their study.

Many studies have been done to know the effect of gender differences on emotional intelligence. In this context, Chu (2002), Hunt & Evans (2004) and Ahmad et al. (2009) Studied and found higher emotional intelligence in men than women. Katyal & Eliza (2004) obtained opposite result in their study. They found higher level of emotional intelligence and self-esteem in girls as compared to boys. Bibi et al. (2016) found women to be more emotionally intelligent than men. Pathan & Banshibihari (2004) did not find any correction between age and emotional intelligence. The effect of gender difference on emotional intelligence was also not found in their study. Similarly no significant difference was found emotional intelligence of boys and girls in Smith's (2000) study. Obviously, contradictory results have been found in above mentioned studies, regarding the relationship between emotional intelligence and gender differences. The present study is an attempt to investigate these contradictory results. The effect of gender differences on emotional intelligence and its various components/areas which are intra-personal awareness, inter-personal awareness, intra-personal management and inter-personal management has been investigated in this research.

Objectives

- To find out the difference in emotional intelligence among male and female students.
- To assess the significant difference in intra-personal awareness (own emotions) among male & female students.

- To investigate the contract in inter-personal awareness (other emotions) among male and female students.
- To determine the difference in the intra-personal management (own emotions) among male and female students
- To examine the significant difference in inter-personal management (others emotions) among male and female students.

Methodology

Participants- In the sample of the present piece of research, 200 students were selected from Shibli National P.G. College, Azamgarh. The units of the sample were selected by random sampling method. The total sample consisted of 100 male students and 100 female students.

Inclusion criteria	Exclusion criteria
<ul style="list-style-type: none"> • Students pursuing graduation 	<ul style="list-style-type: none"> • Students who were studying in post graduate courses or other courses
<ul style="list-style-type: none"> • Students Studying Arts Stream 	<ul style="list-style-type: none"> • Students who were studying in Science Commerce and other stream
<ul style="list-style-type: none"> • 18–20-year-old students 	<ul style="list-style-type: none"> • Students under 18 and over 20 years of age
<ul style="list-style-type: none"> • Urban 	<ul style="list-style-type: none"> • Rural

Inclusion and exclusion criteria

Instrument- The Emotional Intelligence Inventory (EII) was used for examination of emotional intelligence of students. This inventory is constructed by S.K. Mangal and Shubhra Mangal (2008). There are 100 items in this inventory. In this overall emotional intelligence is measured under four dimensions, i.e., intra-personal awareness, inter-personal awareness, intra-personal management, and inter-personal management. this is a standardized, valid and reliable test.

Procedure- The researcher met personally all participants for the data collection and told them about purpose of the study. They were requested to Co-operate in this work. The participants were assured that their identity would be kept Confidential. After this they were given the inventory, as well as the instructions were explained well and asked to answer the questions honestly. Ultimately, answers of all questions of inventory were obtained from them, their responses were scored and tabulated.

Statistical Analysis- The Mean, Standard Deviation and 't' were calculated to find out the significant difference in the level of emotional intelligence of female and male students.

Results And Discussion- Aim of the present trial was to explore the effect of gender differences on emotions intelligence and its various dimensions as mentioned earlier. The results obtained after the analysis of data are presented in the following tables and bar diagrams -

Table 01
Mean, SD and t-value of female
and male students on overall emotional intelligence

Group	N	Mean	SD	t-value
Female Students	100	119.90	12.16	4.07**
Male Students	100	112.90	12.16	

Note: **Significant at 0.01 level

It is clear from the above table that there is a significant difference between the level of emotional intelligence of female students and male students ($t=4.07 > 0.01$). The mean value of female students was found to be 119.90 while the mean value of male students was found to be 112.90. It means that females are more emotionally intelligent than males.

Overall Emotional Intelligence

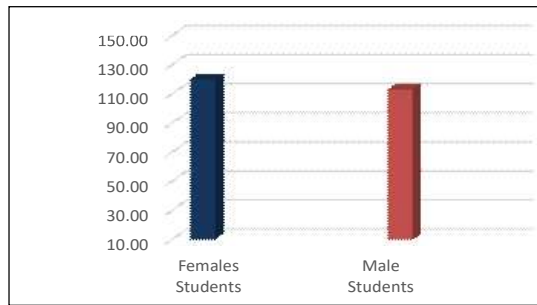


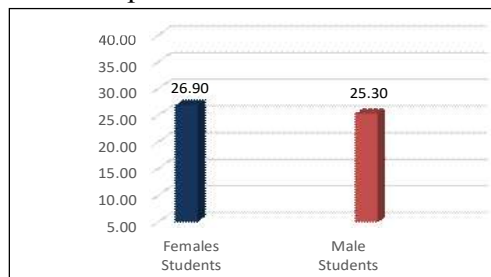
Figure 1- The bar diagram based on mean scores of female and male students on overall emotional intelligence.

Table 02
Mean, SD and t-value of male and female students in order to intra-
personal awareness

Group	N	Mean	SD	t-value
Female Students	100	26.90	2.53	5.42**
Male Students	100	25.30	1.51	

Note: **Significant at 0.01 level

The t- value ($5.42 > 0.01$) given in the table-2, shows that there is a significant difference in the degree of intra-personal awareness of female students and male students. In this context the mean score of female students is 26.90 and the mean score of male students is 25.30. It means that females are better than males in intra-personal awareness.



Intra-Personal Awareness

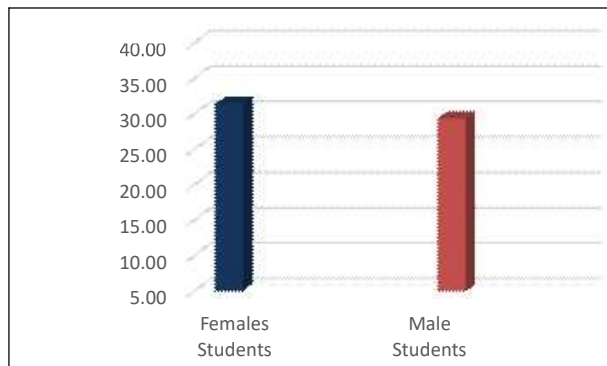
Figure 2- The bar diagram based on mean values of female and male students on intra-personal awareness.

Table 03
Mean, SD and t-value of female and male students in favour of inter-personal awareness

Group	N	Mean	SD	t-value
Female Students	100	31.45	3.56	4.29**
Male Students	100	29.35	3.35	

Note: **Significant at 0.01 level

It is clear from the t-value ($4.29 > 0.01$) displayed in table-3, that the difference in inter-personal awareness of female and male students has been found at a respectable level. The mean values given in the table show that the mean of female students is 31.45 and the mean of male students is 29.35. These mean scores show that female students scored higher on inter-personal awareness than male students.



Inter-Personal Awareness

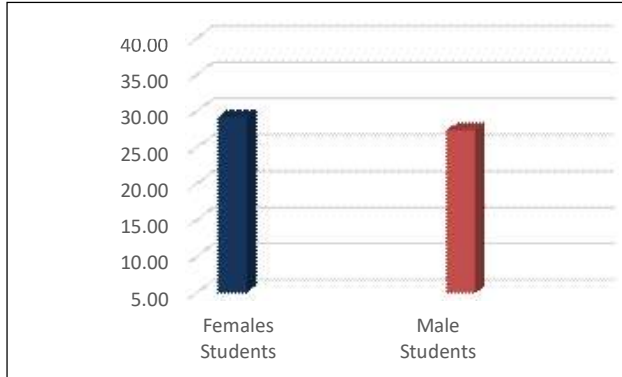
Figure 3- The bar diagram based on mean value of female and male students on inter-personal awareness.

Table 04
Mean, SD and t-value of female and male students on intra-personal management

Group	N	Mean	SD	t-value
Female Students	100	29.20	2.97	4.51**
Male Students	100	27.35	2.82	

Note: **Significant at 0.01 level

The value of t ($4.51 > 0.01$) given in table-4, indicates that there is a significant difference between the intra-personal management of female and male students. The mean scores of female and male students were 29.20 and 27.35 respectively. It means that level of intra-personal management has also been found higher in female students than male students.



Intra-Personal Management

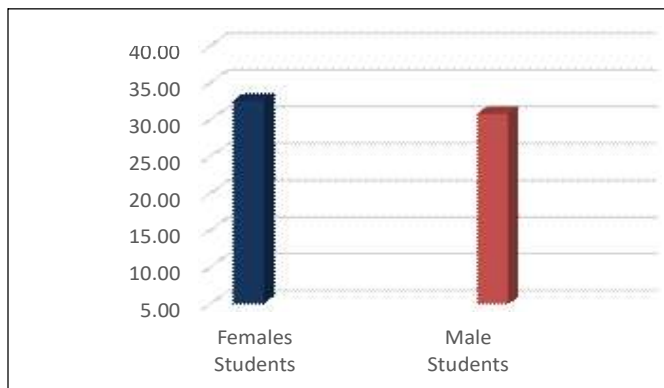
Figure 04- The bar diagram based on Mean Scores of female and male students on intra-personal management.

Table 05
Mean, SD and t-value of female and male students on inter-personal management

Group	N	Mean	SD	t-value
Female Students	100	32.55	4.36	3.00**
Male Students	100	30.75	4.09	

Note: **Significant at 0.01 level

On the basis of t-value ($3.00 > 0.01$) displayed in above table, it is unambiguous the difference in the amount of inter-personal management among female and male students has been found to be significant. In this context the mean of female students (32.55) higher than mean of male students (30.75). It means that in female students the ability of inter-personal management more excessive than male students.



Inter-Personal Management

Figure 05- The bar diagram based on Mean values of female and male students in respect to inter-personal management.

From the above description it is clear like an open book that, female students have been found more emotionally intelligent than male students. The findings of the study highlight that females not only score higher on over all emotional intelligence than males but also scored higher on all

dimensions as well. It is noticeable that female students have a better ability to identify, understand, manage and evaluate their own and others' feelings than male students.

The result of several previous studies corroborates the findings of the presents investigation. Thing jam and Ram (2000), ciarrocchi et al. (2001), Abbas I. and Junaid-ul-haq (2011), Masum and Khan (2014), Kumar (2020), and Sharma C. (2021) studied the effect of gender differences on emotional intelligence. These studies were done on different samples and regions. They concluded that, the amount of emotional intelligence was found better in females in comparison to males.

The general observation is that females are more sensitive than males that's why they are emotionally attached to their relationships and have more affective attachment to their close relatives. Perhaps this is the reasons why females have higher emotional intelligence. In this regard, Wester et.al (2002) suggested that cultural expectations of femininity and masculinity may account for differences in emotional behaviour and actions among females and males.

Conclusion- The purpose of the prevailing research was to determine the effect-of gender differences on emotional intelligence and its four dimensions as mentioned earlier. To achieve this objective, the difference between the mean scores obtained by female and male students on emotional intelligence and all its aspects was determined with the help of t-test. Based on the result obtained in this study, it is concluded that:

- Female students were found to have higher level of emotional intelligence than male students.
- Female students scored higher on intra-personal awareness than male students,
- Inter-personal awareness ability was found to be higher in female students as composed to male students.
- Intra-personal management was found to be better in female students than male students.
- Female students were found to have a higher level of inter-personal management efficiency than male students.

Limitations And Recommendations- The sample of the study consisted of students from only one college. Hence its result cannot be generalized. Therefore, in future researches, the sample should be selected from a wider area. In this study only the main effect of gender difference on emotional intelligence has been studied. While the cause of the difference in the level of emotional intelligence of female and male students can be the effect of interaction of other factors along with gender difference as well as other factors and their interactional effects on emotional intelligence should be investigated in future researches.

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Impact of Rural Road on socio-economic Development: A case study of Mandideep – Dahod Road, District Raisen, Madhya Pradesh

•Anurag Tiwari
•• Usha Vaidya

Abstract- *One of the most crucial elements in the development and transformation of rural areas and the country is an accessible road transport network. The accessibility of various economic and social services to rural residents is made easier by the connectivity of rural roads, which also boosts agricultural and industrial output. By creating work opportunities, it lowers the poverty rate and raises the standard of living from the outdated subsistence level to one that is self-sufficient and prosperous. The PMGSY road has enhanced the population of the connected villages' social, physical, financial, and human capital, allowing the people to advance into the mainstream and contribute to the development of the country. The influence of the NH12(Mandideep-via Dahod- to NH12 Noor Ganj PMGSY road on the socioeconomic development of its surrounding villages is highlighted in the current research as a case study of the impact of PMGSY on social and economic change.*

Keywords- *Accessibility, Agricultural and industrial outputs, work opportunities, PMGSY*

Introduction-A young Jamaican woman said, "If we get the road, we'll get everything else, like a community center, jobs, a post office, and a phone." The saying "community without roads does not have a way out" was uttered by a poor man from Juncal, Ecuador. (2000) Narayan et al. The advantages of connecting settlements with a good road system are numerous and beneficial. Over the past few decades, the significance of rural connectivity has greatly expanded. Increased mobility of people (passengers) and commodities (materials) on rural roads promotes economic expansion. The Pradhan Mantri Gramme Sadak Yojana (PMGSY), launched by the Indian government on December 25, 2000, aims to connect all unconnected habitations with a population of more than 500 by the end of the Tenth Plan Period (2007) and those with a population of more than 1000 by the year 2003. The Pradhan Mantri Gramme Sadak Yojana (PMGSY)'s main objective is to establish the previously standard road connectivity across the nation's communities. Around 82% of villages had road connection as of December 2017. The PMGSY is the flagship programme that is centrally

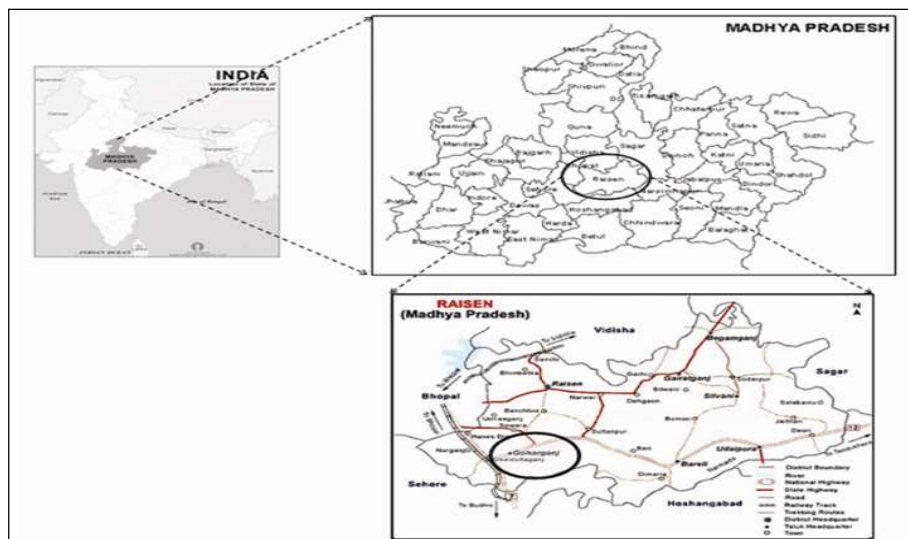
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financed by the Ministry of Rural Development. The main objective was to reduce poverty and promote quick sustainable development and socioeconomic transformation in rural India, the Indian government launched several programs.

Litratue Review- The necessity of rural connectivity has been underlined as a crucial element in the socioeconomic development of the people in the Government of India's 12th five-year plan (2012–17). If the rural communities are connected, they will have access to facilities that are necessary for their survival, such as healthcare, education, marketing, etc. The level of poverty among rural residents has significantly decreased because of improvements in rural roads (MORD, 2012). It is widely acknowledged that rural connectivity has increased the adaptability of rural people and provided access to markets, increasing homestead and family unit earnings and ranch supply prices (Barwell 1996; MORD, 2012).

When compared against investments in agricultural research, development, and education, a study by the International Food Policy Research Institute (IFPRI) in India found that road investments significantly reduced rural poverty (Mohapatra and Chandrasekhar, 2007). The degree of mobility, in addition to sitting, and the quality of facilities are factors that influence the need for travel for financial, social, and sustenance objectives (Dar and Mhina, 1997; Sarkar and Ghosh, 2000; Sarkar, 2002; Donnges, 1998; Wilkinson et al., 1998; Albert et al., 2000).

Study Area- The NH12(Mandideep-via Dahod- to NH12 Noor Ganj PMGSY road segment has been chosen for the current study in order to evaluate the effect of the road on the socioeconomic development of the rural regions next to it. The Mandideep-Dahod road segment is in Madhya Pradesh's Raisen District's Obedullahganj block. Noor Ganj and Dahod are two villages that are traversed by the road. The road is 17.75 kilometers in length overall, with one end at Mandideep and the other at NH12. The road's construction was completed in 2019. It provides the villages with access to an all-weather pucca road.



Objectives- The primary goal of this paper is to evaluate the socioeconomic effects on the lives of rural residents who benefit from improved rural connectivity offered by the NH12(Mandideep-via Dahod- to NH12 Noor Ganj PMGSY road in the form of

1. agricultural productivity and economic gain due to increased production and a rise in commodity prices.
2. the advancement of education through easier access to educational institutions.
3. social development, which involves transforming rural areas through improved social contact, successful integration, and meeting people's higher as well as cultural requirements.

Database- Primary data and secondary data were mostly used in the preparation of this article. To achieve the predetermined goals, secondary data has been gathered from various books, journals, websites, etc. The MPRRDA provided the details about the NH12 Mandideep-via-Dahod-to-NH12 Noor Ganj PMGSY road.

Methodology- To achieve the goals of the current study, a variety of statistical tools and cartographic techniques have been employed. 100 conveniently chosen respondents, comprising cultivators, daily wage workers, businesses, servicemen (working in the government/non-government organised sector), students, unemployed youths, and others, were randomly chosen to participate in a survey to gather the primary data. In addition, techniques such as focus groups and in-depth interviews were used to enhance understanding of the effects of the road. The data were then tabulated, synthesized, evaluated, and interpreted while also being shown graphically. MS Excel is used to analyze the data and to display the findings graphically.

Results and Discussion- The study's findings are summarized in the section below, which also includes a brief discussion of them.

A brief description of the beneficiaries- Thirty beneficiary-respondents from the chosen villages next to the PMGSY road, such as Mandideep, Dahod, and Noor Ganj, have been questioned to determine the impact of the NH12 Mandideep-via-Dahod-to-NH12 Noor Ganj PMGSY road.

A summary of the respondents' profiles is displayed in table 01, as seen below.

Table 01
Summary of the Respondents' Profiles

Attribute	Respondents						
Sex	Male				Female		
	21(70%)				9(30%)		
Age	<30	30 to 60		60>			
	6(20%)	21(70%)		3(10%)			
Literacy	Literate				Illiterates		
	27(90%)				3(10%)		
Occupation	Cultivator	Business	Day Labour	Service	Student	Unemployed	Others
	9(30%)	3(10%)	6(20%)	3(10%)	3(10%)	2(6. %)	4(14%)

Source: Calculated from primary data

Impact on Agriculture –

Increased Productivity- Agriculture is a major contributor to the national economy and a major source of jobs. About 70% of individuals are directly employed in this industry, or agriculture, according to the 2011 Census. The sector upon which the entire economy is based in agriculture. Their aspirations and needs are closely entwined with agriculture. Most of the population in the study region is rural, and agriculture is the main source of their income. They consequently deal with a wide range of issues brought on by a lack of contemporary technologies and updated agricultural equipment. Information diffusion and technological innovation/progress were severely hampered since distant areas were hardly connected to the main roads or other marketplaces. But now that the PMGSY road has been built, the villagers may easily enjoy the advantages. This allows them to currently take advantage of new connectivity's benefits, which has a revolutionary impact on the people's economic foundation. They may readily buy chemical fertilizers, seeds, pesticides, insecticides, herbicides, and other agricultural supplies from the markets. They can also sell their extra produce at a far-off market and transport less expensive perishable goods like milk and vegetables to the market. It has sparked changes in the study area's cropping patterns, especially a transition away from conventional food crops and towards cash crops, vegetables, and fruits. The research area's documented change in agricultural crop production is presented below.

Table 02
Agricultural Crop Production

Productivity of Crops in kg/Acre			
Crop	Before PMGSY	Before PMGSY	Growth Rate
Paddy	6	10	4
Wheat	15	25	10

Productivity of Agricultural Crops Before and After the NH12(Mandideep-via Dahod- to NH12 Noor Ganj PMGSY Road			
Other cereals	7	12	5
Other	70	100	30

The research area's main agricultural crops include paddy, wheat, and various cereals, among others. The production rate of the crops was poor before the construction of the PMGSY road because there was insufficient use of fertilizers, HYV seeds, pesticides, as well as a lack of awareness, among other factors.

But now that the road has been built, they can easily obtain modern agricultural inputs and tools like chemical fertilizers, seeds, pesticides, and other things from the neighboring market centers of their choice (Bhopal, Mandideep, Obedullahganj, Raised, etc.).

As a result, each crop's productivity has significantly increased, as seen in the table (02) and the figure (02) above. Among all crops, cereal production has experienced the highest productivity increase rate. Additionally, the study region has lately begun to practice banana, sugarcane, vegetable, and other crop farming.

Influence on Industrial Growth-Villages along NH12 from Mandideep to Dahod to Noor Ganj Despite being close to the Mandideep Industrial Area, this road does not have a very strong base for the industrial sector. However, the development of small and medium-sized companies in the district's rural areas was greatly aided by the building and upgrading of PMGSY road. Among the mentioned-worthy items are warehouses, gas stations, dairy plants, fisheries and so forth. Cottage and small-scale enterprises have rapidly improved in the area thanks to better transit efficiency, decreased trip time, and low transportation costs. Additionally, under the enhanced environment, business owners can readily supply goods and products to the study area's consumers at a lower cost.

