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**ACID ATTACKS ON WOMEN : AN OVERVIEW INTERNATIONAL  
NATIONAL AND PERSPECTIVE**

**Dr. Jai Mala Narotra\***

**Navpreet Kaur\*\***

*Sexual, racial, gender violence and other forms of discrimination and violence in a culture cannot be eliminated without changing culture*

*-Charlotte Bunch<sup>1</sup>.*

**Introduction**

Violence against women is a universal phenomenon but incidence and pattern differs from one society to another. Violence against women includes rape, trafficking, prostitution, domestic violence and other form of violence. Acid attacks are the new dimension and gruesome form of violence against women. Acid violence is one of the most heinous crimes against women, in which acid thrown onto the face and body of women with the intention of disfiguring her.<sup>2</sup>

Acid violence involves the intentional acts of violence in which perpetrators throw, spray, or pour acid on the victim. It causes immediate damage, disfigurement, pain and long lasting medical complications for victim.<sup>3</sup>In an acid attack, a man throws acid (the kind found in car batteries) on the face of a girl or woman. Any number of reasons can lead to acid attacks. A rejected marriage proposal is offered as justification for a man to disfigure a woman with acid".<sup>4</sup>

**Acid Attacks on Women in India: Statistical Overview**

The numbers of Acid attacks are increasing day by day. Every other day one can see the news of acid attack in news. As per the information provided by the National Crime Records Bureau (NCRB) the collection of data on acid attack cases has been started recently. The years 2011, 2012 and 2013-witnessed 83, 85 and 66 cases reported respectively, but this number shot up to 309 in 2014 – almost four times the average number of acid attack cases in the preceding years.<sup>5</sup> Uttar Pradesh topped the list with 185 cases till November 2014, followed by Madhya Pradesh with 53 cases. Among the seven UTs, acid attack cases reported only from Delhi, which witnessed 27 such cases last year. The number of persons arrested is only 208 as against 309 cases reported. While in UP there were no arrests in at least 66 cases, in Delhi only seven persons were arrested in 27 cases. In the preceding three years, 336 persons arrested in total 234 cases. The data, released by the Indian home ministry, show that arrests and prosecution have had no deterring effect on the crime which kept on rising year on year, making it a problem of social attitude than a law and order issue.<sup>6</sup>

**Effects of Acid Attacks**

An acid attack causes perpetual suffering to the victim. It causes **physical, psychological, emotional, economic and social effects** on the victim. The victims of acid

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<sup>1</sup> As quoted by Janet A.Sigal and Florence L.Denmark in *Violence against Girls and Women: International Perspectives*121 (ABC-CLIO, England, 2013).

<sup>2</sup> Law Commission of India, 226<sup>th</sup> Report on Proposal for inclusion of acid attacks as specific offences in the Indian Penal Code and a law for compensation for victims of crime 3, (July, 2008), available at: <http://lawcommissionofindia.nic.in/reports/report226.pdf>, (visited on July 20, 2014).

<sup>3</sup> Ibid.

<sup>4</sup> Available at: [http://www.unicef.org/emerg/files/women\\_insecure\\_world.pdf](http://www.unicef.org/emerg/files/women_insecure_world.pdf), (visited on March 9, 2015)

<sup>5</sup> Utkarsh Anand, "309 acid attack cases in '14,300% rise in 3 yrs", *The Indian Express*, April 10, 2015

<sup>6</sup> Ibid.

go through a life sentence that forces them to shun society and live in a constant state of fear. As acid melts flesh and even the bones of a person, it causes an unparalleled degree of pain to the victim and leaves her mutilated and scarred as well as giving permanent disabilities at times such as blindness. It permanently disfigures the physical look of the victim. Victims normally feel worthless, afraid and modified and become social outcasts because of their appearance. They may become too traumatized and embarrassed to walk out of their house and carry out simple tasks let alone get married, have children, get a job, go to school, etc. Even if they are willing to pursue a normal life, there is no guarantee that society itself will treat them as normal human beings given their appearance and disabilities after an attack. They may not be able to work, or be able to find a job, and thus perpetually struggle to survive.<sup>7</sup>

#### Reasons of Acid Attacks

During the analysis of various cases, it is found that following are the reasons for such attacks:

- Cheap and easy availability of Acid,
- Lack of laws for restrictions on sale and purchase of acids,
- Male honour,
- Rejection in love,
- Refusal of indecent proposals or unacceptable propositions,
- Land or money disputes; business conflicts,
- Vengefulness and status jealousy
- Suspicion of infidelity,
- Family disputes; domestic violence; relationship conflicts,
- Dowry demands,
- Sex crimes, rape, and sodomy

#### Legislative Provisions on Acid Attacks: International and National Perspectives

##### International Perspective

Violence against women is a worldwide problem of pandemic proportions. It is recognised in the international law as a violation of human rights. The advancement and protection of women against any kind of violence has been a focus of the International Organisations. A number of internationally agreed norms and standards relate to ending violence against women. There are certain International conventions, which are relevant in the context of acid attacks and regulate such incidents. Such major conventions are, Universal Declaration of Human Rights, 1948, International Covenant on Civil and Political Rights, 1966, International Covenant on Socio, Economic and Cultural Rights, 1966, and Convention on Elimination of all forms of Discrimination against Women, 1979 etc.

##### Universal Declaration of Human Rights, 1948

Universal Declaration of Human Rights (UDHR) provides for the principles of dignity, liberty, equality, and brotherhood<sup>8</sup>. Further it also protects the rights of the individuals such as the right to life and the prohibition of slavery.<sup>9</sup> It refers to the fundamental legality of human rights with specific remedies cited for their defense when violated.<sup>10</sup> It also constitutes the rights of the individuals in civil and political society.<sup>11</sup> The UDHR is also concerned with spiritual, public, and political freedoms such as

<sup>7</sup> Supra 2 at p. 9.

<sup>8</sup> Universal Declaration of Human Rights, 1948, Articles 1 and 2 .

<sup>9</sup> Id; Articles 3–11

<sup>10</sup> Id; Articles 6 - 11

<sup>11</sup> Id; Articles 12–17

freedom of association, thought, conscience, and religion.<sup>12</sup> It sets out social, economic, and cultural rights.<sup>13</sup>

#### **Convention on the Political Rights of Women, 1953( which provision deals with acid attack?)**

The Convention on the Political Rights of Women is the first international legislation protecting the equal status of women to exercise political rights. The Convention on the Political Rights of Women specifically protects this right for women. Women are given the right to vote or hold office, as established by national law, on equal terms with men and without discrimination based on sex.<sup>14</sup>

#### **International Covenant on Economic, Social and Cultural Rights (ICESCR), 1976**

ICESCR is a multilateral treaty which commits its parties to work toward the granting of economic, social, and cultural rights (ESCR) to the Non-Self-Governing and Trust Territories and individuals, including labour rights and the right to health, the right to education, and the right to an adequate standard of living. The Covenant recognises the right of everyone to “the enjoyment of the highest attainable standard of physical and mental health”. Health is understood not just as a right to be healthy, but as a right to control one's own health and body (including reproduction), and be free from interference such as torture or medical experimentation.<sup>15</sup> Acid Attack deprive the women from all above said rights.

#### **International Covenant on Civil and Political Rights (ICCPR), 1976**

ICCPR commits its parties to respect the civil and political rights of individuals, including the right to life, freedom of religion, freedom of speech, freedom of assembly, electoral rights and rights to due process and a fair trial. The ICCPR is part of the International Bill of Human Rights, along with the International Covenant on Economic, Social and Cultural Rights (ICESCR) and the Universal Declaration of Human Rights (UDHR).<sup>16</sup>

#### **Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), 1979**

CEDAW is often described as an international bill of rights for women. The Convention defines discrimination against women as “. . . any distinction, exclusion or restriction made on the basis of sex which has the effect or purpose of impairing or nullifying the recognition, enjoyment or exercise by women, irrespective of their marital status, on a basis of equality of men and women, of human rights and fundamental freedoms in the political, economic, social, cultural, civil or any other field”.

#### **Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment, 1984**

The Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment commonly known as the United Nations Convention against Torture is an international human rights treaty, under the review of the United Nations that aims to prevent torture and other acts of cruel, inhuman, or degrading treatment or punishment around the world.<sup>17</sup>

#### **National Perspective**

<sup>12</sup> Articles 18–21 of UDHR, 1948.

<sup>13</sup> Articles 22–27 of UDHR, 1948.

<sup>14</sup> Convention on the Political Rights of Women, 1953.

<sup>15</sup> Article 12, International Covenant on Economic, Social and Cultural Rights, 1976.

<sup>16</sup> Available at: [https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg\\_no=IV-4&chapter=4&lang=en](https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-4&chapter=4&lang=en), (visited on June 6, 2015).

<sup>17</sup> Article 1.1, Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment, 1984

### Constitutional Provisions in India

The Constitution of India is based on the principles of liberty, equality, fraternity and justice. The provisions of the Constitution manifest great respect for human dignity, commitment to equality and non-discrimination and concern for the weaker section in society. The principle of gender equality is enshrined in the Indian Constitution in its Preamble,<sup>18</sup> Fundamental Rights,<sup>19</sup> Fundamental Duties<sup>20</sup> and Directive Principles.<sup>21</sup> The Constitution not only grants equality to women, but also empowers the State to adopt measures of positive discrimination in favor of women. Within the framework of a democratic polity, our laws, development policies, Plans and programmes have aimed at women's advancement in different spheres. Although Indian Constitution has no specific provisions relating to acid violence but above mentioned provisions can be utilized to afford protection to the victims.

### Statutory provisions in India Indian Penal Code, 1860

The Indian Penal Code, 1860 is the legislation, which deals with substantive provisions of criminal law in India. The Amendment in 2013 provided for the insertion of Sections 326A and 326B into the Penal Code which deal with, inter alia, criminalizing the act and attempt of causing any injury with acid. It also included certain other provisions to lead to the better prosecution of acid attacks. This Amendment was the first attempt to explicitly, include provisions relating to acid attacks in a statute. Prior to this Amendment, any such attack was punishable under Sections 320 ("Grievous hurt including causing emasculation, privation and disfigurement"), 322 and 325 ("Voluntarily causing grievous hurt, punishment") and 326 ("Causing grievous hurt by dangerous weapons or means") of the IPC. In certain extreme cases, Section 307 IPC ("Attempt to Murder") is used and in cases leading to the death of the victim, Section 302 IPC ("Murder") is used.

In the aftermath of the fatal rape of a young student in Delhi in December 2012, a three-member committee led by Justice J.S. Verma, former Chief Justice of the Supreme Court was constituted to recommend amendments to various criminal laws ("Verma Committee"). The Verma Committee was of the opinion that the offences relating to acid attacks should not clubbed under the provisions of 'grievous hurt', which is punishable with 7 years imprisonment under the IPC. The Verma Committee further recommended that the Central and State Governments create a corpus to compensate victims. The provisions of the Amendment were also the outcome of a Law Commission of India report submitted to the Supreme Court of India for its consideration in July 2008 and later published under the title "The Inclusion of Acid Attacks as Specific Offences in the Indian Penal Code and a Law for Compensation for Victims of Crime" ("Report"). The Report recommended the introduction of provisions in the IPC that would deal specifically with acid attacks, as well as provide a comprehensive law on compensation to victims. The Report also recommended that the sale of acid should ban except for commercial and scientific purposes.<sup>22</sup>

<sup>18</sup> "We, The People of India, having solemnly resolved to constitute India into a Sovereign Socialist Secular Democratic Republic and to secure to all its citizens: Justice, social, economic and political; LIBERTY of thought, expression, belief, faith and worship; Equality of status and of opportunity; and to promote among them all Fraternity assuring the dignity of the individual and the unity and integrity of the Nation; in Our Constituent Assembly this twenty-sixth day of November, 1949, do Hereby Adopt, Enact and Give To Ourselves This Constitution". Preamble of the Constitution of India

<sup>19</sup> The Constitution of India, Articles 14-16

<sup>20</sup> Id; Article 51A

<sup>21</sup> Id; Articles 38-39

<sup>22</sup> Available at: [http://www.acidviolence.org/uploads/files/Justice\\_What\\_Justice\\_Acid\\_Violence\\_Report.pdf](http://www.acidviolence.org/uploads/files/Justice_What_Justice_Acid_Violence_Report.pdf), (visited on June 26, 2016)



**Section 100:** If there is an act of throwing or administering acid or an attempt to throw or administer acid, which causes reasonable apprehension in the mind of the accused that grievous hurt will be caused; the right of self-defence is available.

**Section 166 A (3) :** As per this provision, if a police official fails to record the information provided to him regarding the commission of a set of cognizable offences including Section 326A and Section 326B which deal with acid attacks, he/she shall be punishable with 6 months to 2 years of imprisonment and a fine

**Section 166 B:** According to this provision, if a person in charge of a hospital obliged to provide treatment free of cost under Section 357C refuses to provide such first aid and treatment, they shall be punished with a term of imprisonment of up to 1 year, or be subject to a fine, or both

**Section 326 A:** Section 324 or 326 of the Code, Whoever does any act of throwing acid or using acid, in any form on the other person with the intention of or with knowledge that he is likely to cause such person Permanent or partial damage or deformity disfiguration or disability to any part of the body of such person shall be punished with imprisonment of either description for a term which shall not be less than ten years but which may extend to Life and shall also be liable to fine which shall be a minimum of Rs. 2 Lakhs and may extend to Rs 5 lakhs The offence shall be cognizable, Non-bailable and non-compoundable.

**Explanation:** The term “acid” and “acid attack” – as defined in Section 3(a) and (b) of the prevention of offences (by acids) Act 2008

**Section 326 B:** Attempt to throw or use acid in any form on the other person - Whoever does any act with such intention or knowledge and under such circumstances that, if he by that act caused Permanent or partial damage or deformity disfiguration or disability to any part of the body of such person, shall be punished with imprisonment of either description for a term which shall not be less than 7 years and shall also be liable to fine to a minimum of Rs 1 lakh

#### **Indian Evidence Act, 1872**

The Criminal Law (Amendment) Act 2013 proposed the insertion of following provision in the Indian Evidence Act

**Section 114 B Presumptions as to Acid Attack:** When the question is whether a person has committed the act of throwing acid on the woman the Court shall presume, having regard to the circumstances of the case and the statement of the victim, that such person had thrown acid on the woman.

#### **The Poisons Act, 1919**

The Poisons Act, 1919 deals with the importation, possession and sale of poisons. The Act empowers the State Government to make rules to regulate the possession for sale and the sale, whether wholesale or retail, of any specified poison within the whole or any part of the territories under its administration.<sup>23</sup> The Act deals with the import of poisonous substances into India and regulates the grant of License for the possession of some poisonous substances.<sup>24</sup> In addition to any other power to make rules herein before conferred the State Government may make rules generally to carry out the purposes and objects of this Act.<sup>25</sup>

#### **Code of Criminal Procedure, 1973**

**Section 154 of the Code of Criminal Procedure** deals with the recording of information by the police officers when they receive information regarding the commission of a cognizable offence. This is the stage when an FIR, i.e. First Information Report, is registered. As per the amendment, if the information pertains to an offence or an attempt to commit an offence under Section 326A or Section 326

<sup>23</sup> The Poisons Act, 1919, Section 2

<sup>24</sup> Id; Section 3

<sup>25</sup> Id; Section 8

B (or any of the other offences listed) information can only be recorded by a female police officer or any female officer.

**Section 357 C of the Code of Criminal Procedure** states that all hospitals, whether public or private and whether run by the central government or the state government, shall provide first aid and medical treatment free of cost to the victims who have been subjected to offences under Section 326 A and Section 326B (along with other offences), and are obligated to inform the police immediately.

**Section 161 of the Code of Criminal Procedure** : During the investigation, police officers usually record statements of victims and of those connected with the crime as well as those who are acquainted with the facts of the case. As per the amendment, the recording of the statement of a person against whom an offence under Section 326A or 326B is said to be committed should only be done by a female police officer or any female officer.

#### **The Protection of Human Rights Act, 1993**

In pursuance of Constitutional and International mandate to protect human rights, the government of India has also passed a specific law known as the Protection of Human Rights Act, 1993 to promote fundamental human rights. This Act provides for the establishment of National Human Rights Commission,<sup>26</sup> State Human Rights Commissions<sup>27</sup> and Human Rights Courts<sup>28</sup> for the better protection of Human Rights.

#### **Prevention of offences (by Acids) Act 2008**

The National Commission for Women in India has proposed Prevention of offences (by Acids) Act 2008 (National Commission for Women - Draft Bill). National commission for Women suggests for setting up of National Acid Victim Assistance Board. The Bill provided for the structure and working mechanism of this Board. It provides for complete medical treatment as well as legal advice to the victims. It strongly advocates for the rehabilitation of these victims and providing them with all the financial support possible".

#### **The Model Poisons Possession and Sale Rules, (Notification), 2013**

In exercise of the powers conferred by section 2 and 8 of the Poison Act, (Act 12 of 1919), the Central Government makes rules for sale of specified poisons. It provides that any person, not exempted under the provisions of the Act shall sell or possess for sale any poison specified in the Schedule except under a license granted or renewed in that behalf by the licensing authority.<sup>29</sup>

Every person desiring for the grant of license or renewal of a license shall make a written application to the licensing authority and such application shall bear a court fee stamp of ten rupee and provided that any application for renewal of a license which is made less than three months prior to the date of the expiry of the license shall bear a court fee stamp of five hundred rupees.<sup>30</sup>

#### **Legislation for the Regulation of Sale of Acid**

In India though there is not specific law to regulate the sale of acid, but on 18 July 2013, India's Supreme Court has ordered federal and state governments to regulate the sale of acid in an attempt to reduce attacks on women. The court said that acid should sell only to people who show a valid identity card. Buyers will also have explain why they need the chemical and sales will have to be reported to the police.

#### **Compensation to Acid Attack Victims**

To ameliorate the suffering of acid attack victims, the Centre has directed all states to ensure speedy disbursement of compensation amount as well as timely treatment for them. Acid attack victims shall be paid compensation of at least Rs. 3 lakhs by the concerned State Government/Union Territory as the after care and rehabilitation cost. Of

<sup>26</sup> The Protection of Human Rights Act, 1993, Chapter II, Section 3,

<sup>27</sup> Id; Chapter V Section 21

<sup>28</sup> Id; Chapter VI Section 30

<sup>29</sup> The Poisons Act, 1919, Rule 4, schedule

<sup>30</sup> Id; Rule 5 schedule

this amount, a sum of Rs 1 lakh shall be paid to such victim within 15 days of occurrence of such incident (or being brought to the notice of the State Government/ Union Territory) to facilitate immediate medical attention and expenses in this regard. The balance sum of Rs. 2 lakhs shall be paid as expeditiously as may be possible and positively within two months thereafter. The Chief Secretaries of the States and the Administrators of the Union Territories shall ensure compliance of the above direction.<sup>31</sup>

Under Section 357C of Code of Criminal Procedure, all hospitals, public or private, whether run by central government, state government, local bodies or any other person, shall immediately, provide first-aid or medical treatment free of cost to the victims. The Supreme Court has also directed that the hospital shall give a certificate that the individual is a victim of acid attack.

### CONCLUSION AND SUGGESTIONS

Acid attack is possibly one of the most heinous crimes which a human being can commit. It takes an elaborate degree of sadism and depravity to indulge in something as cruel and inhuman. Acid violence is a clear form of human rights violation because throwing of acid cause permanent disfiguration of the face, head, and body by acid burn, with a motive to distort a female's beauty to prove that she has no right to deny a man's evil proposal or vengeance, that her refusal to conform to the standards forced upon her by men.

The new laws are not complete and sufficient for the redressal. The criminal justice system needs to be stricter in its handling of acid attack cases. Death penalty should be given to the offenders in the cases of Acid Attacks. Sale of acid should be strictly stopped.

The approach of the judiciary when dealing with cases of acid attacks should be similar to, if not harsher than, cases of rape. Certain safeguards have been outlined by the apex court for the trial of rape cases. These guidelines should be implemented in trials of acid attack cases as well for the purposes of protection of the dignity of the victim, provisions for ample compensation and adequate legal aid to the victim. There is a ray of hope by the recent decision special Women Court Judge AS Shende sentenced 25 year old Ankur panwar to death for fatal acid attack on 23 old Preeti rathi in May 2013. This is the first time that convict in India has been sentenced to death for an acid attack. India is also the second country after Bangladesh, to have done so. The government must constitute an agency to process the cases of acid attacks and help the victims get justice. There is ardent need for reforms in laws, judiciary and our society.

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“भारताच्या चिरस्थायी विकासामध्ये अक्षय ऊर्जा संसाधनांचे महत्त्व”

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कार्य करण्यासाठी लागणारी क्षमता म्हणजे ऊर्जा होय. आज प्रत्येक क्षेत्रातील विविध कार्ये करण्यासाठी ऊर्जेची आवश्यकता आहे. कृषी क्षेत्र, उद्योग क्षेत्र आणि सेवा क्षेत्रातील उत्पादन ते वितरणापर्यंतच्या प्रत्येक टप्प्यांवरील कार्ये ऊर्जेवरच अवलंबून आहेत. तसेच कौटुंबिक क्षेत्रामध्येसुद्धा दैनंदिन गरजा पूर्ण करण्यासाठी ऊर्जेचा मोठ्याप्रमाणात उपयोग होत आहे. ऊर्जेच्या उपलब्धतेवर विकसनशील देशांच्या गरजांची पूर्तता अवलंबून असते.

प्राचीन काळी मानव निसर्गाचा उपयोग संतुलित पध्दतीने करत होता. तो निसर्गाच्या जीवनचक्राचा एक भाग होता. झाडे व झाडांपासून मिळणाऱ्या सामग्रीवर उदरनिर्वाह करत होता. त्यामुळे त्याचा ऊर्जा उपभोग आजच्या तुलनेत कितीतरी पटीने कमी होता. आधुनिक औद्योगिक जीवनशैलीमुळे मानवाचा प्रतिडोई ऊर्जा उपभोग मोठ्याप्रमाणात वाढला आहे. एका बाजूला ऊर्जेची मागणी सातत्याने वाढत आहे, तर दुसऱ्या बाजूला ऊर्जा संसाधने संपुष्टात येत आहेत. त्यामुळे संपूर्ण मानवजाती समोर ऊर्जेचीनिर्मिती हे एक मोठे आव्हान आहे. तेलाच्या दरडोई उपभोगातील वाढ, लोकसंख्या वाढ, इंधन स्रोतांचा न्हास, ऊर्जेचा वाढता उपभोग यामुळे ऊर्जा समस्या निर्माण झालेली आहे.

ऊर्जेचे स्रोत:ऊर्जेचे प्रामुख्याने दोन स्रोत आहेत. 1. पारंपारिक ऊर्जा स्रोत. यांना बिगर व्यापारी स्रोत असे म्हटले जाते. 2. आधुनिक स्रोत. यांना व्यापारी स्रोत असे म्हटले जाते.

1. पारंपारिक ऊर्जा साधने:जळाऊ लाकूड, गोवऱ्या, पिकांचा टाकाऊ भाग.
2. आधुनिक ऊर्जा साधने: अ) विनाशी ऊर्जा साधने:-कोळसा, खनिज तेल, नैसर्गिक वायू, अणुऊर्जा, औष्णिक ऊर्जा. ब) अविनाशी ऊर्जा साधने: जलविद्युत, सौरऊर्जा, पवनऊर्जा, सागरी ऊर्जा, जैविक वायू (गोबर गॅस)

ऊर्जेच्या वरील स्रोतांपैकी काही संसाधने विनाशी संसाधने आहेत. कोळसा, खनिज तेल, नैसर्गिक वायू ही संसाधने विनाशी आहेत. तर काही संसाधने पुनर्निर्मित आहे. जसे लाकूड, जलविद्युत, सौरऊर्जा, पवनऊर्जा, सागरी ऊर्जा ही संसाधने अविनाशी संसाधने आहेत.

अक्षय ऊर्जा संसाधने:

1. सौरऊर्जा:

सौरऊर्जा भारतासारख्या विकसनशील देशासाठी एक महत्वपूर्ण ऊर्जेचा स्रोत आहे. भारत विषुववृत्तीय प्रदेशामध्ये येत असल्यामुळे पावसाळ्यामधील काही दिवस वगळता पूर्ण वर्षभर सूर्यप्रकाश उपलब्ध होऊ शकतो. भारताला लाभलेल्या या नैसर्गिक देणगीचा उपयोग

भारताची ऊर्जेची गरज पूर्ण करण्यासाठी करून घेतला पाहिजे. सौरऊर्जेवर चालणारी विविध उपकरणे, जसे सौरकुकर, सौरबंब, रस्त्यांवरील दिवे आदी उपकरणे आहेत. परंतु यांचा वापर खूपच अल्प आहे. शासनाने सौरऊर्जेचा वापर वाढविण्यासाठी प्रभावी प्रयत्न करणे आवश्यक आहे. तसेच सौरऊर्जेचा वापर सर्वसामान्य व्यक्तींच्या आर्थिक आवाक्यामध्ये येण्यासाठी संशोधनावर भर देणे आवश्यक आहे.