Effect on the Creation of Employment- In the research region, the newly constructed connections between the villages and major roadways and village service centers have a favorable impact on the development of the infrastructure, agriculture, industry, etc. The process of building and upgrading the roads involves the people either directly or indirectly, creating direct employment. Along the road many residents of the area opened tea shops, grocery stores, and other businesses. They participate in their activities all year round because they currently have an all-weather road connection. Due to improved accessibility via the village road network, users are now able to travel longer distances at their workplace with ease. The road has a favorable impact on employment generation, according to the field study, which received 85% affirmative responses and 15% negative responses. None of the respondents pointed out any detrimental effects of the road on job creation.

Impact on Transportation Facilities- Bullock carts, tractors, etc. were the primary modes of transportation in the studied area prior to the building of. However, after the construction of the road, motorized vehicles such as the bus, tractor, bike, scooter, motorized van, etc., completely replaced the mode of transportation in the area under investigation. As a result, both commodities and passengers are becoming more and more mobile every day. Their fundamental requirements are quickly met, which is really what they had long hoped for. The PMGSY road makes it simple and inexpensive to carry agricultural surplus produce as well as other perishable goods, such as vegetables, eggs, and milk, to the centers.

Impact on Education-The study area's villages had a very inadequate and dilapidated road system prior to the establishment of the NH12 Mandideep-via-Dahod-to-NH12 Noor Ganj PMGSY road. Most students and teachers would frequently miss class during the rainy season due to poor road

conditions caused by water logging and muck. Even pupils would frequently take significantly longer to get to school. Many children used to miss class because they were too wet to get to school, and it took them much longer to get there. However, the accessibility of the stakeholders to the educational institutions has improved because of the construction of the road. The upgrading of roads under has significantly increased the enrollment in middle and high schools.

The development of the road greatly benefits the pupils in Government Higher Secondary School. By switching modes of transport, it not only cuts the trip time from 120 minutes to 30 minutes, but also improves student attendance at school. Prior to being built, the road was in poor shape from the standpoint of people moving along it, especially during the monsoon season.

Impact on Health- Prior to the PMGSY, the roads and other forms of transportation in the research area's villages were in very bad shape, making it difficult for patients to get around. There was a time when transporting patients to clinics and hospitals required more time. When pregnant ladies needed to be moved, the situation was particularly risky for the people. However, the PMGSY under study links the eligible settlements (Dahod and Noorganj) to the neighbouring NH12, providing improved facilities for people to reach hospitals and encouraging the establishment of more health centres, dispensaries, and other healthcare facilities. Due to the accessibility of motorised cars and year-round, all-weather roads, patients can now get to health facilities or hospitals rapidly. With the assistance of ASHA employees, the ambulance service is currently operational in the study region. The PMGSY road has a greater influence on pregnant women further into the research region. Due to the accessibility of transport facilities, the majority of women are now admitted to hospitals, rapidly reducing newborn and maternal mortality. Prior to 2017, most sick people sought primary care from earthquake doctors, but as transportation has become easier to access and socioeconomic conditions have improved, they are now able to go to Sub-Divisional Hospitals, District Hospitals, specialist doctors, and nursing homes (private hospitals). They now have a much greater understanding of their health and the resources needed in times of difficulty.

Impact on Urbanization- Prior to the construction of the PMGSY road, it was noted that the study area's villages and towns were physically separated from one another. However, PMGSY reduced the physical distance between them by connecting these disconnected habitations to the surrounding towns or higher level of roadways.

Some of the fundamental metropolitan services and amenities are conveniently accessible to the villagers from their homes. The rural residents' traditional to modern way of life has seen a rapid transition in transportation. PMGSY has made the transition from kuccha houses to pucca houses more common. It has been observed that the use and ownership of televisions, two-wheelers, four-wheelers, various electrical appliances, computers, mobile phones, and other electrical and electronic devices has increased.

Impact on Poverty Alleviation- By providing direct employment opportunities, involving residents in various employment-generating sectors in their own villages, and utilising all-weather roads throughout the year, village road connectivity under PMGSY lowers the growth rate of poverty in the rural area. The villagers report that the average income is rising quickly.

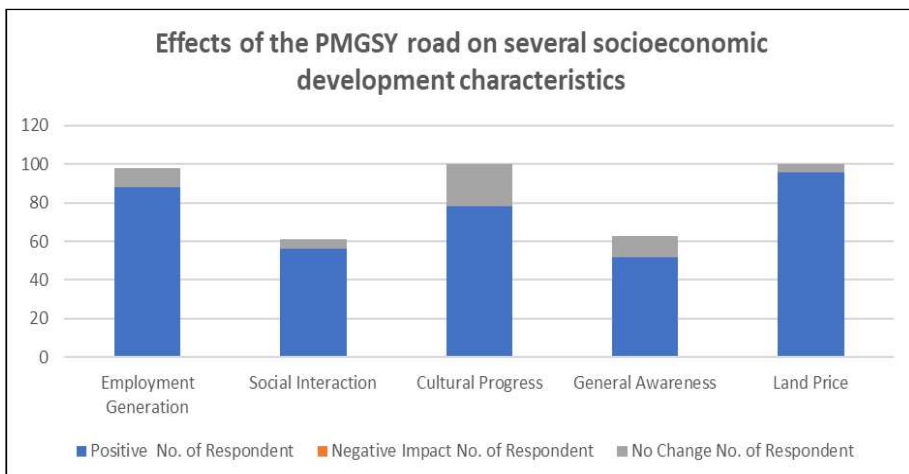
Impact on Culture Development- The PMGSY road improves road connectivity, reduces physical distances between communities, breaks down cultural barriers, and facilitates acculturation because it allows for frequent interaction and the exchange of values and ideas, among other things. Many villages are now able to travel frequently and comfortably to distant locations for purposes such as attending festivals, cultural events & celebrations, tourism, weddings, etc. Only 18% of respondents are in favour of no impact on the cultural realm, while as many as 82% of respondents say that the road development has improved culture.

Social, economic, and cultural effects:

Table 03
Effects of the PMGSY road on several socioeconomic development characteristics.

Sector	Positive		Negative Impact		No Change	
	No. of Respondent	% of Respondent	No. of Respondent	% of Respondent	No. of Respondent	% of Respondent
Employment Generation	88	88%	0	0	10	10%
Social Interaction	56	56%	0	0	5	5%
Cultural Progress	78	78%	0	0	22	22%
General Awareness	52	52%	0	0	11	11%
Land Price	96	69%	0	0	4	4%

Source: Calculated by author based on primary survey



The field survey revealed that the price of land on both sides of the road was significantly impacted by the road. According to all of the respondents, the road has a beneficial effect on land value. Due to information sharing within villages and with communities outside the research region, the residents are now more informed. Only 2% of

respondents said there was no influence, while as many as 98% of respondents said the road had a beneficial effect on people's general awareness. The road's enhanced accessibility and connectedness cause a reduction in physical distance, which in turn reduces travel time and increases social engagement. However, nobody also brought up the detrimental effects of the road.

Land Cost: Since the road was built in 2017, both the frequency and the volume of vehicular traffic on it have dramatically increased. On both sides of the road, numerous stalls, businesses, storage spaces, Warehouses, Petrol pumps etc. have sprung. The demand for the land next to the road has so dramatically increased.

According to the field study, the land price was quite cheap before the road was built, at Rs. 1,000,000/Acre, but it has since increased to Rs. 350,000/Acre. Even though it is apparent that several other reasons may have contributed to the rise in land prices, better mobility has undoubtedly been a significant contributing element.

Major Findings:

- New varieties of some of the cash crops, like Paddy, Moong and vegetables, have recently been introduced in the study area after the construction of the road to mainly as cash crops.
- Traditional transport modes are declining in use.
- The productivity of paddy, vegetable, and wheat, etc. has increased perceived to be due to easier access to agricultural inputs.
- Motorized vehicles offer transportation services that are much faster and more effective than traditional modes of transportation.
- □ According to a field survey, the price of land has significantly increased since 2017. Prior to 2017, it was just Rs.1,000,000. Today, it can reach Rs. 350,0000.
- The respondents gave their opinions and discovered that the road's positive effects increased land prices (96% of respondents), general awareness (56% of respondents), social interaction (56%), cultural improvement (78% of respondents), and employment opportunities (88% of respondents).

Conclusion- As a wonderful outcome of this noteworthy initiative, PMGSY road has helped the rural residents of the remote study area develop an appreciation for modernity and self-reliance. They may readily use their fundamental resources and facilities to meet their needs. They now understand that improving their socioeconomic situation is virtually impossible without a touch of globalization and urbanization. This realization, which generally occurs after the program is put into action, gives rise to the "dream of a billion," or a "Strong India," in their minds. As a result, it is possible to say with some confidence that the NH12 Mandideep-via-Dahod to NH12 Noor Ganj route brought about the intended change in the rural area.

Digital Media Marketing Towards Reading News Behavior

• Angel Anthony Kasonta
•• Thakur, Sugandha Shekhar

Abstract- *This research meant to find out and know the mode, style, and type of digital media marketing used by the media professionals and how it is effective and in what sense, especially by looking at the methods, tools, and forms of digital media marketing uses by the media professionals who are the journalists. This study was conducted in Tanzania and the population of N=51 journalists were taken as a sample size. The results show it is strongly agreed that almost all media professionals are aware of digital media marketing and they do apply it on their digital media platform with different methods such as applying them anywhere and time, preferring to use audio, video, cartoon, and text too. And the things which motivate them to do that are increasing the viewers' number, attracting more viewers on reading the news, and increasing the publicity of their brand and product.*

Keywords- *digital media, digital media marketing, media professionalism, journalist*

Introduction- This article provides an overview of digital media and digital media marketing, including definitions and examples. It also presents the methodologies employed and findings (results, discussion, and suggestions).

Digital Media- Digital media is the usage of the internet through the modern technologies and/or various specialized modern technologies such as computer, computer network, fax, mobile phones, broadcasting media, printing devices for effective preparation and distribution of the message to the audiences. (Safiya 2018) defined the digital media as the major center of the massive revolution in media witnessed by the modern era which lies in the advent of a global networking which called the Internet, whereby it is not only transformed the profession of journalism in every way but also it is rapidly increased the area of citizen journalism.

Digital Marketing- "Digital marketing" is the practice of targeting potential customers through various websites and/or other digital forms. In a digital medium, several ad forms are developed, and the messages are artistically delivered together. The public is constantly being bombarded with adverts

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these days, even through the technological devices they use to access the internet. The adoption of digital media and digital media marketing on news channels is a result of the rising usage of digital media and digital media marketing.

From that, a researcher wanted to see or to investigate on how this digital media marketing has been practiced by the media professionals and trying to look on their daily responsibilities as news anchors if they apply that digital media marketing on their news channels. And if they do apply, which methods, tools and forms are they using so that can balance all on reporting news and doing marketing. If they add digital media marketing at the middle of the reporting, then, how it affects their professionals as media. Does it increase the viewers or readers on their news channels?

Therefore, this is what makes a researcher to be more interested on investigating about the mode of Digital Media Marketing in terms of methods, tools and forms used by Media Professionals in Tanzania, as the Main objective of this study. And also, I believed after completing this research, will bring more significance and contributions to the media professionals on how to stick on the media profession and cannot base much on digital media marketing that means to take and consider more space for news as their daily responsibilities and knowing which methods are more effective and appropriate with their daily routine as news anchors.

Theoretical Framework- The theoretical framework gives the current study a theory-driven approach and gives it a clear and credible foundation for its arguments. Two hypotheses will be used in this research to explain how and why digital media marketing is used.

Agenda Setting Theory- The ability of the news media to influence the focus placed on the subjects of the public agenda is referred to as agenda-setting. According to a widely accepted view, the media may sway public opinion by choosing the subjects that would garner the most attention. According to agenda-setting studies, media sources strive to influence viewers and establish a hierarchy of news relevance. In contrast to the research, the media makes an effort to implement digital marketing on their digital media platforms and persuade the viewers who make up their audience to pay attention to the services and goods on those platforms where digital marketing is being used.

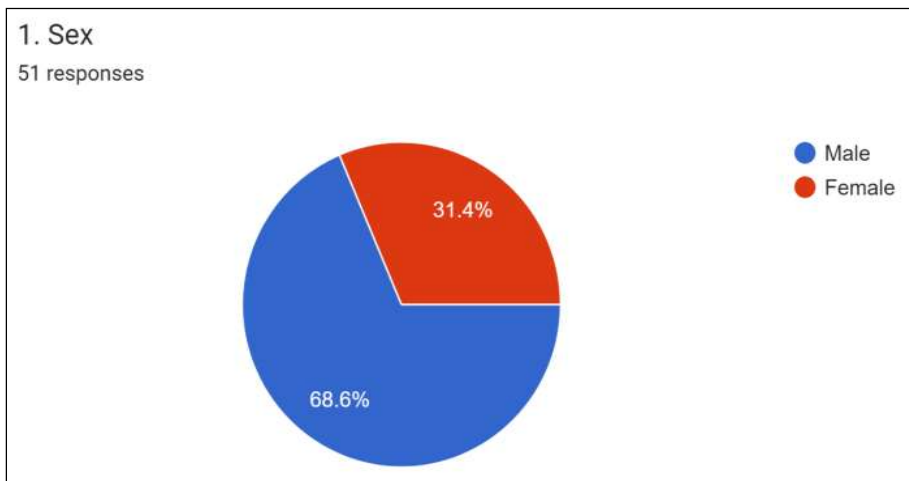
Research Methodology- A reasonable conclusion regarding the link between the independent and dependent variables was reached via the use of exploratory and descriptive research designs in this study.

The quantitative data gathered by survey questioners to evaluate respondents' impressions of the techniques employed by media professionals in digital media marketing. The identical questions were given out to the sample of 51 journalists and media workers in this study, with N=25 coming from print media like newspapers and N=26 coming from electronic media, which includes television. For this study, a deductive technique was used to evaluate the hypotheses and research questions in order to determine if the claims were accepted or rejected before evaluating the data.

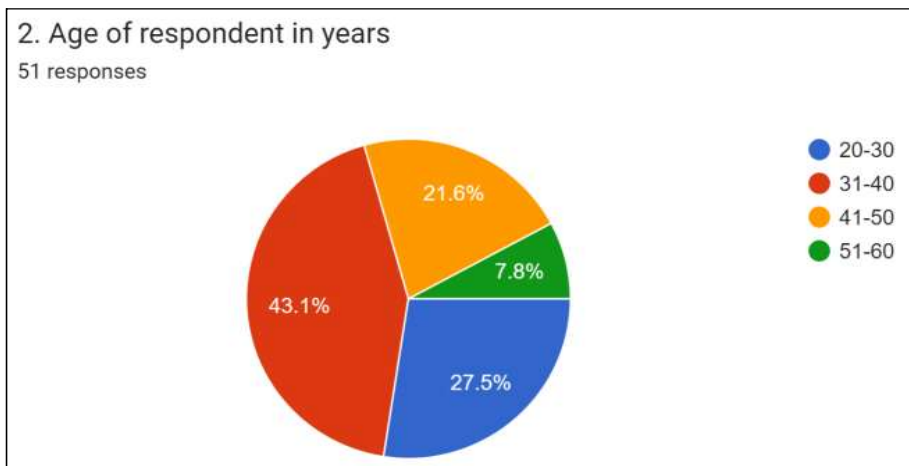
Operational Process- The study topic was examined using an experimental design, notably a 2 x 2 factorial design that utilized (strategies used x outcome on media or news channels) while altering these variables into one stimulus set. This is known as the operational technique.

For their quasi-experimental participants, who were randomly allocated to either the first or second condition, an online survey questionnaire using Google Forms was prepared. It asked about the approaches they use when applying for the digital media marketing on their digital media platform. After answering basic demographic questions about their digital media literacy and consumption habits, participants were asked to explain why they chose to implement digital media marketing on their digital media platform and the digital media they work for.

Results And Findings

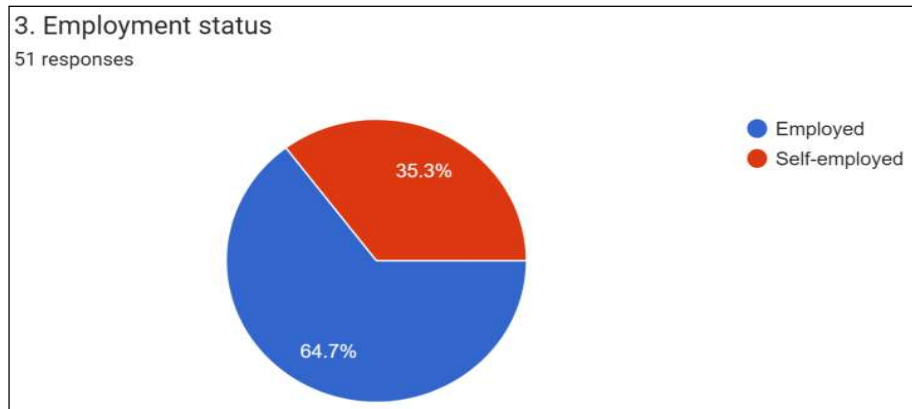


Most of the media professionals who deals, engage and practices in digital media marketing are male as the results shows.

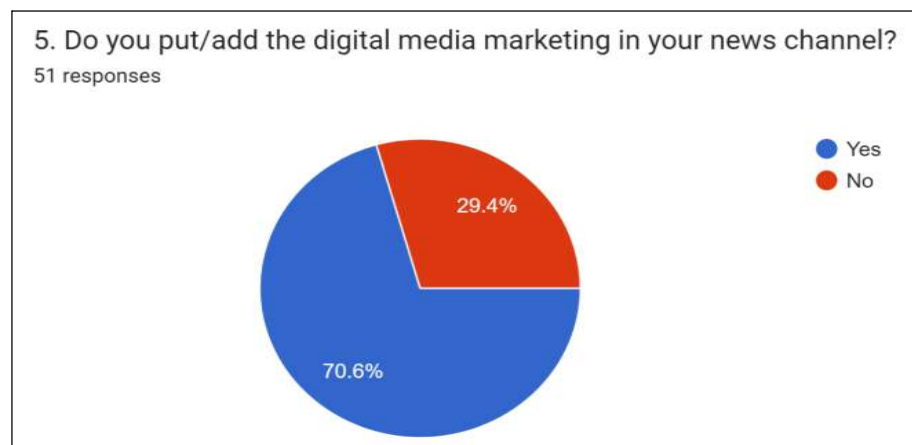


Majority of the media professionals who are practicing digital media marketing own the digital media are from the age of 31 to 40 years followed

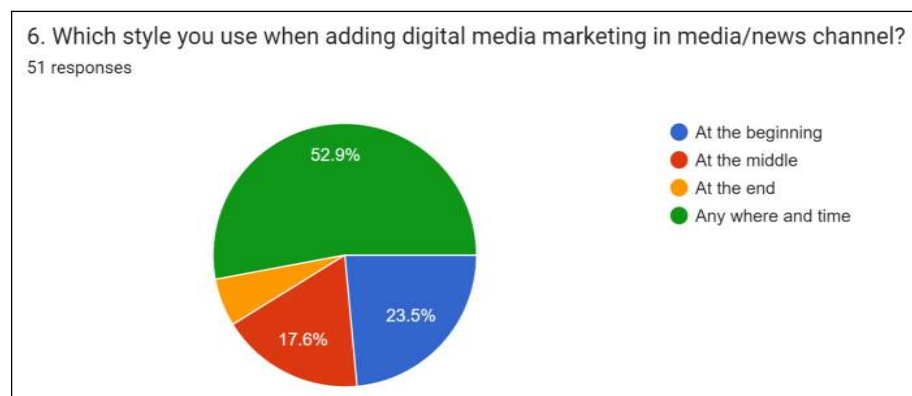
with the group of 20 to 30 years old, therefore the digital media is ruined by the young generation.



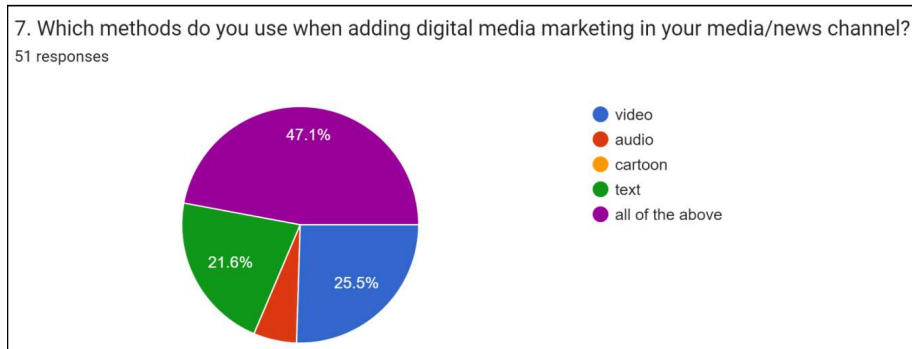
Almost all the respondents such as more than 88% are aware of digital media marketing but there are few who are less than 9% who are practicing in digital media but note aware with the digital media marketing.



More than 72% of the media professionals who responded are adding the digital media marketing on their digital media channels and the few are not considered to add them.



More than a half of respondents are applying different styles of digital media marketing such as they think is the best time and place to put an advert in order to make their readers attracted.



On the other side of the methods used by the media professionals on digital media marketing, more than 47% of the respondents who are practicing it, they use video, audio, cartoon and text during adding an advert on their digital news channels to attract the viewers and increasing the number of consumers too.

8. Why do you place digital media marketing at your media/news channel? - This was the short answer questions and most of them such as more than 90% of responses where they do so in order to increase the viewers who read the news and the income, gain popularity of their platform and increasing viewers. (Fábio 2022) elaborated on how the digital marketing brought the evolution on media professionalism and along with the acceptance of the evolution of the media industry can even affect the career and identity of the professional journalism in digital media and digital journalism, this lead the journalists and media professionals to restructuring their practices and identities which looked like a fall of the journalist job market, therefore they have no option than to adapt the professional identity in digital journalism.