## 2. भूगर्भीय ऊर्जा:

पृथ्वीच्या पोटात ऊर्जेचे मोठे भंडार उपलब्ध आहे. परंतु यासाठी प्रगत संसाधने व तंत्रज्ञानाची आवश्यकता आहे. जमिनीतून बाहेर पडणाऱ्या गरम पाण्यातून वीज प्राप्त करण्याचा सफल प्रयोग लडाख येथे चालू आहे. तसेच पृथ्वीच्या पोटातील दगडांच्या गरमीपासून ऊर्जा प्राप्त करण्यासंदर्भातील संशोधन चालू आहे. भूगर्भीय ऊर्जा हा पर्यावरणाच्या दृष्टीने हितकारक असा स्रोत आहे. ज्याठिकाणी गरम पाण्याचे कुंड आहेत अशा ठिकाणी अशास्वरूपाचे प्रकल्प उभारून विजेची गरज पूर्ण करता येऊ शकते.

## 3. बायोगॅस:

भारत हा पशुधनाच्या बाबतीत जागतिक स्तरावर प्रथमक्रमांकाचा देश असल्यामुळे बायोगॅस साठी लागणारी संसाधने सहज उपलब्ध होऊ शकतात. परंतु या शेणाचा योग्य उपयोग केला जात नसल्याने पाहिजे त्याप्रमाणात ऊर्जा निर्मिती होऊ शकत नाही. भारतामध्ये जवळपास 12000 टन शेण दरवर्षी उपलब्ध होते. यापैकी 50 टक्के शेणाचा वापर योग्य पध्दतीने होत नाही. एक टन गोवऱ्यांपासून 58750 किलोग्रॅम कॅलरी ऊर्जा मिळते तर एक टन गोबरगॅस पासून 144000 किलोग्रॅम कॅलरी ऊर्जा मिळते. शेणाचा योग्य वापर करून त्यापासून ऊर्जा निर्माण केली तर ऊर्जा समस्या सोडविण्यास मदत मिळेल. एवढेच नाही तर गोबरगॅसचा वापर केल्यानंतर उर्वरित कचऱ्याचा उपयोग शेतीसाठी खत म्हणून केला जाऊ शकतो. शेणाशिवाय गवत, पिकाचा उर्वरित भाग, उसाचा उर्वरित भाग यापासूनही बायोगॅस प्राप्त करता येतो. तसेच मानवी मल-मूत्र यापासूनही बायोगॅस मिळविता येतो.

## 4. पवन ऊर्जा:

पवन ऊर्जेचा इतिहास खूप जुना आहे. नाविक पूर्वी जहाजे एका ठिकाणाहून दुसऱ्या ठिकाणी घेऊन जाण्यासाठी पालाच्या माध्यमातून हवेतील ऊर्जेचा उपयोग करत असत. भारतामध्ये पवन ऊर्जेचा उपयोग स्वातंत्र्योत्तर काळापासून सुरू झालेला आहे. पवन ऊर्जा हा ऊर्जेचा इतर ऊर्जेच्या तुलनेत खूपच स्वस्त स्रोत आहे.

## 5. जल ऊर्जा:

भारतामध्ये नदीक्षेत्रामध्ये जल ऊर्जा निर्माण करण्यासाठी मोठा वाव आहे. लहान लहान नद्यांवर विद्युत निर्मिती केंद्र स्थापन करून त्याच्या शेजारील गावांचा ऊर्जेचा प्रश्न सोडविता येतो.

## 6. बॅरॅज:

बगॅस हा अक्षय ऊर्जेचा चांगला स्रोत आहे. भारतामध्ये साखर कारखाने मोठ्याप्रमाणात आहेत. या साखर कारखान्यांमध्ये बगॅसची निर्मिती मोठ्याप्रमाणात होत असते. या बगॅसपासून ऊर्जा निर्मिती त्या-त्या साखर कारखान्याने केली तर त्यांची ऊर्जेची गरज जवळपास पूर्ण होऊ शकते.

### 7. समुद्रीय ऊर्जा:

भारताला तिन्ही बाजूंनी समुद्र किनारा आहे. म्हणजेच निसर्गाने भारताला ऊर्जा निर्मितीचा मुबलक स्रोत बहाल केला आहे. समुद्रामध्ये मोठ-मोठ्या लाटा निर्माण होतात. या लाटांचा उपयोग करून विद्युत निर्मिती केली जाऊ शकते. भारतामध्ये या क्षेत्रात मोठे संशोधन होण्याची आवश्यकता आहे.

भारतामध्ये अक्षय ऊर्जा साधनांची मोठ्याप्रमाणात उपलब्धता आहे. भारताला सूर्यप्रकाश, हवा, समुद्र, पाणी मोठ्याप्रमाणात उपलब्ध आहे. या साधनांचा वापर करून भारतामध्ये किती प्रमाणात ऊर्जा निर्मिती केली जाते, हे पुढील तक्त्यामध्ये दर्शविले आहे.

### भारतातील नवीकरणीय ऊर्जा निर्मिती: अनुमानित आणि स्थापित क्षमता(मेगावॅट)

स्रोत	अनुमानित क्षमता (31 / 03 / 2015)	स्थापित क्षमता(31 / 03 / 2015)	अनुमानित क्षमतेचे स्थापित क्षमतेची प्रमाण
पवनऊर्जा	102772	25088.19	24.41
सूक्ष्म जलविद्युत	19749	4176.83	21.15
बायोमास विद्युत	17538	4450.55	25.38
सौरऊर्जा	748990	4878.88	0.65
अपशिष्ट ऊर्जा	2556	127.06	4.97
एकूण	891603	38821.53	4.35

स्रोत: Energy Statistics 2016, Central Statistics Office, Ministry of Statistics, and Programme Implementation, Government of India.

वरील तक्त्यावरून असे दिसून येते की भारतातील नवीकरणीय ऊर्जा निर्मिती क्षमता खूप जास्त आहे. परंतु यापैकी काहीच क्षमतेचा विकास केला गेला आहे. पवनऊर्जेच्या बाबतीत केवळ 24 टक्के क्षमतेचा विकास केला आहे. तर बायोमास ऊर्जेच्या क्षमतेचा सर्वाधिक म्हणजेच 25 टक्के विकास केला आहे. सर्वात कमी विकास सौरऊर्जेचा केलेला असून तो अनुमानित क्षमतेच्या केवळ 0.65 टक्के आहे. भारतामध्ये नवीकरणीय ऊर्जा क्षेत्रामध्ये विकास करण्यासाठी खूप मोठा वाव आहे. या नवीकरणीय साधनांचा उपयोग भारत सरकारने भारताची ऊर्जा समस्या सोडवण्यासाठी प्रगल्भतेने करणे गरजेचे आहे.

**अक्षय ऊर्जा संसाधनांचे महत्व:**

1. **प्रदूषण विरहित ऊर्जा:** अक्षय ऊर्जा संसाधनापासून निर्माण करण्यात येणारी ऊर्जा ही प्रदूषण विरहित आहे. म्हणजेच या ऊर्जा निर्मितीमध्ये कोणत्याही स्वरूपाचे प्रदूषण होत नाही.
2. **स्वच्छता:** अक्षय ऊर्जा संसाधनापासून ऊर्जा निर्माण करत असताना कोणत्याही स्वरूपाचा कचरा निर्माण होत नाही. काही नवीकरणीय ऊर्जा साधनांपासून कचरा निर्माण होतो. परंतु तो सेंद्रिय असल्यामुळे त्याचे विघटन होते. तसेच तो शेतीसाठी खत म्हणून उपयोगात आणला जातो. उदा. बायोगॅस.
3. **पर्यावरण संवर्धन:** अक्षय ऊर्जा संसाधनामध्ये कोणत्याही स्वरूपात पर्यावरणाचा न्हास होत नसल्यामुळे पर्यावरण संवर्धनास मदत होते.
4. **नैसर्गिक संसाधनांचा पर्याप्त उपयोग:** सूर्यप्रकाश, हवा, पाणी, समुद्रीय लाटा, भूगर्भातील ऊर्जा या नैसर्गिक संसाधनांचा वापर ऊर्जा निर्मितीसाठी केल्यास या संसाधनाचा उपयोग मानवी कल्याणासाठी होईल.
5. **चिरस्थायी विकासासाठी पूरक:** पूनर्निर्मिती शक्य नसलेल्या ऊर्जा साधनांचा आर्थिक विकासासाठी वापर केला असता ही साधने भविष्यकाळात संपुष्टात येणारी असल्यामुळे विकासावर मर्यादा निर्माण होतात. अक्षय ऊर्जा साधनांचा क्षय होत नसल्याने चिरस्थायी विकासासाठी ही साधने कितीही काळासाठी सातत्याने वापरता येतात.
6. **ऊर्जा संकटावर मात:** सध्या जग ऊर्जा समस्या दूर करण्यासाठी प्रयत्नशील आहे. कोळसा, पेट्रोलियम पदार्थ, तेल, नैसर्गिक वायू यासारख्या ऊर्जा संसाधनांमुळे पूर्ण मानवाची ऊर्जेची गरज पूर्ण होत नाही. तसेच ही साधने संपुष्टात येणारी आहेत. त्यामुळे मानवाने ऊर्जा समस्येवर मात करण्यासाठी अक्षय ऊर्जा साधनांचा वापर करण्यास अग्रक्रम दिला पाहिजे.
7. **क्षय ऊर्जा संसाधनांची बचत:** कोळसा, तेल, पेट्रोलियम पदार्थ, नैसर्गिक वायू ही ऊर्जा संसाधने क्षय आहेत. ही साधने भविष्यकाळात संपुष्टात येणारी आहेत. अक्षय ऊर्जा साधनांचा उपयोग ऊर्जा निर्मितीसाठी केला तर या क्षय साधनांची बचत होण्यास मदत होईल.

भारतामध्ये साध्या ऊर्जेची मोठी समस्या आहे. भारतातील एकूण क्रुडतेलाच्या मागणीच्या 70 टक्के क्रुडतेलाची आयात 2014-15 मध्ये करावी लागत होती. ही आयात 2040 मध्ये 90 टक्क्यापर्यंत पोहोचण्याचे अनुमान आहे. इतर ऊर्जा संसाधनांच्या बाबतीतही भारतातील उत्पादन मागणीच्या तुलनेत कमी असल्यामुळे त्यांचीही आयात करावी लागत आहे. त्यामुळे आयातखर्चांमध्ये ऊर्जा साधनांच्या आयातीसाठीचा खर्च खूप जास्त आहे. भारताने या ऊर्जा समस्येवर मात करण्यासाठी अक्षय ऊर्जा साधनांपासून ऊर्जा निर्मितीवर जास्त भर देणे आवश्यक आहे जेणेकरून भारताची ऊर्जेची समस्या दूर होण्यास मदत होईल.

**संदर्भ:**





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## दशकपुर्ती म. गांधी राष्ट्रीय ग्रामीण रोजगार हमी योजनेची

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### ➤ प्रास्ताविक :

भारतातील आजही जवळपास 70 टक्के लोक ग्रामीण भागात राहतात, त्यामुळे अर्थव्यवस्थेच्या विकासासाठी देण्यासाठी ग्रामीण भागाच्या विकासासाठी चालना देणे आवश्यक आहे. भारतामध्ये स्वातंत्र्यानंतर अर्थव्यवस्थेच्या विकासासाठी देण्यासाठी नियोजनाचा स्वीकार करण्यात आला. यासाठी पंचवार्षिक योजनांचे प्रतिमान स्विकारून अर्थव्यवस्थेतील मुलभूत समस्या जसे- बेरोजगारी, दारिद्र्य, आर्थिक विषमता, प्रादेशिक विषमता सोडविण्याचा प्रयत्न करण्यात आला.

भारतातील बेरोजगारीची समस्या सोडविण्यासाठी अनेक रोजगार पूरक योजना व कार्यक्रम राबविण्यात आले. या योजना व कार्यक्रमांना कमी-अधिक प्रमाणात यश सुध्दा आले आहे, मात्र आजही देशामध्ये बेरोजगारीची समस्या मोठ्या प्रमाणात आहे. यामध्येच ग्रामीण भागात आसणारी हंगामी व अदृश्य बेरोजगारीची समस्या खूप मोठ्या प्रमाणात वाढली आहे. त्यामुळे ग्रामीण भागात रोजगार निर्मितीसाठी 2005 मध्ये भारत सरकारने "राष्ट्रीय ग्रामीण रोजगार हमी अधिनियम" पारित करून त्या अंतर्गत "म. गांधी राष्ट्रीय ग्रामीण रोजगार हमी योजना" सुरु केली. ही योजना देशाच्या ग्रामीण भागातील नागरीकांना रोजगार मिळविण्याचा हमीकृत अधिकार प्राप्त करून देणारी जगातील सर्वात मोठी योजना म्हणून ओळखली जाते.

### ➤ म. गांधी राष्ट्रीय ग्रामीण रोजगार हमी योजनेची सर्वसाधारण माहिती :

23 व 24 ऑगस्ट 2005 रोजी संसदेत राष्ट्रीय ग्रामीण रोजगार हमी विधेयक पारित करून त्याचे अधिनियमात रूपांतर करण्यात आले व त्या अंतर्गत राष्ट्रीय ग्रामीण रोजगार हमी योजना सुरु करण्यात आली. या योजनेचे उद्घाटन तत्कालीन पंतप्रधान डॉ. मनमोहन सिंह यांच्या हस्ते 2 फेब्रुवारी 2006 रोजी आंध्रप्रदेशातील अनंतपूर जिल्ह्यात करण्यात आले. सुरुवातीला 2006-07 मध्ये ही योजना भारतातील 27 राज्यांमध्ये 'राष्ट्रीय सल्लागार परिषदेने' सुचविलेल्या निवडक 200 जिल्ह्यात सुरु करण्यात आली. 2007-08 मध्ये या योजनेत आणखी 130 नविन जिल्ह्यांचा समावेश करण्यात आला. सप्टेंबर 2007 मध्ये खासदार राहुल गांधी यांनी ही योजना संपूर्ण देशात लागू करावी अशी केंद्र सरकारला विनंती केली, त्यानुसार 2008-09 पासून ही योजना संपूर्ण ग्रामीण भारतात लागू करण्यात आली. 2 फेब्रुवारी 2009 रोजी म. गांधी जयंतीचे औचित्य साधून या योजनेला म. गांधी यांचे नाव देण्यात आले तेंव्हापासून ही योजना "म. गांधी राष्ट्रीय ग्रामीण रोजगार हमी योजना" या नावाने संबोधली जात आहे.

### ➤ योजनेची उद्दिष्टे :

या योजनेचे प्राथमिक उद्दिष्ट हे ग्रामीण भागातील ज्या कुटुंबातील प्रौढ सदस्य अकुशल शारीरिक श्रम करण्यास तयार असतील त्या प्रत्येक कुटुंबाला एका आर्थिक वर्षामध्ये किमान 100 दिवसाचा हमीकृत रोजगार उपलब्ध करून देणे हे आहे त्याच बरोबर---

- अ) रोजगार संधीच्या माध्यमातून उत्पादक स्वरूपाच्या परिसंपत्ती (संसाधने) निर्माण करणे.
- ब) पर्यावरणाचे संरक्षण व संवर्धन करणे.
- क) ग्रामीण भागातील महिलांचे सबलीकरण करणे.
- ड) ग्रामीण भागातून शहरी भागात व इतर ठिकाणी होणारे स्थलांतरण थांबविणे.

इ) ग्रामीण भागात सामाजिक समता प्रस्थापीत करणे.

इ. प्रमुख उद्दिष्ट्ये या योजनेच्या अंमलबणी करतांना निर्धारित करण्यात आली आहे.

➤ योजनेची प्रमुख वैशिष्ट्ये :

या योजनेची प्रमुख वैशिष्ट्ये खालील प्रमाणे

- 1) ग्रामीण भागातील प्रत्येक कुटुंबाला एका आर्थिक वर्षामध्ये किमान 100 दिवसाचा रोजगार प्राप्त करून दिला जाईल, हा रोजगार नियमित शारिरीक श्रमाच्या स्वरूपात किमान मजुरी दरावर प्राप्त होईल.
- 2) ज्या आठवड्यात काम उपलब्ध करून दिले जाईल त्याच आठवड्यात कामगाराला मजुरी प्रदान केली जाईल.
- 3) कामगाराने कामाची मागणी केल्यापासून 15 दिवसांच्या आत काम उपलब्ध करून दिले जाईल व हे काम कामगाराच्या ठिकाणापासून पाच किलोमीटरच्या आत उपलब्ध असेल.
- 4) निर्धारित वेळेत जर कामगाराला काम उपलब्ध झाले नाही तर बेरोजगारी भत्ता दिला जाईल जो किमान मजुरीच्या 1/3 इतका असेल.
- 5) कामावर असतांना श्रमीक जायबंदी झाल्यास त्याला मोफत चिकित्सा व उपचार सुविधा प्राप्त होईल तसेच उपचारादरम्यान दैनिक भत्ता दिला जाईल जो किमान मजुरीच्या 1/2 इतका असेल. कामाच्या ठिकाणी श्रमीकाचा मृत्यु झाला किंवा शारिरीक अपंगत्व आल्यास श्रमिक संरक्षण अधिनियामांतर्गत त्याच्या वारसांना अनुग्रहपूर्वक मजुरी दिली जाईल.
- 6) श्रमिकांना दिल्या जाणाऱ्या एकूण मजुरीपैकी 5 टक्के हिस्सा श्रमिकांसाठीच्या कल्याणकारी योजनांसाठी जसे स्वाथ्य विमा, दुर्घटना विमा, वारस हक्क लाभ, मातृत्व लाभ व सामाजिक सुरक्षेसाठी योगदान या स्वरूपात राखण ठेवला जाईल.
- 7) अधिनियमातील तरतूदिंच्या उल्लंघनासाठी कडक अशा शिक्षांची तरतूद केली आहे.
- 8) पारदर्शकता व जबाबदारी यासाठी सर्व खाती आणि दस्तऐवज सार्वजनिक निरीक्षणासाठी उपलब्ध करून दिले जातील.
- 9) एकूण खर्च करण्यात येणाऱ्या निधिपैकी किमान 60 टक्के निधी हा श्रमिकांच्या वेतनावर खर्च केला जाईल.
- 10) सामाजिक अंकेक्षण म्हणून ग्रामपंचायत व ग्रामसभा कार्यक्रमाचे निरीक्षण करेल. इ.

➤ योजनेची अंमलबजावणी :

म. गांधी राष्ट्रीय ग्रामीण रोजगार हमी योजनेला सुरुवात होऊन 10 वर्षे पुर्ण झाली आहेत. मागील 10 वर्षामध्ये योजनेवर खर्च करण्यात आलेला निधी, निर्माण झालेल्या एकूण रोजगाराच्या संधी व त्यामुळे ग्रामीण भागातील लोकांच्या आर्थिक व सामाजिक जिवनावर झालेले परिणाम याचे विश्लेषण करण्याचा प्रयत्न या लेखात करण्यात आला आहे.

• योजनेसाठी एकूण तरतूद करण्यात आलेला व खर्च झालेला निधी (लाखात)

वर्ष	केंद्राचा निधी	एकूण निधी (इतर निधी सहित)	एकूण खर्च	एकूण उपलब्ध निधीशी खर्चाचे प्रमाण	वेतनावरील खर्च	वेतन खर्चाचे एकूण खर्चाशी प्रमाण
2006-07	826365	1207355	882335.54	71.24	584236.89	67.93
2007-08	1244880	1934244	1586610.42	79.43	1074341.19	69.92

2008-09	2994524.33	3729008.6	2725068.67	73.08	1820045.04	69.2
2009-10	3350661.1	4950771.55	3790977.96	76.57	2557867.92	69.77
2010-11	3524270.84	5280709.7	3937727.04	74.57	2568652.94	68.36
2011-12	2918485.65	4326536.04	3763766.23	86.99	2486423.1	69.77
2012-13	3000100.8	17656041.28	3944245.59	22.34	2742265.95	72.97
2013-14	3274583.23	3815137.68	4227268.92	110.8	2924338.56	72.82
2014-15	3234883.9	3552457.06	3965549.05	111.63	2524841.05	66.8
2015-16	3396882.83	3561615.99	4144991.23	116.38	3069689.81	76.95

Source : Official Website of NREGA

वरील तक्त्यावरून असे निदर्शनात येते कि, 2006-07 या वर्षी योजनेच्या अंमलबजावणीसाठी एकूण 1207355 लाख रु. एवढ्या रकमेची तरतूद करण्यात आली होती त्यापैकी 826365 लाख रु. एवढा निधी केंद्र सरकार कडून उपलब्ध करून देण्यात आला होता. या निधीपैकी 71.24 टक्के निधी खर्च करण्यात आला होता. तसेच एकूण खर्च झालेल्या निधीपैकी सरासरी जवळपास 68 टक्के निधी हा मजुरी वर खर्च करण्यात आला होता.

2008-09 मध्ये ही योजना संपूर्ण ग्रामीण भारतात लागू करण्यात आली यावर्षी योजनेच्या अंमलबजावणीसाठी एकूण 3729008.6 लाख रु. एवढ्या निधीची तरतूद करण्यात आली त्यापैकी 2994524.33 लाख रु. एवढा निधी हा केंद्र सरकार कडून मिळाला होता. यावर्षी एकूण निधीपैकी 73.08 टक्के एवढा निधी खर्च झाला व एकूण खर्च झालेल्या निधीपैकी मजुरीवर खर्च झालेल्या निधीचे सरासरी प्रमाण 69.2 टक्के होते.

2009-10 च्या नंतर सुध्दा एकूण उपलब्ध निधीपैकी खर्च झालेल्या निधीचे प्रमाण सरासरी 75 ते 80 टक्केच्या दरम्यान राहिले आहे. तसेच एकूण खर्च झालेल्या निधीपैकी मजुरी वर खर्च झालेल्या निधीचे सरासरी प्रमाण 70 ते 77 टक्केच्या दरम्यान राहिले आहे. राज्या- राज्यात मात्र या खर्चाच्या बाबतीत भिन्नता असल्याचे दिसून येते. 2013-14 ते 2015-16 या तीन वर्षांच्या कालावधीत एकूण उपलब्ध निधीपैकी खर्च झालेल्या निधीचे प्रमाण जास्त असल्याचे दिसून येते.

थोडक्यात मागील 10 वर्षांमध्ये योजनेच्या अंमलबजावणीसाठी मोठ्या प्रमाणात निधीची तरतूद करून खर्च करण्यात आला आहे परीणामी या योजनेच्या माध्यमातून भारताच्या ग्रामीण भागात रोजगाराच्या नविन संधी निर्माण होण्यास मदत झाली आहे.

• योजनेच्या माध्यमातून केली गेलेली रोजगाराची मागणी व उपलब्ध झालेला रोजगार

वर्ष	कामाची मागणी करणारी कुटुंबे	काम उपलब्ध झालेली कुटुंबे	कामाची मागणी करणाऱ्या कुटुंबांशी उपलब्ध झालेल्या कुटुंबांचे प्रमाण	पूर्ण 100 श्रमदिवस काम उपलब्ध होणारी कुटुंबे	एकूण काम उपलब्ध झालेल्या कुटुंबांशी 100 श्रमदिवस काम मिळणाऱ्या कुटुंबांचे प्रमाण	प्रत्येक कुटुंबाला मिळालेले सरासरी श्रमदिवस काम
2006-07	21496072	21135164	98.32	2161286	10.23	42.82
2007-08	34292001	33903476	98.87	3602405	10.63	42.40
2008-09	45518907	45115358	99.11	6521268	14.45	47.95
2009-10	52864608	52530453	99.37	7083663	13.48	53.99

2010-11	55763244	54954225	98.55	5561812	10.12	46.79
2011-12	48353103	47867493	98.96	3621253	07.57	42.11
2012-13	47889792	46039604	96.14	4491932	09.76	44.63
2013-14	48873098	45187471	92.46	4402564	09.74	45.92
2014-15	45899523	39476508	86.01	1740731	04.41	37.74
2015-16	49870700	42066893	84.35	2527235	06.01	41.95

Source : Official Website of NREGA

वरील तक्त्यात दर्शविल्याप्रमाणे 2006-07 या वर्षी एकूण जवळपास 2 कोटी 15 लाख कुटुंबांनी राजगाराची मागणी केली होती तर त्यापैकी 2 कोटी 11 लाखापेक्षा जास्त कुटुंबांना रोजगार उपलब्ध झाला. म्हणजे मागणी करणाऱ्या कुटुंबांपैकी 98 टक्के पेक्षा जास्त कुटुंबांना रोजगार प्राप्त झाला होता.

नंतरच्या काळात म्हणजे 2008-09 ते 2015-16 या कालावधीत दरवर्षी जवळपास 4.5 ते 5 कोटी कुटुंबांनी रोजगाराची मागणी केली व 2008-09 ते 2013-14 या कालावधीत त्यापैकी जवळपास 96 ते 98 टक्के कुटुंबांना रोजगार उपलब्ध करून देण्यात आला आहे. मागील दोन- तीन वर्षांमध्ये मात्र रोजगार उपलब्ध करून देण्याच्या प्रमाणात क्वचित घट झाली आहे.

वरील तक्त्यावरून आणखी दोन बाबी प्रकर्शाने जाणवतात एक म्हणजे मागील 10 वर्षात या योजनेच्या माध्यमातून रोजगार उपलब्ध होणाऱ्या कुटुंबांना प्रतीवर्षी सरासरी केवळ 38 ते 54 श्रमदिवस इतकाच रोजगार प्राप्त झाला आहे. आणि दुसरी बाब म्हणजे एकूण रोजगार प्राप्त झालेल्या कुटुंबांपैकी दरवर्षी केवळ 5 ते 15 टक्के कुटुंब अशी आहेत ज्यांना पूर्ण 100 श्रमदिवस रोजगार उपलब्ध झाला आहे.