Also, (Mikko 2017) when examined the change of the media work, where by the changes keep the media industry from the point of working professionalism in media houses under the digital transition, media work moves and focus on diversified job tasks and will or might increase the commercial thinking and interaction with audiences. Therefore, these shows how the digital media or journalism change and adopt then commercial thinking while interact with their audiences on their daily responsibilities of educating, entertaining and informing.

Discussion And Recommendation- This experimental study was carried out to determine whether media professionals are utilizing digital media marketing at their respective digital media platforms. The findings indicate that it is evidently the media professionals are putting or adding the digital marketing on their respective digital media platforms with the interest of gaining more viewers who reads the news and having the financial sustainability and increasing the number of viewers because their audience believe and receive two things at one place which are the news experience

and the digital marketing. This was foreseen even by several academics in their study. For example, (Elisia 2010) expounded on how the growth of the new communication technology known as digital media might be the opportunity on impacting the practice of journalism on the notion of market-driven journalism.

Because of this, media professionals-including journalists and editors-should exercise extreme caution when going about their daily business so as not to become distracted by routine marketing tasks and disregard their professional obligations to the audience, who rely on them to provide them with the latest news and information. Additionally, this may increase the possibility of additional study into the use of professional journalistic practices in digital media marketing.

Conclusion- In conclusion, the research results provide compelling statistical support for the widespread use of digital media marketing in Tanzania's digital media platforms. However, there were differences between media specialists. The mix of audio, video, cartoons, and text styles were thought to have a greater impact on journalistic practices at the digital media in the successful digital media marketing utilized by the media professionals. This method of marketing is used by the media professionals anytime and everywhere. Some of the impacts were explained by confounding factors and intervening variables, including the use of digital media marketing on digital media platforms and the motivations behind its use. Comprehensively, the results tend to suggest digital media marketing may still have the ability to overcome the perception level of effective modes used and the reasons of attracting more viewers on their digital media platform

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Study of the impact of education and business on the health of women of Ballia district

• **Tripti Tiwari**

Abstract- *The role of women in the social and economic development of any nation cannot be ignored. Women and men both equally work like two wheels of society and lead society towards progress. Looking at the equal role of both, it is necessary that they should be given equal opportunities in all other fields including education and health, because if one side is weak then social progress will not be possible.*

Keywords- *Role, Women, Development, Nation, Health*

Introduction - Our country is continuously progressing. Education level, health level, and nutrition level have increased in the country and only then nutrition and health-related issues have increased, as well as there has been a change in the status of women. With time, women are giving their contribution to society by being educated and playing a dual role. With the increase in the level of education, there has been an increase in the health of women. Compared to earlier, there has been a decrease in the death rate and the infant mortality rate. But the health condition of women is still worrying. Even today she is not giving priority to her health. Along with household chores, she is working outside, which affects her health. In this run-of-the-mill life, the subject of health has been left behind and the result is that most of the women are suffering from diseases like diabetes, obesity, arthritis, whether they are working women or housewives. Due to this, there are wrong habits of eating and living, due to which the level of health decreases. To find out the effect of education and business on the health of women, the researcher has chosen the subject of research to study the effect of education and business on the health level of women of Ballia district.

Objectives of the research study -

- To find out the educational level of working and domestic women.
- To find out the health level of working and domestic women.
- To find out the effect of education and occupation on the health level of working and domestic women.

Research hypothesis –

- No significant effect of education will be found on the health level of

working and domestic women.

- No significant effect of occupation will be found on the health level of working and domestic women.
- No significant effect of the interrelationship between education and business will be found on the health level of working and domestic women.

Research Methodology - In the present research women have been selected based on their occupation. A total of 300 women, of which 150 were working and 150 were domestic women were selected from Bairiya and Bansdih tehsils of Ballia district by divination method. An interview and schedule were made for the collection of facts, and their health status was observed. After that, the facts were classified and analyzed. To verify the hypotheses, the level of significance was checked by a 2×7 factorial design ANOVA test.

Classification and analysis of data –

Table 01
Education related information

Sr.	Education Level	Working Females		Household Females		Total	
		Number	Percent	Number	Percent	Number	Percent
1	Illiterate	10	3.3	20	6.7	30	10
2	Educated						
	Primary	7	2.3	9	3	16	5.4
	Secondary	13	4.4	8	2.6	21	7.0
	Highschool	10	3.3	16	5.4	26	8.6
	Higher Secondary	12	4.0	23	7.6	35	11.7
	Graduate	55	18.3	43	14.3	98	32.7
	Postgraduate	43	14.4	31	10.4	74	24.6
	Total	140	46.7	130	43.3	270	90
Total		150	50	150	50	150	100

It is clear from the observation of Table number-1 that 3.3 percent of working and 6.7 percent of domestic women, a total of 10 percent of women were found illiterate. Thus, the percentage of illiteracy among housewives was found to be higher than that of working women. Among the educated women, 46.7 percent were working women, and 43.3 percent were domestic women, total 90 percent educated women were found. It is clear from this that the percentage of education was found to be less among the household women. It is evident from this that the percentage of illiteracy was found to be more among the housewives than the working women and the percentage of educated women was found to be more than the housewives among the working women.

Table 02
Health-related information

Health status	Working Females		Household Females		Total	
	Number	Percent	Number	Number	Percent	Number
Hypertension	21	7	26	8.6	47	15.6
Diabetes	25	8.3	35	11.6	60	20
Arthritis	13	4.3	20	6.6	33	11
Atherosclerosis	17	5.6	25	8.3	42	14
Kidney disease	-	-	-	-	-	-
Cycosis Diagnosis,	6	2	12	4	18	6
Cancer	-	-	-	-	-	-
Dervosis	-	-	3	1	3	1
Asthma	7	2.3	5	1.6	12	4
Shuggetological problems	72	24	102	34	174	58
Hypothyroid	-	-	-	-	-	-
Hypothyroid	-	-	-	-	-	-
Peptic ulcer	5	1.6	9	3	14	4.6
Osteoporosis	6	2	16	5.3	22	7.3
Blind	-	-	-	-	-	-
berry-berry	-	-	-	-	-	-
Chylosis	7	2.3	10	3.3	17	5.6
Pellagra	4	1.3	-	-	4	1.3
Pieria	30	10	34	11.3	64	21.3

It is clear from the observation of Table number-2 that 58 percent of women suffer from gynecological problems, 21.3 percent from pyorrhoea, 20 percent from diabetes, 15.6 percent from hypertension, 14 percent from atherosclerosis, 11 percent from arthritis, 7.3 percent from osteoporosis, 6 percent liver disease, 5.6 percent cheilosis, 4.6 percent were found to be suffering from peptic ulcer. Of all these people, the percentage of afflicted housewives was found to be higher than that of working women. 4 percent of women were found to be suffering from asthma, in the percentage of working women was found to be higher than that of housewives. 1 percent of women were found to be suffering from tuberculosis, in which the percentage of working women was found to be nil. 1.3 percent of women were found to be suffering from pellagra, in which the percentage of domestic women was found to be nil. Thus, among the women suffering from various diseases, the percentage of domestic women was found to be more than that of working women. It is clear from this that working women suffer less from diseases than domestic women.

Table No. 3
2×7 factorial design ANOVA test of the health status of working women and housewives based on education considering nutritional status as a covariate.

Variance Source	Independence	Class Sum	Mean Square	Adjusted Value	Remark
level of education	6	148.710	24.785	2.297	(P<0.05) Meaningful
occupation	1	84.813	84.813	7.859	(P<0.05) Meaningful
interrelationship of Occupation and Education	6	45.901	7.650	0.709	(P<0.05) useless
Residual	285	3075.644	10.792		
modified sum	299	4121.547			

It is clear from table number 3 that the adjusted value of education is 2.297 on 6th independence which is found to be significant at 0.05 level. A significant difference has been found in the mean scores of the health status of working and domestic women. Thus, the first null hypothesis that there is no effect of education on the health status of working and domestic women is 'rejected'. The health status of uneducated women

primarily educated women, high school higher secondary graduates, and postgraduate educated women was found to be different. Therefore, education has a significant effect on health status. This table shows that the calculated value of adjusted t of occupation is 7.859 at 1 independence which is found to be significant at 0.05 level. The mean scores of the health status of working and domestic women have been found to be significant. Therefore, the second null hypothesis that there is no effect of occupation on the health status of working and domestic women is rejected. It is concluded that there is a significant effect of occupation on the level of working and household women. In this table, the adjusted t-valued value of the interrelationship between education and occupation is 0.709 on 6 independents, which is found to be non-significant at 0.05 level, so the third null hypothesis is working. And the relationship between education and occupation is not found to be significant in the health status of household women, so the above hypothesis is accepted. No significant difference was found between the adjusted mean scores of working and domestic women and the mean scores of illiterates, secondary, primary, higher secondary, graduate, and post-graduate education level women when nutritional status was considered as a factor. It is concluded that there is no effect of inter-relationship between working and domestic women on their health status and education. Health status is independent of the relationship between education and occupation.

Conclusion- It is concluded from the present research study that both education and occupation influence the health level of women, but after ascertaining the effect of the interrelationship of education and occupation on health, it is concluded that the health level is independent of the interrelationship of education and occupation. If a woman has passed high school and is also working, then it is not necessary that her health level is good. It is necessary for all women to have a good health level so that they can provide a healthy life to the family, society, nation, and the world.

Suggestion-

- Women need to be aware for proper health level. Along with the family, they should also pay attention to themselves. Because most women are negligent towards health and when the disease becomes serious, it is too late.
- Whenever women do not feel well, they should immediately consult a doctor so that treatment can be done at the right time.
- Women should take regular meals on time and include sprouted grains, oatmeal, bran, beans, leafy vegetables, jaggery, dates, peanuts, sesame, seasonal fruits, fibrous substances etc.

- Along with the diet of women, they should also pay attention to regular exercise, cleanliness and relaxation so that they can lead a healthy life.
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Economic Analysis on Farming Systems in Kasganj District of UP

• Arivend

Abstract- *Thus Marginal and small farmers are dependent on cereal crops for their food security. An analysis of shows that still there are immense possibilities of getting the farm income increase. In UP where irrigation is a big problem, government can plant some more tube wells and promote rain water harvesting over there which will help in improving the irrigation facilities and enterprise like fisheries can be added to the farming system. Presence of better irrigation facilities will increase the use of fertilizers which will result in better yield. In Kasganj District the area of vegetables can be increased so that there will be more output as compared to the cereals."*

Keywords- *Farming Systems, Marginal and small farmers, Crop, Food security*

Introduction- Farming is a dynamic biological and open system with human or social involvement, being primarily biological with a high degree of dependence on weather variables and changing socio-political environments. A system consists of several components which depend on each other. A system is defined as a set of elements or components that are inter-related and interacting among themselves. Therefore, system approach is applied to agriculture for efficient utilization of all resources maintains sustainability in production and obtaining higher net returns. Farming system therefore designates a set of agricultural activities organized while preserving land productivity, environmental quality and maintaining desirable level of biological diversity and ecological stability. The emphasis is more on a system rather than on gross output. In other words, 'farming system' is a resource management strategy to achieve economic and sustain agricultural production to meet diverse requirements of the farm household while preserving the resource base and maintaining high environmental quality. The farming system in its real sense will help the following ways to lift the economy of Indian agriculture and standard of living of the farmers. Farming system specially refers to a group combination of enterprises in which the products and or by products of one enterprise serve as the inputs for production of other enterprise. Farming system takes into account the combination needs of the family, the economic factors like relative profitability of the technically feasible enterprises, availability off farm resources, infrastructure and institutions such as

irrigation, marketing facilities including storage and transportation and credit besides the agro biological consideration namely interdependence, if any among various technically feasible enterprises and the performance of individual farmers.

Farming is defined as the way in which the farm resources are allocated to the needs and priorities of the farmers. Farming system focuses on the agro climatic conditions, economic and institutional circumstances, interdependencies between components under the control of household and, how these components interact with and finally operator of the farming system. Farming system is a decision-making unit comprising the farm household, cropping and livestock system that transform land, capital and labour into useful products that can be consumed or sold. They interact adequately with environment without dislocating the ecological and socio-economic balance on the one hand and attempt to meet the national goal on the other. Farming system consist of several enterprises like cropping system, dairying, piggery, poultry, fishery, bee, keeping etc. these enterprises are interrelated. The end product and wastes of one enterprise are used as inputs in others. Thus, farming system is the result of a complex interaction among a number of interdependent components.

Traditionally, Indian farmers adopted integrated farming system approach for their livelihood. With industrialization, farmers were forced to become commodity farmers depending on their location, in the catchments of agri-based industry like sugar factory, ginning mill, soya processing plant, rice mill, oil mill, dal mill etc. Though, agro-climatic conditions are primarily responsible for the existence of particular crops and cropping pattern, industrialization, commercialization and mechanization have also played a major role in farmers decision making for growing particular crop or adopting a particular farming system. Dairy Farmers, poultry farmers, vegetable growers, fruit-growers, beekeepers, mushroom farmers became independent entrepreneurs particularly around cities to explore the market potential to some extent. Farmers fortune thereafter started fluctuating with the market trends for a single commodity and their dependence for external inputs also increased. Traditional farmers seldom purchased animal feed from market, but now animal feeds for dairy and poultry are obtained from independent units and farmers no more entirely depend on their own farm resource to meet such demands. In the commodity-oriented market scenario, the focus is usually on a singular production system. The crop-based research and development approach further isolated different farming system from each other. Integrated approach, however, had several distinct advantages as mentioned like it provides security against complete failure of a system, minimization of dependence for external inputs, Optimum Utilization of farm resources and efficient use of natural resources sunlight, water and land etc. Different Production Systems within the five major agro-ecosystems are as follows.

	1. Agri-silvi-horti-pastoral production system
	2. Livestock and fish production system
Coastal Agro-Ecosystem	1. Fish and livestock production system
	2. Agri-horti production system
Hill and Mountain	1. Agri-horti production system
	2. Livestock and fish production system
Irrigated Agro-Ecosystem	1. Rice-wheat production system
	2. Cotton based production system
	3. Sugarcane based production system
	4. Dairying and fish production system
Rainfed Agro-Ecosystem	1. Arable farming stem
	2. Agroforestry production system
	3. Livestock based farming system

Review of literature

Awotide *et al.* (2011)¹ investigated the role of household endowments in determining poverty among the rice farming households in Nigeria. A total of 600 rice farmers selected through multistage random sampling techniques were interviewed with the aid of well-structured questionnaires. The data collected were analysed using descriptive statistics, FGT and logit model. Household endowments were classified into human assets, physical assets and financial assets. The results of the logistic regression revealed education of the household heads, access to mobile phone, amount of credit obtained, farm size, irrigation facility, possession of livestock, television set, radio set and number of rooms in a house have a poverty decreasing effect.

Adenegan *et al.* (2013)² examined the relationship between household initial asset endowment and participation in urban farming in Ibadan metropolis. A stratified random sampling method was used to stratify the city into two strata. It was followed by the random selection of two Local Government Areas from each of the two strata. Results showed that household size, gender, dependency ratio, and access to credit and distance to urban market significantly affected participation in urban farming. The study recommends both the governmental and non-governmental agencies should contribute to sustainability of urban farming by providing good roads and better access to credit.

Hongjing *et al.* (2104)³ studied the interactive relationship between farmer characteristics and resource endowment and the adoption of Taiwan agricultural technologies and found that it will produce not only positive theoretical significance but also practical reference value in understanding farmers' decision over the adoption of Taiwan agricultural technologies. The results showed that there were seven biggest explanatory variables that had significant impacts on explaining farmers' adoption of Taiwan agricultural technologies, namely gender of the farmer, educational level, participation of agricultural cooperative organization or lack thereof, position in the family, family labor, average annual household income, and the percentage of agricultural income on the total income.

Rajendran and Prabharan (2000)⁴ investigated the economics of milk production on 360 farmers, and categorized as landless labourers, marginal farmers, small farmers or large farmers. They collected data by personal interview on areas such as feed used (green fodder, dry fodder or

concentrates) types of labour used (child, adult, male, female) number of hours employed, and wages for different categories of labour. Results were discussed with reference to feed consumption, labour input for cows Vs buffalo production and use of hired Vs family labour.

Saikumar (2005)⁵ studied the cost and returns structure of major farming systems in tank commands of north eastern Karnataka. The study revealed that, of the three major farming systems identified in the study area, dairy enterprise was found to be most common as a complimentary enterprise. The highest net returns realized was 53,404.59 per hectare and per hectare cost of cultivation was 84414.21 in Farming System.

Kalra and Singh (2006)⁶ examined that the study undertaken in the Bulandshahar district in the Indo-Gangetic plains in western Uttar Pradesh has examined the utilization and efficacy of irrigation water-use in the rice-wheat cropping system. Different source of water, viz. canal, electric tube-wells and diesel engine pump sets, differ vastly from each other in farm of accessibility, timely supply of water and cost of irrigation. The study has revealed very large inter-farm variations in water utilization.

Rupasena et al. (2008)⁷ observed that rice farming in Sri Lanka is characterized by declining trend area, stagnation in yield and lowering profitability. Improving provability through increased efficiency in resource use is a way to sustain rice farming in the long run. Therefore, present study was undertaken to evaluate the level of efficiency in rice farming using stochastic methodology. It is recommended to strengthen the extension system towards resource management, so that yield gap can be reduced and farm income can be increased.

Adeyemo and Kuhlmann (2009)⁸ found that the efficiency of resource use in urban food crop production. Structured questionnaires were applied to urban food producers in five districts of two cities. An effective sample of 120 respondents was available for evaluation. Results from the analysis of data have shown that almost all (92%) of the food producers are literate. Both men (53%) and women (47%) are participating in food production in urban areas.

Ghosh and Kumar (2011)⁹ found that Indian agriculture has been successful in achieving increased food grains production. While the mission of increasing food grains production stands somehow achieved without major jump in pulses productivity and production in country, these were accompanied by widespread problems of resource degradation. Though recently production of pulses has reached to 17.2 mt after a stagnant period of more than 10 years, there is greater need to increase productivity using suitable management practices to improve livelihood and nutritional security of large number of Indian vegetarians.

Importance of the Study Introduction of appropriate farming systems has been proposed as one of the approaches to achieve better growth in agriculture and livelihood (National Commission on Farmers, 2005). In this direction to meet the multiple objectives of poverty reduction, food security, competitiveness and sustainability, several researchers have recommended the farming systems approach to research and development. The time

concept relates to increasing the intensity of cropping under assured irrigated conditions, whereas space utilization pertains to building up of vertical dimension through multi-tier cropping and farming system approach. Thus, by making use of these time and space concept either in irrigated or in rained areas, the productivity per unit area per unit time can be substantially enhanced. Therefore, the only way to increase an agricultural production in the small/marginal units of farming is to increase the productivity per unit time and area. Land water and plant (bio diversity) are the natural resources and conservation of these natural resources is vital important. As far as resources degradation is concentrated, India is facing top soil depletion, falling ground water table and contamination of water, ecological imbalance due to deforestation and health hazards linked to increase use of toxic agro- chemical because of increase in food consumption.

Significance of the Study- Uttar Pradesh, which is the most populous state of the country, has been divided in to 4 economic regions and 9 sub agro-climatic regions. The eastern Uttar Pradesh covers 28 districts which falls mainly under 3 agro-climatic regions namely north eastern plain zone, eastern plain zone and Vindhyan zone. (Perspective and Strategic Plans, Department of Land Development and Water Resources, U.P. 2009) Some part of vidhyan zone also comes in eastern plain zone. Since Vindhyan zone is also considered as a disadvantaged region, it has been purposively selected for the study so that measures for adopting better farming system can be provided to farmers to raise their farm income. Nearby Eastern Plain zone which is considered as an advantaged region was selected for the comparative analysis. This study has been done to analyze the economics of the farming systems in two different agro-climatic regions of Eastern Uttar Pradesh and to find out whether there is any difference in the farming systems or not as there are variations in the availability of natural resources and socioeconomic conditions of the study farmers. In the present study, objectives have been designed in order to give suitable policy measures and effective management practices of resources to the farming community for improvement in their livelihood and farming practices.

Objectives

- “To examine the extent and magnitude of resource endowments and its implications in farming systems”
- “To examine the pattern of input use, costs and returns from various crops and livestock.”
- “To estimate the resource use efficiency of the different inputs and suggest the measures for improving resource use efficiency.”

Methodology- The study is based purely on primary as well as secondary data. The secondary data is collected from different sources like, Books, Article, Journals, Annual reports, Department of Economics and Statistics, Sankhyiki Patrika Uttar Pradesh. The primary data were collected from a sample of farmers with help of survey method. The total numbers of respondents were 50 farmers of the Kasganj districts of Utter Pradesh. The

collected data have been analyzed with help of SPSS Package.

Implications of Resource endowments

Table 01

Crop diversification, cropping intensity and cropping pattern of Kasganj District

Table reveals the crop diversification and cropping intensity in

Categories	No. of farms	Average CDI value	Cereal	Oilseed	Potato	Okra	Sponge gourd	Sugarcane	Cropping Intensity
Marginal	19	0.56	73.82	6.57	7.75	8.45	3.51	-	216
Small	13	0.41	62.25	5.88	5.88	10.9	9.84	5.55	229
Medium	11	0.49	68.64	6.61	6.27	4.95	4.95	8.58	210
Large	7	0.49	68.75	10.15	5.85	6.67	4.29	4.29	206
All farms	50	0.48	68.36	7.3	6.36	7.71	5.64	4.6	215.2

Kasganj District of UP. It shows that maximum area is under cereal cultivation i.e., 68.36 per cent followed by vegetables like potato 6.36 per cent, okra 7.71 per cent, sponge gourd 5.64 per cent and oilseed 7.30 percent and sugarcane 4.6 per cent on all farm basis. Marginal farmers showed least diversification and average crop diversification index value is 0.48 among all farm size categories. Cropping intensity was found highest in small farms and lowest in large farms. On the basis of all farms, it was found 215.2.

Table 02

Cost of cultivation of different crops on marginal farms in Kasganj District

(Per ha)

Particulars	Rice	Wheat	Mustard	Potato	Okra	Sponge gourd

Hired	3302.5	2723	-	3450	3152.5	2960.5
Family	13083.7	9387.6	3485.9	10950	18620.7	7960.5
Machinery labour	12579.37	8476.9	2957.7	8750	5338.9	4868.4
Seeds	1441.79	3349.2	283.6	14197.6	372.8	221
Fertilizer						
Urea	1462.5	1557.6	1366.1	1380.2	1474.5	853.9
DAP	3831.1	2242.4	3052.8	2760.4	3440.6	2401.3
Mop	2070	2174.5	1626.7	2305.3	1843.2	1217.1
Other	800	1257.9	-	3673.6	-	2434.2
Manure	285	261.5	-	1227.5	-	-
Irrigation	2096.2	3107.6	3626.7	4727.5	2411	2328.9
Plant Protection	875.6	1353.8	985.9	3712.5	847.4	5263.1
Total working capital	41827.76	35892	17385.4	57134.6	37501.6	30508.9
Interest on working capital (6%)	2509.6	2153.5	1043.1	3428	2250	1830.5
TVC	44337.43	38045.5	18428.5	60562.6	39751.7	32339.4
Rental value of land	9333.3	9333.3	9333.3	9333.3	9333.3	9333.3
Cost C1	31253.7	28657.9	14942.6	49612.6	21131	24378.9
Cost C2	53670.7	47378.8	27761.8	69895.9	49085	41672.7
Cost C3	59037.8	52116.7	30538	76885.5	53993.5	45840

Table shows the cost of cultivation of the various crops grown by marginal farms of Kasganj. Total cost was observed highest on potato (76885.5) followed by okra (53993.5), rice (59037.8), wheat (52116.7), and lowest was observed in mustard i.e. (30538). Total variable cost was found to highest of potato i.e. (60562.6) and lowest in sponge gourd (18428.5). The share of expenditure on hired human labour was highest in case of potato i.e. (3450) and lowest in case of wheat i.e. (2723) whereas cost incurred on family labour was highest on okra (18620.7) and lowest in mustard (3485.7). In case of expenditure incurred on machinery labour, it was highest for rice (12579.3) and lowest in mustard (2957.7). Cost incurred on irrigation was observed maximum on potato (4727.5) and lowest in rice (2096.2). Cost incurred on Plant protection chemicals was seen highest on sponge gourd (5263.1) and least in okra (847.4). Rental value of own land was estimated on the basis of price Prevailing in the village for leased in land. The average rental value of own land was worked out to be (9333.3).

Table 03
Cost of production and return
structure on marginal farms in Kasganj District.

Particulars	Rice	Wheat	Mustard	Potato	Okra	Sponge gourd
Yield(Qt)						
Main Product	49.9	36.19	15.9	197.9	90.3	116.4
By Product	78.8	54.28	-	-	-	-
Price (Rs/Qt)						
Main Product	1300	1200	3000	600	700	2000
By Product	150	300	-	-	-	-
Return (MP)	64944.97	43430.7	47957.7	118742.5	63652.5	232894.7
Return(BP)	11825.4	16286.5	-	-	-	-
Gross Income	76770.3	59717.2	47957.7	118742.5	63652.5	232894.7
Return/ha over						
Cost C1	45516.5	31059.2	33015.12	69129.8	42521.5	208515.8
Cost C2	23099.5	12338.3	20195.9	48846.5	14567.5	191222
Cost C3	17732.5	7600.4	17419.7	41856.9	9659	187054.73
Cost of Production/Qn						
Cost C1	625.6	791.8	2065.2	349.3	232.7	209.5
Cost C2	1074.3	1309	1263.3	246.8	539.7	357.8
Cost C3	1181.7	1439.9	1089.6	211.5	593.7	393.6
Output/Input Ratio						
Cost C1	2.4	2	3.2	2.3	3	9.5
Cost C2	1.4	1.26	1.7	1.6	1.29	5.5
Cost C3	1.3	1.14	1.5	1.5	1.17	5

Table 03 shows the cost of production and returns structure on

marginal farms of Kasganj District. Average yield of main product of rice, wheat, mustard, potato okra and sponge guard were calculated 49.9, 36.1, 17, 197.9, 90.3, 116.4, 185.2 (quintal per hectare) respectively. Gross return was calculated maximum in case of sponge guard (232894.7) followed by potato (118742.5) and least in mustard (47957.7). The net income per hectare over cost C1 is highest in sponge gourd (208515.8) and lowest in wheat (31059.2). Net income over cost C2 and C3 also followed the same trend. The cost of production (cost C3) was found highest in wheat (1439.9) followed by mustard (1089.6), rice (1181.7), okra (593.7), sponge gourd (393.6) and potato (211.5). Benefit-cost ratio shows the income received against per rupees investment. The B-C ratio was found highest in case of sponge gourd i.e. 5.0 and was lowest in case of wheat i.e. 1.14.

Table 04
Cost of cultivation of different
crops on medium farms in Kasganj District

	Rice	Wheat	Mustard	Potato	Okra	Sugarcane	Sponge gourd
Human labour							
Hired	10500	8247.4	2400	10282.1	14056	8967.6	6937.2
Family	5061.6	3534.6	1012.5	2570.5	3626.6	5978.4	3735.4
Machinery labour	11248.1	8810.2	3412.5	8105.2	4800	3498.3	4800
Seeds	1407.1	3402.5	359.2	13978.9	320	21769.2	200
Urea	1504.3	1280	1340.2	1281.3	1371.4	1649.5	811.9
DAP	3836.7	3168	3012	3022.7	3000	3598.1	2407.2
Mop	2097.1	1704.1	1726.3	2032.8	1617.7	1807.3	1240
Other	2845.3	887.1	6400	3200	-	-	2600
Manure	310.7	220.5	-	-	-	-	290.9
Irrigation	2146.1	2160	2520	2014.3	2711.1	4646.1	2381.8
Plant Protection	735.2	876.9	3000	2642.1	1422.2	2538.4	2545.4
Total working capital	41692.2	34291.3	25182.7	49129.9	32925	54452.9	27949.8
Interest on working capital (6%)	2501.5	2057.4	1510.9	2947.7	1975.5	3267.1	1676.9
TVC	44193.7	36348.7	26693.6	52077.6	34900.5	57720	29626.7
Rental value of land	9333.3	9333.3	9333.3	9333.3	9333.3	9333.3	9333.3
Cost C1	39132.1	32814.1	25681.1	49507.1	31273.9	51741.6	25891.6
Cost C2	53527	45682	36026.9	61410.9	44233.8	67053.3	38960.3
Cost C3	58879.7	50250.2	39629.6	67552	48657.1	73758.7	42586.3

This table 4 shows the cost of cultivation of the various crops grown by medium farms of Kasganj. Total cost was observed highest on sugarcane (73758.7) followed by potato (67552), rice (58879.7), wheat (50250.2), okra (48657.1), sponge gourd (42586.3) and lowest was observed in mustard i.e. (39629.6). The share of expenditure on hired human labour was highest in case of okra i.e. (14056) followed by rice (10500), potato (10282.1), sugarcane (8967.6), wheat (8247.4), sponge gourd (6937.2), and lowest in case of mustard (2400) whereas cost incurred on family labour was highest on sugarcane (5978.4) and lowest in mustard (1012.5). In case of expenditure incurred on machinery labour, it was highest for rice (12579.3)

and lowest in sugarcane (3498.3). Cost incurred on various fertilizers was more in rice as compared to other crops and was found lowest in okra. Cost incurred on irrigation was observed maximum on sugarcane (4646.1) and lowest in potato (2014.3). Cost incurred on Plant protection chemicals was seen highest on mustard (3000) followed by potato (2642.1), sponge gourd (2545.4), sugarcane (2538.4), wheat (876.9) and least in rice (735.2). Total variable cost was found to highest of sugarcane i.e. (57720) and lowest in mustard (26693.6). Rental value of own land was estimated on the basis of price Prevailing in the village for leased in land.

Table 05
Cost of production and return
structure on medium farms in Kasganj District

Particulars	Rice	Wheat	Mustard	Potato	Okra	Sugar-cane	Sponge gourd
Yield (Qt)							
Main Product	60	40.9	21	221.4	144	565.1	120.3
By Product	94.2	61.3	-	-	-	-	-
Price (Rs/Qt)							
Main Product	1300	1200	3000	600	700	280	2000
By Product	150	300	-	-	-	-	-
Return (MP)	78074.8	49107.6	63000	132884.2	100831.1	158393.8	240727.3
Return (BP)	14136.6	18415.3	-	-	-	-	-
Gross Income	92211.4	67523	63000	132884.2	100831.1	158393.8	240727.3
Return/ha over							
Cost C1	53079.4	34708.2	37318.9	83377.1	69557.2	106652.2	214835.6
Cost C2	38684.5	21841.3	26973.1	71473.3	56597.3	91340.5	201766.8
Cost C3	33331.8	17272.8	23370.4	65332.2	52174	84635.1	197871
Cost of Production/Qt							
Cost C1	651.5	801.8	1222.9	223.5	217.1	91.4	215.1
Cost C2	891.2	1116.2	1715.5	277.2	307	118.5	323.6
Cost C3	980.3	1227.9	1887.1	305	337.7	130.3	356
Output/Input Ratio							
Cost C1	2.3	2	2.4	2.6	3.2	3	9.2
Cost C2	1.7	1.4	1.7	2.1	2.2	2.3	6.1
Cost C3	1.5	1.3	1.5	1.9	2	2.1	5.7

Table 5 shows the cost of production and returns structure on medium farms of Kasganj District. Average yield of main product of rice, wheat, mustard, potato okra, sugarcane and sponge guard were calculated 60, 40.9, 21, 221.4, 144, 519.5, 120.3 (quintal per hectare) respectively. Gross return was calculated maximum in case of sponge gourd (240727.3) followed by sugarcane (158393.8), potato (132884.2), okra (100831.1), rice (92211.4), mustard (63000) and least in wheat (6753). The net income per hectare over cost C1 is highest in sponge gourd (214835.6) and lowest in wheat (34708.2). Net income over cost C2 and C3 also followed the same trend. Cost C3 for sponge gourd (197871.1) and for wheat it was (17272.8).

The cost of production (cost C3) was found highest in mustard (1887.1) followed by wheat (1227.9), rice (980.3), sponge gourd (356), okra (337.7), potato (305) and sugarcane (130.3). Benefit-cost ratio shows the income received against per rupees investment. The B-C ratio was found highest in case of sponge gourd i.e., 5.7 and was lowest in case of wheat i.e., 1.3.

Table 06
Cost of cultivation of different
crops on large farms in Kasganj District

	Rice	Wheat	Mustard	Potato	Okra	Sugarcane	Sponge gourd
Human labour							
Hired	13500	7485.2	3230.7	9306.6	12350	10018.1	5426.3
Family	869.5	3137.7	-	2133.3	1800	2436.3	5137.2
Machinery labour	9739.1	8065.5	3253	7973.3	4825	3818.1	4836.3
Seeds	1506	3590.1	319.4	13360	320	20000	200
Fertilizer							
Urea	1295	1288.3	1322.7	2673.6	1324.5	1644.5	816
DAP	3044.3	3263.6	3142.1	6124.8	3102	3713.4	2452.3
Mop	1798.4	1614.1	1665.2	3933.6	1654.1	1815	1194.7
Other	3026	845.9	6100	2986.6	-	-	2581.8
Manure	361.7	213.1	2475	-	-	-	290
Irrigation	2278.6	2017	3538.4	2352	2825	6000	2509
Plant Protection	786.9	747.5	3000	2613.3	1300	5018.1	2618.1
Total working capital	38205.5	32268	28046.5	53457.1	29500.6	54463.5	28061.7
Interest on working capital (6%)	2292.3	1936	1682.7	3207.4	1770	3267.8	1683.7
TVC	40497.8	34204	29729.2	56664.5	31270.6	57731.3	29745.4
Rental value of land	9333.3	9333.3	9333.3	9333.3	9333.3	9333.3	9333.3
Cost C1	39628.3	31066.3	29729.2	54531.2	29470.6	55295	24608.2
Cost C2	49831.1	43537.3	39062.5	65997.8	40603.9	67064.6	39078.7
Cost C3	54814.2	47891.1	42968.8	72597.6	44664.3	73771	42986.5

Table 6 shows the cost of cultivation of the various crops grown by medium farms of Kasganj. Total cost was observed highest on sugarcane (73771) followed by potato (72597.6), rice (54814.2), wheat(47891.1), okra (44664.3), sponge gourd (42986.5), and lowest was observed in mustard i.e. (42968.8.). The share of expenditure on hired Human labour was highest in case of rice i.e. (13500), okra (12350) followed by sugarcane (10018.1), potato(9306.6), rice(9304.3), sponge gourd(5426.3) and lowest in case of mustard i.e. (3230) where as cost incurred on family labour was highest on sponge gourd (5137.2) and lowest in rice (869.5). In case of expenditure incurred on machinery labour, it was highest for rice (9739.1) and lowest in mustard (3253). Cost incurred on irrigation was observed maximum on sugarcane (6000) and lowest in wheat (2017). Cost incurred on Plant protection chemicals was seen highest on sugarcane (5018.1) followed by mustard (3000), sponge gourd (2618.1), potato (2613.3), okra (1300),rice (786.9) and least in wheat (747.5). Total variable cost was found to highest of sugarcane i.e. (57731.3) and lowest in mustard (29729.2). Rental value of

own land was estimated on the basis of price Prevailing in the village for leased in land.

Table 07
Cost of production and return
structure on large farms in Kasganj District

Particulars	Rice	Wheat	Mustard	Potato	Okra	Sugar-cane	Sponge gourd
Yield(Qt)							
Main Product	58.6	43.1	19.8	212.2	147	554.5	118.1
By Product	85.2	68.5	-	-	-	-	-
Price (Rs/Qt)							
Main Product	1300	1200	3000	600	102900	280	2000
By Product	150	150	-	-	-	-	-
Return (MP)	76191.3	51816.3	59538.4	127360	102900	155272.7	236363.6
Return(BP)	12782.6	20557.3	-	-	-	-	-
Gross Income	88973.9	72373.7	59538.4	127360	102900	155272.7	236363.3
Return/ha over							
Cost C1	49345.5	41307.3	29809.1	72828.7	73429.3	99977.7	211755.4
Cost C2	39142.7	28836.3	20475.8	61362.1	62296	88208.1	197284.9
Cost C3	34159.6	24482.6	16569.6	54762.3	58235.6	81501.6	193377.1
Cost of Production/Qt							
Cost C1	676.1	719	1497.9	256.8	200.4	99.7	208.2
Cost C2	850.2	1008.1	1968.2	310.9	276.2	120.9	330.6
Cost C3	935.2	1109	2165	342	303	133	363
Output/ Input Ratio							
Cost C1	2.24	2.3	2	2.3	3.4	2.8	9.6
Cost C2	1.7	1.6	1.5	1.9	2.5	2.31	6
Cost C3	1.6	1.5	1.3	1.7	2.3	2.1	5.4

Table 7 shows the cost of production and returns structure on large farms of Kasganj District. Average yield of main product of rice, wheat, mustard, potato okra, sugarcane, sponge guard was calculated 58.6, 44.3, 19.8, 212.2, 147, 554.5 and 118.1 (quintal per hectare) respectively. Gross return was calculated maximum in case of sponge gourd (236363.3) followed by sugarcane (155272.7), potato (127360), okra (102900), rice (88973.9), wheat (72373.4) and least in mustard (59538.4). The net income per hectare over cost C1 is highest in sponge gourd (211755.4) and lowest in mustard (29809.1). Net income over cost C2 and C3 was highest in sponge gourd and lowest for mustard, Cost C3 for sponge gourd (193377.1) and for mustard it was (16569.6). The cost of production (cost C3) was found highest in mustard (2165) followed by wheat (1109), rice (935.2), sponge gourd (363), potato (342), okra(303) and sugarcane (133). Benefit-cost ratio shows the income received against per rupees investment. The B-C ratio was found highest in case of sponge gourd i.e., 5.4 and was lowest in case of mustard i.e., 1.3.

Table 08
Regression coefficients of the crops of Kasganj District

	R ²	Intercept	ρ	Man days X ₁	Seeds X ₂	N X ₃	P X ₄	K X ₅	Irrigation X ₆	PPC X ₇
Rice	0.79	0.15	1.09	-0.15*** -0.04	0.17** -0.012	0.43 -0.2	0.48 -0.24	0.04 -0.25	0.084* -0.021	0.015 -0.025
Wheat	0.9	0.19	0.71	0.079* -0.03	0.149*** -0.04	0.27** -0.08	0.40*** -0.07	-0.16 -0.08	-0.011 -0.015	-0.024* -0.01
Mustard	0.91	-1.6	1.5	0.043 -4	0.03 -0.003	0.91*** -0.18	0.018 -0.03	0.64*** -0.14	-0.05 -0.25	-0.012 -0.04
Potato	0.93	-3.39	2	-0.29** -0.1	1.04*** -0.25	1.79*** -0.27	-0.59 -0.37	0.179 -0.31	-0.07 -0.09	0.01 -0.01
Okra	0.87	0.84	1.11	-0.42*** -0.08	0.38*** -0.089	0.86** -0.25	-0.24 -0.23	-0.003 -0.12	-0.08 -0.13	0.62*** -0.084
Sponge gourd	0.53	2	1.23	0.41** -0.049	0.64 -0.28	0.19 -0.07	0.41* -0.049	0.26* -0.03	-0.01 -0.015	0.009 -0.008
Sugarcane	0.6	0.69	0.71	0.006 -0.068	0.159*** -0.044	0.195 -0.27	-0.13 -0.21	0.30* -0.16	0.154* -0.0786	0.032 -0.04

Table 09
Marginal value product of the resources used in crops of Kasganj District

	Rice	Wheat	Mustard	Potato	Okra	Sponge guard	Sugarcane
X ₁ (Man days)	-0.82	0.29	0.7	-2.8	-2.18	9	0.071
X ₂ (Seeds)	8.8	1.94	5.2	9.5	10.9	51.9	1.18
X ₃ (N)	17.7	7.12	30.7	27.1	50.9	21.2	14.5
X ₄ (P)	11	5.9	0.4	-22.3	-8.5	44.5	-6.5
X ₅ (K)	1.7	-4	22.8	11.4	-0.23	54.2	26.5
X ₆ (Irrigation)	2.82	-0.19	-0.75	-5.2	-3	-3.5	4.8
X ₇ (Plant protection chemicals)	1.3	-0.85	-0.27	0.53	43.2	0.79	1.5

Table 9 reveals the calculated MVP value of various inputs used in different crops grown in Kasganj District. In case of rice, only Man days shows MVP less than unity which means that these resources are overused so their use should be reduced. Other than Man days all the resources show MVP more than unity which states that these resources are still under used and their use can be increase to raise the profit.

Conclusion- Farming is a dynamic biological and open system with human or social involvement, being primarily biological with a high degree of dependence on weather variables and changing socio-political environments. A system consists of several components which depend on each other. A system is defined as a set of elements or components that are

inter-related and interacting among themselves. Therefore, system approach is applied to agriculture for efficient utilization of all resources maintains sustainability in production and obtaining higher net returns. The main objective of the farming system is to develop efficiency in farm production. Increasing non-farm employment has also become essential for improving income and living standard of rural population. Different farming systems are prevailing in India primarily due to varied agricultural base, available resources, and location specific needs of humans, animals etc. Farmers through their experience have established these farming systems to meet their food, fuel and fiber requirement in a manner that they are least dependent on the external sources. However, advancement in crop production technology and need for higher food grain production compelled the nation for adoption of crop-based production system. Integrated farming system, which lacked data base for further innovations, was marginalized in the wake of Green Revolution.

It indicates that marginal and small farmers are dependent on cereal crops for their food security. An analysis of shows that still there are immense possibilities of getting the farm income increase. In UP where irrigation is a big problem, government can plant some more tube wells and promote rain water harvesting over there which will help in improving the irrigation facilities and enterprise like fisheries can be added to the farming system. Presence of better irrigation facilities will increase the use of fertilizers which will result in better yield. In Kasganj District the area of vegetables can be increased so that there will be more output as compared to the cereals.

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Race, Culture and Identity in The Play of Ntozake Shange

• Sadhana Singh Yadav
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••• Arun Kumar Yadav

Abstract- *The paper discussed black feminist discourse of race, culture and Identity in Ntozake Shange's play who has considered black people were treated offensively. In Africa and America, racism spread around the country especially in the south. They did I not have full rights as the white citizens. Due to these facts, many black writers responded with a set of literary works and used their skills in writing to reflect on their life. Thus, they have reached on artistic level and produced creative works. Africa- America literature involves poetry and slave narratives. the Civil Rights and Black Arts Movements played great roles in the development of African American writing. Nowadays, African American literature constitutes a basis in the literature United State. This study is an attempt to give a clear view to the reader on how African -American literature developed and changed throughout time.*

Keywords- *black feminist; race; culture; Identity.*

Afro-American Literature- The African-American literary tradition implies the culture and tradition of suppressed people. The suppressed and opposed people of African-American Race and society are placed in the literary writings of the writers. The writers exhibit the plights and pathos of the people with their artistic and creative expressions in the form of plays, poems, fictions and stories. The creations are well recognized in the intellectual scenario of the world.

1. Literature it produced in United State by writers of African descents such as Philes Wheatley
2. Literature is dominated by autobiographical narratives and reached the peak by slave narrative.
3. The race of American - African, their culture, racism, slavery and social equality.
4. Explore the issues of freedom and equality of blacks.

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Grisly Narratives of Slavery- The earliest African-American literature was focused on the "indelible stain" of slavery on American soil. The writers focused on themes of slavery, emphasizing the cruelty, indignity and the ultimate dehumanization of slaves. They were mostly written by slaves who had escaped into freedom. Slavery and slave narrative are recurring themes in African-American literature adopted in the modern times by writers like Toni Morrison and Alice Walker.