➤ निष्कर्ष :

- 1) या योजनेच्या उद्दिष्टांचे आकलन केले असता हे लक्षात येते कि योजनेच्या माध्यमातून देशाच्या ग्रामीण भागात आर्थिक, सामाजिक, सांस्कृतिक व पर्यावरणीय समतोल साध्य करण्याचा प्रयत्न केला जात आहे. संपूर्ण अर्थव्यवस्थेच्या हितासाठी निश्चितच ही एक प्रशंसनीय व आशादायी बाब आहे.
- 2) या योजनेच्या वैशीष्ट्यांचे आकलन केले असता आसे निदर्शनात येते कि, योजनेमध्ये श्रमिकाला कामाचा घटनात्मक अधिकार, मजुरी देण्यातील तत्परता, कामाच्या ठिकाणी दिल्या जाणाऱ्या सूविधा, श्रमिकांसाठीच्या कल्याणकारी योजना, पारदर्शकता व सामाजिक अंकेक्षण आणि विकेंद्रिकरण या बाबिंवर भर दिला आहे.
- 3) मागील 10 वर्षात योजनेच्या अंमलबजावणीसाठी मोठ्या प्रमाणात निधीची तरतूद करण्यात आली व त्यामाध्यमातून ग्रामीण भागात मोठ्या प्रमाणात नविन रोजगाराच्या संधी निर्माण होण्यास मदत होत आहे मात्र निर्माण होणारा रोजगार हा खूप कमी आहे. म्हणून येणाऱ्या काळात आणखी मोठ्या प्रमाणावर निधीची तरतूद करून जास्त-जास्त कुटुंबांना जास्त- जास्त श्रमदिवस रोजगार उपलब्ध करून देणे व त्या माध्यमातून निश्चित केलेल्या उद्दिष्टानुसार जास्त- जास्त उत्पादक संसाधनांची निर्मिती करणे आवश्यक आहे.

➤ समारोप :

या योजनेच्या अधिक कार्यक्षम अंमलबजावणीतून फक्त अकूशल स्वरूपाचा रोजगार निर्माण करणे हे अर्थव्यवस्थेच्या चिरस्थायी विकासासाठी पुरेशे नाही त्यामुळे योजनेच्या माध्यमातून निर्माण होणाऱ्या उत्पादक परिसंपत्तींचे (संसाधनांचे) धोरणात्मक पातळीवर दिर्घकालीन नियोजन करून येणाऱ्या काळात अकूशल श्रमिकांच्या फौजा तयार न करता अकूशल श्रमिकांचे कूशल श्रमिकांत व पर्यायाने मानवी भांडवलात रूपांतर करून अर्थव्यवस्थेच्या विकासात त्यांचा सहभाग नोंदून घेणे गरजेचे आहे. आणि हेच खऱ्या अर्थाने येणाऱ्या काळात या योजनेचे फलित असेल.....



➤ संदर्भ :

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3. अर्थसंवाद त्रैमासीकाचे विविध अंक.
4. योजना मासीकाचे विविध अंक.
5. [www.nrega.in](http://www.nrega.in)
6. [www.ruralindia.in](http://www.ruralindia.in)

## चलेजाव चळवळीत नागपूर जिल्हयाचा सहभाग

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इतिहास विभाग प्रमुख

भगवंतराव कला महाविद्यालय

सिरोंचा, जि. गडचिरोली

प्रस्तावना –

सेवाग्राम येथे अखिल भारतीय काँग्रेस कमिटीची बैठक 6 जुलै, 1942 रोजी सुरु झाली. या बैठकीत काँग्रेसचे अनेक नेते उपस्थित होते. या बैठकीत चले जाव चळवळीचा ठराव मांडण्यात आला. त्यावर नऊ दिवस प्रदिर्घ चर्चा झाली. राजगोपालचारी व मुलाभाई देसाई यांनी ठरावाला विरोध केला. सेवाग्रामला काँग्रेस वर्किंग कमिटीची बैठक सुरु असतांना ब्रिटिश सरकारचे पूर्ण लक्ष सेवाग्रामकडे होते. ब्रिटिशांना दोन काँग्रेस नेत्यांच्या विरोधामुळे ठराव पास होणार नाही असे वाटत होते पण तसे झाले नाही. उलट काँग्रेस वर्किंग कमिटीच्या सदस्यांनी बहुमतांनी 14 जुलै रोजी ठराव पास केला. <sup>1</sup>

मंजूर झालेल्या ठरावात म्हटल्याप्रमाणे सध्याच्या परिस्थितीत भारतीय जनता असा अनुभव करित आहे की, काँग्रेस कार्यकारिणीच्या दृढ विश्वातून भारतातून इंग्रजी राज्याचा लवकर शेवट होणे आवश्यक आहे. त्याशिवाय या देशाचे संरक्षण करणे अशक्य असून जगातील तानाशाही आणि नाझीवादाचा शेवट होऊ शकणार नाही. या देशाचे शासन लोक प्रतिनिधीकडे सोपवून सध्याची देशाची हलाखी संपविण्याकरीता काँग्रेसने सरकारला भरपूर वेळ दिला आहे. जेणे करून विश्वशांती कायम करता येईल. परंतु सर्व आशा व्यर्थ ठरल्या आहेत. जपानी किंवा विदेशी शक्तींनी या देशांत प्रवेश करावा असे काँग्रेसला मुळीच वाटत नव्हते. देशातून सांप्रदायिकता नष्ट करण्यासाठी काँग्रेसने जीवापाड प्रयत्न केले. पण ब्रिटिश सत्तेला फोडा व राज्य करा या धोरणामुळे ते यशस्वी होऊ शकले नाहीत. म्हणून काँग्रेस कार्यकारिणी असा निर्णय घेत आहे की, इंग्रजांनी भारत सोडून चालते व्हावे. <sup>2</sup>

14 जुलैला पास झालेला ठराव ही एक ऐतिहासीक घटना होती. या ऐतिहासीक घटनेचा नारा युसूफ मेहेर अली यांनी सुचविला तो असा युसूफ मेहेर अलींनी गांधीजींना एक धनुष्य भेट दिला. त्यावर 'भारत छोडो' असे कोरलेले होते. हे गांधीजींनी आर्वित म्हटले अशाप्रकारे या घोषणेची निवड झाली. <sup>3</sup>

1) हिंदूस्थानच्या लाल सेनेच्या युध्द समितीची स्थापना :-

आचार्या नरेंद्रदेव यांच्या उपस्थितीत हिन्दुस्थानी लालसेनेची बैठक 5 जुलै, 1942 रोजी झुल्लूर सावरला येथे झाली. या बैठकीत हिंदूस्थानी लालसेनेची दैनंदिन कामे बंद करण्याचा निर्णय घेण्यात आला. मगनलाल बागडी यांच्या नेतृत्वात एक युध्द समिती स्थापन करण्यात आली. <sup>4</sup> निर्णय घेण्याचा पूर्ण अधिकार मगनलाल बागडी यांना देण्यात आला. युध्द समिती पुढील प्रमाणे –

- 1) मगनलाल बागडी – सेनापती
- 2) श्याम नारायन कश्मिरी – सदस्य
- 3) वि.स. दांडेकर – सदस्य
- 4) श्यामलाल श्रीनिवास – सदस्य

- 5) बाबुलाल गुप्ता – सदस्य
- 6) डॉ. महादेवराव पवार – सदस्य
- 7) डॉ. रामसिंग गौर – सदस्य<sup>5</sup>

हिंदूस्थानी लाल सेनेच्या समितीने लढण्याची एक योजना तयार केली. त्या योजनेनुसार सरकारी कचे-यांवर हल्ले करणे, शहर व तहसिलीच्या ठिकाणी सरकारी कार्यालय नष्ट करणे तेथिल खजिना व पोलिस स्टेशनवर हल्ला करून तेथून बंदूका प्राप्त करणे, सरकारी मालमत्ता, रेल्वे स्टेशन, पोस्ट ऑफिस तसेच ब्रिटिश कंपण्यांची कार्यालये नष्ट करून त्यावर अधिकार प्रस्थापित करणे. ध्येय प्राप्तीसाठी आवश्यकता भासल्यास शस्त्रांचा उपयोग केला जाणार होता. लढ्याच्या या कार्यक्रमावर सुमारे शंभर सैनिकांनी आपल्या रक्ताने स्वाक्ष-या केल्या होत्या.<sup>6</sup>

6 ऑगस्ट, 1942 रोजी हिंदूस्थानी लालसेनेच्या युद्ध समितीने आपल्या नेत्यांना वेगवेगळ्या ठिकाणी रवाना केले. बाबुलाल बावरिया यांना सावनेर तहसिल आणि बाबुलाल गुप्ता यांना नागपूर शहराचे प्रमुख नेमण्यात आले. शेख मोहम्मद याकूब व महादेव पवार यांना उपप्रमुख म्हणून नियुक्त करण्यात आले. शस्त्र व दारूगोळा जमविण्याच्या दृष्टीने विचार करण्यात आला. हिंदूस्थानी लालसेनेचे गुप्तचर विभागाचे प्रमुख भास्करराव चौरे यांनी बातमी दिली की, 75 बंदुकी आहेत. मोमीनपु-यात शस्त्रांसाठी प्रयत्न केला गेला नाही कारण शेख मोहम्मद याकूब यांनी सांगितले की, मुसलमान शस्त्रे दुस-यांना देणे पसंत करित नाही. जबरदस्ती केल्यास जातीय दंगलीची सक्क्यता होती. त्यामुळे शस्त्रे प्राप्तीसाठी पोलीस ठाणेच योग्य म्हणून ठरले. त्यासाठी एक योजना तयार करण्यात आली. लालसेनेचे मुख्य कार्यालय नागपूरातील इतवारी जवळ हंसापुरीत होते. त्या व्यतिरिक्त चर्च ग्राऊंड, नबाबपुरा, टिमकी, गांजापेट, गरूडखांब, बुधवारी, ताडापेट, लालगंज, सिताबर्डी, सदर बाजार, आणि छावणी येथेही हिंदूस्थानी लालसेनेच्या छावण्या होत्या.<sup>7</sup>

## 2) हिंदूस्थानी लालसेनेच्या मुख्य कार्यालयास सिल :-

हिंदूस्थानी लालसेनेच्या गुप्तचर विभागाने माहिती दिल्यामुळे मुख्य कार्यालयातील सर्व महत्वपूर्ण सामग्री दुस-या गुप्त ठिकाणी हलविण्यात आली. 6 ऑगस्ट, 1942 रोजी अचानक एक पोलीस अधिकारी सशस्त्र पोलीसांसोबत मुख्य कार्यालयाजवळ आले. त्या अधिका-याने लष्करी महासचिवांच्या हस्ताक्षराने मुख्य कार्यालयाला कुलूप लावले आणि त्या ठिकाणी पोलिसांना पहा-याकरिता बसविले वरिल घटनेनंतर लालसेनेचे मुख्य अधिकारी भूमिगत झाले.<sup>8</sup>

## 3) नागपूर जिल्हातील नेत्यांना अटक करण्याचा प्रयत्न -

नागपूर जिल्हातील काही नेत्यांनी गवालिया टॅक मैदानातील अधिवेशनात भाग घेतला होता. वामनराव गावंडे महात्मा गांधीसोबत मुंबईत गेले होते. वामनराव गावंडे, सुलेमानखान पठान, आचार्य विनायक दांडेकर व नेरंद्र देव इत्यादी नेत्यांची मुंबईत धरपकड होताच भूमिगत झाले. काही दिवस त्यांनी मुंबईत मुक्कम केला.<sup>9</sup> 11 ऑगष्टला ते मुंबई वरून निघाले. मार्गात त्यांनी अकोला येथे चळवळीची माहिती दिली. वर्धा मार्गे हे सर्व नेते



महात्मा गांधीच्या चले जाव चळवळीचा संदेश घेऊन सुखरूप पोहोचले. पहिल्या दिवसी वामनराव गावंडे यांनी डॉ. बारसिंगे यांच्या घरी मुक्काम केला त्यामुळे डॉ. बारसिंगे यांना अटक करण्यात आली. <sup>10</sup>

#### 4) लाल सेनेची रॅली –

8 ऑगस्ट, 1942 रोजी नागपूर येथे लालसेनेचे सरसेनापती श्याम नारायण कश्मिरी यांनी 300 सैनिकांची एक रॅली आयोजित केली त्यांनी व उपस्थित सैनिकांनी स्वातंत्र्य चळवळीसाठी प्राणर्पण करण्याचा संकल्प केला. <sup>11</sup>

#### 5) राष्ट्रीय संस्थावर बंदी –

महात्मा गांधी व इतर नेत्यांच्या अटकेची वार्ता संपूर्ण भारतभर वा-यासारखी पसरली. यातून नागपूर जिल्हाही वगळला गेला नाही . त्यामुळे खबरदारी म्हणून राजकीय व लष्करी खात्यातर्फे सी.पी. अँड बेरार सरकारने रविवारी 9 ऑगस्टला एक खास गॅझेट काढले इ.स.1908 च्या सेक्सन 16 च्या किमिनल लॉ अॅमेंडमेंट अॅक्ट 1908 अन्वये खालिल संस्थांवर बंदी घालण्यात आली.

- 1) नागपूर प्रोव्हिंशीअल कॉंग्रेस कमिटी
- 2) विदर्भ प्रोव्हिंशीअल कॉंग्रेस कमिटी
- 3) नागपूर नगर कॉंग्रेस कमिटी
- 4) नागपूर तहसिल कॉंग्रेस कमिटी
- 5) नागपूर कॉंग्रेस सोशॉलिष्ट पार्टी
- 6) नागपूर हिंदूस्थानी लालसेना
- 7) राष्ट्रीय युवंक संघ
- 8) कॉंग्रेस सेवादल नागपूर <sup>12</sup>

#### 6) हिंदूस्थानी लाल सेनेचा संदेश –

चलेजाव चळवळीची वार्ता नागपूर जिल्हांमध्ये पसरताच हिंदूस्थानी लालसेनेच्या युध्द समितीच्या कार्यालयातून पुढील संदेश प्रसारीत करण्यात आला.

माताए अवन करे ममता  
देशप्रेम मतवालो की ।  
पिता छोड दे मोह पुत्रका  
बली दे अपने लालो की ।  
वीर पत्नीया बनो न बाधल  
पतियो को वह विदा करे ।  
आझादी ले आओ कहकर  
हर्ष प्रेम से बिदा करो । <sup>13</sup>

### 7) नागपूरात चले जाव चळवळीला प्रारंभ -

9 ऑगस्ट, 1942 रोजी मुंबई प्रमाणेच नागपूर शहरातही सर्व भागातून सरकारी दडपशाहीच्या निषेधार्त लोकांनी मिरवणूका काढल्या. रस्त्यांवर चौकाचौकात जमून लोकांनी सरकारच्या विरोधात घोषणा दिल्या. राष्ट्रीय नेत्यांचा जयजयकार करण्यात आला. चिटणीस पार्कमध्ये एका सभेचे आयोजन करण्यात आले. त्यात 5000 पेक्षा जास्त लोक होते. फारवर्ड ब्लॉकचे पुढारी रामभाऊ सुईकर यांनी प्रक्षोभक भाषण केले पण त्यांच्यावर कोणतीही कारवाही केली नाही. 10 ऑगस्ट रोजी नागपूरात सार्वत्रिक हरताळ पाळण्यात आला. शहरातील सर्व लहान मोठी विद्यालये, दुकाने बाजारपेठा बंद राहिल्या 10 ऑगस्टच्या हरताळात गिरणी कामगारही सहभागी झाले होते. नागपूर गिरणी मजूर संघाच्या वतीने एका विशाल सभेचे आयोजन करण्यात आले. त्यात वीस हजारहून अधिक लोकांनी भाग घेतला. त्या सभेत राष्ट्रसंघ तुकडोजी महाराजांनी आपले 'पत्थर सारे बॉम्ब बनेंगे' हे भजन म्हटले, तरी सुध्दा सरकारने हस्तक्षेप केला नाही.<sup>14</sup>

राष्ट्रीय युवक संघाच्या कार्यकर्त्यांनी चळवळीत चैतन्य आणण्यासाठी मेडिकल स्कूलची परीक्षा उधळून लावण्याचे ठरविले. युनिव्हर्सिटी हॉलमध्ये परीक्षा सुरु असताना ठरल्याप्रमाणे राष्ट्रीय युवक संघाच्या कार्यकर्त्यांनी हल्ला केला. परीक्षा उधळून लावली त्यात सध्याच्या तामस्कर क्लिनिकचे प्रसिध्द डॉक्टर तामस्कर आणि वरूडचे डॉ.लिहितकर हे परिक्षार्थी होते. याकार्यात भाग घेतल्यामुळे पांडुरंग गावंडे, चंद्रकांत सावरकर भाऊराव गिरडे, गजानन कडू, पुंडलिकराव गेडाम यांना अटक करण्यात आली.

कौन्सिल हॉल समोरील राणी व्हिक्टोरियाच्या पुतळ्याला डांबर फासून चंद्रकांत ठक्कर, काका हांडे रामचंद्र गवई या राष्ट्रीय युवक संघाच्या तरुन कार्यकर्त्यांनी आपला ब्रिटिश शासनाप्रती असलेला तिरस्कार व्यक्त केला.<sup>15</sup> पुर्वीच्या मार्क्सिस्ट क्लबला पुर्नजीवीत करून 10 ऑगस्ट रोजी त्यांची बैठक बोलाविली ही बैठक 'वंदे मातरम' हॉलचे मालक रघुवीर दयाल पांडे यांच्या घरी भरली त्यात काँग्रेस सोशालिष्ट पार्टी, हिंदूस्थानी लालसेना, नॅशनल स्टुडंट फेडरेशन, फासिस्ट विचारांचे विद्यार्थी फेडरेशन आणि कम्युनिष्ट या नेत्यांचा समावेश होता. या बैठकीत लढ्यांचा वाढता विरोध पाहून आधीच कमजोर झालेल्या मार्क्सिस्ट क्लबचा शेवट करण्यात आला.<sup>16</sup>

### 8) तेलंगखेडी बॉम्ब प्रकरण -

11 ऑगस्ट, 1942 रोजी आनंदराव कळमनकर एन.एन.राव, शंकरराव गेडाम, नरेंद्र तिडके, यांच्या नेतृत्वात कार्यरत असलेल्या राष्ट्रीय युवक संघाने सशस्त्र संघर्ष सुरु करण्याची आपली इच्छा प्रदर्शित केली हा कट लवकरच उघडकीस आला. पांडुरंग मस्के, रोहनकर यांनी तयार केलेला बॉम्ब तेलंगखेडी येथिल एका इंग्रजी फॉरेस्ट आफिसरच्या घरी सायकलवर निघाले परंतु बॉम्ब मार्गात पिशवीतच फुटला. पांडुरंग मस्के, रोहनकर पकडल्या गेले.<sup>17</sup> त्यांनी सर्व माहिती दिल्यामुळे सर्वांची नावे माहित झाली तेलंगखेडी बॉम्ब केशमध्ये प्रभाकर रोहनकर, पांडुरंग मस्के, रामराव बालबुध्दे, तुकाराम वाटेकर, मनोहर सालेडकर, वासुदेव महादेव, अक्कडवार, बाबुराव चिचघरे, आनंदराव कळमलकर, चंद्रकांत सावरकर इत्यादींना अटक करण्यात आली, हे युवक संघाचे कार्यकर्ते होते हे बॉम्ब युवक संघाने बनविले होते.<sup>18</sup> लवकरच पोलिसांना असेच सात सिगारेट पॉकीट बॉम्ब जप्त करण्यात यश मिळाले. याच युवक संघाने नागपूरच्या जिल्हा मॅजिस्ट्रेटच्या बंगल्याला उडविण्याचा कट केला होता. नागपूर मधिल महाल भागात असलेली न्यू इंग्लीश हायस्कूल मेन ब्रॅचच्या

इमारतीवर बॉम्ब फेकून ती उध्वस्त करण्याचा अयशस्वी प्रयत्न मरुलीधर इलोजकर या राष्ट्रीय युवक संघाच्या कार्यकर्त्यांनी केला, 18 मार्च 1944 रोजी असेसर्स यांनी तेलंगखेडी बॉम्ब खटल्याचा सर्वानुमते निकाल दिला आरोपिंवर गुन्हा सिध्द होत नाही. त्यांचे असेही मत होते की, आरोपीच्या विरुद्ध जे पुरावे सादर करण्यात आले. ते विश्वास योग्य नाहीत. पोलिसांनी जी पध्दत वारपली आहे ती बेकायदेशीर आहे. <sup>19</sup> परिणामी तेलखेडीच्या बॉम्ब प्रकरणानंतर सरकारला सावधगीरीचा इशारा मिळला आणि जो हिंदूस्थानी लाल सेनेनी गव्हर्नरची हत्या करण्याचा कट रचला होता तो अंमलात आणता आला नाही. <sup>20</sup>

### 9 ) डॉ. चोळकर यांच्या अध्यक्षतेखाली चिटणीस पार्कवर सभा –

12 ऑगस्ट, 1942 रोजी सरकारच्या नविन आदेशाला न जुमानता चिटणीस पार्कवर एक सभा आयोजित करण्यात आली. या सभेला एकूण 15,000 लोक हजर होते. डॉ. चोळकर यांना अध्यक्षस्थान देऊन श्री रूईकर, वा. जी. देशपांडे , डॉ. ल.वा. परांजपे, अनसुयाबाई काळे यांनी प्रक्षोभक भाषणे दिली. <sup>21</sup>

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## Challenges in HRM & Management of Change

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### Abstract:-

This research paper highlights the Evolution of Human Resource Management (HRM) as well as reasons for organizational changes. This research paper give clear idea of resistance to change by people as well as managerial remedies to overcome resistance to change. This paper deals with important of successful management change.

### Key words:-

HRM, Management change, resistance, remedies, group dynamics, group force, co-operation, etc

#### I) Objective of research :

- 1) To understand the concept HRM & management change.
- 2) To study the reasons of organizational changes.
- 3) To study the reasons of resistance to changes by the people.
- 4) To find out the managerial remedies to overcome resistance to change.
- 5) To study the methods for dealing with resistance to change.

II) **Research Methodology:-** The research paper is prepared from secondary data. For this purpose books, journals, are also used to analysis of the data. By using interview method information is obtained from the higher & middle level officers in the organization.

#### III) Evolution of Human Resource Management (HRM) :

The history of personnel management in India is comparatively of recent origin. The development of personnel management in UK and USA was largely voluntary. But in India, it emerged because of Governmental interventions and compulsion. However, we see that Kautilyahad dealt with some of the important aspects of human resource management in his "Arthashastra" 400 B.C. Government in those days adopted the techniques of Human Resource Management as suggested by Kautilya.

In the beginning of 20<sup>th</sup> century, various malpractices in the recruitment of workers and payment of wages were prevalent which caused a colossal loss in production due to industrial disputes. The Royal Commission of Labour in India in the 1931 recommended the abolition of the 'Jobber' system and the appointment of labour officers in industrial enterprises to perform the recruitment function as well as to look after the welfare of the employees. J.H. Whitley was the chairman of the commission. Though the importance of labour officers was recognized as early as 1931, the appointed of officers to solve labour and welfare problems gained momentum only after the enactment of the Factories Act of 1948. The labour officer was indentified with the personnel manager created by legislation under Section 49 of the Factories Act, 1948. The role of a personnel manger was more of a custodian of personnel policy implementation and compliance

to different Acts of the factories now. Evolving along the years a new approach i.e. the human resource management has emerged. It focuses more on developmental aspects of human resource with a pragmatic, flexible approach.

**IV) Definition & Meaning of HRM:** The human resource management can be defined as the management of people at work and management of manager. Human Resource Management is playing an important role in modern business. It studies the various aspects of human beings. It gives scope for the enhancement of efficiency and skill of employees.

Personnel management is keenly interested in the optimum utilization of human capital i.e. Manager and Workers. There is no universally accepted definition of human resource management.

The terms- labour management, labour administration, labour – management relations, employee-employee relations, industrial relation, personnel administration, personnel management, human capital management, human resource management –are used to denote human resource management. Human resource management includes employment, development, utilization and maintenance of people working in an organisation.

#### V) Management of Change

##### A) Meaning:

Change is the law of nature and no organization is exception to this changes culture. When a business organization operates and functions for a long time, an equilibrium is established between its technical, human and structural set-up. But the changes in human behavior, their mentalities, their shifting values, evolution of new technologies, global competition, organizational restructuring, etc. impose the organizational change.

Management of change is the adaptability of management to these changes for the survival and growth of the organization in the long run. It requires a lot of flexibility, foresight, development and adoption of new techniques by the management.

##### B) Reasons for Organizational Changes:

1. **Changes in Production Method:** Timely changes in production methods and systems, changes in kinds of goods produced, changes in marketing strategies, tax policies, industrial policies bring about change in the organizational set-up.
2. **Changes in Techniques:** The changes in techniques and machinery demands appointment of new and skilled workers.
3. **Retirement of Old Employees:** Retirement of old managers, director's board of director's gives place to new appointment of managers and directors. With the entry of new managers, there is evolution of new managers, there is evolution of new policies, schemes and intentions. This gives rise to organizational change.
4. **Technology:** Technology brings about changes in an organization. Existing workforce has to be trained with respect to computer knowledge, updating of new techniques. etc. Many jobs have to be reshaped. Employees doing narrow specialized and routine jobs have to perform multiple tasks
5. **Economic Changes :** Economic shocks like substantial changes in oil prices, interest rates on loans etc. impose organizational changes.