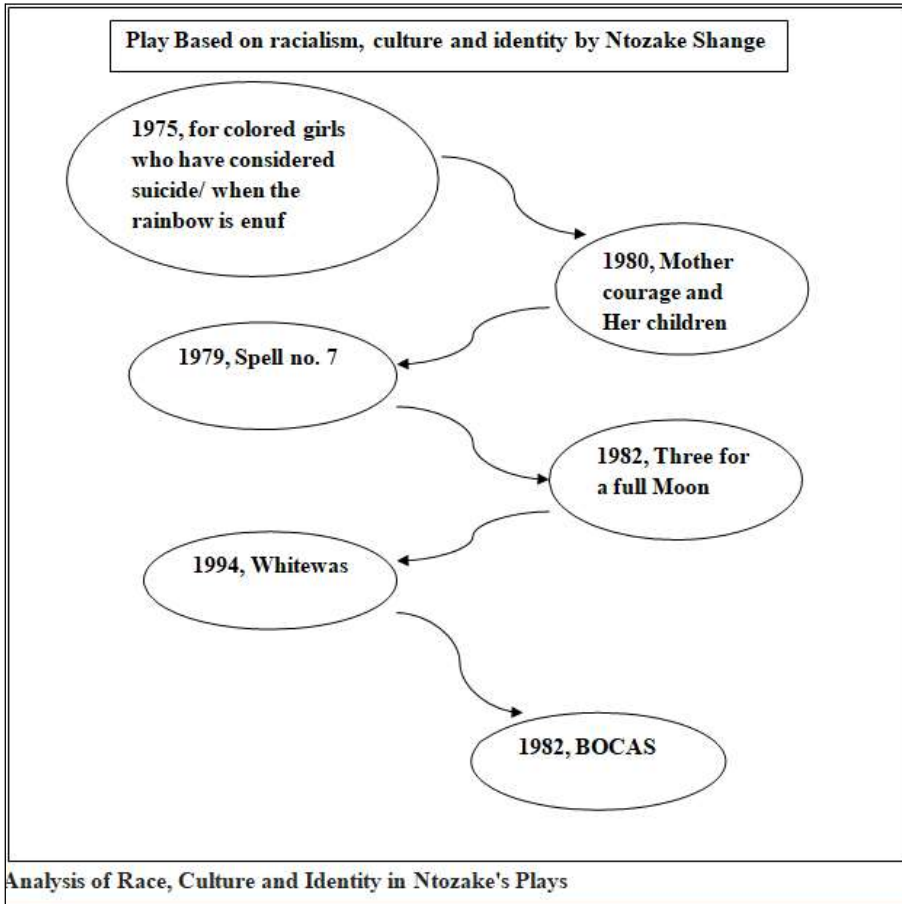
Alienation By Color-Line- "The problem of Twentieth century is the problem of color line," W. E.B. Du Bois wrote in "The soul of Black Folk". African Americans were free from slavery after the Civil War, but the color line kept them segregated and marginalized. Although the white population had a conception of "The Negro" as a group, it seemed to have no conception of it as an individual. Ralph Ellison's "Invisible Man" is a shining example of this theme. His book is a cerebral account of a black man who, despite considerable efforts to overcome the color line, finds himself alienated from both blacks and whites.

Cultural Identity- Tradition advocates essential values, verbal and written movements, which defy time, and passed from one generation to another. Culture had a correlation between preservation of cultural heritage and its innovation. Literary Tradition is created by recurrent themes and forms of expression whereas innovation and experiments can only be recognized against the tradition and manifests through the principle of intersexuality.

Ntozake Shange- Ntozake Shange, born Paulette Linde Williams (October 18, 1948- -October 27, 2018), was an African American, playwright, poet, and feminist. As a Black feminist, her work often shed light on issues relating to Black power, race and gender. Her work embodies a rich confusion of genres and all the contradictions inherent in a world in which violence and oppression polarize life and art.

Awards And Honors; The Legacy of Ntozake Shange- In 1977, Shange was awarded the Off-Broadway Award, Outer Critics Circle Award, Audience Development Committee Award, Village Voice, Mademoiselle Award, and Antoinette Perry, Grammy, and Academy award nominations all for *Colored Girls who have Considered Suicide / when the Rainbow is Enuf*.

In 1978, Shange was awarded the Frank Silvera Writer's Workshop Award. In 1981, The Los Angeles Times Book Prize was awarded a Shange for her three pieces. In 1992, Shange was awarded the Paul Robeson Achievement Award, The Arts and Cultural Achievement Award, and the National Coalition of 100 Black Women a Inc., Pennsylvania chapter.



Spell no. 7- Spell no.7 was first produced in 1979. It is a choreopoem about a group of Black performers where they discuss the various issues that come from performing Blackness for mostly white audiences. Fittingly, a giant minstrel mask hangs over the stage during the whole piece. The play ends with Lou, a magician, claiming that he will never turn a Black person white but he can help them love their Blackness.

For colored girls who have considered suicide / when the rainbow is enuf- Ntozake Shange's most famous work was first produced in 1975 at the Public in New York City. It is choreopoem exploring race, gender, and sexuality and all the ins and outs of their intersections. The Public's description reads: "Filled with passion, humor, and raw honesty, legendary. Playwright/ poet Ntozake shange's form-changing choreopoem tells the stories of seven women of color using poetry, song and movement. With unflinching honesty and emotion, each women voice her survival story of having to exist in a world shaped by sexism and racism. The piece can be used with upper level high schoolers and above.

Mother Courage and Her Children- An adaptation of Bertolt Brecht's famous play, Nozake shange's "Mother Courage" takes place in the American Southwest after the Civil War. By transposing the action to this racialized time and place. Shange asks about the universality of war and suffering Southern Rep which recently produced the plays, says of it: Mother courage struggles to survive the war by profiting from it but ends up paying the ultimate cost.

Shange's adaptation puts a uniquely American spin on Brecht's classic drama that force us to ask how, in the darkest of time, do we survive with our humanity intact?". The piece is a good companion to a discussion of Brecht and his work, as it forces comparison between the German setting and the American one.

The study of race culture and identity in Ntozake Shange play shows black is beautiful and black women two-fold struggle because they suffered both racial prejudice and sexual injustice.

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The Transformative Journey of Nora in Ibsen's A Doll's House: A Profound Exploration of Self-Evolution and Metamorphosis

• Tanu Bura

Abstract- *This paper aims to explore the emancipation of Nora from a feminist and existential perspective, focusing on her transformation, modernization, search for a new identity, internal conflict, and existential anguish. The profound changes Nora undergoes in A Doll's House stirred up a significant controversy within the contemporary society. However, the revelation of her true self has always been a contentious and divisive issue. In this study, we will analyze Nora's journey towards liberation, considering the implications of feminism and existentialism.*

Keywords- *Existential, controversy, society*

Throughout history, women have been objectified, seen as mere sources of pleasure or decorative objects, and consistently regarded as inferior to their male counterparts in various aspects. However, after a prolonged time of conforming to societal norms, women's suppressed aggression manifested itself in the form of feminism. Nevertheless, the journey towards women's emancipation has not been devoid of controversy. The experience of existential anguish, angst, and conflict stemming from the newfound freedom to choose has remained a subject of intense conversation. This is precisely the dilemma faced by the protagonist in *A Doll's House*, where her decisions to forge her father's sign and ultimately leave her family have sparked inquiries into her ability to shape her own identity and live in alignment with it. In this paper, we endeavor to analyze the intricate dynamics of Nora's transformation.

Exploring the context of Ibsen's time becomes crucial when discussing *A Doll's House*. The play is set in a household belonging to the upper-middle class, shedding light on the significance of social class in late 19th-century Norway. Ibsen, who himself came from the same social background, possessed a deep understanding of both the importance and expectations of people. This play draws inspiration from Laura Kieler, whose resemblance to the character of Nora is strikingly accurate. The play revolves around a married couple, the lives of Nora and Torvald, existing within a society that demands strict adherence to its suffocating social norms in order to maintain one's standing.

At its core, the play aims to reveal the inherent wrong imposed on females by the

male-dominated culture and attitude prevalent in late 19th-century Norwegian society. It primarily delves into a woman's yearning to establish her identity and dignity within this societal framework. The narrative portrays the disenchantment of a Nora who realizes how domination plays major role and how her husband, in the name of love, has ruthlessly destroyed her fundamental rights—the right to be an individual. Ibsen's own awareness of the marginalization in late 19th-century of females in Norwegian society is evident in his 1878 text of *A Doll's House*, where he asserts, “A woman cannot be herself in contemporary society, it is an exclusively male society with laws drafted by men, and with counsel and judges who judge feminine conduct from the male point of view” (McFarlane 90).

Nora's change from a submissive "baby doll" and "doll-wife" into a distinct character in this text shocked the audience of its time. Amidst the choice between maternal love and her own identity, Nora undoubtedly experienced existential anguish. However, she stands as a remarkable symbol of an individual breaking free from the constraints and limitations imposed by societal rules. Her liberation from rights or control her soulmate exerted over her serves as a powerful call to women of all eras, encouraging them to rise up and demand what is rightfully theirs. This revolt against the pervasive belittlement of women, which has been normalized in countless societies, is a defiant act that resounds.

From the play's outset, it becomes apparent that Nora takes on the role of a dutiful and submissive wife, whose sense of self is diminished by her husband's behavior, mannerisms, and words. Torvald perceives Nora as his asset, a figure that must conform entirely to his ideas, perspectives, and beliefs. His display of financial power when he admonishes her for being extravagant, as well as the influence of societal customs, traditions, hereditary factors, and the environment, all contribute to suppressing Nora's individuality and self-expression.

The term "Doll" serves as an allegorical symbol of inner captivity, representing a woman devoid of her own. Dolls, by their nature, are not real and not taken as real. Similarly, Nora's character embodies this notion. In one instance, Nora tells Helmer, "I'll be a fairy and dance on a moonbeam for you, Torvald" (43). Torvald diminishes Nora's existence by addressing her as "my little squirrel," "my little spendthrift," "my little skylark," "little Nora," "little soul," and many more. Through these endearments, Torvald reduces her as an object or a pet, merely conforming to his ideas, opinions, and preferences. Nora herself expresses this dynamic when she says:

“Yes, that's the way Torvald wants things. There has to be some style there, he says, otherwise it offends his eyes. Look, you see how the pattern on the cups matches the pattern on the napkins” (McFarlane 1961:318).

Furthermore, Nora demonstrates her reliance on her husband even in matters pertaining to the household, stating, "Yes, Torvald certainly knows how to make a house attractive and comfortable" (39). This sentiment aligns with the notion proposed by Jean-Jacques Rousseau, who argued that a female's primary responsibility in life is to ensure the

happiness of her husband, or "lord":

"The whole education of women ought to be relative to men. To please them, to be useful to them, to make themselves loved and honoured by them, to educate them when young, to care for them when grown, to counsel them, to make life sweet and agreeable to them—these are the duties of women at all times, and what should be taught from their infancy" (Qtd. In Millet 74).

Nora's entire life is molded on desires and wishes related to others, resulting in a compromise of her role as a soulmate and mother. She makes fateful resolution to take out a loan, which ultimately wreaks problems on her life in order to prove her responsibility. However, her supposition of reality and understanding are shattered when Helmer unconditionally rejects her. This revelation affirms that the foundation of their household was never built on genuine affection, attachment, and effective conveyance.

Play's title, sparks controversy because Nora's house in which she resides does not truly belong to her. Throughout Nora's life, there has consistently been a lack of comprehension between her and Torvald, similar to her previous relationship with her father. A revealing conversation takes place just before the interlude with Dr. Rank, during which Nora subtly hints at the nature of their relationship. However, Torvald completely fails to grasp the implications of her comment:

"Torvald: Now that wasn't that a good idea of mine. (To suggest going to the fancy dress party in the Neapolitan costume) Nora: Splendid. But wasn't it nice of me to do as you said? Torvald: (lifting her chin): Nice? To do what your husband says? all right, little scatterbrain, I know you didn't mean it like that" (42).

She secondarily communicates her own views, which Torvald should ideally regard. However, due to his ingrained beliefs in male superiority, he is unable to perceive the underlying message Nora is conveying, thereby missing an opportunity to acknowledge her perspective.

Her interaction with her offspring's serves as different instance of her diminishing not only herself but also her children in return. She positions herself in a superior position to them, labeling them as her 'doll children.' She addresses them with words 'little darlings,' taking them as mere things of amusement to entertain her. Additionally, very frequently using the word 'little.'

Despite her children not being infants anymore, Nora perpetuates their objectification, similar to how she has been objectified herself. Instead of allowing the nurse to undress them, Nora takes it upon herself to fulfill that duty, further emphasizing the objectification of her children. Nora expresses her excitement and willingness to personally take off her own clothes, indicating her enjoyment in doing so.

She engages in a silent act of "playing dress-up" with her children, treating them as one would treat a collection of toy dolls. She willingly complies with whatever Helmer demands, even going as far as sacrificing herself for the sake of his well-being. However, when the truth is unveiled to him, Torvald fails to comprehend her underlying intentions. In response to his reaction,

Nora asserts herself, taking a stand:

“... our home has been nothing but a play-room. I've been your doll-wife here, just as at home I was Papa's doll child. And the children have been my dolls in their turn. I liked it when you came and played with me, just as they liked it when I came and played with them. That's what our marriage has been, Torvald” (82).

Due to her raising and situations, Nora possesses a certain level of immaturity, innocence, and perhaps irresponsibility, leading her to forge her father's signature. Despite act of forging signature on that bond and subsequent confidentiality surrounding this matter, it does not render her as inauthentic. Nora, driven by complete naivety regarding legal matters, does not pause to consider the consequences when borrowing money.

Complications arise when Krogstad blackmails Nora, threatening to expose her forgery to Torvald in order to retain his position at the bank. In contrast, Nora firmly believes that despite Torvald's aversion to taking ups and debts, her husband will be there after all and assume responsibility for her actions. Unlike Mrs. Linde, Nora, due to her lack of independence, always believed that for her own safety. Nora confidently asserts that Torvald's love for her is immense and profound, to the extent that he would willingly sacrifice his life for her without any hesitation.

In order to spare Torvald from bearing the burden of guilt, Nora devises a plan to escape and even contemplates suicide (although she acknowledges lacking the courage to follow through with it). She goes to the extent of distancing herself from her children, fearing that her presence would negatively influence and corrupt them.

Nora: Corrupt my little children poison my home? That's not true! It could never, never be true. (36)

The act of forging her father's signature and its subsequent consequences became the catalyst for Nora's personal growth. The disgust she experienced during the forgery hidden from her husband, eventual revelation of reality, and Torvald's unexpected reaction all contributed to her transformation. These events paved the way for her last commitment. At last:

“... the door Nora slammed as she walked out of her home echoed around the world.” (Qtd. in Ibsen xi)

Over the course of eight years, Nora transforms from a self-effacing woman into an independent individual with her own agency. The portrayal of Nora as a strong woman in the play makes it inherently feminist, despite Ibsen's denial of this fact. Nora takes on the role of the protagonist, challenging traditional gender norms. Ibsen subverts patriarchy by portraying the father figure as absent yet influential, while also preventing Helmer's personal growth in whole play. In essence, writers' own argument inadvertently supports the feminist nature of the play.

A woman cannot be herself in modern society for it is an exclusive male society, with laws made by men and with prosecutors and judges who assess feminine conduct from a masculine standpoint. (Meyer 466)

The portrayal of the "New Woman" in Nayantara Sahgal's novels, where female characters ultimately leave their families with all their

belongings, bears resemblance to the earlier depiction found in Ibsen's *A Doll's House*.

Nora's husband's true nature being revealed plays a significant role in her transformation, allowing her hidden qualities to emerge from the suppression she experienced under his influence. By freeing Nora from her conventional roles and obligations, Ibsen aligns closely with Cixous's perspective.

It is time to liberate the new Woman from the old by coming to know her—by loving her for getting by, for getting beyond the old without delay, by going out ahead of what the New Woman will be, as an arrow quits the bow with a movement that gathers and separates the vibrations musically, in order to be more than herself. (878)

Nora departs from her soul mate, who becomes the source of her hardships, in order to embark on a journey of self-discovery and independence. This action symbolizes the profound struggle faced by women as they confront societal expectations and conflicting moral standards.

If one wants to look for a non-disciplinary form of power, or rather, to struggle against disciplines and disciplinary power, it is not towards the ancient right of sovereignty that one should turn, but towards the possibility of a new form of right, one which must indeed be antidisciplinary, but at all the same time liberated from the principle of sovereignty. (Foucault 108)

However, the transformation Nora undergoes, although it may initially seem like a rebellious act on behalf of women, is actually questionable due to its consequences: the breakdown of the family unit and the disruption of marital life, ultimately leading to a lack of maternal love for her offspring. Nora herself is acutely aware of this sorrow, expressing her anguish over never seeing her children again. She realizes that this is the price she must pay for her love and care for everyone. Only option to leave her family, that gives only suffering, is true catalyst for her transformation. As Ledger suggests, the emerging identity of the "New Woman" comes at a cost (79). Additionally, the transformation raises suspicions and raises questions about how a previously submissive woman can suddenly become individualistic and self.

A Doll's House is a telling tale of that transformation, a telling tale of that process of modernization, a quest of new identity, a saga of in-between dualities of 'existential anguish' of a character torn between the values of tradition and modernity, of true self and the illusion. (Shahin 288)

It is evident that this complex experience has resulted in a complete transformation of Nora's character. Ultimately, she emerges as a subdued representative of all women who secretly yearn for self-identity but conform to societal expectations and patriarchal norms, while still maintaining their independent will. The concept of the "New Woman" remains controversial even today, with Georg Brandes referring to Nora as "a new creature." In her quest for liberation, Nora takes the drastic decision of leaving behind everything, despite living a seemingly contented life without any complaints. Undoubtedly, the values of freedom of choice and individual

dignity hold great existential significance, but for Nora, these values are only realized after enduring exasperation, angry, and throbbing struggles.

Ibsen expresses his belief in the fundamental right of every individual to understand their own identity, which is denied by everyone in this dominated society by men. According to Ibsen, any alternative ending to play would be an extremely harsh and violent act against the essence of the play itself. This conflict between traditional and modern values, along with societal and personal perspectives, creates an avalanche effect in Nora's life, representing the existential dilemmas that all human beings face.

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Effect of Blue Green Algae as Biofertilizers on Crude Protein Content of Paddy Plants

• Anup Kumar Mishra

Abstract- *Application of different supply levels of blue green algae shown positive response on crude protein content of grains of paddy plants. The Paddy (*Oryza sativa*, L. var. SAKET) plants were taken in experiment. These plants were raised in soil-pot culture conditions. The different Supply levels of blue green algae, nil (control), 50, 100, 150, 200 and 250g bga/kg soil were applied to plants. The crude protein content of paddy plants increased with the increase in bga supply level upto 250 g bga/kg soil level in tops of both 30 and 90 days and grains of plants. Except at 50 g bga/kg soil level over control where increase in crude protein content in tops of 90 days old plants fails to reach the level of significance, all other levels of bga supply in tops of 30 and 90 days and grains of paddy plants, over control, showed highly significant ($P=0.01$) increase in crude protein content.*

Keywords–*Paddy, bga, BNF, controlled condition, DM*

Introduction- Blue green algae are a natural part of our environment. They are found in ponds, lakes, rivers and wetlands. They are also known to the world by name of cyanobacteria. A combination of excess nutrients, sunlight and high temperatures can lead to a rapid increase in blue green algal mass.

Among the ecosystems in which blue green algae can be found, wet soils provide an ideal environment for blue green algae to grow. Blue green algae represent a small taxonomic group of photosynthetic prokaryotes. Some of them possess ability of nitrogen fixation and also possess a tremendous potential for producing a wide range of secondary metabolites.

Bio-fertilizers are important components of integrated nutrients management. These potential biological fertilizers would play key role in productivity and sustainability of soil and also protect the environment as eco-friendly and cost-effective inputs for the farmers. The bio-fertilizers contains beneficial microorganisms which improve plant growth and protect plants from pests and diseases (El-yazeid et al, 2007). The role of soil microorganisms in sustainable development of agriculture has been reviewed (Lee and Pankhurst, 1992). Bio-fertilizers are cost effective, eco-friendly and renewable source of plant nutrients to supplement chemical fertilizers in sustainable agricultural system.

Blue green algae have drawn much attention as prospective and rich sources of biologically active constituents and have been identified as one of

the most promising groups of organisms capable of producing bioactive compounds (fish & codd 1994, schlegel et al... 1999). De (1939) attributed the natural fertility of flooded rice field soil and its maintenance to the process of biological nitrogen fixation by blue green algae.

In developing countries like India where there is immediate need to rely increasingly organic fertilization of soil, these bio-fertilizer play a role in minimising dependence on inorganic nitrogenous fertilizers. The bio-fertilizers, otherwise called microbial inoculants are preparations containing live or latent cells of efficient strains of nitrogen fixing micro-organisms used for seed or soil application. The main objective of applying inoculants is to increase the number of such microorganisms in soils or rhizosphere and consequently improve the extent of micro-biologically fixed nitrogen to plant growth.

Application of bio-fertilizers in combination with organic nitrogenous fertilizers has a key role to play in the economic management of nitrogen needs of crops. In India, considerable progress has been made in the development of blue green algae based bio-fertilizer technology. It has also been demonstrated that this technology can be a powerful means of enriching the soil fertility.

Material And Method- Experimental plants were raised in soil culture under pot culture conditions in the laboratory. Plants were raised in 8” clay flower pots with a central drainage hole. The inner surface of the pots along with top 3” of outer rim was lined with acid washed polythene provided with a central hole superimposed on the drainage hole of the pot. Normal water was used during culture work. All the plants were raised in the soil, 1.5 cm deep holes were made with glass rod of 3mm diameter and seeds were put in these holes, carefully, covered loosely with soil of the same pot.