6. **Globalisation:** Due to entry of globalization, organization has to deal with local competitors as well as global competitors that come from across the oceans. In order to deal differently with different competitors
7. **Political situation:** Changes in world politics such as Iraq's invasion of Kuwait, reunification of Germany, break-up of Soviet Union, recent India - Pakistan Kargil war, etc. impose organizational changes in response to such events

### C) Reasons of Resistance to changes by people:

People generally resist to any kind of change because change demands readjustment which is not simple, possible and always favourable. Readjustment which is not simple, possible and always favorable.

1. **Insecurity of Job:** Due to introduction of new technologies, automatic machines, employees have a fear of losing their jobs. This insecurity of jobs tends them to resist the change.
2. **Fear of Workload:** Sometimes with the proposed change in technology and new methods employees fear that their workload will be increased and correspondingly, there will be no increase in their remuneration. This feeling results in resistances to change.
3. **Monotony in Work:** Sometimes a proposed change leads to more specialization and monotonous work. Such changes are also resisted.
4. **Participation of subordinates:** Some changes totally deny or rule out the participation of subordinates in decision-making. Such changes are resisted because they imply criticism of the employees.
5. **Not Ready for Training:** Some changes in technology and work demand training of the employees. Some employees dislike to undergo refresher or training courses and hence, they resist the change.
6. **Heavy Burden of Responsibilities:** Some changes in methods of working, changes in production processes impose heavy burden of responsibilities on managers. Such over-burdened managers tend to resist the change.
7. **Unfavorable Changes:** Some changes suggested by labour unions or Government are not favorable for an organization. Such changes are opposed by the management.

### D) Managerial Remedies to Overcome Resistance to Change

1. **Consultation with Employees:** Before introducing any change, the intention behind the change must be fully communicated to those who will be affected by it. Suggestions must be taken and spent in consultation with the employees and their suggestions must be taken into consideration.
2. **Proper Planning:** Changes should not be forced suddenly. A sufficient time should be spent in proper planning and installing it. Employees should be allowed to prepare themselves to accept it without any fear.

3. **Assurance About Economic Gains** : Management should ensure that the installed change would not cause any economic losses, loss in status and personal dignity at employee's end
4. **Group Dynamics**: Group dynamics refer to interactions among the group, adjustments in mutual perceptions and relationships among the members of the group. It facilitates adaptation of change. Management should introduce it so that introduction of change is easily adopted
5. **Slowly Introduction of Change**: Management should introduce the change slowly and in parts. The results of the change should be reviewed and necessary modifications must be made as per requirements. This will make the change easily acceptable.
6. **Suitable Training for Change**: If a change demands training, the management should create a feeling in concerned employees that they are going to learn new techniques which will add to their knowledge. This will increase their enthusiasm and the change will be easily accepted.

**E) Important Features of Successful Management of Change:**

1. **Unfreezing**: This involves casting aside attitudes and value system, managerial behavior or organizational structure so that new ones can be learnt. For unfreezing the manager must understand the causes for resistance to change. It is common knowledge that there are people who desire status quo and there are individuals who push for change. The two groups may be equal in their force.
2. **Changing** : Actual change occurs at this stage. New value systems, behaviours or structures replace old ones. This is the action oriented stage. This could be a period of confusion, dis-orientation and despair mixed with hope and discoveries.
3. **Refreezing**: Here the change becomes permanent. The newly acquired values, beliefs and structures get refrozen. A new status quo is established at this stage. Refreezing is important because without it there is a vacuum.

**F) Methods for dealing with Resistance to Change:** Katter and Schlesinger have suggested six different approaches for introducing change as follows:

1. **Education and Communication** : This approach entails education of concerned employees when there is a lack of information and erroneous analysis of information. The advantage of this approach is, once persuaded will often help will often help with the implementation of this change. The drawback of this approach is that if lots of people are involved it can be very time consuming.
2. **Participation and Involvement** : Such an approach is used where the initiators do not have all the information. They need to design the change and where others have considerable power to resist. This approach is beneficial because people who participate become committed to implementing change and any relevant information they have will be integrated into the change plan. The disadvantage is that such a change can be very time consuming if the design change is not suitable.

3. **Facilitation and Support :** This approach is used when people resist because there are adjustment difficulties. This method has a specific advantage where no other approach works towards adjustment. This approach is expensive, time consuming and has more than average chances of failure.
4. **Negotiations and Agreements:** Where someone from the group loses out in the process of change despite strong resistance from the group, this approach is used. The advantage of the method is that it is relatively an easier way to avoid major resistance, while the limitations is that it can be expensive and it can motivate rivals to negotiate for compliance.
5. **Manipulation and Co-Opting:** When other tactics do not work, or they are very expensive, this approach is taken, the advantage being that it can be a relatively quick and cheaper solution to resistance problem. At the same time, it can lead to future problems if people feel manipulated.
6. **Explicit and Implicit Coercion:** This approach is necessary when speed is essential and initiators of change are quite powerful. The drawback is that if people get angry with the initiators, it can be very risky, though this approach is speedy and can overcome any kind of resistance.

**G) Methods of Making Change Permanent:** The above approaches enable managers to introduce changes successfully. The next step is to make the change stay for a long time so that people do not revert back to the earlier position. Various methods suggested for this purpose are given below.

1. **Use of Group Force:** The group generally has great influence on the behavior of member. The individual aggressiveness, Co-Cooperativeness, self-respect, confidence, energy and productivity, hopes and aspirations, likings, beliefs and prejudices are all conditioned by the group in which an individual works. Therefore members, acceptance or rejection of the change depends on the group to a large extent. The manager must make use of group forces to effect the change.
2. **Changing the Perpetrator of Change:** The change agent himself must undergo a change, then only he can reinforce a psychological climate of support for change. Unwillingness of managers to give up traditional managerial practices and their unwillingness to accept new methods are the most serious barriers to the introduction of change.
3. **Shared Rewards:** Another way to build support for change is to ensure that the people affected derive benefit out of the change. Benefits can include traditional salary, promotions, training, recognition etc.
4. **Co-operation of Unions:** Generally, unions are against changes but taken into confidence, they can act as change agents. As unions recognize benefits to change, they will agree to change slowly and once they are involved in decisions about the change, they will support the change.
5. **Concern for Employees:** Changes should not be introduced just for the sake of change. Only when necessary changes should evolve themselves and ultimately benefit the





employees. Need and requirements of employees should not be affected in the short term. Any problem that has taken place because of change needs to be looked into and corrected immediately.

**H) Conclusion:** Now days no enterprise can survive without habituation the change management. Every element in the organization must adjust with the management of change. In compitative world Management of change must be practiced by each organization to survive in coming days.

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## चंद्रपूर जिल्ह्यातील ग्राहक संरक्षण कक्ष: एक दृष्टिक्षेप

डॉ. प्रशांत म. पुराणिक

गुरूकूल कला. वाणिज्य व विज्ञान  
महाविद्यालय, नांदा, ता. कोरपना,  
जि. चंद्रपूर

### गोषवारा:

ग्राहक हा भारतीय अर्थव्यवस्थेचा कणा आहे. भारतीय अर्थव्यवस्था ज्या प्रमुख घटकांमुळे प्रभावीत होते त्यापैकी सर्वात महत्वाचा घटक ग्राहक हाच आहे. ग्राहकांच्या हितांचे रक्षण व्हावे, ग्राहकांना वस्तूची अवाजवी कीमत द्यावी लागू नये, उत्पादक व व्यापा-यांकडून ग्राहकांचे शोषण होऊ नये, खोट्या व फसव्या जाहीरातींना आळा बसावा, ग्राहकांच्या तक्रारींची योग्य दखल घेतली जावी व त्यांना योग्य न्याय प्राप्त व्हावा या प्रमुख उद्दीष्टांच्या पुर्तीसाठी चंद्रपूरसारख्या वीकसनशील जिल्ह्यामध्ये जिल्हा ग्राहक संरक्षण कक्ष आणि जिल्हा ग्राहक संरक्षण न्यायालयाची स्थापना करण्यात आली. प्रत्येक घटकांच्या काही सकारात्मक आणि काही नकारात्मक बाबी असतातच. त्याचप्रमाणे चंद्रपूर जिल्ह्यातील उपरोक्त घटकांच्यादेखील काही सकारात्मक व काही नकारात्मक बाबी आहेत. परंतु या दोन्ही घटकांमुळे चंद्रपूर जिल्ह्यातील ग्राहकाला मोठ्या प्रमाणात सुरक्षितता मिळाली आहे. परीणामतः याचा उत्कृष्ट परीणाम चंद्रपूर जिल्ह्यातील वीपणनव्यवस्थेवर पडला असून हा जिल्हा प्रगतीपथावर अग्रेसर आहे.

**बीजशब्द:** उद्बोधन, अनभीज्ञ, सजग, दुर्गम, पारदर्शी

### प्रस्तावना:

चंद्रपूर हा एक अतीदुर्गम जिल्हा असून येत्या काही वर्षांत या जिल्ह्याने मोठ्या प्रमाणात विकासा केला आहे. विकासाच्या गर्तेत चंद्रपूर जिल्हा हा तालुका व ग्रामीण स्तरापर्यंत पोहोचल्याने विविध माध्यमांचे जाळे दुर्गम भागांपर्यंत पोहोचले आहे. त्यामुळे पूर्वी फक्त शहरात दीसणा-या चीत्ताकर्षक जाहिराती ग्रामीण जनतेपर्यंत पोहोचतात. शीवाय ग्रामीण जनतेचा शहराशी संपर्क वाढलेला आहे. याची प्रमुख कारणे येथील रस्त्यांचा विकास आणि वाहतुकीच्या साधनांचा विकास होय.

चंद्रपूर जिल्ह्यात चेन स्टोअर्स, मल्टीपल शॉप्स, डीपार्टमेंटल स्टोअर्स, सुपर मार्केट्स इत्यादींची वाढलेली संख्या चंद्रपूर जिल्हा बाजारपेठांच्या विस्ताराचे चित्र स्पष्ट होते. तेथे येणा-या ग्राहकांच्या उच्च राहणीमानाच्या दर्जावरून आणि दीवसेंदीवस अद्ययावत वस्तूच्या दुकानांकडे वाढतच जाणा-या गर्दीवरून ते उच्चश्रेणीतील असल्याचे जाणवते. चंद्रपूर जिल्ह्यात मागील वर्षांत बरीच आर्थिक प्रगती झालेली असून ग्राहकांच्या क्रयशक्तीत वाढझाली असून बाजारपेठांचा विकास झाला आहे.

आधुनिक वीपणन प्रणालीत ग्राहक हाच सर्वात महत्वाचा घटक होय. पण प्रत्यक्षात ग्राहक हा अत्यंत दुर्बल व दुर्लक्षणीय असल्याचे आढळून आले आहे. चंद्रपूर जिल्ह्यात फसविल्या गेलेले ग्राहक न्याय मागण्याकरीता ग्राहक संरक्षण कक्षाचा आधार घेतात. चंद्रपूर जिल्ह्यातील ग्राहक संरक्षण कक्षामुळे ग्राहकांना मोठ्या प्रमाणात सुरक्षितता प्राप्त झाले आहे. परीणामतः ग्राहकांच्या फसवणुकीला मोठ्या प्रमाणात आळा बसला आहे.

### चंद्रपूर जिल्ह्यात ग्राहक संरक्षण कक्ष स्थापन करण्याची कारणे:

ग्राहक हा विपणातील अंतीम घटक आहे. विपणनातील सर्व क्रियांचा मुख्य हेतु ग्राहकांचे महत्तम समाधान करणे हा असतो. परंतु असे असले तरी सत्य परीस्थिती काही वेगळीच असते.

बाजारपेठेत ग्राहक व वीक्रेता समान महत्वाचे मानले जातात. प्रत्यक्षात मात्र बाजारपेठांवर वीकृत्यांचेच वर्चस्व असते. त्यामुळे ग्राहक शोषणाला बाध्य होतो.

चंद्रपूर जिल्ह्यातील ग्राहकांमध्ये मुख्यत्वे भीत्रेपणा, बुजरेपणा, लाजरेपणा, आत्मवीश्वासाची कमी इत्यादी व्यक्तीच्या विकासासाठी अनावश्यक असलेले गुण मोठ्या प्रमाणात अस्तीत्वात होते. याचाच फायदा चंद्रपूर जिल्ह्यातील वीक्रेते घेत असतात. कधी नीत्कृष्ट दर्जाच्या वस्तूंची वीक्री करून, कधी वस्तूंवरील छापील कीमतीपेक्षा जास्त कीमत आकारून, कधी खोटी आश्वासने देउन तर कधी फसव्या जाहिरातींद्वारे चंद्रपूर जिल्ह्यातील वीक्रेते ग्राहकांची सरळ फसवणुक करत असत.

ग्राहकांच्या शोषणाला आळा बसावा, त्यांनी आपल्या अधिकाराबद्दल अधिकाधिक जागृत व्हावे आणि ग्राहकांना योग्य न्याय मीळावा इत्यादी बाबींच्या पूर्तीसाठी चंद्रपूरसारख्या दुर्गम जील्ह्यात १९७८ च्या गुढीपाडवाच्या शुभमुहूर्तावर ग्राहक पंचायतीची स्थापना करण्यात आली. सुरुवातीला फक्त १५० ते २००च्या आसपास असलेली सदस्य संख्या आज मात्र हजारोंच्या संख्येत वाढलेली आहे.

#### चंद्रपूर ग्राहक संरक्षण कक्षाची वाटचाल:

सुरुवातीला अन्नधान्य व अन्य जीवनावश्यक वस्तूंची खरेदी करण्यासाठी प्रत्येक वॉर्डातून काही लोकांचा गट तयार झाला होता. त्यामुळे वस्तूंची शुद्धता व वस्तूचे योग्य वनज याबद्दल चंद्रपूर जिल्ह्याच्या ग्राहकांना मोठ्या प्रमाणात सुरक्षितता प्राप्त झाली. यातूनच गॅस सीलेंडरची वीतरण समस्या, टेलीफोन संच वीतरण समस्या, वीज मंडळाच्या योग्य बीजकाची समस्या इत्यादी नानाविध समस्यांचे मोठ्या प्रमाणात निवारण करण्यात आले.

चंद्रपूर जिल्ह्यात १९८६ मध्ये ग्राहक संरक्षण कक्ष सुरू झाला. तेव्हाचे जिल्हाधिकारी श्री. राजीव सीन्हा यांनी या कक्षाला परवानगी जाहीर केली. या ग्राहक संरक्षण कक्षाचे प्रथम सदस्य अॅड. श्री. चंद्रकांत देशमुख हे होते. अत्यंत मर्यादीत सेवांचा समावेश असलेल्या ग्राहक संरक्षण कक्षामध्ये काही कालावधीनंतर परिवहन व विद्युत मंडळ या विभागाचासुद्धा समावेश झाला. चंद्रपूर जिल्हा ग्राहक संरक्षण कक्षाने केलेल्या मागणीचीच ही फलश्रुती आहे.

#### चंद्रपूर जिल्ह्यातील ग्राहक संरक्षण न्यायालय:

चंद्रपूर जिल्ह्यात ग्राहक संरक्षण न्यायालय सर्वप्रथम १९९२ मध्ये सुरू झाले. प्रथम जिल्हा न्यायाधीश म्हणून श्री. पी. एस. ढोपरे यांची नियुक्ती करण्यात आली. यात श्री. अब्दुल शफी कादरी व शींदे मॅडम या दोघांची अशासकीय सदस्य म्हणून नेमणुक करण्यात आली.

#### चंद्रपूर जिल्ह्यातील ग्रामीण भागात ग्राहक कक्षाची स्थापना:

चंद्रपूर जिल्ह्यातील ग्रामीण जनतेच्या ग्राहक कक्षाची सेवा प्राप्त व्हावी यासाठी २७ खेड्यांमध्ये ग्राहक संरक्षण पंचायतीच्या शाखा उघडल्या आहेत. ग्रामीण ग्राहकांना ग्राहक पंचायतीचे महत्व पटावे यासाठी या शाखांमध्ये कार्यशाळा, सेमिनार्स, कॅंप, ग्राहक मेळावे इत्यादी उद्बोधनपर कार्यक्रमांचे आयोजन केले जाते. जागो ग्राहक जागो, ग्राहक राजा जागो हो रात्र वे—याची आहे, ग्राहक सुरक्षित तर देश सुरक्षित या व यासारख्या अनेकविध जाहिरातींमुळे ग्रामीण ग्राहकदेखील ग्राहक संरक्षण न्यायालयाचे महत्व कळायला लागले आहे. पण आजदेखील ग्रामीण ग्राहकांच्या उदासीन व संकुचित मनोवृत्तीमुळे ग्रामीण भागातील ग्राहकांचा ग्राहक संरक्षण न्यायालयातील सहभाग अगदीच नगण्य आहे. शहरी भागातील ग्राहकांप्रमाणेच ग्रामीण भागातील ग्राहकांचेदेखील ग्राहक पंचायतीमध्ये तीतकेच सक्रीय योगदान प्राप्त व्हावे व ग्राहक न्यायालयांचे महत्व ग्रामीण ग्राहकांनादेखील कळावे यासाठी प्रयत्न व्हायला हवेत.

#### चंद्रपूर जिल्हा ग्राहक संरक्षण कक्षाची कार्यपद्धती:

चंद्रपूर जिल्ह्यातील ग्राहक संरक्षण कक्षात वीवीध प्रशासकीय वीभागाचे अधिकारी सदस्य आहेत. ज्या खात्याशी संबंधित ग्राहकांचा प्रश्न अथवा समस्या उद्भवली असेल त्या खात्याच्या अधिका-याला खटल्याच्या वेळी प्रत्यक्ष उपस्थित राहावे लागते. यात वादी, प्रतीवादी, वकील, संबंधित वीभागाचा अधिकारी व जिल्हा न्यायाधीश इत्यादी पक्ष प्रामुख्याने उपस्थित राहातात व दोन्ही पक्षांचे मत ऐकून घेतल्यानंतर योग्य निर्णय दिला जातो.

**चंद्रपूर जिल्हा ग्राहक संरक्षण कक्षाची कार्यपद्धती पुढीलप्रमाणे आहे :**

१. ग्राहक संरक्षण कक्षामध्ये प्राप्त होणा-या लेखी तक्रारींची नोंद एका रजिस्टरमध्ये घेण्यात येते व त्यावर संबंधित अधिका-याचे मत प्राप्त केले जाते.
२. कक्ष बैठकीत ऐनवेळी उपस्थित केलेल्या मुद्द्यांवरदेखील संबंधित अधिकारी आपले मत व्यक्त करतात.
३. संबंधित खात्याचे अधिकारी कक्ष बैठकीत त्यांनी केलेल्या कार्याचा उल्लेख करतात.
४. प्राप्त तक्रारीवर केलेल्या उपाययोजनेबद्दल किंवा उर्वरीत तक्रारींबद्दल विचारविनिमय केल्या जातो.
५. काही प्रश्न जे गौण स्वरूपाचे असतात, त्याचे उत्तरदेखील कक्ष बैठकीतच घेतले जाते.
६. प्रत्येक सदस्याला आपले मत मांडण्याची संधी प्राप्त होते.
७. ग्राहक संरक्षण कक्षाच्या बैठका तालुका पातळीवर होत असल्यामुळे ग्रामीण ग्राहकदेखील थोड्याफार प्रमाणात आपल्या संरक्षणाबद्दल जागृत होउन राहिला आहे.
८. मागील बैठकीत सोडवलेल्या प्रश्नांचा थोडक्यात आढावा वर्तमान बैठकीत घेतल्या जातो.
९. प्रत्येक दाव्याचे स्वरूप लक्षात घेउन त्याचा कालावधीनुरूप अंदाज अगोदरच घेतला जातो.

चंद्रपूरसारख्या वीकसनशील ग्राहक संरक्षण कक्षाच्या वरील उल्लेखनीय कामगिरीवर दृष्टिक्षेप टाकल्यानंतर या जिल्ह्यातील ग्राहकांना ग्राहक संरक्षण कक्षामुळे मोठ्या प्रमाणात संरक्षण प्राप्त झाले आहे, असे नीश्चीतपणे म्हणता येते.

**निष्कर्ष:**

अनेक उत्पादक व वीक्रेते कमी वेळात अतीरीक्त नफा कमावण्याच्या उद्देशाने ग्राहकांची पीळवणुक करत असतात. चंद्रपूर जिल्ह्यातदेखील ही बाब प्रकर्षाने जाणवली. परंतु येथील ग्राहक संरक्षण कक्ष व ग्राहक न्यायलयाच्या उल्लेखनीय कामगिरीमुळे ग्राहकांना मोठ्या प्रमाणात संरक्षण प्राप्त झाले आहे. चंद्रपूर जिल्ह्यातील ग्राहक संरक्षण कक्षाने पार पाडलेल्या कामगिरीवर दृष्टिक्षेप टाकला असता, लक्षात आलेली महत्वपूर्ण बाब म्हणजे १९९० ते २००८ या कालावधीत चंद्रपूर ग्राहक संरक्षण कक्षाने ऑक्टोबर २००८ पर्यंत केवळ ८४ दाव्यांचे नीकाल लागायचे आहेत.

या माहितीवरून चंद्रपूर जिल्ह्यातील ग्राहक संरक्षण कक्षाने तसेच ग्राहक संरक्षण न्यायालयाने ग्राहकांच्या सुरक्षिततेसाठी उल्लेखनीय कामगिरी केली आहे, असे लक्षात येते. चंद्रपूर जिल्ह्यातील वाढती लोकसंख्या लक्षात घेता जिल्हा ग्राहक कक्षामध्ये आणि जिल्हा ग्राहक न्यायालयामध्ये दावा दाखल करणा-या ग्राहकांची संख्या अत्यंत कमी आहे.

**सारांश:**

काही दशकांपुर्वी चंद्रपूर हा एक अतीदुर्गम जिल्हा म्हणून प्रसिद्ध होता. काळाच्या ओघात या जिल्ह्याने अनेक विकासात्मक पाउले उचलली आहेत. यातीलच एक विकासात्मक पाउल म्हणजे येथील बाजारपेठांचा विकास होय. बाजारपेठांच्या विकासामुळे येथील ग्राहक नवनवीन वस्तु खरेदी करण्यासाठी धजावत आहेत.

सदर जिल्ह्यातील ग्रामीण भागातील ग्राहक आपल्या हक्कांबद्दल अद्यापदेखील अनभिज्ञच आहेत. परीणामतः कोणत्या ना कोणत्या प्रकारे समाजातील अनेक घटकांद्वारे त्याची पिळवणुक होतच आहे. कधी दोषपूर्ण वस्तुंचा पुरवठा करून तर कधी दोषपूर्ण सेवांचा पुरवठा करून आजदेखील अनेक वीकेते व संस्था येथील ग्राहकांचे शोषण करीत आहेत. ही केवळ चंद्रपूर जिल्ह्याची समस्या नसुन पुर्ण देशाची समस्या असु शकते. हा विचार करून ग्राहक संरक्षण कायद्यात पुनःसंशोधन होणे व आवश्यक ते फेरबदल करणे ही आज काळाची गरज आहे. असे झाल्यास देशाच्या बाजारपेठा ग्राहकाभिमुख होतील, वीकेत्यांची पीळवणुक करण्याच्या मनोवृत्तील आळा बसेल व ग्राहकांना संरक्षण मिळाल्यामुळे भारतीय अर्थव्यवस्था विकासाच्या वाटेने वाटचाल करेल, यात शंका नाही.

सं द र्भ ग्रं थ सु ची

१. भारतीय ग्राहकमत जोशी बींदु माधव
२. व्यावसायीक कायदे देहलीवाल प्रकाश
३. चंद्रपूर जिल्हा ग्राहक संरक्षण कक्ष
४. चंद्रपूर जिल्हा ग्राहक संरक्षण न्यायालय
- 5- वीकीपीडीया फ्री इन्सायक्लोपीडीया

“ग्रामीण कृषको के आर्थिक विकास में सहकारी मर्यादित बैंक एवं क्षेत्रीय ग्रामीण विकास बैंक की भूमिका  
(कुक्षी तहसील के संदर्भ में)

डॉ.सखाराम मुजाल्दे,वरिष्ठ व्याख्याता, अर्थशास्त्र अध्ययनशाला देअविवि, इंदौर, (म.प्र.)

**प्रस्तावना :-** भारत एक कृषि प्रधान देश है। यहां की कुल जनसंख्या का लगभग 68 प्रतिशत भाग गांवों में निवास करती है इसलिए भारत को गांवों का देश कहा जाता है उनका मुख्य व्यवसाय कृषि है तथा देश की अर्थव्यवस्था में कृषि का महत्वपूर्ण योगदान रहता है। देश में कृषि उत्पादन अधिक होने पर देश की अर्थव्यवस्था के विकास को गति मिलती है इसके विपरीत उत्पादन कम होने पर अर्थव्यवस्था पर प्रतिकूल प्रभाव पड़ता है। किसी भी देश का आर्थिक विकास उस देश की कृषि अर्थ व्यवस्था पर अधिक निर्भर रहता है। परन्तु जैसा कि भारतीय कृषि को “मानसून का जुआ” कहा जाता है। क्योंकि भारत में सिंचाई के साधनों का अभाव होने के कारण कृषकों को मानसून पर ही अधिक निर्भर रहना पड़ता है यदि मानसून अच्छा हाता है तो उत्पादन भी अधिक होता है। इसके विपरीत यदि मानसून कम या अनिश्चित रूप से होने पर कृषि कम होता है। अतः कृषकों को अपनी आवश्यकताओं की पूर्ति के लिए ऋण का सहारा लेना पड़ता है इसके साथ ही कृषि को व्यवसाय के रूप में अपनाने के लिए उसमें पूंजी विनियोजन, सिंचाई के साधनों आधुनिक कृषि यंत्रों, उत्तम बीजों/खाद/ उर्वरक/दवाईयाँ आदि की आवश्यकता प्रमुख रूप से होती है। जिसकी पूर्ति के लिए ऋण लेकर करता है। स्वतंत्रता प्राप्ति के बाद सरकार ने कृषि विकास को सबसे अधिक महत्व दिया। देश के आर्थिक विकास के लिए जब योजना का सहारा लिया गया तो सबसे पहले कृषि विकास को प्राथमिकता दी गई। इस हेतु सामुदायिक विकास योजना की स्थापना की, जिसके माध्यम से कृषि की उन्नति विधियों से अच्छे बीज, रासायनिक खाद्य, कीटनाशक, औषधिया खेती के लिए लौह के औजारों का प्रयोग एवं सिंचाई के साधनों का विकास सम्मिलित किया गया। इस कार्य क्रम को सफल बनाने के लिए संस्थागत ऋण की व्यवस्था सहकारी समितियों द्वारा की गई। यह कार्यक्रम काफी सफल रहा है, परन्तु कालान्तर में यह अनुभव किया गया कि इस कार्यक्रम का लाभ केवल बड़े किसानों तक ही सीमित है और इसका उचित लाभ लघु एवं छोटे कृषकों को नहीं मिल पा रहा है। अतः सहकारी अर्थव्यवस्था के पूरक के रूप में व्यावसायिक बैंकों के सामाजिक नियंत्रण एवं राष्ट्रीयकरण के उपरान्त इन बैंकों द्वारा कृषि एवं लघु उद्योगों को ऋण उपलब्ध कराने की व्यवस्था की गई।

वर्तमान समय में ग्रामीण ऋण देने वाले अभिकरणों के भाग में परिवर्तन हुआ है। साहूकार और महाजन जो 1951-52 में ग्रामीण ऋण के सबसे महत्वपूर्ण स्रोत के रूप में लगभग 70 प्रतिशत उधार उपलब्ध कराते थे। उनका भाग 1991 तक त्रिव रूप से गिरकर केवल 17.6 प्रतिशत रह गया और गैर संस्थागत स्रोतों का भाग जो 1951-52 में 23 प्रतिशत था कम होकर 1991 में 15 प्रतिशत हो गया। कुल मिलाकर और संस्थागत स्रोतों से प्राप्त ऋण का अनुपात जो 1951-52 में लगभग 90 प्रतिशत था। 1981 तक गिरकर 38 प्रतिशत ही रह गया और 1991 में और गिरकर 33 प्रतिशत हो गया। इसके विरुद्ध संस्थात्मक ऋण जो 1951-52 में कुल कृषि ऋण का 7 प्रतिशत उपलब्ध कराता था। 1991 में 64 प्रतिशत भाग उपलब्ध कराने लगा। इस प्रकार सहकारी कृषि ऋण व्यवस्था एवं बैंकों की कृषि व्यवस्था की असफलता ने यह सिद्ध कर दिया कि भारतीय कृषक जो मुख्यत लघु सीमान्त व खेतीहर मजदूर नहीं है अतः पशुपालन, दूध विक्रय, कृषि यंत्र आदि खरीदने के लिए कमजोर वर्ग के लोगो को आसान किफ्तो पर ऋण उपलब्ध करवाते हैं। विषय के गहराई से अध्ययन के लिए क्षेत्रीय ग्रामीण विकास बैंक और सहकारी मर्यादित बैंक का प्रधान कार्यालय कुक्षी द्वारा प्रकाशित वार्षिक प्रतिवेदन को अपने अध्ययन का आधार बनाया प्रबंध एवं संगठन की जानकारी के लिए बैंकों के अधिकारियों से संपर्क किया बैंको की कार्य प्रणाली एवं

ऋण नीति की जानकारी बैंक के अधिकारियों द्वारा प्रदान करने के समय उपस्थित हुई और ऋण वितरण की विधि का व्यावहारिक ज्ञान प्राप्त किया।

#### संबंधित साहित्य का अध्याय

**मिश्रा पूरी (2011)** भारतीय अर्थव्यवस्था में देश में ग्रामीण सहकारी संस्थाओं का मजबूत बनाने के लिए सुझाव देने हेतु भारत सरकार ने ए. वैद्यनानथन की अध्यक्षता में Task Force on Revival of Rural Co-operative credit Institution का गठन किया जिसमें 15 फरवरी 2005 को अपनी रिपोर्ट प्रस्तुत की। इस रिपोर्ट में कहा गया कि भारत में सहकारी साख संरचना प्रशासनिक, प्रबन्धकीय तथा वित्तीय सभी आधार पर कमजोर व निष्क्रिय हो चुकी है तथा इसे पुनः जीवित व पुनः संरचित करने की आवश्यकता है वित्तीय पुनः संरचना तभी संभव हो सकेगी जब राज्य सरकारें वैधानिक व संस्थात्मक सुधार लागू करें। **नीलमेष चतुर्वेदी (2000)** के अनुसार विष्व अर्थव्यवस्था में तेजी से हो रहे परिवर्तनों के संदर्भ में विभिन्न सहकारिताओं संबंधित समस्याएँ जैसे— सहकारी संस्थाओं को स्वालम्बी बनाना जैसे—सहकारी नियंत्रण से मुक्त करना। आदर्श सहकारिता कानून बनाना, व्यावसायिक विविधीकरण आधुनिकीकरण आदि पर विस्तार से प्रकाश डालती है।

**बी.एस. माथुर सन् (2000)** – सहकारिता नामक पुस्तक में लेखक ने भारत में सहकारिता आंदोलन के विकास, प्रगति, सहकारी संगठन का पुर्नगठन आदि का विस्तार से विवेचन किया गया है। विद्वान लेखक ने भारत के संदर्भ में सहकारी साख समितियों के महत्व एवं लाभ पर विस्तृत चर्चा की है। भारत में सहकारिता के प्रायः सभी पहलुओं, प्रबन्ध एवं समस्याओं पर गहन विवेचना की गई है। **मिश्रा पूरी (2011) भारतीय अर्थव्यवस्था** – भारत में सहकारी साख संगठन एक व्यापक संगठन है जिसमें मार्च 2010 के अन्त में अल्पकालीन साख व्यवस्था में 31 राज्य सहकारी बैंक 370 केन्द्रीय सहकारी बैंक व 95,633 प्राथमिक कृषि सहकारी समितियाँ तथा दीर्घकालीन साख व्यवस्था में 20 राज्य कृषि और भूमि विकास बैंक व 697 प्राथमिक कृषि और ग्रामीण विकास बैंक हैं। **डॉ. जे.पी. दत्त (2005)** किसानों के लिए संस्थात्मक ऋण का विकास हो रहा है, कुल संस्थागत स्रोतों से कृषि ऋण लगातार बढ़ता गया है और यह 1984–85 में 6.230 करोड़ से बढ़कर 1999–2000 में 44.610 करोड़ रुपये हो गया, तथा 2002–03 में 82.070 करोड़ रुपये हो गया है तथा वाणिज्य बैंको और क्षेत्रीय बैंको का भाग लगातार बढ़ गया है।

**सुबहसिंह यादव (2004)** के अनुसार 23 जून 1979 को प्रो. एम.एल. दोतवाला की अध्यक्षता में एक समिति गठित की गई क्षेत्रीय ग्रामीण बैंको की कार्यप्रणाली की समीक्षा का दायित्व सौंपा गया। इस समिति ने क्षेत्रीय ग्रामीण बैंक की समीक्षा संबंधी अपनी रिपोर्ट फरवरी 1978 में प्रस्तुत की। इस रिपोर्ट में कहा गया है कि क्षेत्रीय ग्रामीण बैंको के संगठन और अधिक सदृढ बनाया जाना चाहिए ताकि यह ग्रामीण बैंकिंग प्रणाली के अभिन्न अंग के रूप में ग्रामीण क्षेत्रों में कार्य कर सके।

**अध्ययन के उद्देश्य :-** शोध अध्ययन के उद्देश्य निम्नलिखित हैं :-

- 1) ग्रामीणों की आर्थिक व व्यावसायिक स्थिति का अध्ययन करना।
- 2) ग्रामीण क्षेत्र में ऋण प्राप्ति के संस्थागत एवं असंस्थागत स्रोत का अध्ययन करना।
- 3) ग्रामीण विकास में सहकारी मर्यादित बैंक एवं क्षेत्रीय ग्रामीण विकास बैंक के योगदान का अध्ययन करना।
- 4) बैंको से ऋण लेते समय आने वाली कठिनाईयों का अध्ययन करना।

**अध्ययन विधि :-** अध्ययन क्षेत्र में चुनी प्रतिनिधि इकाई का अध्ययन किया गया है। इस अध्ययन के लिए देव निर्दशन विधि का चयन किया गया है देव निर्दशन प्रणाली के आधार पर कुक्षी तहसील के पांच ग्रामों का चयन किया गया है तथा प्रत्येक गांव में 10-10 किसानों का चयन किया गया है। इस प्रकार अध्ययन इकाई के रूप में निर्दशन प्रणाली के द्वारा कुल 50 किसानों का अध्ययन हेतु चयन किया गया है।

तालिका क्रमांक-3 जाति के आधार पर उत्तरदाताओं का वर्गीकरण –

जाति	उत्तरदाताओं की संख्या	प्रतिशत
अ.ज.जा.	22	44
अ.जा.	15	30
सामान्य वर्ग	08	16
पिछडा वर्ग	05	10
योग	50	100

प्रस्तुत तालिका में कृषको की जाति के आधार पर विश्लेषण किया गया है। जिसमें अ.ज.जा के 44 प्रतिशत उत्तरदाता है। अ.जा. के 30 प्रतिशत उत्तरदाता पिछडा वर्ग के 10 प्रतिशत एवं सामान्य वर्ग के 16 प्रतिशत उत्तरदाता कृषक ग्रामीण क्षेत्र में निवास करते हैं। इस प्रकार विश्लेषण से स्पष्ट है कि ग्रामीण क्षेत्र में निवास करने वाले सबसे अधिक अनुसूचित जनजाति के उत्तरदाता है उसका मुख्य कारण कृषि तहसील एक जनजातिय क्षेत्र हैं

**तालिका क्रमांक-4 शिक्षा स्तर के आधार पर उत्तरदाता का वर्गीकरण**

शिक्षा	उत्तरदाताओं की संख्या	प्रतिशत
निरक्षर	15	30
प्राथमिक स्कूल	29	58
माध्यमिक स्कूल	05	10
हाई/हायर सेकेन्डरी स्कूल	01	02
स्नातक स्तर	00	00
योग	50	100

स्रोत - सर्वेक्षण आधारित

प्रस्तुत तालिका में कृषकों की शिक्षा के स्तर पर विश्लेषण में पाया कि निरक्षर उत्तरदाता 30 प्रतिशत प्राथमिक स्तर के उत्तरदाता 38 प्रतिशत, माध्यमिक स्तर के उत्तरदाता 10 प्रतिशत तथा हाई / हायर सेकेन्डरी स्तर के उत्तरदाता 2 प्रतिशत तथा स्नातक स्तर पर उत्तरदाता 00 प्रतिशत कृषक है। अतः विश्लेषण से यह स्पष्ट होता है कि ग्रामीण क्षेत्रों के लोगों में शिक्षा का स्तर काफी निम्न पाया जाता है।

**तालिका क्रमांक - 7 उपलब्ध भूमि के आधार पर कृषक उत्तरदाताओं का वर्गीकरण-**

उपलब्ध (हेक्टेयर में)	उत्तरदाताओं की संख्या	प्रतिशत
2.5 से कम	12	24
2.5 से 5	25	50
5 से 7.5	8	16
7.5 से अधिक	5	10
योग	50	100

स्रोत - सर्वेक्षण आधारित

प्रस्तुत तालिका में उपलब्ध भूमि का विश्लेषण किया गया जिसके आधार पर यह पाया गया कि 24 प्रतिशत उत्तरदाताओं के पास 2.5 हेक्टेयर से कम भूमि है तथा 50 प्रतिशत उत्तरदाताओं के पास 2.5 से 5 हेक्टेयर भूमि है तथा 16 प्रतिशत उत्तरदाताओं के पास 5-7.5 हेक्टेयर भूमि उपलब्ध है। तथा 7.5 हेक्टेयर से अधिक भूमि वाले उत्तरदाता मात्र 10 प्रतिशत है। अतः विश्लेषण से यह स्पष्ट होता है कि



ग्रामीण उत्तरदाताओं के पास कृषि स्रोतों का आकार बहुत छोटा होने के कारण आधुनिक कृषि यंत्रों का उपयोग करने में असमर्थ होते हैं।

**तालिका क्रमांक - 9 संस्थागत स्रोतों के आधार पर कृषकों का वर्गीकरण**

संस्थागत वित्त स्रोत	उत्तरदाताओं की संख्या	प्रतिषत
सहकारी बैंक	20	40
क्षेत्रीय ग्रामीण बैंक	30	60
योग	50	100

प्रस्तुत तालिका में किसानों द्वारा लिए गए ऋण के संस्थात्मक स्रोतों का विप्लेषण किया गया जिसमें यह 20 प्रतिषत उत्तरदाता सहकारी बैंक से ऋण प्राप्त करते हैं व 30 प्रतिषत उत्तरदाता क्षेत्रीय ग्रामीण विकास बैंक से ऋण प्राप्त करते हैं इस प्रकार स्पष्ट है कि अपनी अल्पकालीन आवश्यकताओं की पूर्ति के लिए सर्वाधिक उत्तरदाता क्षेत्रीय ग्रामीण बैंक पर अधिक निर्भर रहते हैं।

**तालिका क्रमांक -10 लिये जाने वाले ऋण की मात्रा के आधार पर उत्तरदाता का वर्गीकरण**

प्राप्त ऋण की मात्रा	उत्तरदाताओं की संख्या	प्रतिषत
20,000 से कम	10	20
20,000-40,000	16	32
40,000-80,000	18	36
80,000 से अधिक	06	12
योग	50	100

प्रस्तुत तालिका में लिये गये ऋण की मात्रा के आधार पर उत्तरदाताओं का विप्लेषण किया गया है जिसमें यह ज्ञात हुआ कि 20 हजार से कम ऋण प्राप्त करने वाले 20 प्रतिषत, 20 से 40 हजार ऋण प्राप्त करने वाले उत्तरदाता 32 प्रतिषत, 40 से 80 हजार के बीच ऋण प्राप्त करने वाले उत्तरदाता 36 प्रतिषत तथा 80 हजार से अधिक मात्रा के ऋण प्राप्त करने वाले उत्तरदाता 12 प्रतिषत हैं। तालिका से स्पष्ट है कि ग्रामीण उत्तरदाता अपनी अल्पकालीन आवश्यकताओं की पूर्ति के लिए सर्वाधिक 40 से 80 हजार के बीच ऋण की मात्रा प्राप्त करते हैं।

**तालिका क्रमांक - 11 ऋण अवधि के आधार पर कृषक उत्तरदाताओं का वर्गीकरण**

प्राप्त ऋण की अवधि (वर्षों में)	उत्तरदाताओं की संख्या	प्रतिषत
1-2	10	20
2-5	27	54
5-25	13	26
योग	50	100

प्रस्तुत तालिका में किसानों द्वारा लिए जाने वाले ऋण की अवधि की विप्लेषण किया गया है। 1-2 वर्ष की अवधि के 20 प्रतिषत 2-5 की अवधि 27 प्रतिषत तथा 5-25 वर्ष की दीर्घकालीन अवधि के लिए 54 प्रतिषत किसान ऋण लेते हैं। तालिका विप्लेषण से स्पष्ट है कि अधिक मात्रा में किसान दीर्घकालीन ऋण की ही मांग करते हैं जिनसे कि प्रारंभिक कृषि क्रियाओं को सुचारु रूप से सम्पन्न कर सकें।

तालिका क्रमांक-13 ऋण लेने के उद्देश्यों के आधार पर कृषक उत्तरदाताओं का वर्गीकरण -

ऋण लेने के उद्देश्य	उत्तरदाताओं की संख्या	प्रतिषत
खाद/बीज/दवाईया खरीदने	23	46
नई भूमि खरीदने	07	14
कृषि यंत्र एवं सिंचाई सुविधा के लिए	14	28
सामाजिक कार्य के लिए	06	12
योग	50	100

प्रस्तुत तालिका में उत्तरदाताओं द्वारा लिये जाने वाले ऋण के लिए उद्देश्य का विप्लेषण किया गया जिसमें पाया कि 23 प्रतिषत उत्तरदाता खाद/बीज/दवाईयाँ खरीदने के लिए 7 प्रतिषत उत्तरदाता नई भूमि खरीदने के लिए तथा 14 प्रतिषत कृषि यंत्र एवं सिंचाई सुविधा के लिए एवं 6 प्रतिषत सामाजिक कार्य के लिए ऋण लेते हैं तालिका विप्लेषण से स्पष्ट है कि सर्वाधिक उत्तरदाता द्वारा प्रारम्भिक कृषि कार्यों के लिए अल्पकालीन ऋण लिया जाता है।

तालिका क्रमांक -14 ऋण उपयोग के आधार पर उत्तरदाताओं का वर्गीकरण -

ऋण लेने के उद्देश्य	उत्तरदाताओं की संख्या	प्रतिषत
खाद/बीज/दवाईयाँ खरीदने	21	42
नई भूमि खरीदने	06	12
कृषि यंत्र एवं सिंचाई सुविधा के लिए	16	32
सामाजिक कार्य के लिए	07	14
योग	50	100

प्रस्तुत तालिका में ऋण उपयोग के आधारों पर उत्तरदाताओं का वर्गीकरण किया गया है जिसमें यह पाया कि 42 प्रतिषत उत्तरदाता खाद/बीज/दवाईयाँ खरीदने के लिए ऋण का उपयोग करते हैं एवं 12 प्रतिषत उत्तरदाता नई भूमि खरीदने के लिए तथा कृषि यंत्र एवं सिंचाई सुविधा के लिए 32 प्रतिषत और 14 प्रतिषत उत्तरदाता सामाजिक कार्य के लिए ऋण का उपयोग करते हैं। इसका कारण यह है कि उत्तरदाताओं के पास इतने वित्तीय साधन नहीं हैं कि खाद/बीज/दवाईयाँ पर व्यय कर सकें इसलिए उत्तरदाता सीमित वित्तीय साधन होने के कारण बैंको से ऋण की प्राप्ति करते हैं।

तालिका क्रमांक-15 ऋण प्राप्ति के पूर्व एवं पश्चात वार्षिक आय के आधार पर कृषक उत्तरदाताओं का वर्गीकरण -

वार्षिक आय माह में	ऋण प्राप्ति के पूर्व उत्तरदाताओं की संख्या	प्रतिषत	ऋण प्राप्ति के पश्चात उत्तरदाताओं की संख्या	प्रतिषत
20 से कम	08	16	06	12
20-30	10	20	08	16
30-40	18	36	10	20
40-50	09	18	20	40
50 से अधिक	05	10	06	12
योग	50	100	50	100

प्रस्तुत तालिका में ऋण प्राप्ति के पूर्व एवं ऋण प्राप्ति के पश्चात उत्तरदाताओं की आय का विप्लेषण किया गया है जिसमें यह पाया कि ऋण प्राप्ति के पूर्व 20 हजार से कम आय के 16 प्रतिषत उत्तरदाता 20-30 हजार आय के 20 प्रतिषत 30-40 हजार आय के 36 प्रतिषत व 40-50 हजार आय के 18 प्रतिषत उत्तरदाता तथा 50 हजार से अधिक वाले 10 प्रतिषत उत्तरदाता है। अतः तालिका विप्लेषण से यह स्पष्ट है कि ऋण प्राप्त करने के बाद 20 हजार से कम वाले उत्तरदाता 12 प्रतिषत 20-30 हजार आय के 16 प्रतिषत 30-40 हजार के आय के 20 प्रतिषत व 40-50 हजार आय के 40 प्रतिषत एवं 50 हजार से अधिक आय वाले उत्तरदाता 12 प्रतिषत है।

**तालिका क्रमांक - 16 ऋण प्राप्ति में कठिनाई के आधार पर उत्तरदाताओं का वर्गीकरण**

ऋण प्राप्ति में आने वाली कठिनाई	उत्तरदाताओं की संख्या	प्रतिषत
जटिल कागजी कार्यवाही करना पड़ता है।	13	26
बैंक कर्मचारियों का अपेक्षापूर्ण व्यवहार	16	32
ऋण प्राप्त करने में समय अधिक लगना	21	42
योग	50	100

स्रोत - सर्वेक्षण आधारित -

प्रस्तुत तालिका में संस्थागत ऋण लेने में आने वाली कठिनाई के आधार पर उत्तरदाताओं का विप्लेषण किया गया जिसमें यह पाया गया कि 26 प्रतिषत उत्तरदाताओं जटिल कार्यवाही संबंधित कठिनाई आती है तथा 16 प्रतिषत उत्तरदाताओं को बैंक के कर्मचारियों का अपेक्षापूर्ण व्यवहार एवं 21 प्रतिषत उत्तरदाताओं को ऋण प्राप्त करने में समय अधिक लगने संबंधी कठिनाईयों का सामना पड़ता है। स्पष्ट है कि इन कठिनाईयों से बचने के लिए उत्तरदाता साहूकार से ही ऋण प्राप्त कर लेते हैं।

**तालिका क्रमांक 18 ऋण नहीं चुका पाने के कारणों के आधार पर कृषक उत्तरदाता का वर्गीकरण**

ऋण नहीं चुका पाने के कारण	उत्तरदाताओं की संख्या	प्रतिषत
ब्याज दर अधिक होने के कारण	07	14
प्राकृतिक आपदा के कारण	10	20
आय कम होने के कारण	15	30
अन्य कार्यों में धन खर्च हो जाने के कारण	18	36
योग	50	100

स्रोत - सर्वेक्षण आधारित

प्रस्तुत तालिका में समय पर नहीं चुका पाने के कारणों के आधार पर विप्लेषण किया गया जिसमें यह पाया कि 14 प्रतिषत उत्तरदाता ब्याज दर अधिक होने के कारण 20 प्रतिषत उत्तरदाता प्राकृतिक आपदा के कारण व 30 प्रतिषत आय कम होने के कारण तथा 36 प्रतिषत उत्तरदाता अन्य कार्यों में धन खर्च हो जाने के कारण समय पर ऋण नहीं चुका पाते हैं। तालिका से स्पष्ट है कि उत्तरदाता उपरोक्त अनेक कारणों से समय पर ऋण चुका पाने के असमर्थ रहते हैं।

**निष्कर्ष** - भारतीय अर्थव्यवस्था कृषि पर आधारित अर्थव्यवस्था है। देश की लगभग 68 प्रतिषत जनसंख्या गावों में निवास करती है। कृषि राष्ट्रीय आय का मुख्य स्रोत है स्वतंत्रता के बाद से ग्रामीण अर्थव्यवस्था में व्यापक परिवर्तन हुए हैं। राष्ट्रीय आय में कृषि का हिस्सा कम हो रहा है, जिसका मुख्य कारण कृषि उत्पादन में भारी कमी है व ग्रामीण कृषको में ऋणगृहिता तेजी से बढ़ रही है क्योंकि शासन की योजनाओं का लाभ ग्रामीण क्षेत्र तक नहीं पहुंच पाता है एवं कृषि वित्त के संस्थात्मक स्रोतों का ग्रामीण क्षेत्र में अभाव



पाया जाता है जिसके कारण कृषक वित्त हेतु साहूकारो व महाजनो पर निर्भरत रहते है प्रस्तुत अध्ययन शीर्षक के आधार पर धार जिले की कृक्षी तहसील के कृषको से प्रत्यक्ष रूप से मिलकर जानकारी प्राप्ति की गई है व्यवसाय, उपलब्ध कृषि योग्य भूमि, सिंचाई के साधन, ऋण की स्थिति, ऋण स्रोत, ऋण के प्रकार, ब्याज दर ऋण प्राप्त करने में किसानो को आने वाली समस्या आदि के विप्लेषण से जो निष्कर्ष निकले है वे निम्नलिखित है- पाया कि 23 प्रतिषत उत्तरदाता खाद/बीज/दवाईयाँ खरीदने के लिए 7 प्रतिषत उत्तरदाता नई भूमि खरीदने के लिए तथा 14 प्रतिषत कृषि यंत्र एवं सिंचाई सुविधा के लिए एवं 6 प्रतिषत सामाजिक कार्य के लिए ऋण लेते है तालिका विप्लेषण से स्पष्ट है कि सर्वाधिक उत्तरदाता द्वारा प्रारम्भिक कृषि कार्यों के लिए अल्पकालीन ऋण लिया जाता है। 26 प्रतिषत उत्तरदाताओं जटिल कार्यवाही संबंधित कठिनाई आती है तथा 16 प्रतिषत उत्तरदाताओ को बैंक के कर्मचारियों का अपेक्षापूर्ण व्यवहार एवं 21 प्रतिषत उत्तरदाताओ को ऋण प्राप्त करने में समय अधिक लगने संबंधी कठिनाईयों का सामना पडता है। स्पष्ट है कि इन कठिनाईयों से बचने के लिए उत्तरदाता साहूकार से ही ऋण प्राप्त कर लेते है।

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## Mechanisms of activating the values of citizenship among secondary school students in the Republic of Yemen

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### Abstract:

*The present research aims to identify the mechanisms of activation of the citizenship values among secondary school students in the Republic of Yemen. A number of proposed mechanisms submitted for activating the values of citizenship based on the facts revealed by the research. Some important results were found such as the role of the teacher and the school management. The curriculum and school activities are among the most important mechanisms to activate the value of citizenship in high school. It was found that school is not the only responsible for the activation of citizenship values, but instead the activation of citizenship values is the result of multiple factors. Thus, it cannot be overlooked that the school is not working alone or in isolation, rather the civic society institutions play different roles alongside the greatest influence on the audio-visual and readable media that has a remarkable influence on the development of values and attitudes. Therefore, the researcher strongly recommended the need to set the state for a general strategy, put the outlines for education on the values of citizenship, and to necessitate the inclusion of citizenship values by all relevant authorities (Education, media, political parties, and civil society organizations...) in their programs in the education of individuals and make them aware of it, in order to integrate everyone's efforts without contradiction.*

**Key Words – Mechanisms, Values & Citizenship**

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### 1. Introduction

Citizenship education is that education that allows students to have the opportunity to exercise real responsibilities and the impact on schools and communities. Everything we want is to encourage the citizens of tomorrow (activists and officials) and to support voluntary activities and democracy. The greater number of activities involving the students (such as the Government of students and other school activities) participation increase in community service.