Normal water was used during culture work. After the seed's emergence, plants were thinned to a uniform number in each pot. Subsequent thinning was done whenever needed. For the experiment, there were six pots. The pots were arranged in 3 blocks A, B and C. In each block there were two pots, one pot was meant for control treatment and other one with BGA treatment. In each block the treatments were completely randomized.

For studies, the Paddy (*Oryza sativa*, L.var. SAKET) plants were raised in soil pot culture. Soil samples were collected in a clean polythene bag after surface scrapping and brought to the laboratory. Calculated amounts of normal water were applied daily to pots to provide as for as possible uniform soil moisture conditions. All samples were drawn at the same time and placed in the shade. The 3 blocks a, b and c were sampled at the same time.

Soil was separately mixed with required amount of blue green algae. For through mixing required amount of BGA were mixed with small amounts of soil, divided and mixed again and again. Then these amended soils were mixed with bigger amounts of soil similarly, and finally these soils were mixed with bigger lots of calculated soils required for experiments. Soil mixing was done on separate clean chart to avoid any contaminations.

Mixed soils were filled in pots.

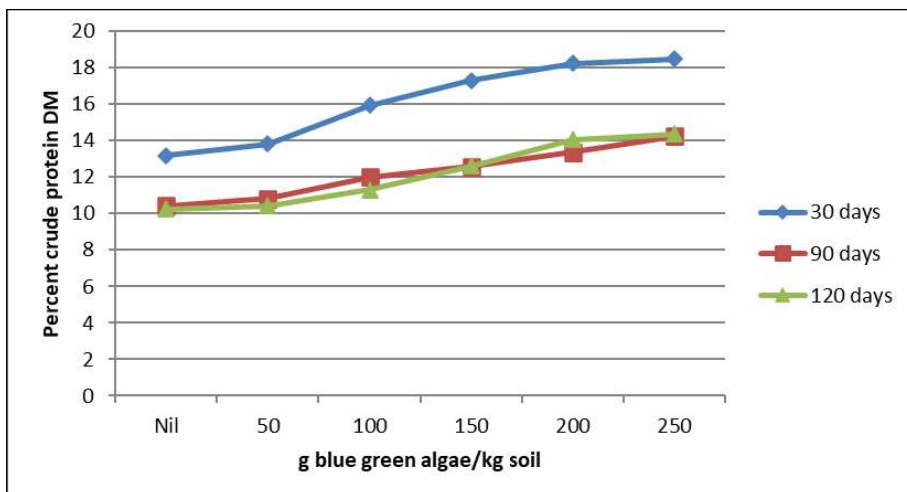
The crude protein content was calculated by the correction factor ($N \times 6.25$) where N is % nitrogen. The procedure of calculation is same as described by Chang and Hayes (1989).

Result- The increase in crude protein content of paddy plants was found highly significant ($P=0.01$) at 100 g bga/kg soil over 50 g bga/kg soil, 200 g bga/kg soil over 150 g bga/kg soil and 250 g bga/kg soil over 200 g bga/kg soil in tops of both 30 and 90 days and grains of plants and at 150 g bga/kg soil over 100 g bga/kg soil in tops of 30 days and grains of plants, and significant ($P=0.05$) at 150g bga/kg soil over 100g bga/kg soil level in tops of 90 days old plants.

Maximum crude protein was observed at 250 g bga/kg soil level in tops of both 30 and 90 days and grains of paddy plants.

Effect of the blue green algae as biofertilizers on crude protein content of Paddy (*Oryza sativa*, L.var. SAKET) plants

Plant		g blue green algae/kg soil					
Age (days)	Part	Nil	50	100	150	200	250
Percent crude protein DM							
30	Tops	13.18	13.81	15.93	17.31	18.24	18.49
90	Tops	10.43	10.81	12.00	12.56	13.37	14.25
120	Grains	10.25	10.43	11.31	12.62	14.06	14.37



Discussion- Blue green algae i.e., bio-fertilizers have several advantages over chemical fertilizers. They are non-polluting, inexpensive, utilize renewable resources. In addition to their ability of using free available solar energy, atmospheric nitrogen and water. Many blue green algae have the capacity to manufacture nitrogenase. Because the enzyme complex is anaerobic, significant fixation by unicellular, colonial and some filamentous species occurs only in the absence of air. Therefore, only heterocystous species are valuable as biofertilizers.

Blue green algae dominate a wide range of diverse environments characterized by extremes of temperature, desiccation, pH, salinity, light intensity and nutrients (Whitton, 2000). Many blue algae tolerate high levels of ultraviolet irradiation (Sinha et al, 1999) permitting them to survive at the soil surface.

In conformity with the results of the present study, Rai et. al., 2000 reported that blue green algae are good colonizers of the nitrogen poor soils, and that through their nitrogen input into the environment they may help to create habitats suitable for other species. Besides supplying N₂ to crops, they also supply other nutrients such as vitamins and growth substances (Wagner, 1997).

Blue green algae can be used as a strong tool to strengthen the fertility of soil by improving the quantity of mineral components. Venkataraman (1981) reported that open air soil culture is simple, less expensive and easily adaptable by farmers. As mentioned earlier, blue green algae have minimum growth requirements of sunlight, simple inorganic nutrients and moisture. Anabaena and Nostoc have been recorded among the common nitrogen fixing blue green algae in rice fields. The use of blue green algae as nitrogen-based bio-ssfertilizers is reported in many rice growing countries of the world. This was because of the increased cost of chemical fertilizers, that cause soil and water pollution, changes soil structure and produce microflora. In comparison, blue green algae are a cheap source of nitrogen, which does not cause pollution. It improves the organic matter status and water holding capacity.

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Effect of Alternative day feeding on Growth performance of broiler chicken

• Umesh Shukla

Abstract- *In the alternate day fed birds, the consumption of water was significantly more (7002.1ml) than the control group (6017.9ml). More feed intake was recorded at the 1st, 2nd and 5th weeks of age in alternate day fed birds. Based on this experiment we have concluded that the alternate day feeding has no economic advantage over the ad-libitum fed birds.*

Keywords- *Chicken, alternate day feeding, growth*

Introduction- The several methods of feed restriction programmes were employed by many researchers (Lagervall, 1974 and Robinson et al 1978), which may be classified as 1. Limited time feeding in which pullets have access to feed for a limited number of hours per day 2. Quantitative feed restriction in which pullets are allowed to consume a fraction of what a control group receives and 3. Nutrient restriction like energy, protein or essential amino acids. One advantage of the programmes 1 and 2 over nutrient restriction programme is that a special feed formulation is not necessary. However, Lee *et. al.* (1971) observed that limited time feeding was not an effective method of feed restriction. We hear report that limited time feeding or skip a day feeding had no economic advantages over *ad-libitum* fed birds (Reddy and Eswaraiyah, 2018).

Materials And Methods- Two batches' birds were experimented. The I batch as fed regularly (control) and II batch was fed in alternate days. The experiment was conducted for 42 days. The amount of feed intake and water consumption was quantified regularly. The birds were weighted once in a week.

Results- Each batch consisted of six birds. The performance of birds during growth period was evaluation in terms of weight, feed intake and production.

Body weight (g/birds)- Birds, which were fed daily gained significantly, better at the 5th week of age than the alternate day fed birds. At the 2nd and 6th week of age, the daily fed birds gained significantly better than the alternate day fed birds. At the end of 6th week, the mean body weight for control (daily fed) and alternate day fed birds were 795g and 675g respectively. Table I shows mean body weight of daily (control) and alternate day fed birds.

Table 01
Mean body wt. (g/birds) of control
and alternate day fed birds (N = 6, X ± SD).

Week	Control	Alternate day fed birds
1.		70±7.22
2.	151.2±28.86	199±17.48
3.	284±28.86	235±43.6
4.	465±50	399±65.98
5.	689±50.63	560±101.78
6.	795±106.2	675±36.05

Feed intake (g/bird/week) and water consumption (ml/bird/week)- Total feed intake for control and alternate day fed birds were 2545.16g and 2222.67g respectively more feed intakes was recorded at the 1, 2 and 5th week of age in alternate day fed birds. However, at the 6th week of age more feed intake was recorded in the control group. But in the alternate day fed group the consumption of water was significantly more (7002.4ml) than the control group (6017.95ml) than the control group (6017.95ml). Significant differences in the consumption of water from 1-6 week were notified.

Production (g)- Total production for control and alternate day fed birds were 743g and 623g respectively. Better production was observed in control group and more production was recorded at the 5th week of age in it. Similarly in alternate day fed birds more production was noticed (161 g) at 5th week of age. Table 2 shows feed intake, water consumption and production of daily and alternate day fed birds.

Table 02
Feed intake, water consumption
and production of daily and alternate day fed birds

Mode of Feeding	Week	Feeding Intake	Water Consumption	Production
Daily (Control)	1.	101.83	203.34	15
	2.	269.15	375.84	84.2
	3.	426.84	761.67	132.8
	4.	532.84	1358.30	181
	5.	577.5	1680.10	224
	6.	637	1638.70	106
	Total		2545.16	6017.95
Alternate day fed birds	1.	203.67 (4 days)	316.70	18
	2.	274.17 (3 days)	507.50	49
	3.	416 (4 days)	900.70	136
	4.	321.67 (4 days)	1657.50	144
	5.	579.16 (4 days)	1715.80	161
	6.	428 (3 days)	1904.20	115
	Total		222.67	7002.40

Discussion- The alternate day feeding had no economic advantage over the *ad-libitum* fed birds. In the results it is clear that the fed intake was more in

the alternate day fed birds than the control group. But there was no increase of production in the alternate day fed birds. Alternate day feeding was found to depress body weight, but it increased the feed intake and it also increased the water consumption. The skip a day feeding was also shown by Reddy and Eswaraiah (1988). They found that growers which were given *ad-libitum* feed or any of the low protein diets from 7-20 weeks gained significantly better than those given limited feeding or skip a day feeding. It was also reported that the efficiency of feed utilization in full fed birds was significantly better than limited time feeding or skip a day feeding programme (Reddy and Eswaraiah, 1988).

Similarly, the production was less in the alternate day fed birds (Lee *et al.*, 1991) observed that limited feeding was not an effective method of feed restriction. The ultimate value of any feed restriction programme for poultry producer, however, its effect on economic returns. Although a considerable amount of work has been with feed restriction, the results have been conflicting. The reason for these conflicts maybe related to differences in strain used, the level of restriction or the method of restriction employed, recent increases in feed costs have resulted in the renewed interest in feed restriction.

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Isolation of Cellulose Positive Bacteria from Camel Dung

• 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. Based on the colony morphologies, total cellulolytic bacteria in out of which 400 (49.11%) bacterial isolates produced cellulose.*

Keywords- *Camel dung, cellulose and bacteria.*

Introduction- Cellulose is one of the most abundant biomasses on the earth and possesses great potential to resolve energetic and environmental demands of bio energy (Khatriwada 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. Identification of total isolates bacteria in CMC plate screening.

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. dung was also collected for proximate analysis in 50 ml falcon tube and stored at -20 c. 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 bertani,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 anaerobic condition in 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 strow,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 grow on plates. Isolated colony are pick on the basics of their morphology and biological change like color, shape, size, etc. and transfer for 800 up Luria Bertaini broth media and incubate at 37°C for 48 hours to 72hours.

Screening of the isolates for Cellulose- After incubation for 48 hours to 72 hours take 50 ul isolates and spot for CMC agar plate. All the plates are stained with 1% Congo red solution for 20 mints, after 20 mints discard the solution Congo red then take 1M NaCl for all plates at 20 mints. After 20 mints discard NaCl solution. Discard the NaCl solution zone were visible around the bacterial colony which is hydrolyzed the CMC.

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.

Plate zymography for screening of cellulose producing isolates- Screening of the isolates from cellulose producing efficiency was performed using CMC plate. The efficiency of the isolates for enzyme production was based on calculation of enzyme activity index (EAI) which is ratio of hydrolysis zone diameter to colony diameter. Total 1500 bacteria were isolated from camel dung, out of which 400 were cellulase positive bacteria, Number of isolates giving enzyme activity less than 3 and more than 3 for cellulose bacteria.

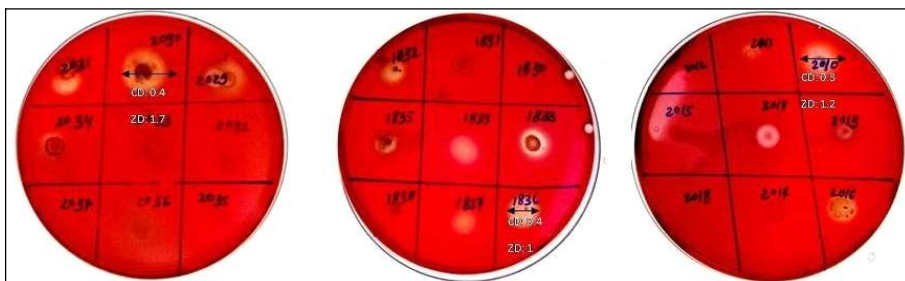


Fig: Plate zymography of bacterial isolates for cellulose production

In this study, total 4056 bacteria were isolated from camel rumen and out of which 1992 (49.11%) bacterial isolates produced cellulases and were found to hydrolyse CMC along with 207 isolates displaying higher EAI. In another study by Ling et al. (2014) 22 (8.97%) bacterial isolates were found to hydrolyse CMC out of 245 bacterial isolates including three isolates that showed higher EAI. Ten strains of cellulolytic bacteria were isolated from 7 oil palm meal samples collected in Phetchaburi, Prachuap Khiri Khan and Pattani provinces, Thailand. Out of 10, 8 (80%) isolates are shown cellulase producing bacteria (Saowapar Khiangam et al. 2014). Results indicate Camel rumen to be an important source for isolating efficient cellulolytic bacteria.

Conclusion- Provided the 14-camel dung as a sample, then each camel dung 500 mg weight after this. Then serial dilution of each camel dung. Then performed isolation, congo red screened after isolation. Then 400 positive bacteria were found in 1500 isolates.

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Effect of Chemosterilants on Fecundity and Fertility of Diacrisia obliqua

• Lalit Gupta

Abstract- *Diacrisia obliqua* Walker (Lepidoptera: Arctiidae) is a known Pest of various economic crops. It causes a huge loss to farmers. Farmers have been using chemical pesticides to control this pest since a long time. But chemical pesticides are hazardous to environment and ecosystem in many ways. (Gupta, L. 2016)¹ Chemosterilants have received much attention of entomologists as they are safer to environment and they decrease the birth rate of insects without disturbing the ecosystem. (Saxena et.al.,2001)² In order to control this pest, Tapa (a chemosterilant) was administered and tested by Leaf Dip Method (LDM) and Topical Method (TM). It was found that Tapa causes a drastic reduction in fecundity and fertility from lowest concentration (0.05%) to highest concentration (1.0%). It was also noticed that Tapa gives better results under LDM.

Keywords- *Diacrisia*, Tapa, Leaf Dip Method, Topical Method, Pest

Introduction- *Diacrisia obliqua* is a harmful polyphagous pest causing remarkable damage to several crops. Farmers have been using chemical pesticides to control *Diacrisia*. But Chemical pesticides are injurious to human & pet animals. They also cause development of resistance. They cause environmental pollution. So chemosterilants have received much attention and appreciation by entomologists. They decrease the pest population by decreasing the birth rate, without polluting the environment.

Material & Method- Present work was started in July 2021 at the laboratory of Janta College, Bakewar. Male & female moths were captured from plants to carry out the experiment in laboratory. They were kept carefully. These insects ensured the regular availability of insects by reproduction. Adults were kept in glass chimneys but the larva were kept in large petridishes of 10 cm. diameter. When the larvae were full grown, they were transferred to pneumatic trough. 10-15 cm thick soil was kept in troughs on their bottom, for larvae to pupate.

Tapa is a commercially available chemosterilant which has been tested against many pests. Tapa is chemically Tris (1-aziridinyl) phosphine oxide. Investigator used 0.05, 0.25, 0.50, 0.75 and 1.00% concentration of the test chemical in the study to find results.

To increase the stickiness, we added 2% skimmed milk powder to it and we used two methods to test the effect of Tapa on insects.

1. **Leaf Dip method (LDM)** - In this method, leaves that were to be given to larvae to feed on were treated with different concentration of dipel.
2. **Topical Method (TM)** - In this method, a thin film of residue of dipel was prepared and the adults were exposed to it.

The number of eggs laid, hatching and incubation period were recorded and analysed statically. Various statistical analysis has been applied to study the nature and relationship between variables, to know the reliability and precision in the results obtained, to test the significant difference between observed and expected values. These statistical methods include- Standard Error and mean.

Observation- The results obtained in different experiments are presented in following table-

Table 01
Effect of different concentrations of "Tepa" on fecundity and fertility in *D. obliqua*. (Values are mean S.E.)

Mode of treatment	Concentration (%)	No. of eggs laid	No. of eggs hatched	Hatching (%)	Incubation period (days)
L.D.M.	0.05	220.6±3.42	169.8±3.62	76.9	3.24±0.64
	0.10	226.4±3.58	153.5±4.24	67.8	3.56±0.42
	0.50	211.3±2.69	134.3±2.78	63.5	3.92±0.12
	0.75	191.2±3.76	113.1±4.32	59.1	3.94±0.22
	1.00	178.4±2.22	94.3±1.44	52.8	5.42±0.13
T.M.	0.05	245.4±2.42	194.1±2.24	79.1	3.26±0.52
	0.10	222.5±3.30	156.4±2.32	70.3	3.44±0.31
	0.50	191.2±2.45	125.2±2.35	65.5	3.87±0.23
	0.75	176.4±3.28	107.7±3.42	61.1	3.97±0.13
	1.00	150.3±2.46	89.1±1.72	59.3	5.02±0.12
Control		346.2±4.24	310.3±2.14	89.6	2.78±0.24

Result & Discussion- Under LDM fecundity decreased from 220.6 eggs to 169.8 eggs as compared to 346.2 eggs of control experiment with the increasing concentration of chemosterilant. Hatching was reduced from 76.9% to 52.8% as compared to 89.6% of control experiment.

Under TM fecundity decreased from 245.4 eggs to 150.3 eggs as compared to 346.2 eggs of control experiment with the increasing concentration of bacterial preparation. Hatching was reduced from 79.1% to 59.3% as compared to 89.6% of control experiment

The treatment of insects with the test preparation also revealed the prolongation of incubation period.

The results show that Tepa has potential to reduce the fecundity and fertility of insect even at, a very low concentration (0.05), when administered by LDM or TM. However, LDM is more effective than TM.

Jaques and Fox (1960)³, Chandra⁴ et. al. (1999), Chaturvedi (2002)⁵, Bajpai (2003)⁶, Soto et. al (1967)⁷ and Young, J.R. and Cox, H. C. (1965)⁸. also worked on microbial preparations and chemosterilants against development of different insects. The present findings are in correlation with the results of earlier workers.

Conclusion- It is clear from present study and data obtained that chemosterilants are promising insecticides. They are safe to environment

and non-target animals.

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ABO Blood Groups and Diseases Association in ADI (mixed) Tribal Population of Madhya Pradesh

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Abstract- *ABO blood groups and its association with different diseases in Adi (mixed) tribal population of Madhya Pradesh was studied. The relative incidence of blood group AB in Pulmonary Tuberculosis and blood group A in Jaundice was found to be significant. But on the whole no significant relationship between ABO blood groups and different diseases in this population was found. Collection of more data and critical analysis of the pooled data is required for prospective study.*

Keywords- *ABO blood groups, diseases association, tribal population.*

Introduction- In an attempt to determine whether serological differences exist between individuals, Landsteiner (1900, 1901) discovered the first human blood group system, the ABO blood group system. It is now known that persons belonging to different blood groups may differ substantially in their susceptibility to certain diseases. Alexander (1921) concluded from this study that blood group B and AB were especially susceptible to carcinoma. Roberts (1957), Singh *et al.* (2016) Kshatriya *et al.* (2011) and several others reported association of some diseases with ABO blood groups. Mayo *et al.* (1953) and Beasley (1960) could not find any association of ABO blood groups with diseases. Thus enough has been presented in support and denial of the hypothesis that certain chronic diseases are associated preferentially with selected ABO blood group to stimulate continuing interest in the accumulation of data designed to eliminate the source of bias.

The data and information hitherto available, clearly indicate that for such a generation of association of blood groups and diseases to be established beyond reasonable doubt, a large study, on a large number of people for each disease and that too at different places is essential. For this reason, present findings on ABO blood group distribution in different diseases with respect to that of control among Ad (mixed) tribal population of Madhya Pradesh, has been done. We assume that more such information shall be forthcoming and when all such data will be pooled together on some later date it may give clear and final answer to the problem.

Materials And Methods- Hospital patients are unsuitable because a proportion of them suffer from diseases which are known to have association with certain blood groups and to establish 'Norm', it is imperative to collect

data from apparently healthy persons from the same ethnic groups (Koster *et al*, 1955). In the present control series, the male and female persons were selected at random from apparently healthy students of Agra College, Agra, Uttar Pradesh, who belong to Adi (mixed) tribal community.

The patients belonging to Adi (mixed) tribe, who were suffering from various diseases, were selected at random from the outpatient and inpatient departments of the General (Govt.) Hospital and Govt. T.B. Hospital, Agra and their ABO blood groups were determined with high titre monoclonal reagent Anti-A and Anti-B, by cavity slide method (Dacie and Lewis, 1991).

Relative incidence was calculated by Woolf's (1955) method and the test of significance was carried out by X^2 method (with Yates corrections, wherever necessary).

Results And Discussion- The distribution of ABO blood groups in 310 numbers of control subjects were studied and shown in Table 1. The blood group, frequencies of the control Adi (mixed) tribal population show the typical Mongoloid pattern A>O>B>AB (Boyd, 1939; Mitra, 1936). This result was compared with earlier record of 7003 persons on the same population (Nath *et al*, 2021). The difference is insignificant at 5% level of significance.