The Republic of Yemen, one of the Arab countries that the recent events have created, political change, and created a state of awareness of rights and freedoms, require a scientific study to know the reality and rationalize what is needed to rationalize, and create mechanisms to activate the values of citizenship in order to cope with what happened for the changes. Leaving such matter without study may lead to a state of extremism, lawlessness and occurrence of the dire consequences. Hence, this is the shortage this study seeks to bridge the gap. By highlighting the reality of what is happening in the education of students on the values of citizenship in secondary schools, and what are the necessary mechanisms to activate the constructive values of



citizenship, which shape a positive citizen, who knows his/her duties and performed willingly without coercion or inaction. He knows what his rights and take them without exceeding the rights of others.

The researcher read several of the studies as a study:

(Al-merhbi, 2013) aimed to identify the concept of patriotism and citizenship and the difference between them. It is an attempt to identify the role played by the family and the school as the most important two institutions in the community represented in the upbringing of children on patriotism and citizenship values. He concluded that results:

1. The family has a big role in raising children on patriotism and citizenship through several means.
2. The school educates children patriotism and citizenship through Children's education are two types of behavior (rights and duties) with everyone in the community.
3. The individual acquires national loyalty through his family first, then school, then from the whole society until the individual feels that he is a part of the whole.

(Al-madkhaly, 2011) aimed to identify the Islamic rooting perspectives for the values of citizenship and the concept of citizenship in contemporary thought, and reveal the challenges and constraints facing the development of the values of citizenship and try to find appropriate solutions that contribute to it. The most paramount that findings: The governmental and private high secondary schools agreed that encouraging students to respect teachers and follow their directives is lead to the development of citizenship values among students in high school and considered as one of the most important elements in developing citizenship values.

(Ghalib, 2011) aimed to provide a clear vision of the concept of citizenship and its characteristics and related concepts. And identifying indicators and the reality of the teacher's role in the development of citizenship through the national education curriculum the Arabic language, Islamic education and sociology. He argued that indicates the weakness of the role of the national education curriculum; Arabic language, Islamic education, and social studies, and the teachers in the development of the concepts of citizenship in all areas of utility. Besides the indicators of teacher's which put him at the intermediate level. Were the most important results.

(Hudson, 2006) contends that globalization poses important challenges and threats which make citizenship education an urgent necessity in the twenty-first century. The most that conclusions: The study found that students had begun to see citizenship education as being use from a global and multicultural perspective, a local perspective, as democratic representation, as participate learning, for developing economic awareness and for challenging racism. In addition, the project had shown its potential to transform relationships within the school so that it was beginning to become a community of practice for citizenship. Significantly, it had affected the young people's sense of identity and promoted their notion of agency.

(Akder, F. et al, 2005) aimed to identify the reality of the foundations and principles of the development of citizenship in school curricula for girls' education through the syllabus of the following subjects specifically: The religious sciences, social studies, and language Arabic, and English. He discussed that: The study found out that courses subject of the study contains an adequate concepts of citizenship, and this means that there is no need for its members to the



syllabus of its own, but there must take all necessary measures to enable the teachers - in all specializations - to develop it through making the concept of citizenship their prior concern and work to achieve it through the use of special strategies in the field of teaching.

The researcher concludes that there is a growing trend indifferent countries around the involvement of educational institutions in the process of preparation for citizenship and social responsibility. The individual is entrusted with the process of change, and therefore, he must be prepared in a systematic way to deal with the social and political variables. The researcher benefited from previous studies determining his study, as well as the researcher's experience in the educational field as a teacher in the Ministry of Education and then as a faculty member at the university.

The research problem crystallizes in the next two questions follows:

1. What are the mechanisms of activating the values of citizenship among secondary school students in the Republic of Yemen?
2. What is the perception proposed to activate the mechanisms of citizenship values among secondary school students in Yemen?

## 2. Objectives of the research

1. To recognize the mechanisms of activating citizenship values among secondary school students in the Republic of Yemen.
2. To set a proposed perception to activate the mechanisms of citizenship values among secondary school students in the Republic of Yemen.

## 3. Importance of the research

The values of citizenship gained importance among high school students, currently at the beginning of the third millennium which witnessed political, economic and social challenges, is due to immunize youth with loyalty, belonging and patriotism values, for facing monstrosity processes and distortion due to media campaigns aimed for globalization promotion. This requires an active educational role of the school and contributes to national political socialization on the values and principles of civic education.

## 4. Research Methodology

The descriptive approach was used in conducting the present research. A number of books, e-books, journals, as well as studies available in the literature, were used as resources for this research.

## 5. The Mechanisms of activating the values of citizenship:

In the context of talking about the mechanisms of activating citizenship, suggestions of open visions become general and theoretical unless its features are covered by specific institutional mechanisms. And by virtue of the importance of education and directly related ways of forming figures young people and cultural and political socialization, including making it a melting pot of different diversities and affiliations on the floor of citizenship, because of the large responsibilities entrusted to education in this regard, and attachment to the state policy of hopes on education in the consecration of national practices, the vision proposed is based on the responsibility of education in promoting citizenship. There must be an alternative educational formula that is capable of building a qualified human for positive and effective coexistence in

this society, that is the human as a citizen (indeed) and is not a citizen (by force) (Kassem, 2008, p 87). real guarantees for the peaceful and national practice does not lie in those prospects that define Landmarks of the social and cultural space only, but is also in comprehending the true values of citizenship by the members of the community since childhood, and the training in practicing it in various institutions and educational media according to the nature of phase experienced by the individual, and then comes the subtraction for proposed vision for the role and responsibility of education in promoting the principle of citizenship depending on a range of topics that make up the system of education and learning with its various components as follows:

### 5.1. The school

The school education on the values of citizenship must be based on the reality of the school itself, through projects carried out in schools, such as service to others, the collection of papers and empty cans from the yard of school, helping a friend to talk with adults, and donation cans food for the needy, and drawing packages wishes go out to neighbour patient, where students learn confidence in themselves, social responsibility, ethical behaviour, and social planning, in order to become more capable and more helpful in the projects of life, and respect their neighbours and the community, and train them to confront problems, and how to be good citizens, and more influential in public life and society (Sa'ad, 2004, p 90).

And to strengthen the values of citizenship in schools, it must be experienced by people in their homes and places of work, in the classroom, and in the media, and in all dealings and local government, on the other hand, strengthening of the values of citizenship comes through teaching examples of our lives, if we do not respect our cultural heritage and do not support the values of constants, especially through the media that we control, we cannot expect young people to respect them (Makrom, 2005, p 154).

***“Whether it is the most important agency is also a controversial point. But the school can safely be regarded as one of the prominent agencies and the teacher as the transmission agent in the cultivation of the values of good citizenship” (V.S.Joshi, 1977, p22).***

For the school, in order to achieve its positive role in devoting the concepts of citizenship and the values of loyalty and belonging to the homeland, the following aspects must be considered:

A- Transforming the life of the school into a model of democratic applications where learners practice their role in its management and putting its policies and practicing the values and skills of democracy that the community is trying to achieve for them in their future life.

B- Linking the school with outside community through social service program or through education with service, so as to bridge the gap suffered by education and that is considering theory at the expense of the application.

C- Achieving the objectives of citizenship education through the use of all capabilities, teaching aids and classroom educational activities and extra-curricular activities that can be practiced inside and outside the school walls.

### 5.2. The teacher

There is no doubt that the teacher is the back bone of the educational process, and the democratic practices and teacher's standing in the classroom has many positive effects. and the





reality of educational studies, has discussed that teachers are characterized by the average level of the belief in freedom, (freedom of thought and expression and political participation) and the reluctance of teachers to aware the students with the problems of their state, any absence of the political role of the teacher, and that there is a reduction of the value of dialogue between the teacher and the student, and how to deal with each other, mostly promotes the approval and does not encourage the independence of student opinion and expressing himself, and that the relationship is an authoritarian one, the teacher deals with students not as animate human dynamic actor but as objects, such as this matter is considered a tool for the formulation of individuals with a certain style and passive, incapable of initiative and creativity (Balrashid, 2011, p 10). Society authoritarian, as indicated by the results of some studies produce teachers mettle authoritarianism and the teacher's authoritarian contribute to the production of students with authority also (Alsorti, 2009, p 9).

And the teacher plays a big role in the success or failure of citizenship education, but the success of the teacher depends on many factors, including the process of preparing to be a good citizen, conveys that sense of including knowledge, values, and skills to students through two routes: The official curriculum (apparent) or through hidden curriculum (hidden). and preparing a teacher depends on the nature of their education used to present citizenship education in the school in terms of being a separate article, or included in all school curriculum (introduction across the curriculum), or through the school as a whole as a comprehensive; therefore there are two forms of preparations: preparing a specialist teacher, and preparing a general teacher. A specialist teacher is a teacher, that is prepared to teach only materials of citizenship education, civic or social studies, which includes most of the dimensions of citizenship, while the general teacher is to study a particular substance, but because the values of citizenship and skills included in the article, he must be given a course on how to develop citizenship through the article, and the appropriate methods to achieve this (Al-Maamari, 2004, p 33).

See (Khadr, 2000, p 243) that the teacher must include the following:

A- To translate his positive experiences to the actual practices in different educational situations, so as to be able to give his students the desired values, and that his behaviour should conform to his ideas which he teaches the students, supports it, and encourages pupils to consider it, facilitating the right climate for his students such as freedom of opinion, and respect the opinion of others, positive criticism, and constructive dialogue, all of which emphasize concepts of democracy, and is considered one of the most important values that contribute to the interdependence of members of the group, and emphasizes their affiliation.

B- To have a positive and effective role in the process of societal and political socialization of the students - as one of the objectives of the school - such as being an active member in the election processes, and school groups, so that through these and other activities, he can direct the process of social interaction and the positive, urging on the values of the collective, cooperative and compliance with regulations, laws, and regulations, and develop in students qualities of independence, individuality, leadership, mastery and works to raise the spirit of the group. The teacher should also keep his students away from bullying, love of control, selfishness, individualism, subservience, and docile, and other negative values, which waste the possibilities

of the group, and through this, the teacher develops in his students a love of the group to which they belong, and loyalty to that group, and in all of this, a teacher an example and a model to be followed.

(Quoted by Wang et al. 2006, p.52) underlined that teacher is required to be patriotic in order to be effective in delivering CE. This assumption is echoed by some political leaders, (such as Goh Chok Tong in 1996), at that time the Prime Minister of Singapore, who spoke at a teachers' day rally saying: "National education cannot be instilled in our students unless it is first instilled in the teachers. Teachers must feel passionate about the country before they can teach with conviction".

C- To urge students on certain values through method of teaching and while explaining and elaborating the ideas contained in the lesson content, and also through school activities as an area more broadly to develop and clarify these values, and the most important values and trends that can be emphasized, and that will contribute to the development of nationalization and what associates with it as values - a concept and behaviour.

### 5.3. The curriculum

*"Curriculum has two functions, it provides a mirror in which students see themselves, but it also provides a window through which students see others."* Character and citizenship education is not a separate subject to be taught in isolation. Rather, it integrates guiding principles into the existing curriculum, and into daily experiences and interactions. Social studies have frequently been described as the traditional 'home' of citizenship education (Alberta Education Cataloguing in Publication Data, 2005, p 44).

To activate the role of curricula in the development and promotion of the values of citizenship, the following proposals must be considered:

A- Adding courses in general education whose content develops by the development of students' maturity, focus on providing them given values that has its effective role in self-fulfilment and to contribute to the development of society and maintain the cohesion and commitment to laws and regulations, concepts and meanings associated with citizenship: The meaning of the political role assigned to the citizen - and fuelling the collective spirit - and a commitment to community standards and regulations - and supports a sense of belonging - and the concepts of equality and freedom controls.

B- Courses and especially those concerned with social studies, should consider, texts, reading, expression, by giving the pupils the national identity and its association with homeland our land, history and human beings, and evoke in it feelings of pride, and belonging to his faith and his country, and responsibility toward religion, society and the state.

C- It is preferable that Some courses include questions which raise many discussions about the problems of the nation and its issues, the teacher provides an opportunity for these discussions and good management and directs the students to resort to the values (loyalty - collective - Commitment - compassion - democracy).

The National Curriculum also makes it clear that all National Curriculum subjects provide opportunities to promote pupils' spiritual, moral, social and cultural development. Pupils' social development involves 'pupils acquiring an understanding of the responsibilities and rights of



being members of families and communities (local, national and global), and an ability to relate to others and to work with others for the common good. They display a sense of belonging and an increasing willingness to participate. They develop the knowledge, skills, understanding, qualities and attitudes they need to make an active contribution to the democratic process in each of their communities.' Pupils' cultural development involves 'pupils acquiring an understanding of cultural traditions and an ability to appreciate and respond to a variety of aesthetic experiences. They acquire a respect for their own culture and that of others, an interest in others' ways of doing things and curiosity about differences. They develop the knowledge, skills, understanding, qualities and attitudes they need to understand, appreciate and contribute to culture (Eurydice, 2004, P 7).

#### 5.4. School climate

*"There is increasing recognition that the ethos, organization, structures and daily practices of schools, including whole- school activities and assemblies have a significant impact on the effectiveness of citizenship education. Through such climate and practices schools provide implicit and explicit messages, which can have a considerable influence, both positive and negative, on pupils' learning and development. Schools need to consider how far their ethos, organization, and daily practices are consistent with the aim and purpose of citizenship education and affirm and extend the development of pupils into active citizens"*(Ibid, p8).

A- The school climate should be positive and allows a degree of social interaction through the confirmation of trust between the older generation and the officials and among students at the executive level to grow the feelings of love between all parties to the educational process where the feelings of pride and pride in the school as a small community grow and then the large community.

B- School climate should be dominated by the spirit of cooperation, harmony and collectively, and where everyone realizes that he has an active role within the institution.

C- The school climate provides positive opportunities to support the national culture and appreciating or praising it and stick to its content without locking or rejecting the product of cognitive development.

D- The culture of silence and indoctrination should be changed- in the style of dealing with the school - to a dialogue style in which the student achieves himself and is based on freedom of opinion and emphasizes dialogue, discussion and positive and constructive criticism among students and teachers.

E- School climate should satisfy the student's needs of the knowledge and skills, as well as their emotional and behavioural needs, and the adults become model for the young, and that reflects the problems of society and its issues locally and globally, and to discuss these issues in an atmosphere of love and proper guidance.

#### 5.5. School activities

Activities of the school can lead a major role in improving national learning and citizenship and to lead this role to the fullest, there must be a conscious consideration to the following:

A- Attention must be given to school activities, within and outside the school, to contribute to its effective role in the translation of abstract concepts through training and different practices of behaviors and performances of life, and develop the ability of students to scientific thinking, teamwork, and self-learning.

B- Diversification programs of school activities to include educational, social, cultural, environmental, scout and tourism programs.

C- The school's cultural and social activities should focus on giving students political concepts such as vote, election, nomination, advertising, and focus on programs that encourage mass participation and cooperation.

D- Holding school seminars and meetings, where senior officials from various specialized areas are invited, especially me of religious mission and intellects, to discuss the students in state issues.

E- The exploitation of physical and sporting activities in the development of knowledge and skills that enable students to develop social abilities such as teamwork, solidarity, tolerance, and the spirit of sport (Orabi, 2009, p 16).

### **5.6. Methods of teaching**

The school, in order to succeed in improving learning nationalization and citizenship, the following should be considered in the teaching methods:

A- It is Preferable that a method of teaching to be complete and integrated; because the partial fragmented method distances between ideas, and detract from the value of the knowledge, it has become complete without the vision and the real perception for the content of subject , and thus may contribute to the distortion of awareness and counterfeiting of students; it often has separate facts from social reality and its problems and issues for students.

B- The need to focus on displaying ideas and information about nationalization and citizenship in an interactive and interesting manner, that motivates students to think and reflect on the issues and to invite them to a constructive dialogue to discuss their views and perceptions about their society and urges them to enrichment readings that increase their knowledge and connects them constantly with the various sources of knowledge.

C- Diversification of learning styles of National Education to include: training programs, workshops for brainstorming and awareness and field visits, there must be a real concentration for the field visits; because the education of nationalization and citizenship cannot be achieved in an authentic way except in the practical situations and through the school's relationship with the various organizations of civil community and the external environment.

## **6. The proposed mechanisms to activate the values of citizenship among secondary school students in the Republic of Yemen**

### **6.1. The teacher**

1. Teach his students the rights and duties of citizenship.
2. Train his students on democratic dialogue and participation methods.
3. Develop their responsibility and the spirit of volunteering.

4. Develop their values of patriotism pride and loyalty to the homeland.
5. Train his students to develop political awareness and encourage them for political participation.
6. Develop their spirit of teamwork and collaborative work.
7. Develop their tolerance spirit and respect others' opinions.

#### 6.2. The School Administration

1. Promote the spirit of teamwork and cooperation at the school environment among teachers, staff, and students.
2. Encourage the democratic climate in the school.
3. Provide opportunities to students to express their views freely and without fear.
4. Exploit current and various events for development and activation of the values of citizenship.
5. Support the work of the school parliament and activate its performances.

#### 6.3. School curricula

1. Support the values of giving and taking, and the rights and duties.
2. Develop loyalty and belonging to the homeland with all its symbols.
3. Contribute to the development of political awareness and participation among students.
4. Emphasize the concepts of justice, freedom, equality, tolerance and acceptance of others.
5. Emphasize the constructive and purposeful criticism.
6. Support the art of dialogue and differences, and the opinion and the other opinion.
7. Support the Yamani society values, its customs, traditions, and its good manners.

#### 6.4. The school open activities - The high school sponsors educational and social projects, and by which promote the values of citizenship, such as:

- Collective cooperative work.
- Loyalty and belonging to the community.
- The practicing of democracy behaviors
- Tolerance, broad-mindedness and acceptance of others.
- Participation and teamwork.
- Entrench of peace culture.

#### 7. Conclusion:

Based on what has been discussed earlier, a certain number of conclusions can be drawn and pointed as follows:

1. The role of the teacher in the activation and development of the values of citizenship is fundamental without other school staff. It goes in line with most of the studies as Crick's report (1998) which confirmed that the subject of citizenship must be left for teachers.
2. A way of school management, the type of school activity, and the role of the teacher in the classroom are the best ways to activate and strengthen the values of citizenship. It expresses appropriate behavior and values that generations should follow, notably the values of citizenship.



3. The activation and development of citizenship values are not limited to a specific type of knowledge, rather it can be developed through all subjects whether natural or humanitarian, and the curriculum seeks to activate the responsibilities of citizenship through word and action, and through its responsibility of practicing the values of citizenship, and understanding its issues and awareness.
4. The school activities, during its practice, help for dialogues and interactions among students, and between them and their teachers. It also contributes to the education of habits and moral practices as justice, tolerance and freedom of opinion and respect for others and to accept it as a necessity of civilized life.
5. The activation of citizenship values is not the responsibility of the school alone, and thus the instill and activation of the values of citizenship is the result of multiple factors play different roles in this process, and it cannot be overlooked that the school is not working alone or in isolation from the others, thus the civil society institutions play different roles alongside the biggest influence on the audio-visual and readable media, all of these leave marks on the development of values and attitudes in general.

#### 8. Recommendations-

In the light of the research objectives and its findings, the researcher recommends the following:

- 1) Rehabilitate and train the teacher, so that he can transform the concepts of citizenship from its theoretical knowledge to its practical part because the teacher is the most capable person as of his scientific position, and typical model as of his social status.
- 2) The need to set the state for a general strategy, putting the outlines for education on the values of citizenship, and to require all relevant authorities (Education, media, political parties, and civil society organizations ...) to include it in their programs in the education of individuals and make them aware of it, in order to integrate everyone's efforts without contradiction.
- 3) Accustoming students to practice citizenship skills at an early age, inside and outside the school, where it is considered as an environment for practicing the roles of citizenship, particularly among secondary school students because they are in an important age stage. Due to the proximity of their full political participation in public life, after approaching their physical, psychological, social and political maturity.
- 4) The school should be a safe place in which students feel the sense of belonging and acceptance, treated with respect in which they feel comfortable. Also, they should be involved in the various topics and issues and ideas. For the formation of this culture, the school needs to embody democratic values for its students and encourage them to contribute in decision-making, so they can feel proud of their school and community.
- 5) Citizenship must become an integral and vital part of the curriculum as a right for all students among their own rights. It also must take a formal and systematic form, especially within the high school.



## 9. References-

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## Expenditure on Public Health and Health Status in Himachal Pradesh

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### Abstract

Health is an important factor in the formation of human development which plays a vital role in improving the qualities of human beings who are the active agents of economic development. Improvement in health promotes learning, reduce absenteeism, improve stamina and increase output. A better health would contribute in increasing the status of the community which leads to the expansion of production. Therefore, a healthy population is an engine for economic growth. The aim of the present study is to analyze the relationship between health status and public health expenditure in Himachal Pradesh. It is observed that Infant Mortality Rate and Beds per '000 of population significantly affect the per capita public health expenditure negatively in the Himachal Pradesh.

**Keywords:** Health, Expenditure, Development, Growth, Public, Himachal Pradesh, Per Capita, Relationship

### 1.1 Introduction

Development is a multi-dimensional phenomenon. It is described in so many ways by different people. Some of the economists measure it by the level of per capita income, while others measure it by the level of economic welfare of the society. Welfare of the society, apart from the per capita income also includes the level of poverty, unemployment, distribution of income, long and healthy life etc. It is argued that development is not only the growth in income, wealth or consumption but also the expansion of human capabilities such as improved health, knowledge and skills.

Health is man's greatest possession. For socio-economic development, nothing can be considered of higher significance than the health of the people. Health as defined by World Health Organization (WHO) is a "state of physical, mental and social well-being and not merely the absence of disease or infirmity". Health is dynamic condition resulting from a body's constant adjustment and adaptation in response to stresses and changes in the environment for maintaining an inner equilibrium. According to Amartya Sen, health contributes to a person's basic capability to function, to choose the life he/she has reason to value (Sen, 1985).

Health is an important factor in the formation of human development which plays a vital role in improving the qualities of human beings who are the active agents of economic development. Improvement in health promotes learning, reduce absenteeism, improve stamina and increase output. A better health would contribute in increasing the status of the community which leads to the expansion of production. Therefore, a healthy population is an engine for economic growth. Health of an individual not only depends on himself, but it also depends on households, hospitals, community, medical institutions, government's policies and other various agencies. Both individual and other factors act independently and jointly. In other words, the health process may be considered an interaction of the individual with surrounding institutions and environment.

The health system in Himachal Pradesh consists both of public sector and private sector. The public sector system comprises of the health system created, run and maintained by the state

governments. In the private sector, health care expenditure is made by households, voluntary organizations, and non-government organizations.

Since, health is a state subject; the implementation aspect is the responsibility of states. But for one reason or the other they were not able to cope with the demand for health services. At the time of statehood in 1971, the status of public health was low as shown by high rates of infant mortality rate, high birth rate, high death rate, low life expectancy etc. It reflected the general state of social sector and underlined low literacy rate and high level of poverty subjected to hunger and malnutrition, indicating poor quality of human existence.

Health care in Himachal Pradesh is financed primarily by state through government expenditure on health which includes expenditure made on medical, public health and family welfare. Public health expenditure and investment in the Himachal Pradesh had increased substantially since its existence but, this has not been enough to secure a minimum decent standard of healthcare service in the state.

### **1.2 Methodology**

The impact of development and changes in the health sector are quite divergent and unsatisfactory in Himachal Pradesh, in spite of the fact that public expenditure on health services increased continuously. More than 8.00% of the state population still lives below the poverty line which, remains deprived of two times-meals a day and safe drinking water and suffers from malnutrition. All such curses lead to infectious diseases and, therefore, to poor health. Keeping these facts in mind, present study is conducted to evaluate the health status and public health expenditure in Himachal Pradesh.

The aim of the present study is to analyze the relationship between health status and public health expenditure in Himachal Pradesh. It covers the time period from 2001-02 to 2013-14 (i.e. 13 years). The analysis is based on secondary data which is obtained from the various reports, and publications of Government of Himachal Pradesh (India), Economic surveys and budget documents of Himachal Pradesh (India), Reports of Various Finance Commission of India, Census of India, Registrar General of India, Various Publications of Ministry of Health and Family Welfare Reports, Human Development Reports and National Accounts Statistics, Government of India. Due to availability of population related data for census years only; the projected population related data has been used.

### **1.3 Variables Selected**

The under-mentioned six variables were used in the study for various types of analysis for which the study was undertaken:

1. Infant Mortality Rate (IMR)
2. Hospitals per '000 of population
3. Beds per '000 of population
4. Birth Rate (BR)
5. Death Rate (DR)
6. Per capita public health expenditure (PCHE)

In order to carry- out the analysis following statistical tools and techniques are used. Firstly, to study the growth and structure of different items of public health expenditure in the state the exponential growth rates are calculated with the help of following equation:-

$$Y^t = a b^x$$

Where; a is constant, b is regression coefficient, x is time.

Secondly, Simple regression analysis has been applied to determine the relative contribution of different explanatory variables on dependent variable. The results of simple regression between health indicators as dependent variable and per capita public health expenditure (PCHE) as independent variable are calculated for the given time period. Further, a multiple regression is used study the impact of various explanatory variables on per capita health expenditure in Himachal Pradesh.

#### 1.4 Growth of Expenditure on Health and Family Welfare in Himachal Pradesh

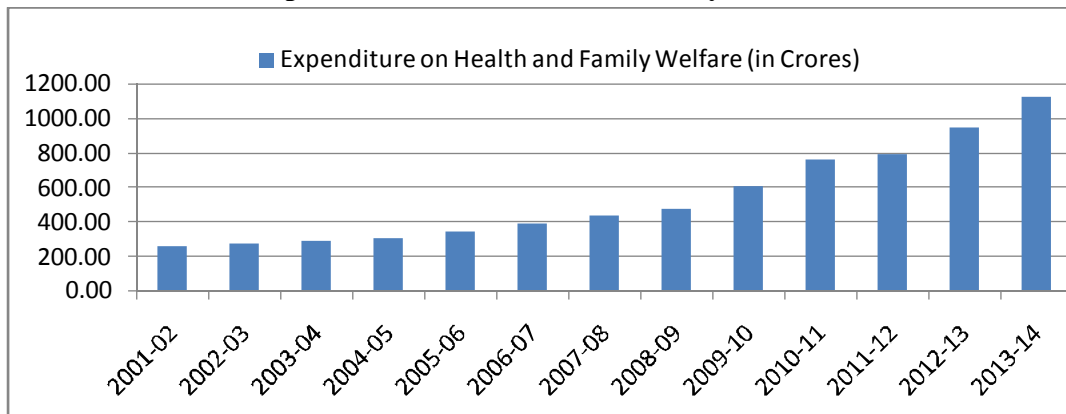
Expenditure on health and family welfare in Himachal Pradesh recorded a marked increase during the period 2001-02 to 2013-14 (Table 1.1). Total expenditure of the state on health and family welfare stood at ₹259.51 Crores during 2001-02 and increase to ₹1126.68 Crores in 2013-14. Similarly, per capita expenditure on health and family welfare also increased from ₹ 462.98 to ₹ 1604.09 from 2001-02 to 2013-14. Exponential growth rates revealed the fact that both expenditure on health and family welfare and per capita expenditure on health and family welfare increased at higher rates i.e. 12.62 per cent and 11.41 per cent respectively (Figure 1.1 and 1.2).

**Table 1.1**  
**Expenditure on Health and Family Welfare in Himachal Pradesh**

Year	Expenditure on Health and Family Welfare (in Crores)	Per Capita Expenditure on Health and Family Welfare (in Rs.)
2001-02	259.51	426.98
2002-03	277.64	451.33
2003-04	295.70	474.93
2004-05	311.15	493.75
2005-06	344.84	540.67
2006-07	397.46	615.69
2007-08	437.70	669.91
2008-09	482.46	729.57
2009-10	609.68	910.90
2010-11	763.00	1126.31
2011-12	797.30	1162.83
2012-13	951.68.58	1371.37
2013-14	1126.68.49	1604.09

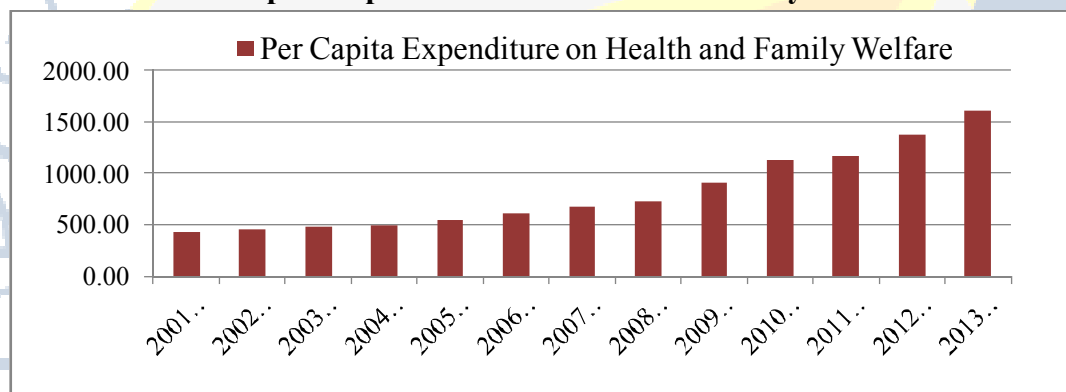
Source: Calculated from Annual Financial Statements (Budget) Finance Department, H.P

**Figure 1.1**  
**Expenditure on Health and Family Welfare**



Source: Calculated from Annual Financial Statements (Budget) Finance Department, H.P.

**Figure 1.2**  
**Per Capita Expenditure on Health and Family Welfare**



Source: Calculated from Annual Financial Statements (Budget) Finance Department, H.P.

### 1.5 Results and Conclusions

The results of simple regression between health status indicators as dependent variable and per capita public health expenditure (PCHE) as independent variable from 2001-02 to 2013-14 are given in table 1.2.

From the table 1.2 it is observed that the variables birth rate (BR), infant mortality rate (IMR), and Bedsper `000 of population (BED) were individually found to be negatively significantly influencing Per Capita Health Expenditure (PCHE) in the states. Birth rate is negatively related to PCHE which means an increase in PCHE, birth rate is bound to decrease. It is a good indicator as public becomes aware of importance of family planning and there is significant change in the ideology of the state's people. Hospitals, is positively related to PCHE which means an increase in PCHE is bound to increase Hospitals per `000 of population. The effect of Death rate (DR) turned out to be negative but non-significant.

**Table 1.2**

**Effect of Per Capita Expenditure on Health on Health Status in Himachal Pradesh**

Simple Regression Results						
Independent Variable: Per Capita Expenditure on Health and Family Welfare						
Dependent Variables	Constant	Regression Coefficient	R Square	F- Ratio	T- Value	Significance
BR	1.01E-13	-0.88	0.774	30.879	-5.557	0.00*
DR	1.01E-13	-0.503	0.253	3.054	-1.748	0.114**
IMR	-1.00E-13	-0.977	0.955	191.97	-13.855	0.00*
HOS	1.07E-13	0.877	0.769	29.925	5.47	0.00*
BED	1.02E-13	-0.932	0.869	59.45	-7.71	0.00*

Note: Result calculated by using SPSS Software.  
\*= 1 % level of significance, \*\*\*= Not found significant

**Table 1.3**

**Determinants of Per Capita Expenditure on Health in Himachal Pradesh**

Result of Multiple Regression					
Dependent Variable: Per Capita Expenditure on Health and Family Welfare					
Variable	Unstandardized Coefficients		Standardized Coefficients	T- value	Significance
	B	Std. Error			
(Constant)	2.10053E-16	0.041283		5.09E-15	1
Zscore(BR)	-0.0666148	0.0910228	-0.0666148	-0.73185	0.497***
Zscore(DR)	-0.0431662	0.060635	-0.0431662	-0.7119	0.508***
Zscore(IMR)	-0.5689924	0.1617488	-0.5689924	-3.51775	0.017**
Zscore(HOS)	0.0576152	0.130018	0.0576152	0.44313	0.676***
Zscore(BED)	-0.3258326	0.094093	-0.3258326	-3.46285	0.018**
R square:		0.991	F Ratio:		105.68
Ad. R Square:		0.981	Significance:		0.00

Note: Result calculated by using SPSS Software.  
\*\*= 5 % level of significance, \*\*\*= Not found significant

A multiple regression model has fitted to show the behaviour per capita public health expenditure (PCHE), as a function of health status indicators (Table 1.3).

The Formula used is;

$$Y = a + b_1 X_1 + b_2 X_2 + b_3 X_3 + b_4 X_4 + b_5 X_5$$

Where,

Y = Per capita public health expenditure (Dependent variable)

a = constant

$X_1$  = Birth Rate (Independent variable)

$X_2$  = Death Rate (independent variable)

$X_3$  = Infant Mortality Rate (independent variable)

$X_4$  = Hospitals per '000 of population(independent variable)

$X_5$  = Bedsper '000 of population(independent variable)

$b_1, b_2, b_3, b_4$  and  $b_5$  = Regression coefficients of respective independent variables.

All of the variables taken together have significantly predicted Per capita public health expenditure where F statistic is equal to 105.68;  $R^2$  is 0.991 and p-value stood at zero (significant at 1 per cent level). The value of coefficient of determination ( $R^2$ ) is 0.991 which shows that there is 99.10 per cent variance in per capita public health expenditure happens due to birth rate, death rate, infant mortality rate, hospitals per '000 of population and bedsper '000 of population.

It is observed that Infant Mortality Rate( $X_3$ ) and Bedsper '000 of population ( $X_5$ ) significantly affect the per capita public health expenditure negatively in the Himachal Pradesh. Meaning thereby, with one unit increase in variance of Infant Mortality Rate and Bedsper '000 of population there was 0.569 and 0.326 units decrease in the variance of per capita public health expenditure respectively. It is also observed that Birth Rate, Death Rate and Hospitals per '000 of population have no significant impact on per capita public health expenditure in Himachal Pradesh.

Over the last few years Himachal Pradesh has built up health infrastructure and manpower in government and private sectors and has made considerable progress in improving the health of its population. On the basis of the examination of theoretical issues and experience regarding health sector development in the state some policy implication and suggestion can be made. As health indicators are significantly related to per capita public health expenditure, to improve the health status state government must increase its expenditure on health sector. Further it was found that health services in the state are relatively more accessible in urban areas as compared to their counterparts in rural areas, so there is need to concentrate on health policies in rural areas. It is also suggested that emphasis should be made on increasing the literacy rate among the masses as education plays an important role in determining the health status of population. Various studies found out that infant mortality falls both in areas as the literacy and formal education level of the mother increases. Therefore, health education should become an integral part of all general education and should receive adequate emphasis.

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## महात्मा गांधीजी आणि स्त्री उन्नती

प्रा. सौ. अरुणा मोरे  
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संपूर्ण भारतात 19 व्या शतकाच्या उत्तरार्धात स्त्री सुधारणा चळवळी हया वेगाने आकार होऊ लागल्या होत्या. विसाव्या शतकाच्या सुरवातीस हया सामाजिक सुधारणा चळवळी अधिक वेगवान व्हायला पाहिजे होत्या. परंतु चित्र वेगळेच दिसते. कारण या काळात पारतंत्र्याच्या जाणीवा अधिक विकसीत होत गेल्या. त्यामुळे विसाव्या शतकाच्या पहिल्या दोन दशकात टिळकांच्या जहाल राजकारणात स्त्रियांच्या कर्तृत्वाला फारसा वाव नव्हताच. स्त्री सुधारणाबाबत टिळक फारसे प्रागतिक नव्हतेच स्त्रीला आपल्या शक्तीची खरी जाणीव तोपर्यंत झालेली नव्हती. त्यामुळे त्या काळातील कार्यशील तरुण हे एकांडे शिलेदार असत. सुधारणावादी पुरुषांपैकी फुले पतीपत्नी तसेच रानडे पती पत्नीचा अपवाद वगळता कुणाच्याही पत्नीने पतीच्या कार्यात भाग घेतलेला दिसत नाही.

स्त्रियांमधील सुप्त शक्ती ओळखून तिला आवाहन करणारे पहिले महात्मा म्हणजे गांधीजी होत. त्यांच्या कार्याचा परिणाम पुरुषांइतकाच स्त्रियांवरही झाला. गांधीजींच्या तत्वज्ञानात शारिरीक बळापेक्षा आत्मीक शक्तीला अधिक महत्व होते. स्त्रियांना हे मानवण्यासारखे असल्याने गांधीजींच्या कार्यात स्त्रिया मोठया संख्येने सहभागी झाल्या. 1930 पासुनची स्त्रियांची एक पिढी या कार्याने भारलेली व त्याकडे ओढली गेलेली होती.

गांधीजीचे स्त्री विषयक विचार हे अत्यंत प्रागतिक स्वरूपाचे होते. भारतीय समाजातील स्त्री ही असहाय्य आहे. याची त्यांना जाणीव होती. रूढी आणि परंपरेने चालत आलेली स्त्री ची प्रतिमा बदलण्यासाठी या रूढी परंपरेत सुधारणा करावी या मताचे ते होते. काही महत्वाच्या अनिष्ट रूढीबाबत गांधीजीचे विचार पुढील प्रमाणे होते.

1) हुंडा- त्यांच्या मते हुंडापध्दती ही स्त्रीचा अपमान करणारी तिला गौण ठरवणारी पध्दत आहे. माणूस म्हणून स्त्रीचे मूल्य कमी करणारी अशी पध्दत आहे. हुंड्यांची पध्दत बंद व्हायला हवी. लग्नाला सौंदर्याचे स्वरूप येऊ नये. हुंडा पध्दती नष्ट करण्यासंबंधी ते लिहितात- मुलामुलींचे निवडीचे क्षेत्र जोवर जातींनी मर्यादित राहिल तोवर कितीही आरडाओरड केला तरी हुंड्यांची प्रथा टिकणारच. ती बंद व्हायची असेल तर मुलामुलींना आणि त्यांच्या माता पित्यांना ही जाती बंधने झुगारून द्यावी लागतील. मुलांना त्यांची पारंपारीक मनोरचना आमूलाग्र बदलेल असे शिक्षण दिले तरच हुंडा विरोधी आंदोलन होईल. जो तरुण हुंड्याच्या पापमय पैशाचा स्विकार करेल त्यावर बहिष्कार टाकण्याचे आवाहन समाजाला ते करतात. मुलींच्या माता पित्यांना संदेश देताना ते म्हणतात 'तुम्ही इंग्रजी पदव्यांचा मोह सोडलात तर ही प्रथा बंद नष्ट होणारी आहे' (1)

2) बालविवाह - बालविवाहाच्या पध्दतीचा ते निषेध करतात. जरठ बाला विवाहामुळे या काळात बालविधवांचे प्रमाण वाढत होते. सक्तीच्या वैधव्यापेक्षा विधवाविवाहाचा ते पुरस्कार करतात. सर्व व्यापक आणि उदात्त अशा हिंदु संस्कृतीने स्त्रियांना एवढा कनिष्ठ दर्जा द्यावा हे त्या संस्कृतीला शोभत नाही असे म्हणतात.



3) सती – हुंडा बालविवाहाप्रमाणेच अस्तित्वात असलेल्या सतीच्या प्रथेवर ते टिका करतात. ते म्हणतात सतीत्वाची भावना उच्च आहे. पवित्र आहे. पण त्यात विवेक नाही. स्त्रियांना ते म्हणतात – तुम्हाला जर यथार्थ सहगमन करावयाचे असेल तर तुम्ही आपले उर्वरीत जीवन पतीच्या अपु-या राहिलेल्या कार्याला अर्पण करा. तरच त्याची सहयात्रिणी होण्याचे श्रेय तुम्हाला मिळेल. सुखोपभोगाच्या सर्व साधनांचा त्याग करून अपरिग्रही होऊन प्रसादमय संन्याशाचा नवा आदर्श निर्माण करण्याचा संदेश ते भगिनींना करीत (2) गांधीजींनी अहिंसा, ब्रम्हचर्याच्या शिकवणीने स्त्रियांना अभयदान दिले. अबला म्हणवून घेणा-या स्त्रीला पुरुषार्थाचाच संदेश ते देतात. स्त्रीचे जीवन नव्या स्फूर्तीने आशा आकांक्षानी सजीव करण्याचा प्रयत्न त्यांनी केला. म्हणूनच विधवा विवाहाबदलची त्यांची मते स्त्रियांबदलच्या सुधारकी दृष्टीकोनाचे प्रतिक आहेत.

विधवा विवाह – सक्तीचे वैधव्य हा स्त्रीवर केलेला मोठा अन्याय आहे. ह्या वैधव्याने इतर अनेक सामाजिक प्रश्न निर्माण होतात. समाजाची नितीमत्ता घसरते. विधवा विवाहाला संमती न देणे आपल्या मनाच्या संकुचितपणाचे लक्षण आहे. भारतीय संस्कृती उदात्त आहे. त्यात हा संकुचितपणा बसत नाही. गांधीचा विधवांना असा सल्ला होता की हिंदू लोकमताला न भिता त्यांनी पुर्नविवाह करावा. (3)

स्त्रियांच्या संदर्भातील रूढी आणि परंपरांवर टीका करताना पुरुषप्रधानतेवरही ते हल्ला करतात ते म्हणतात, स्त्रियांकरिता जे नियम निव्वळ पुरुषांनी बनविलेले आहेत त्यामुळे निर्माण झालेल्या रूढी आणि नियम यांनी स्त्रियांवर जुलूमच चालविला आहे. निव्वळ रूढींमुळे महामूर्ख पुरुष सुध्दा स्त्रियांपेक्षा श्रेष्ठ समजला जातो. स्त्री ही केवळ स्त्री आहे. या लिंगभेदामुळे तिला गौणत्व प्राप्त होता कामा नये. स्त्रीलाही पुरुषांच्या बरोबरीने हक्क अधिकार स्वातंत्र्य मिळाले पाहिजे. स्त्रियांच्या मागासलेपणामुळे आमच्या अनेक चळवळी अडून बसतात. त्यामुळे आमच्या पदरात हवे तेवढे यरा पडत नाही. त्यामुळे तिला शिक्षण देऊन सुविद्य केले पाहिजे. यासाठी स्त्री शिक्षणाचा आग्रह ते धरतात. पुरातन काळापासून चालत अलेल्या रूढीने स्त्रियांवर अन्यायाने हिनत्वाचा शिकका मारला आहे. स्त्रीला आपली सखी, अर्धांगिनी, सहचरिणी, मानण्याऐवजी पुरुषांनी तिला आपली मोलकरीण आणि भोगदासी बनविले आहे. स्त्रियांवर आजवर जो घोर अन्याय झाला आहे त्याची भरपाई करण्याकरीता त्यांना शिकवणे हे आपले मोठे कर्तव्य आहे. (4)

स्त्रियांना शिक्षण देताना जे त्यांना उपयोगी पडणारे आहे असे कुटूंबीय जीवनाचे, अपत्य संगोपनाचे सेवेचे, नर्सचे शिक्षण त्यांना प्राधान्याने द्यावे. पण इंग्रजी शिक्षण त्यांना अगदी देऊच नये या मताचे ते नव्हते. स्त्रियांनी आपल्या शिक्षणाचा उपयोग समाज कार्यासाठी करावा. समाजातील गरीब अभागांची सेवा करण्यासाठी त्यांनी वाहून घ्यावे असे ते म्हणत. शिक्षण घेऊन स्त्रियांनी शोभेच्या बाहुल्या बनू नये. लग्न, संसार, कुटूंबसंस्था यातच अडकून न पडता सार्वजनिक कार्यात स्त्रियांचा सहभाग कमी अधिक प्रमाणात असावा असे त्यांना वाटे. शिक्षण घेऊन स्त्रियांनी पोटासाठी नोकरी करू नये किंवा व्यापार व्यवसायही करू नये. तर स्त्रियांसाठी असलेल्या क्षेत्रातच उत्तम कार्य करावे. स्त्रियांना व्यापक शिक्षण द्यावे. या मताचे ते होते पण जगाच्या प्रगतीला जर त्यांचे सहाय्य व्हायचे असेल तर ते पुरुषांची नक्कल करून जमणार नाही. त्यांनी हवी तर स्पर्धा करावी. पण नक्कल करून स्वतःची सर्वोच्च उंची बनणार नाही असे ते म्हणत. (5)

स्त्रियांच्या सामाजिक स्थानाबाबत गांधीजींची मते- गांधीजी स्त्रिया आणि पुरुष या दोहोंमध्ये समानता हवी या विचाराचे होते. समाजातील स्त्रीच्या पारंपारिक दासी कल्पनेचा ते धिक्कार करतात. एखादी बाहुली अगर उपभोग साधन या ऐवजी नव-यांनी आपल्या पत्नीला समाज कार्यातील सन्मान्य सहचारिणी म्हणून वागवावे. (6) शास्त्रांमधील स्त्री प्रतिमेवर ते टिका करतात. गांधीजींच्या पुढे सीता, दमयंती, द्रौपदी अशा स्त्रियांचा आदर्श होता यांच्या सारखे सामर्थ्य आणि आत्मसंचयन ज्या स्त्रीजवळ असेल तिला समाजाकडून या स्त्रियांसारखाच मान मिळेल. अशा स्त्रियांच्या उन्नतीतच समाजाची उन्नती आहे या मताचे ते होते. स्त्रियांना आवश्यक असेल तेथे सवलती मिळाव्यात असे आग्रही प्रतिपादन ते करतात. प्राचीन भारतीय समाजात मध्ययुगीन काळा सारखी स्त्रियांची परिस्थिती दारुण व वाईट नव्हती. त्याकाळात ख-या अर्थाने स्त्रीला सामाजिक प्रतिष्ठा होती आजच्या काळातही स्त्री पुरुषाचा दर्जा समान असावा असे त्यांना वाटे. ते म्हणतात - भारतीय समाजाने विनाकारण स्त्रियांना हीनत्व दिले आहे. वास्तविक पहाता बुद्धी, चातुर्य, कर्तव्य या बाबतीत स्त्री ही पुरुषापेक्षा कुठेही कमी नाही. तो जोपासला गेलेला एक न्युनंगड प्रस्थापित झालेला आहे. तिची सामाजिक गुलामगिरी ही तिच्या मानसिक गुलामगिरीतून निर्माण झाली आहे. स्त्रियांनी जर गुलामगिरीतून मुक्त होण्याचे ठरविले तर त्यांना कोणीही रोखू शकणार नाही असे ते म्हणत. स्त्रियांची मानसिकता गांधीजी पूर्ण जाणुन होते. स्त्रीच्या अंगभूत गुणांचा तिने अधिक विकास करावा. काटकसर, गरजा कमी करणे, शारिरीक कष्टावर भर देवून पैशाची बचत गरजा करावी. असे अनेक गुण तिने कुटूंबात जोपासावेत ते तिचे कर्तव्यच आहे. एकदा स्त्रीने घराला वळण लावले की राष्ट्राला वळण लावणे अवघड जाणार नाही असे त्यांचे मत होते. घर आणि कुटूंब हे स्त्रीचे कार्यक्षेत्र आहे. त्या क्षेत्रात प्रत्येक स्त्री स्वतंत्र, स्वायत्त असावी असे ते म्हणत.