Table 01
ABO blood group phenotypes in control series.

Blood Group	No. of Cases	Percentage
A	112	36.13
B	69	22.26
AB	28	9.03
O	101	32.58z

The distribution of ABO blood groups in 212 patients from Adi (mixed) tribal population, suffering from various diseases are given in Table 2.

Table 02
Blood group distribution in various diseases in relation to controls.

Name of the Disease	Group-A		Group-B		Group-AB		Group-O		Subtotal	X^2
	No. of cases	% increase or decrease on controls	No. of cases	% increase or decrease on controls	No. of cases	% increase or decrease on controls	No. of cases	% increase or decrease on controls		
1. Diabetes	06	+3.79	02	-43.85	01	-30.79	07	+34.28	16	2.98
2. Pulm. tuberculosis	07	-3.13	04	-10.15	05	+176.85	04	-38.61	20	5.77
3. Malaria	07	-3.13	04	-10.15	02	+10.74	07	+7.43	20	2.44
4. S.T.D.	13	+12.44	09	+26.35	02	-30.79	08	-23.27	32	1.06
5. Jaundice	09	+55.69	01	-71.92	03	+107.64	03	-42.45	16	4.81
6. Other disease	30	-23.12	32	+33.11	11	+12.79	35	-0.53	108	3.65
7. All disease taken together	72	-6.0	52	+10.19	24	+25.37	64	-7.34	212	1.34

Table 03
Relative incidence (R.I.) and significance of association of
ABO blood groups and diseases

Name of the Disease	(B+AB):(A+O)		A:B		AB:O		AB:B		AB:A	
	R.I.	X ²	R.I.	X ²	R.I.	X ²	R.I.	X ²	R.I.	X ²
1. Diabetes	0.51	0.25	4.87	1.82	0.52	0.07	1.23	2.13	0.66	0.14
2. Pulm. tuberculosis	1.80	1.62	2.84	2.82	4.51	5.30*	3.08	2.74	2.86	3.05
3. Malaria	0.94	0.01	2.84	2.82	1.03	0.001	1.23	0.05	1.14*	0.03
4. S.T.D.	1.15	0.13	3.43	3.58	0.90	0.10	0.55	0.002	0.62	0.004
5. Jaundice	0.73	0.001	14.61	10.56**	3.61	2.59	7.39	0.73	1.33	0.17
6. Other disease	1.45	2.61	1.52	2.02	1.13	0.10	0.85	0.16	1.47	0.87
7. All disease taken together	1.23	1.18	2.25	11.77**	1.35	0.89	1.14	0.15	1.33	0.83

It is seen that blood group B and AB are preponderant in the diseased persons in relation to controls. Indifferent diseases the blood group association are found to be different in comparison to controls. In diabetes, 34.28% increase was recorded over controls in blood group 'O' Similar results were also found by Bhosale and Kulkarni (1971) and Jolly *et al*, (1969). In pulmonary tuberculosis an increase of 176.85% over control was seen, which was in accord with the findings of Marok (1989) and Jam (1970).

In malaria AB and O showed a little increase over controls. In S.T.D. both the groups were preponderant, though group B is more than group A. In jaundice groups A and AB showed an increase of 55.69% and 107.64% respectively over controls, group AB being more. In other miscellaneous diseases, the increase over control was observed in blood groups B and AB, B group being more than AB.

Though several cases of prevalence of incidence in different diseases over controls were observed, the insignificant value of X² indicates that the blood groups A, B, AB and O are homogeneous so far as the proportion of the diseases concerned. The occurrence of these diseases is in no way associated with any particular blood group (Buchanan and Higley, 1921; Mayo and Ferguson, 1953).

The relative incidence of different blood groups in different diseases is shown in Table 3. The significance of association of ABO blood groups and different diseases was looked into and it was found that except three groups mentioned below all other possible combinations yielded insignificant X² value.

In Pulmonary Tuberculosis the relative incidence of group AD to group O is significant (P<0.05), in jaundice the relative incidence of group A to group B is highly significant (P<0.01). When all diseases are taken together, we found that the relative incidence of group A to group B is highly significant (P<0.001) which is perhaps due to the higher frequency of group A to group B in the population.

Apart from the significant relative incidence of group AB in pulmonary tuberculosis, which is in accord with Marok (1989) and Jam (1970) and group A in Jaundice, no significant association was found between ABO blood groups and diseases. Though the present sample size is

very small, yet this study has been reported to keep on record the variations of ADO blood groups in relation to diseases and similar studies from other parts of our country and world can be pooled together in future by Woolf's (1955) method, to get plausible answer to this problem.

Whatever the explanation may ultimately prove to be, these associations are phenomenon of major anthropological and medical interest. Work is proceeding very actively at many centers in different parts of the world and there is every hope that the result will provide a valuable contribution to the understanding of the workings of natural selection.

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Role of Cyanobacteria in Enhancing Peroxidase Activity in Sunflower Plants

• Anup Kumar Mishra

•• Pushendra Kumar Sharma

Abstract- *The Sunflower (*Helianthus annuus*, L.var. KBSH-1) plants were used for the experiment. The studies were done on these plants. These plants were raised in soil-pot culture conditions. The different Supply levels of blue green algae, nil (control), 50, 100, 150, 200 and 250g bga/kg soil were applied to plants. With the increase in bga supply level upto 250g bga/kg soil level in tops of 30 days and upto 150g bga/kg soil level in tops of 90 days old sunflower plants, increase in the peroxidase activity was observed. Beyond 150g bga/kg soil level, increase in bga supply decreased the peroxidase activity in tops of 90 days old plants. As compared to control, all the levels of bga supply increase the peroxidase activity highly significantly ($P=0.01$) in tops of both 30 and 90 days old plants, except at 50g bga/kg soil level in tops of 30 days old plants where increase in peroxidase activity was found to be significant ($P=0.05$), and at 250g bga/kg soil level over control in tops of 90 days old plants where increase in peroxidase activity was found to be insignificant.*

Keywords- *Sunflower, bga, BNF, controlled condition, DM*

Introduction- The blue green algae have inhabited much of the surface of the earth for billions of years and today they are responsible for a significant amount of biological nitrogen fixation (BNF). The tropic independence of blue green algae made them suitable for use as biofertilizers. Blue green algae are widely distributed organisms all over the world and can be found in extreme habitats, from hot springs to arctic regions. Among the ecosystems in which they can be found, wet soils provide an ideal environment for blue green algae to grow.

Blue green algae dominate a wide range of diverse environments characterized by extremes of temperature, desiccation, pH, salinity, light intensity and nutrients (Whitton, 2000). Many blue algae tolerate high levels of ultraviolet radiation (Sinha et al, 1999), permitting them to survive at the soil surface.

The blue green algae as biofertilizers are proving to be strong alternative of chemical fertilizer, and thus improving the environmental health. In addition to this, blue green algae are imparting a great contribution towards establishment of strong biodiversity on the planet, Rai et. al., (2000)

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reported that blue green algae are good colonizers of the nitrogen poor soils, and that through their nitrogen input into the environment they may help to create habitats suitable for other species.

There is a great role of blue green algae in sustenance of soil fertility by enhancing the quantity of various nutrients in soil. In this fashion bga also improve the nitrogen content of soil. The various supply levels of blue green algae as biofertilizers leave impact on the growth and composition of sunflower plants. The blue green algae as biofertilizers are proving to be strong alternative of chemical fertilizer, and thus improving the environmental health.

Many blue green algae have the capacity to manufacture nitrogenase. Because the enzyme complex is anaerobic, significant fixation by unicellular, colonial and some filamentous species occurs only in the absence of air. Therefore, only heterocystous species are valuable as biofertilizers. Blue green algae i.e. biofertilizers have several advantages over chemical fertilizers. They are non-polluting, inexpensive, utilize renewable resources. In addition to their ability of using free available solar energy, atmospheric nitrogen and water. Besides supplying N_2 to crops, they also supply other nutrients such as vitamins and growth substances (Wagner,1997). Anabaena and Nostoc have been recorded among the common nitrogen fixing blue green algae in rice fields.

Blue green algae represent a small taxonomic group of photosynthetic prokaryotes which are able to do nitrogen fixation and also possess a tremendous potential for producing a wide range of secondary metabolites. Blue green algae have drawn much attention as prospective and rich sources of biologically active constituents and have been identified as one of the most promising groups of organisms capable of producing bioactive compounds (fish & codd 1994),(Schlegel et al.1999). De (1939) attributed the natural fertility of flooded rice field soil and its maintenance to the process of biological nitrogen fixation by blue green algae.

The use of latest innovations in agriculture arena has resulted in significant increase in productivity. There is a however, a growing concern about the adverse effects of indiscriminate use of chemical fertilizers on soil productivity and environmental quality. Blue green algae offer an economically attractive and ecologically sound alternative to chemical fertilizer for realizing the ultimate goal of increased productivity.

Material and Method- For studies, the Sunflower (*Helianthus annus*, L.var. KBSH-1) plants were raised in soil pot culture. Soil samples were collected in a clean polythene bags after surface scrapping and brought to the laboratory. Calculated amounts of normal water were applied daily to pots to provide as for as possible uniform soil moisture conditions. Sampling was generally started at 8:30A.M. and completed in an hour. All samples were drawn at the same time and placed in the shade.

Soil was separately mixed with required amount of blue green algae. There after it was air dried, thoroughly grounded and mixed. For through mixing required amount of BGA were mixed with small amounts of

soil, divided and mixed again and again. Then these amended soils were mixed with bigger amounts of soil similarly, and finally these soils were mixed with bigger lots of calculated amount of soils required for experiments. Soil mixing was done on separate clean chart to avoid any contaminations. Mixed soils were filled in pots.

Peroxidase was assayed in crude tissue extracts of fresh samples finally chopped, chilled and grounded with acid washed sand in a chilled pestle and mortar in 0.0067 M phosphate $p^H - 7$ in the proportion of one gram leaf material to 10 ml of the buffer. Grinding was carried out in an ice-bath. The crude extract were strained through clean two fold muslin, and peroxidase was assayed in crude extracts within three hours of preparation of extracts during which period the extracts were stored in a refrigerator where they were not found to undergo appreciable loss in the activity of enzyme.

For the assay of peroxidase slightly modified method of Luck (1968) was used. Suitable aliquots of crude tissue extracts were taken in test tubes containing 2.8 ml of 0.0067 M phosphate buffer of $p^H - 7$, to which one ml of 100 vol. hydrogen peroxide diluted 3×10^{-3} M and one ml of 1% p-phenylaminodiamine was added. The reaction was carried out at 30°C for five minutes after which it was stopped with $2N - H_2SO_4$. After centrifugation at 3500 rpm for 10 mts., optical density of samples was measured at 485 nm. in Toshniwal CL-10-spectral calorimeter. For every sample a blank was run simultaneously with H_2SO_4 before adding the tissue extract.

Result- Increase in peroxidase activity was found to be a highly significant ($P=0.01$) at 100g bga/kg soil over 50g bga/kg soil and 150g bga/kg soil over 100g bga/kg soil in tops of both 30 and 90 days, at 200g bga/kg soil over 150g bga/kg soil in tops of 30 days, and significant ($P=0.05$) at 250g bga/kg soil over 200g bga/kg soil in tops of 30 days old plants.

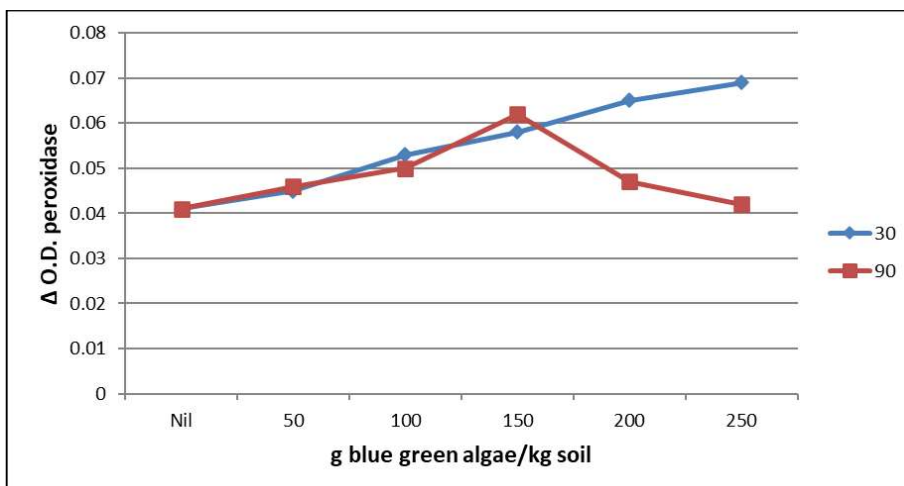
However decrease in peroxidase activity was found to be highly significant ($P=0.05$) at 200g bga/kg soil over 150g bga/kg soil and 250g bga/kg soil over 200g bga/kg soil level of bga supply in tops of 90 days old plants.

Maximum peroxidase activity was found at 250g bga/kg soil level in tops of 30 days and 150g bga/kg soil level in tops of 90 days old sunflower plants.

Effect of the blue green algae as biofertilizers on peroxidase activity of Sunflower

(*Helianthus annus*, L. var. KBSH-1) plants

Plant		g blue green algae/kg soil					
Age (days)	Part	Nil	50	100	150	200	250
30	Tops	0.041	0.045	0.053	0.058	0.065	0.069
90	Tops	0.041	0.046	0.050	0.062	0.047	0.042



Discussion-The main objective of applying bio-fertilizers is to increase the number of such microorganisms in soils and consequently improve the extent of micro-biologically fixed nitrogen to plant growth. Application of bio-fertilizers in combination with organic nitrogenous fertilizers has a key role to play in the economic management of nitrogen needs of crops. In India, considerable progress has been made in the development of blue green algae based in bio-fertilizer technology.

The bio-fertilizers contains beneficial microorganisms which improve plant growth and protect plants from pests and diseases (El-yazeid et.al, 2007). The role of soil microorganisms in sustainable development of agriculture has been reviewed (Lee and Pankhurst, 1992, Wani et.al.1995). Bio-fertilizers are important components of integrated nutrients management. These potential biological fertilizers would play key role in productivity and sustainability of soil and also protect the environment as eco-friendly and cost effective inputs for the farmers. They are cost effective, eco-friendly and renewable source of plant nutrients to supplement chemical fertilizers in sustainable agricultural system.

The use of blue green algae as nitrogen based bio-fertilizers is reported in many countries of the world. This was because of the increased cost of chemical fertilizers, that cause soil and water pollution, changes soil structure and produce microflora. In comparison, blue green algae is a cheap source of nitrogen, which does not cause pollution. It improves the organic matter status and water holding capacity. Venkataraman (1981) reported that open air soil culture is simple, less expensive and easily adaptable by farmers. As mentioned earlier, blue green algae had minimum growth requirements of sunlight, simple inorganic nutrients and moisture.

In agreement with the present results were the findings of Jacq and Roger (1977), Roger and Kulasoorya (1980) and Omar (2001) who reported blue green algal cultures or extracts enhanced germination, promoted growth of roots and shoots and increased protein content of the grain. The effect of nitrogen fixing blue green algae that were isolated from saline soils on growth and yield of rice grown in the green house and field were studied

by Anonda et al. (1990). Under green house conditions, the N₂ content in straw, grain yield and protein content of rice were significantly increased.

In 1977 Verghese stated that the demand for chemically fixed nitrogen is bound to be on increase and the nitrogen gap is likely to double in India by 1984, which would be difficult to bridge in the wake of the energy crisis.

The blue green algae as a bio-fertilizer is a strong alternative of chemical fertilizer in improving the soil quality. Bio-fertilizers such as rhizobium, Azotobacter, and blue green algae are being used since long time. The blue green algae is used as a important tool to maintain the sustenance of the biodiversity.

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William Wordsworth A Therapeutic Resource, A Psychologist and A Visionary

• Sonal Dikshit
•• Neetu Yadav

Abstract- *Real life is full of hostilities so it is good that one develops some hobbies and get lost in the illusions of mind for a while. Wordsworth anticipated 19th century 'nature cures' adopted by upscale asylums which added tranquil landscapes to their therapeutic regimens. As a consequence, a stillness arises from within which is of the soul. The idea here is to expand the moments of quietude and inner contemplation. The three 'D' approach sounds great to tackle the traumas and struggles of the real world. The three 'D' approach comprises of deliberate, detachment and distraction from the hustling bustling city life. It acts as a fuel to one's mind which eventually enables it to work better in the long run. These distractions could be anything. For instance, listening to music, watching movies or any web-series, reading, cooking all can be counted as a way to escape as sometimes one gets overwhelmed and needs to return to a challenge with a new energy and fresh mindset. It automatically elevates one's mood in distress. We will examine how nature can extend peace, purpose and comfort to our mind. The aim is to establish Wordsworth's relevance as a psychologist against the already existed notion of him as a poet of nature and childhood. We will attempt to draw parallels between Wordsworth's approach and experimentally proven contemporary treatments. We will re-read some of great utterances of great romantic poet Wordsworth. Poetry itself is a music, a natural tool possessing the powers to heal our mental stress, sufferings and agony. Our brains instantly react with rhyme and rhythm of poetry to give a prompt reaction to poetry whether it arises the emotion of joy or sadness. Romantic poetry, specifically, casts good therapeutic effects.*

Keywords- *Psychologist, Visionary, Idea, Approach*

Introduction- Poetry before Wordsworth were ideas versified. The poets had their opinions on administration, education, family life and so on. Everything was pre-determined. There were set rules for poetry such as standard metre, standard rhyme scheme, standard stanza form mostly rhyme couplet as they were great admirers of the ancients or the classics. They all represented the class citizens who were the civilized ones. Wordsworth represents the rural stock, rural sentiments, elementary feelings and the human nature in its original form without any influence of society and civilization. He represents the uncivilized ones who are the natural ones who

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are simple in mind, pure at heart and who talk straight.

Music has a healing power. In the same way, the very term Ballads (in Lyrical Ballads) is a popular song which people sing. Every community has its own stock of songs which are sung at different occasions, social events, ceremonies, rituals. He propagates and insists that poetry is the true voice of feeling not a commentary on life of elite who would look down upon common ways of life. Literature does not come out of nowhere. There has to be circumstances, social and political events, situations which lead to the production of a particular kind of poetry.

“Preludes” (An Autobiography in verse) traces the growth of his own personality, the role of nature in shaping his character. He quits city-life and retires into nature, hills, forests, lakes. He led the path, which even people nowadays started to follow to lead a hermit-like life or retired life denying deliberately and consciously all the luxuries and the benefits of civilization, city-life. The simplest things of the life are the most permanent things in life and most common universally. During the time of any national or international crisis, all the people became one whose feelings, sentiments and thinking are universal because all the city-bound and city-bred people (who glorify city- life and look down upon non-city life or the rural and the common life) started to return or started reversing to rural or the native life.

Wordsworth was revolutionary in literature. All people had common and regular feelings (particularly, fear of death). Wordsworth is after things of permanence, the way of life which is essential to mankind, as his language is about common people- their ideas and emotions, their sentiments which are permanent. It's a scientific fact that the kind of life these common people lead cannot possibly be mindless. After all it has been shaped up by ages and centuries, by traditions and customs, by ceremonies so it cannot be useless and meaningless. So, a purpose has always been there. Earlier subject of poetry were all the things which were refined, glamorous, artificial, superficial, and so on. Wordsworth rejected that and he went back to life of real people so his poetry appeals to the heart and feelings of common people who have been considered as unpoetic, uncouth and uncivilized. We have to experience and live his poetry. It is not just the text we need to understand. His poetry is not cooked-up or made-up. It's the song which came out of his heart so we can connect to it. His poetry is about real people and real language. The elementary life they lead is permanent. Fashions come and go. Urbanization and sophistication vary from place to place or country to country. Poetry is one of the most philosophical art forms which is about reflections on life.

People have interpreted his poetry to have healing power. Wordsworth himself benefited from his observations. His words relieved the deep and dark depression of J.S. Mill (1806-1873). In 18th century Matthew Arnold said it. It brings basic and essential joys to your life. It calms one down and set one to thinking and makes you connect to yourself. It gives answer to your unanswered questions. It has calming effect on one. It brings you back to your primal instincts that what / who you essentially are. That person gets lost in the city, loses oneself in the city life in its din but when one

returns in this kind of solitude or one undergoes this kind of recollections of past events, one achieves a kind of enlightenment. It keeps us soothed and “sane” according to Wordsworth. It brings out the permanent aspect of life and keeps one sane in this escalating kind of industrial life and values which come along with it, the selfish and profit-mindedness so there is no time to connect to oneself. But his poetry lightens one's mood and brings joys to them who are in the city.

In a way, he paved way for the future psychopharmacological treatments with his paganism. His most of the works were the outcome of the flashbacks he would have. He dwells upon the beautiful flowers when left alone lying on his couch in a reverie. This is called 'Couch Cure'. It is just like unlike the “trauma survivors' who revisit the same painful situations through daydreams and nightmares. The past glory/good memories and the present which carries the toil and labor, which has work and is fret with problems and sufferings and is dully yet the present is valuable for its meaning. There is a life and there is a meaning through human effort, emphasis on human capabilities. He touches the Freudian chord in an opposite manner. In Psychiatry, they teach techniques to persons with PTSD- called “creative visualization” or “imagery rehearsal”, which shows the farsightedness and mindfulness that how peaceful and pleasant imagery works for unsettling thoughts. Gardening therapy is growing in popularity and in respect in recent times. Some people say that flowers, sitting in their gardens boost their moods, sometimes even better than the medication. Nowadays, so many people meditate. Wordsworth did it long back to become aware of the Universal Consciousness and Oneness behind every thought.

Ecotherapy or nature therapy or green therapy uses nature as a tool to heal. It is the applied practice of the emergent field of ecopsychology, which was developed by Theodore Roszak. Ecotherapy stems from the belief that people are part of the web of life and that of our psyches are not isolated or separate from our environment. A growing body of research highlights the positive benefits of connecting with nature. In one study conducted by psychologist Terry Hartig, participants were asked to complete a 40 minutes cognitive task designed to induce mental fatigue. Following the task, participants were randomly assigned 40 minutes of time to be spent in one of three conditions: -

- a) walking in a nature preserve
- b) walking in an urban area
- c) sitting quietly while reading magazines and listening to music

Participants who had walked in the nature preserve reported less anger and more positive emotions than those who engaged in other activities.

In a similar study conducted by Mind, a mental health charity organization, a nature walks reduced symptoms of depression in 71% of participants, compared to those who took a walk in a shopping centre.

“Tintern Abbey” is a kind of “Moral Landscape”. It's about the critical journey of the poet. Wordsworth keeps mentioning the present inside me, inner life that the poet is leading and that a moral compass he has which is not

set and guided by religion but is guided by nature and all the primal instincts through which you connect all human forms or all living forms that is he has a kind of selfhood which is nourished and matured by nature which is that there is a guide within oneself.

“To Plato, poetry had been bad because it aroused the emotions, and to Aristotle, poetry (or at least tragedy) had been good because it purged the emotions. To the Wordsworthian, poetry, because it strengthens and refines the emotions, is among the greatest of goods.” (“The Use of Romantic Poetry by M.H.Abrams)

Poetry enriches and is fulfilling and gives people a sense of pattern, perspective the direction of human life and sharpens their sense of feeling which was otherwise raw and coarse pleasure, refines it and gives it a direction. The texture of emotion or feeling Wordsworth calls it “The Science of Feeling”. Raw emotions are those which we have as a child and refined emotions are those which we attain as adults. His poems have a purifying effect on the negative emotions and strengthening the positive feelings which directly makes us better. It rectifies the negative emotions in mind and heart and guides people to become saner and purer.

“Social Dislocation”- A journey, migration and dislocation are taking place. As more and more people occupy city, the city became inhabitable. Earlier there was a necessity to come to city for money. But people are retreating or reversing towards their native place or some peaceful place to soothe the anxious mind and to combat the crisis of current time. His poems in original Lyrical Ballads very vividly showcase a very divided society. These poems focus on people at the poor end, the vagabonds and vagrants, retired army men who became unemployed. These verses are filled with the ideas about dislocation and impoverishment which resonates today's society.

“Stream of Consciousness”- Stream of consciousness writing is cerebral in nature. It deals with the unconsciousness or subconsciousness. It represents the true experience of the writer, in the form of reflections taking place inside the mind. Wordsworth is in a state of reverie or trance. Hence, it does not serve the reader just information but it creates an experience for them as well. In “Tintern Abbey”, the evolution of self takes place. The relationship or negotiation of poet to city life and countryside life and his assessment of it. Looking at the past photographs means revisiting those places one has been to once. Reconstructing the past through memories where other things are stored. They try to capture that moment. A kind of stream of consciousness taking place as he is thinking of himself as a child, now he has understanding of things as an adult. Two viewpoints he had today. Empowering the positive thoughts. Earlier it was on surface level but now the understanding is deepened and is far more precious. The imagery is quite evocative. The auditory, visual, the tactile are woven which bring a particular scene alive before us. Wordsworth had a great visualization capacity with special reference to his memory within the 'spots of time'. He follows the sensation

of virtual space and time. He is an adept in time-travel technique achieved by visualizing the panoramic scenes of the past. It is a psychological phenomenon. Wordsworth's mental time-travel is exactly what stream of consciousness is all about which we all do at some or the other level in order to relive our past experiences. Wordsworth looks himself as an extension of that place (Tintern Abbey) not an outsider. There is a total identification of one person with nature. Tranquil restoration of pleasure is a form of healing. Things were not as pleasurable earlier became now a source of pleasure when recollected.

Wordsworth as a pre-cursor of Jungian Imagination- While reading the poetry of Wordsworth, we realize that he anticipates some of those ideas which hold a great significance in Jungian theory for psychoanalysis. Regarding the poets, Carl Jung clearly states, "he enralls and overpower, while at the same time he lifts the idea he is seeking to express out of the occasional and the transitory into the realm of the ever-enduring" (Portable Jung 321). We can simplify this as an understanding of connection of poetry be it conscious or unconscious images of the poet's mind as well as the collective unconscious images universal to the humankind in general. The past, present and future become unified. The primordial images conjured up by the poet bring contemporary meaning to human psychology. Certain images and notions transcend time and can be relevant even in today's world. If one can get a complete understanding of Wordsworth's *The Prelude*, it promotes the generalization of some key ideas of Wordsworth himself. In his *The Prelude*, which was published posthumously, he acts like a chronicler who chronicles what seems to be an idyllic childhood spent literally in the lap of nature. In spite of all the tragedies he experienced at a very young age simultaneously be it the sudden demise of his mother or passing away of his father later or his disillusionment with the French Revolution. Poetic memories and images drawn from his childhood serves as a fodder for his psychic mending and sustenance after his self-proclaimed nervous breakdown. Jung encourages the practice of childlike imagination in order to delve deeper into unconscious. Likewise, in *The Preludes* we find Wordsworth recollecting his childhood memories, images, the record of his years at Cambridge, the journeys he undertook over the period of time.

In Wordsworth, we find a perfect blend of personal experiences with a universal appeal and vision. Whatever impressions or experiences the poet or a person receives from time to time during the course of his life, go down to his subconscious and with the lapse of time settles down in his unconscious self. These impressions are inseparable from a human's personality. They turn into emotion and expressions, memories and ideas respectively which provides a healing effect on future griefs and sorrows. "Relationship and love" are key concepts for him. Nature, the individual and human life in general are related; to see that relationship is love one's fellows and to participate in the "joy in widest commonalty spread." He has

diagnosed the disease of capitalism very early in life and very well. He is taking a dig at the utilitarian world and viewpoint. The industrial age and generation are perplexed and yet the sadness. Wordsworth lived through a time of immense social change and many of these changes bear a great resemblance to the ones which we are confronting today. We live in a world in which technological innovation is transforming everyday life in exciting and sometimes daunting ways. Wordsworth considered as one of the first ecological poets who explored the consequences of modern industry on the environment and its life-forms. In our contemporary times, 'human' rights are extending from people to animals and forests, to water, air and the soil. Wordsworth's claim aptly suits here- that "man and nature essentially adapted to each other". His poetry yields insights that are remarkably relevant to our own 21st century. His claims were not baseless. They were founded on a scientist-Erasmus Darwin, famously known as Charles Darwin's grandfather. In the present times, when environment is degrading every day, Wordsworth will make you fall in love with Nature and will boost one's resolve to protect it. His works like 'Composed upon Westminster Bridge', 'I wandered lonely as a cloud', 'Tintern Abbey', which transport the readers into a surreal conversation with nature. These poems inspire one to make efforts to restore the pristine nature and harmonious human-nature relationship.

Discussion and Conclusion- Andrew Motion (former Poet Laureate) argues that adoration of the Romantics has never really gone away. Wordsworth believed that his poetry could raise certain kind of awareness- both self-awareness and awareness of the complexities of psychic experience in general. Wordsworthian poetry comforts us and calms our nervous system. It helps in renewing our spirits and motivates us to look beyond our immediate circumstances. Nature is restorative also. Wordsworth's poetry provides solace and salvation of their suffering souls. Through poetry we may not be able to put an end to the crisis, but it might help us to see human thought and behavior differently and finally, to engage with the "trauma" in more constructive ways. His poetry lays stress on the universal humanness and suggests new ways of thinking about the complexities of our minds, which enables more humane form and productive forms of interaction with those facing behavioral abnormalities. As F.W. Bates says, "Wordsworth achieves greatness because his private struggle towards psychic integration has a representative quality. The poems generalize themselves, as they are read into the reactions of the human individual fighting for its spiritual survival in a society that seems to have no place for it." The visual scene and emotions aroused by it, the memories, the moral ideas and the benedictory attitude towards his sister Dorothy in particular and mankind in general which make him relevant even today. The very fabric of his ideology is remembered perception giving way to reflection in the course of the developing sensibility.

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Technology is a Tool for Police Reforms

• Vedansh Mishra

Abstract- *Advancements in technology have transformed various aspects of society, and law enforcement agencies worldwide are no exception. This research article examines the role of technology as a pivotal tool for police reforms. It delves into the utilization of various technological innovations such as body-worn cameras, predictive analytics, data management systems, and community engagement platforms to enhance transparency, accountability, and effectiveness within police departments. Drawing on both domestic and international examples, this paper highlights the potential benefits and challenges associated with implementing technology-driven police reforms. The findings underscore the importance of a balanced approach that integrates technology with appropriate policies, training, and oversight mechanisms to achieve meaningful and sustainable changes in modern policing.*

Keywords- *Technology, Accountability, Transparency, Data Management*

Introduction- The 21st century has ushered in an era of unparalleled technological advancements, which have permeated every facet of modern society, including law enforcement agencies. Police departments across the globe are facing increasing demands for greater transparency, fairness, and accountability in their operations. Simultaneously, they are tasked with maintaining public safety and upholding the rule of law. This article seeks to explore the transformative role of technology in facilitating police reforms and enhancing the relationships between law enforcement agencies and the communities they serve. In recent years, instances of police misconduct and excessive use of force have highlighted the urgent need for reforms within policing systems. Technology, with its potential to capture, analyze, and disseminate information, has emerged as a powerful tool to address these challenges. By providing tangible evidence, increasing efficiency, and promoting engagement between officers and citizens, technology is catalyzing changes that are reshaping modern policing practices. While the benefits of technology in police reforms are evident, it is crucial to recognize the complex interplay between technological innovation, societal values, and legal frameworks. Striking a balance between embracing the potential of technology and safeguarding civil liberties is of paramount importance. This article will delve into various aspects of technology-enabled police reforms, examining how they contribute to increased accountability, enhanced crime prevention, improved data management, and strengthened community relationships.

By delving into these areas, this research aims to shed light on the

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multifaceted ways in which technology is reshaping modern policing, contributing to more effective and equitable law enforcement practices. However, it also underscores the need for careful consideration of potential challenges and ethical dilemmas that may arise in this technological evolution. The subsequent sections will elaborate on specific aspects of technology-driven police reforms, drawing on existing literature and examples to provide a comprehensive understanding of this transformative trend.

Technology and Accountability- In the pursuit of police reforms, accountability stands as a cornerstone for fostering public trust and ensuring the integrity of law enforcement agencies. Technology, particularly the widespread adoption of body-worn cameras (BWCs), has played a pivotal role in this endeavor. BWCs are compact devices worn by officers that record audio and video interactions with the public during their duties. These devices offer a firsthand and unbiased account of encounters between officers and citizens, serving as a critical tool for transparency and accountability. Numerous studies have demonstrated the positive impact of body-worn cameras on reducing use of force incidents and citizen complaints. For instance, the randomized controlled trial conducted by Ariel et al. (2016) found that police officers who wore body cameras had significantly lower use of force rates compared to their counterparts who did not wear cameras. The visual and audio documentation provided by BWCs serves as an impartial record that can corroborate or refute allegations of misconduct, ensuring that both officers and citizens are held accountable for their actions. Moreover, the presence of body-worn cameras encourages officers to adhere to departmental policies and guidelines, knowing that their actions are being recorded. This fosters a culture of professionalism and ethical conduct within law enforcement agencies. However, it is important to note that while BWCs have proven to be effective tools, challenges such as privacy concerns, proper storage of data, and establishing clear protocols for camera usage must be addressed to maximize their benefits (White, 2019). As law enforcement agencies continue to adopt body-worn cameras, it becomes essential to couple these technological advancements with comprehensive training for officers and transparent policies for camera usage and footage access. This combination of technology, training, and policy frameworks can establish a robust foundation for enhanced accountability, resulting in more accountable and transparent policing practices. In conclusion, the integration of body-worn cameras represents a paradigm shift in holding both officers and citizens accountable for their actions. This technology has the potential to reshape interactions between law enforcement and the public, leading to improved trust and legitimacy for police departments. However, the full potential of body-worn cameras can only be realized through meticulous attention to policy implementation, data management, and ongoing officer training.

Predictive Analytics and Crime Prevention- Advances in technology have enabled law enforcement agencies to harness the power of data through

predictive analytics, revolutionizing the way crimes are prevented and resources are allocated. Predictive analytics, fueled by artificial intelligence and machine learning algorithms, analyze vast amounts of historical crime data to identify patterns, trends, and correlations that human analysts might miss. This enables law enforcement to anticipate potential crime hotspots and allocate resources more strategically, thereby enhancing crime prevention efforts. The implementation of predictive analytics offers several advantages, such as the optimization of patrol routes and the allocation of personnel based on real-time crime patterns. By focusing on areas where crimes are more likely to occur, police departments can respond proactively, deterring criminal activities and improving community safety. Moreover, predictive analytics can assist in the identification of repeat offenders and patterns of criminal behavior, allowing law enforcement agencies to allocate resources for targeted interventions and rehabilitation programs. However, the adoption of predictive analytics in policing is not without its challenges. One of the main concerns is the potential for algorithmic bias, where historical data may reflect existing biases within the criminal justice system. If these biases are not carefully addressed, predictive models can perpetuate systemic disparities and unfairly target specific communities (Kleinberg et al., 2018). Ethical considerations also arise when determining how much influence algorithms should have in decision-making processes, particularly in high-stakes scenarios such as pretrial risk assessment. To mitigate these challenges, transparency and accountability are paramount. Law enforcement agencies must ensure that the data used to train predictive models are accurate and representative of the community they serve. Moreover, they should actively monitor and audit the outcomes of these algorithms to identify and rectify any biases that may emerge over time.

In conclusion, predictive analytics holds great potential in transforming the landscape of crime prevention and resource allocation within law enforcement. When used responsibly and ethically, these tools can enable police departments to proactively address crime patterns and enhance public safety. To fully harness the benefits of predictive analytics, a comprehensive approach that considers data quality, algorithmic fairness, and ongoing evaluation is necessary. This approach can ultimately contribute to a more effective, efficient, and equitable policing system.

Data Management and Analysis- Efficient data management and analysis have become essential components of modern policing, as law enforcement agencies grapple with the growing influx of information related to criminal activities, investigations, and officer performance. Technology-driven data management systems offer the potential to streamline processes, enhance decision-making, and facilitate evidence-based practices within police departments. Police agencies generate a vast amount of data daily, ranging from incident reports and arrest records to surveillance footage and forensic evidence. Effective data management systems allow officers and investigators to organize, retrieve, and analyze this information swiftly, aiding in solving cases and identifying crime trends. By centralizing data,

agencies can connect disparate pieces of information, uncover insights, and make informed decisions about resource allocation and deployment strategies. Furthermore, data analysis tools enable law enforcement agencies to gain a deeper understanding of crime patterns, modus operandi of criminals, and other emerging trends. This information can guide proactive strategies for crime prevention and enforcement. For instance, data analysis can help identify geographic areas with high crime rates, leading to targeted policing efforts and community engagement initiatives in those areas. However, the successful implementation of data management and analysis systems requires overcoming several challenges. Ensuring data security and protecting sensitive information from unauthorized access is paramount. Additionally, interoperability between different systems and data sources is crucial to ensure seamless information sharing between agencies and across jurisdictions. Ethical considerations also come into play, particularly in cases where data analysis involves personal information and privacy concerns. To maximize the benefits of data-driven policing, law enforcement agencies should invest in training officers and staff to effectively use data management and analysis tools. This includes developing skills in data interpretation, recognizing patterns, and making informed decisions based on the insights obtained. Moreover, agencies should establish clear policies and protocols for data sharing, retention, and protection to maintain public trust and safeguard civil liberties.

In conclusion, technology-driven data management and analysis systems have the potential to revolutionize policing practices by enabling efficient information retrieval, evidence-based decision-making, and proactive crime prevention strategies. However, addressing challenges related to data security, interoperability, and ethical considerations is crucial to ensuring that these systems are used responsibly and effectively in the pursuit of improved law enforcement outcomes.

Community Engagement and Technology- Community engagement stands as a foundational pillar of effective and community-oriented policing. Technology has emerged as a powerful tool for enhancing communication, collaboration, and trust-building between law enforcement agencies and the communities they serve. Online platforms, social media, and digital communication tools have enabled police departments to bridge the gap between officers and citizens, fostering meaningful interactions and collaborative problem-solving. Social media platforms, such as Twitter, Facebook, and Instagram, provide law enforcement agencies with a direct channel to share information, updates, and safety tips with the public in real time. These platforms enable police to disseminate information about ongoing investigations, missing persons, road closures, and community events. In turn, citizens can use social media to report incidents, offer tips, and engage with officers on a more personal level. Community policing initiatives, which prioritize building strong relationships between officers and residents, can leverage technology to enhance their effectiveness. Online forums, virtual town hall meetings, and webinars allow officers to engage with community members and address their concerns from the

convenience of their homes. This not only makes law enforcement more accessible but also fosters a sense of transparency and openness. Moreover, technology can play a role in ensuring that community engagement is more inclusive. Language barriers and physical limitations can sometimes hinder face-to-face interactions, but digital platforms can help overcome these challenges. Departments can provide information and resources in multiple languages and formats, catering to diverse communities. However, successful community engagement through technology requires a thoughtful approach. Law enforcement agencies should actively listen to community feedback, respond to inquiries, and address concerns promptly. Building a strong online presence is not enough; agencies must demonstrate a commitment to follow through on promises and collaborate with citizens to solve problems.

In conclusion, technology has transformed the landscape of community engagement for law enforcement agencies. By harnessing digital platforms and communication tools, police departments can create more accessible and inclusive interactions with the public. The ability to communicate in real time, share information, and build relationships through technology contributes to fostering trust, transparency, and cooperation between officers and the communities they serve.

Challenges and Considerations- While technology offers promising solutions to various challenges within policing, its implementation is not without its complexities and potential pitfalls. Law enforcement agencies must navigate these challenges and address critical considerations to ensure that technology-driven police reforms lead to meaningful and sustainable improvements in policing practices.

Privacy Concerns-The use of technology, such as body-worn cameras and data analytics, raises privacy concerns for both officers and citizens. Balancing the need for transparency with the protection of sensitive information requires clear policies on data retention, access, and sharing. Striking this balance is crucial to prevent the misuse of personal data and maintain public trust.

Algorithmic Bias- Predictive analytics and other algorithmic tools can inadvertently perpetuate biases present in historical data. Addressing algorithmic bias requires meticulous data cleansing, model testing, and ongoing monitoring. Law enforcement agencies should collaborate with data scientists and ethicists to ensure that algorithms are fair and do not disproportionately target specific communities.

Training and Adoption- Introducing new technologies into law enforcement requires comprehensive training for officers to use them effectively. Inadequate training can result in the misuse or underutilization of technology. Additionally, ensuring widespread adoption across all ranks and units is essential to maximize the benefits of these tools.

Ethical Considerations- The rapid integration of technology into policing raises ethical questions about the extent of automation in decision-making, the use of surveillance tools, and the implications of remote enforcement.

These considerations must be thoroughly examined to prevent unintended consequences and violations of civil liberties.

Digital Divide- Equitable access to technology is crucial to prevent exacerbating existing disparities. Both officers and citizens should have access to the necessary tools and training to participate fully in technology-enabled reforms. Efforts should be made to bridge the digital divide and ensure inclusivity.

Accountability and Oversight- While technology can enhance accountability, it also necessitates robust oversight mechanisms. Clear guidelines for the use of technology, auditing procedures, and mechanisms for addressing misconduct related to technology are essential to maintain public trust and hold officers accountable.

Cultural Shift- Implementing technology-driven reforms often requires a cultural shift within law enforcement agencies. Resistance to change, skepticism, and concerns about job displacement can hinder the effective adoption of new technologies. Leaders must communicate the benefits of technology and provide support during the transition.

In conclusion, embracing technology as a tool for police reforms presents a promising path forward, but it comes with a set of complex challenges and considerations. Law enforcement agencies must navigate privacy concerns, address biases, provide adequate training, uphold ethical standards, ensure accessibility, establish oversight mechanisms, and foster a culture of innovation. By doing so, they can harness the benefits of technology while upholding their commitment to justice, fairness, and accountability in modern policing.

Conclusion- The integration of technology as a tool for police reforms has the potential to revolutionize law enforcement practices, foster transparency, accountability, and strengthen community relationships. The various applications of technology discussed in this article, including body-worn cameras, predictive analytics, data management systems, and community engagement platforms, collectively contribute to a more effective and equitable approach to modern policing.

By adopting body-worn cameras, law enforcement agencies can enhance accountability and transparency, as these devices provide an unbiased record of officer-citizen interactions. Predictive analytics empower police departments to allocate resources strategically, ultimately improving crime prevention efforts. Efficient data management systems facilitate evidence-based decision-making and insights into crime patterns. Meanwhile, technology-enabled community engagement initiatives bridge the gap between officers and citizens, promoting collaboration and trust-building. However, the successful integration of technology-driven reforms requires a holistic approach that addresses challenges and ethical considerations. Privacy concerns, algorithmic biases, training needs, ethical dilemmas, equitable access, oversight mechanisms, and cultural shifts must all be carefully navigated. Law enforcement agencies should adopt a forward-thinking mindset that embraces technology while upholding the core

principles of justice, fairness, and accountability. The impact of technology on policing is not solely reliant on the tools themselves, but also on the policies, procedures, and human factors that accompany their implementation. Leaders within law enforcement agencies must work collaboratively with experts in technology, ethics, and community engagement to create a comprehensive framework that ensures responsible and effective utilization of technology for police reforms.

In conclusion, technology is more than just a tool—it is a catalyst for transformation within law enforcement. By embracing technological innovations in conjunction with well-defined policies, training programs, and oversight mechanisms, police departments can pave the way for a new era of policing that is characterized by transparency, fairness, and strong community relationships. This synergy between technology and human-centered approaches holds the promise of reshaping the landscape of law enforcement for the betterment of society.

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