**राजकीय चळवळीत स्त्रियांचा सहभाग** - स्त्रियांच्या मधील आत्मीक शक्ती वाढविण्याचा गांधीजींनी प्रयत्न केला. आपणही पुढे होऊन संघटित रीतीने स्वतःसाठी व दुस-यांसाठी काहीतरी करू शकतो याचा प्रत्यय गांधीजींनी स्त्रियांना करून दिला. केवळ भारतातीलच नव्हे तर दक्षिण आफ्रिकेतील हिंदी स्त्रियांच्यामध्येही गांधीजींनी हा आत्मविश्वास निर्माण केला. यामुळेच ट्रान्सव्हाल व नाताळ मध्ये इंग्रजांच्या अन्यायकारक कायद्याच्या विरोधात अनेक हिंदी स्त्रियांनी सत्याग्रह आंदोलनात भाग घेतला. द. आफ्रिकेत सत्याग्रह सुरु झाल्यावर शेकडो सत्याग्रही तुरुंगात असताना त्यांच्या कुटूंबाची व्यवस्था टॉलस्टॉय फार्मवर करण्यात आली होती. या ठिकाणी मुलेबाळे घेऊन राहणा-या सर्व भगिनींना धीर देण्याचे कार्य गांधीजी करत. या भगिनींची अनेक कामे (मग ते कपडे धुण्याचे - वाळवण्याचेही)गांधीजी करत. या ठिकाणी त्यांनी त्या भगिनीच्या केलेल्या सेवेला सीमा नाही. स्त्रियांची म्हणून असलेली अनेक कामे गांधीजी स्वतः करीत. स्वातंत्र्याचा लढा त्यांना जितका महत्वाचा होता तितकेच डाळ तांदुळ निवडणेही ते महत्वाचे मानीत. ते स्वतः ही ही कामे करीत. सहका-यांना करायला लावीत. बायकांचे काम तुच्छ ते मानत नव्हते. (7)

1920 नंतर म्हणजे टिळकांच्या मृत्युनंतर राष्ट्रीय चळवळीचे नेतृत्व गांधीजींनी स्वीकारले. आणि गांधीजींच्या हाकेला प्रतिसाद देऊन हजारो स्त्रिया देशभक्तीच्या भावनेतून स्वातंत्र्य लढ्यात उतरल्या. रूढीप्रिय आणि कर्मठ समाजातून गांधीजींनी स्त्रियांना स्वातंत्र्य चळवळीत सहभागी करून घेतले. स्वातंत्र्य आंदोलनातील स्त्रियांसाठी गांधीजींच्या पत्नी कस्तुरबा हे एक स्फूर्तीस्थान होते. गांधीजींनी भारतात आश्रमशाळा सुरु केल्या. या आश्रमांमध्ये स्त्रियांच्या शिक्षणासाठी त्यांनी खास वर्ग सुरु केले. कस्तुरबा आश्रमातील शाळांवर विशेष लक्ष देत.

विकेंद्रित अर्थव्यवस्थेत स्त्रियांचा मोठा सहभाग राहिल हे ओळखून त्यांनी सूतकताईसारखे कार्यक्रम ग्रामीण भागातील महिलांना सुचविले आश्रमातही सूतकताईचे शिक्षण स्त्रियांना देण्याची व्यवस्था करण्यात आली. आश्रम परिवारात दाखल झालेल्या स्त्रिया कस्तुरबांप्रमाणेच त्याग व सेवा समर्पित करण्यास कटिबद्ध झालेल्या असत. गांधीजींच्या प्रेरणेने स्वदेशी चळवळ, सूतकताई, खादीद्योग, ग्रामोद्योग, दारूच्या गुत्त्यावरील पिकेटींग, राष्ट्रीयशिक्षण, आश्रम शाळा, सत्याग्रह या सर्व चळवळीत स्त्रियां अग्रभागी राहिल्या 1920 ते 1930 हा काळ गांधीवादाचा प्रयोग काळ होता. या काळात कमलादेवी चटोपाध्याय, हंसाबेन मेहता, अवंतिकाबाई गोखले, स्वरूपाराणी नेहरू यांनी असहकार सत्याग्रह चळवळीत हिरीरीने भाग घेतले. स्त्रियांमध्ये जन्मजात असलेल्या सहनशक्ती, सोशिकवृत्तीने हजारो स्त्रियांनी स्वातंत्र्य लढयातील हाल अपेष्टा सहन केल्या. 1942 च्या चळवळीत अरुणा असफल्ली, उषा मेहता, सुशिला नायर यांचे योगदान महत्त्वाचे आहे. संपूर्ण सत्याग्रह पर्वात डॉ. सरोजिनीदेवी नायडु यांचे कर्तृत्व तर पहाडाप्रमाणे उंच आहे. गांधीजींच्या आवाहनाला स्त्रियांनी खेडोपाडी शहराशहरातून प्रतिसाद दिला. चरखा चला चलाके लेंगे स्वराज्य लेंगे हे त्यांचे घोषवाक्य होते. भारतीय स्त्रींच्या जीवनातील हे परिवर्तन पाहून पाश्चात्य जगाची जनताही प्रभावित झाली. स्त्रियांच्या सहभागाने पुरुषांनाही दुप्पट स्फुरण चढले. (8)

या काळात राजकीय दृष्ट्या स्त्रिया जागरूक होऊ लागल्या होत्या. स्वतःचे राजकीय महत्त्व ज्यांना जाणवू लागले होते. पण त्या मानाने त्यांना स्वताःच्या सामाजिक व आर्थिक स्थितीचे भान आलेले नव्हते. गांधीजींच्या प्रभावामुळेच 1926 च्या निवडणुकीत स्त्रियांनी मतदान केले. मद्रासची सर्वप्रथम महिला डॉक्टर मुथुलक्ष्मी रेड्डी कौन्सील मध्ये गेल्यावर महिलाविषयक अनेक कायद्यांसाठी प्रयत्नशील राहिली. मुंबईच्या मिटुबेन पेटिट व भानुबेन देसाई यांनी मुंबईच्या सत्याग्रह चळवळीत भाग घेतला. बार्डोली सत्याग्रहानंतर तर स्त्रींच्या शक्तीचे अदभुत दर्शन झाले. महाराष्ट्रीय स्त्रियांबद्दल गांधीजींनी काढलेले उद्गार अत्यंत महत्त्वपूर्ण आहेत, ते म्हणतात मनमोकळेपणा आचार, गौरव, वर्तन स्वातंत्र्य हे गुण नम्रतेसह महाराष्ट्रीय महिलांमध्ये असतात." (9)

गांधीजींनी स्त्रियांमध्ये धैर्य, यातना सहन करण्याची शक्ती, निर्भयता, सर्वस्व झोकून देण्याची वृत्ती निर्माण केली. म्हणूनच मनोदास्यातून मुक्त होऊन स्त्रिया प्रचंड संख्येने स्वातंत्र्य चळवळीत उतरल्या. 1930 ते 1947 हा गांधीवादाचा काळ ख-या अर्थाने स्त्रियांच्या मुक्तीचा काळ होता. मुक्तीची ती सुरुवात होती. त्यांच्याबद्दल गौरवोद्गार काढताना म्हणूनच सरोजिनी देवी नायडु म्हणतात –“चमत्काराचे युग संपले आहे असे कोण म्हणतो ? या माणसाच्या रूपाने प्रत्यक्ष चमत्कार आपल्यात वावरत आहे ते आम्हा स्त्रियांचे पुढारी, मित्र आहेत. तसेच पिताश्रीही आहेत.”(10)

आज 20 व्या शतकाच्या शेवटच्या दशकात स्त्री मुक्तीचळवळ, स्त्रीवादी लिखाण जोमाने सुरु आहे. स्त्रियांच्या हक्क अधिकारासाठी अनेक स्त्री संघटना कार्यरत आहे. गांधीजींच्या विचारांचे विश्लेषण स्त्री वाद्यांकडून केले जात आहे. काही प्रमाणात ते गांधीजींच्या स्त्रीवादी भूमिकेवर टीका करताना दिसतात. स्त्री मुक्तीवाद्यांच्या मते गांधीजींच्या विचारसरणीत स्त्री स्वातंत्र्याला आणि स्त्री पुरुष समाजाला ख-या अर्थाने स्थान नव्हते. ते शेवटी पितृसत्ताक मूल्यांचे पुरस्कर्ते होते. गांधीजींच्या चळवळीत भाग घेणा-या स्त्रिया हया केवळ उच्च वर्णीय सुस्थितीत शिकलेल्या स्त्रिया होत्या. दलित किंवा इतर मागास स्त्रियांचा त्यात कमी सहभाग

दिसतो. तसेच गांधीच्या काळातील स्त्रियांना स्वत्वाची आपल्या हक्काची फारशी जाणीव नव्हती. त्याग व समाजसेवा हेच केवळ तिचे ध्येय होते. गांधीजींनी स्त्रियांबाबत मांडलेले विचार हे तत्वमूल्यांसाठी चौकट मोडून प्रत्यक्ष कृतीद्वारे स्त्रियांच्या मुक्तीचळवळीची प्रयत्न करणारा विचार त्यात दिसत नाही.(11) अशा प्रकारची टिका गांधीजींच्या स्त्रीविषयक विचारांवर केली जाते.

पण या बाबत असे म्हणता येईल ज्या काळात गांधीजींनी स्त्री मुक्तीचा विचार मांडला त्या काळात स्वराज्य मिळवणे हे स्वातंत्र्य आंदोलनाचे मुख्य उद्दिष्ट होते. स्वातंत्र्य चळवळ अंतिम टप्प्यात येऊन पोचली होती. त्यामुळेच स्त्रियांच्या व्यक्ती स्वातंत्र्यापेक्षा, सामाजिक हक्कापेक्षा गांधीजी पुरुषांना पूरक होईल असेच सुधारणावादी विचार मांडताना दिसतात. कदाचित स्वातंत्र्य व समता या बाबतच्या अतिरेकी कल्पनामुळेही आज ही टीका होत असावी. गांधीजींना हरिजन स्त्रियांबद्दल अपार सहानुभूती होती. म्हणूनच त्यांच्या उध्दारासाठी ते कटिबद्ध झालेले दिसतात. अनेक अस्पृश्य स्त्रियांही आंदोलनात सहभागी होत्या. स्वतंत्र भारताचे पहिले पंतप्रधान कोणाला करावे ? या विषयी आपले वैयक्तिक मत नोंदविताना म्हणूनच ते म्हणतात स्वतंत्र भारताची पहिली पंतप्रधान एक हरिजन स्त्री असावी या त्यांच्या उदगारातच त्यांची दलित वर्गाबद्दलची भूमिका दिसून येते.

एकंदरीत आजच्या स्त्री मुक्ती चळवळीला अभिप्रेत असलेली पुरुषप्रधान व्यवस्था विरहित स्त्री पुरुष समानतेची व्यवस्था या चळवळीला अभिप्रेत नव्हती. व गांधीजींचा तो उद्देशही नव्हता. हिंदु संस्कृती, परंपरा यांचा जाज्वल्य अभिमान त्यांच्या ठिकाणी होता. म्हणूनच पितृसत्ताक मूल्यांतर्गतच स्त्री मुक्तीचा उन्नतीचा विचार ते मांडतात. त्यांच्या स्त्री उन्नति विचाराचे मूल्यमापन करताना म्हणूनच म्हणावेसे वाटते गांधीजी ही 20 व्या शतकातील एक मोठी विवाद्य व्यक्ती आहे. त्यांचे सर्वच काही वेगळे होते. त्यांचे विचार, आदर्श, मार्ग, श्रद्धा, राहणी सर्वच वेगळी आहे. गांधीजी हिंदु असूनही परंपरांगत हिंदुपेक्षा बरेच वेगळे. सनातनी असूनही अत्याधुनिकापेक्षा अधिक आधुनिक भारतीय संस्कृतीचा जाज्वल अभिमान असूनही नव्या काळाच्या समस्या नवे विचार नवे आदर्श यांच्याकडे ते दुर्लक्ष करित नाही. नवीनाचा आपल्या दृष्टीकोनातुन ते विचार करतात. म्हणूनच गांधीजींचे विचार हे आदर्श जुनाट, बुरसटलेले कालबाह्य वाटले तरी त्यांच्या विचाराकडे आधुनिकांचे लक्ष इतके वेधले गेले होते की ते त्यांची उपेक्षा करू शकले नाहीत. (12)

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- 3) हरिजन अंक - गांधी स्मारक निधी.

#### दुय्यम साधने.

- 1) धर्माधिकारी तारा - स्वातंत्र्य लढ्यातील स्त्री.
- 2) शिखरे दा. न. - महाराष्ट्र व गांधी.
- 3) नवलगुंदकर रां. ना. - भारतीय राजकीय विचारवंत.
- 4) वाचल वि. मा. - भारतीय राजकीय विचारवंत.
- 5) साने गुरुजी - बापूजींच्या गोड गोष्टी.
- 6) किराणे गोपाळ - असे होते बापू.
- 7) स्त्री मुक्ती विराजांक - संपा. शरद पाटील, धुळे.
- 8) प्रा. वंदना सोनालकर - स्त्रिया आणि समाजपरिवर्तन.
- 9) रेगे शर्मिला, पलसाने वंदना - स्त्री जीवनाची गुंतागुंत.
- 10) संपत प्रमिला - संपा., सावित्रीबाई फुले, विशेषांक.

## साहित्यिक मुल्य आणि सामाजिक जाणीवा

डॉ. रामदास रसाळ

प्रभारी प्राचार्य, कैलास शिक्षण मंडळ,

कला व वाणिज्य महाविद्यालय, राहू, ता.दौंड, जि.पुणे.

### एकोणिसाव्या शतकातील महाराष्ट्र

#### राजकीय स्थित्यंतरे आणि बदलती समाजरचना :-

इ.स.1818 मध्ये ब्रिटीश प्रशासन महाराष्ट्रात प्रत्यक्षात लागू झाले. महाराष्ट्राच्या संदर्भात एलफिन्स्टनने बदल विरोधी धोरण (No innovation policy) अवलंबिले असले तरी केवळ शासकाच्या बदलातून काही प्रशासकीय व पर्यायाने सामाजिक बदल होणे अपरिहार्य होते. पूर्वीच्या जुन्या समाजरचनेचे सामाजिक, राजकीय, प्रशासकीय आणि आर्थिक नेतृत्व असलेल्या वर्गाकडून राजकीय नेतृत्व ब्रिटिशांकडे गेले, तर प्रशासकीय आणि आर्थिक नेतृत्व नवीन निर्माण होणा-या भारतीय प्रशासक वर्गाकडे गेले. या नव्या वर्गाला सामाजिक नेतृत्वही मिळवण्यासाठी जुनी समाज रचना बदलून नवीन समाज व्यवस्था स्थापन करणे आवश्यक वाटले आणि यातूनच महाराष्ट्रातील सामाजिक सुधारणांना सुरुवात झाली. यातून काही सांस्कृतिक-सामाजिक संघर्ष उभे रहाणे अपरिहार्य होते. या अंतर्गत संघर्षाबरोबरच ब्रिटिश संस्कृती आणि भारतीय संस्कृती यातील मूलभूत दृष्टिकोनातील फरकही सामाजिक संघर्ष उभा करत होता. ".....ब्रिटिश संस्कृती मुख्यतः विज्ञाननिष्ठ, नागर आणि उद्योग प्रवण होती. तर त्या उलट आपली संस्कृती ही पारमार्थिक, कृषीप्रधान व ग्रामीण होती. कृषीप्रधान संस्कृती स्थितीशील, दैववादी आणि संकुचित असते, तर औद्योगिक संस्कृती ही गतीशील, प्रयत्नवादी व व्यापक दृष्टीची असते."

#### मराठीने स्वीकारलेले वाङ्मय प्रकार

एकोणिसाव्या शतकातील महाराष्ट्रामध्ये निर्माण झालेल्या वाङ्मयामध्ये गद्य आणि पद्य या दोन्हीचा समावेश असला तरी सुरुवात गद्य वाङ्मयातूनच झाली. वृत्तपत्रीय निबंध, लेख, माहितीपर स्फुटे, नीति-बोधपर कथा, पाठ्यपुस्तके इत्यादी पासून या गद्यवाङ्मयाला सुरुवात झाली. त्यानंतर वृत्तपत्रातील पत्रे, वैचारिक लेख, ग्रंथ, कथा, कादंबरी, नाटके यांच्या लेखनास सुरुवात झाली.

एकोणिसाव्या शतकामध्ये लिहिल्या गेलेल्या वाङ्मयाचे सहा मुख्य भाग पडू शकतील.

- 1) वैचारिक निबंध
- 2) संवादात्मक निबंध
- 3) तत्वज्ञानात्मक गद्य
- 4) इतिहास
- 5) स्फुटे, चुटके, कथा, कादंबरी, नाटक
- 6) काव्य

#### स्त्रियांच्या प्रश्नाबाबतची आस्था

एकोणिसाव्या शतकातील सर्व विचारवंतांनी (फुले सोडून) कर्मावर आधारित अशा जातीव्यवस्थेची चौकट मान्य केलेली होती. त्यामुळे जातीव्यवस्था, अर्थव्यवस्था आणि धर्मांतर हे तिन्ही प्रश्न त्यामानाने सामाजिक पातळीवर धसास लावले गेले नाहीत. शिक्षण आणि स्त्रियांची परिस्थिती याबाबत या सुधारकांनी आपले सुधारकी विचार समाजापर्यंत पोहचवले.

प्रशासकीय जागा मिळवण्यासाठी शिक्षणाची आवश्यकता, सुधारकांनी स्पष्ट केली. पण स्त्रियांच्या परिस्थितीकडे प्रकर्षाने लक्ष देण्याची जाणीव त्यांना का वाटली? एक तर सांस्कृतिक वा जातीव्यवस्थेतील चौकट बंधनकारक नव्हती. दुसरे म्हणजे इतर परक्या व्यक्तीपेक्षा स्वतःच्या आई, बहीण, पत्नी, मुलगी यांच्या परिस्थितीमध्ये सुधारणा करण्याची आवश्यकता त्यांच्याशी असलेल्या मानसिक जवळकीतून या नवीन मध्यम

वर्गाला वाटणे स्वाभाविक होते. याशिवाय स्त्रियांच्या परिस्थितीकडे लक्ष देण्याची आवश्यकता निर्माण झाली ती मराठी स्त्रीला असलेल्या परंपरागत स्थानातून होय.

### मराठी स्त्रीचे परंपरागत स्थान

महाराष्ट्रात हा काही सुपीक प्रदेश नाही. त्यामुळे प्राचिन काळापासून धान्योत्पादनासाठी कुटूंबातील सर्व व्यक्तींना काम करणे आवश्यक होते. यातूनच स्त्रीला अर्थोत्पादनाचा एक घटक म्हणून महाराष्ट्रीय समाजाने मान्य केले. यामुळे तिला एका स्वतंत्र व्यक्तीचे स्थान मिळाले. पेशवेकाळातही खालच्या वर्गातील स्त्री ही अर्थोत्पादनाचा एक घटक असल्याने तिला स्वतंत्र व्यक्ती म्हणून अस्तित्व होते आणि तिचे हे स्वतंत्र अस्तित्व उच्चवर्णीय पुरुषांनीही मान्य केले होते.

येथे लक्षात घेतले पाहिजे, की कोठल्याही समाजात शेवटी दोनच वर्ग असतात, स्त्री आणि पुरुष. या दोघांनी एकमेकांचे स्वतंत्र अस्तित्व कोणत्याही पातळीवर मान्य केले की आपोआपच त्या समाजातील सर्वांना ते वैचारिकदृष्ट्या लागू होते. म्हणजेच खालच्या वर्गातील स्त्रीचे वेगळे अस्तित्व मान्य केल्यावर आपोआपच संपूर्ण स्त्री वर्गाचे काही एक वेगळे अस्तित्व समाज मानू लागतो. म्हणजेच एक वर्ग म्हणून पेशवे काळातही स्त्रीला वेगळे अस्तित्व होते. अर्थात उच्चवर्णीयामध्ये ते संपूर्णपणे वैचारिक आणि आदर्श पातळीवरच राहिले.

### विधवा पुनर्विवाह: एक सामाजिक प्रश्न आणि त्याची वाङ्मयाशी अभिव्यक्ती

एकोणिसाव्या शतकातील महाराष्ट्रातील विचारवंतांनी पाश्चात्य मानवतावाद आणि व्यक्ती स्वातंत्र यांचा प्रभाव पडलेला आपल्याला दिसतो. एकंदरच सामाजिक प्रश्नांकडे पहात असताना या पाश्चात्य तत्वज्ञानाचा आण भारतीय परंपरेचा समन्वय साधण्याचा प्रयत्न या विचारवंतांनी केला विधवा पुनर्विवाहाबाबतही लोकहितवादी, बाबा पदमनजी, विष्णुशास्त्री पंडित, मोरोबा कान्होबा, बाळकृष्णशास्त्री बापट, कृष्णशास्त्री साठे, न्या. रानडे, म. फुले, ताराबाई शिंदे या सर्वांचेच दृष्टिकोन संपूर्णपणे बुद्धिनिष्ठ, विवेकनिष्ठ आहेत. फरक आहे तो हा दृष्टिकोन अभिव्यक्त करण्याच्या पध्दतीमध्ये होय! पंडित, न्या. रानडे, बापट, साठे यांनी तो परंपरेच्या पुनरुज्जीवन करण्यातून व्यक्त केला, तर मोरोबा कान्होबांनी व ताराबाई शिंदेनी तो विशुद्ध तर्क पध्दतीने मांडला आणि लोकहितवादी, पदमनजी, म. फुलेनी तो मांडताना वाचकांच्या भावनेला आवाहन केले. या सर्वांनी विधवा पुनर्विवाहाच्या प्रसारासाठी वेगवेगळे मार्ग स्वीकारले असले तरी त्या सर्वांची प्रेरणा मात्र पूर्णतः बुद्धिनिष्ठ होती. कोणत्याही समाजातील आद्य सुधारक हे काही बाबातीत परंपरावादीच असतात. किंवा समाजाला बरोबर घेवून सुधारणा करावयाची तर परंपरागत मुल्यांना धक्के देत असतानाही परंपरागत पध्दतींची मात्र स्वीकृती करणे आवश्यक आहे याची जाण या आद्य सुधारकांना नेहमीच ठेवावी लागते. मुळात सामाजिक बदल हे कधीच क्रांतीच्या मार्गाने येणे शक्य नसल्याने अशी नव्या-जुन्याची सांगड घालताना ही परंपरेची बंधने स्वीकारून उत्क्रांत स्वरूपाचा बदल अपेक्षित धरणे हे समाजसुधारकांचे पहिले गृहितक असणे अपरिहार्यच आहे.

म. फुल्यांनीही वैचारिक लेख तर लिहिलेच परंतु त्याशिवाय नाटक, पोवाडा, पद्य हे ललित वाङ्मय प्रकारही समाजाला आवाहन करण्यासाठी वापरले. म. फुल्यांनी ललित वाङ्मयातून केलेल्या भावनिक आवाहनाला व्यावहारिक कृतिशीलतेची जोड दिल्याने त्यांचे कार्य जास्त प्रभाव ठरले.

### सामाजिक प्रश्न आणि साहित्य

आधुनिक ललित साहित्याची सुरुवात आपल्याला एकोणिसाव्या शतकाच्या मध्यानंतर दिसते. त्यातही सामाजिक प्रश्न आणि ललित साहित्य यांचा एकोणिसाव्या शतकामध्ये फारच कमी संबंध आला. पदमनजी, फुले, केशवसुत अशा ठराविक नावातच ही परंपरा मर्यादित होती. सुरुवातीच्या काळात वृत्तपत्रातून वा इतर माध्यमांतून कथा, स्फुटे निर्माण होत असली तरी त्याचे उद्दिष्ट्य माहिती सदृश्य ज्ञानाचे होते, सामाजिक बांधिलकी प्रथम दिसते ती बाबा पदमनजींच्या 'यमुना पर्यटन' या कादंबरीतचा थोडा साकल्याने विचार करणार आहोत.

### यमुना पर्यटन ची कथावस्तू

बाबा पदमनजी यांनी 1857 मध्ये 'यमुना पर्यटन' ही कादंबरी लिहिली.

यमुना या कादंबरीच्या नायिकेच्या मानसिक स्थित्यंतराचे वर्णन 'यमुना पर्यटन' मध्ये केले आहे. यमुनाच्या वडिलांचे मित्र गणेशपंत हे आपला मुलगा विनायक यांच्याशी यमुनेचे लग्न ठरवतात या सोयरिकीपासूनच कादंबरी सुरु होते.

मिशनरी शाळेचा संस्कार झालेली यमुना आणि विनायक हे दोघेही सुधारकी विचारांचे, परंतु विनायकाची आई आणि बहिण या मात्र परंपरा, अंधश्रद्धा जपणा-या होत्या. त्यामुळे यमुनेला मानसिक त्रास होई. विनायकाने हे समजून घेवून यमुनेच्या वाचनाला प्रोत्साहन दिले.

त्यांच्या शेजारी गोदू नावाच्या बाईचा नवरा मरण पावला, तेव्हा तिचे केशवपन करण्याची तयारी नातेवाईकांनी सुरु केली. विनायकाने याला विरोध केला. परंतु कोणीच तो मानला नाही. या गडबडीत गोदू वैधव्यानंतरच्या परिस्थितीबद्दल जाणीव निर्माण होते.

पुढे नोकरी निमित्ताने विनायक व यमुना नागपुरला जात असताना त्यांना वेणू नावाची विधवा भेटते. तिला वैधव्यानंतर दिली जाणारी वागणूक ऐकून यमुनेला अत्यंत वाईट वाटते आणि ती वेणूला येशु ख्रिस्ताची कथा सांगून त्याला शरण जाण्याचा उपदेश करते.

नागपुरला आल्यावर दौलतराव नावाचा मिशनरी संस्कार झालेला मित्र विनायकाला भेटतो. गप्पागोष्टींमध्ये तो विनायकाला त्याच्या विधवा मामेबहिणीस एका साधूने कसे फसवले त्याची हकीकत सांगतो. एकंदरच विधवा स्त्रियांची परिस्थिती कशी दयनीय आहे हे दौलतराव सांगतो. पुढे एका शेणवी विधवा, कुमार्गाला कशी लागली याची कथाही तो सांगतो. या सर्व कथनाचा विनायकावर मोठाच परिणाम होतो. विधवांच्या दुःखासंबंधी माहिती मिळाल्यावर त्यांना यमुनेबद्दल काळजी वाटू लागते. पुनर्विवाहाच्या प्रतिबंधामुळे आपल्या मृत्यूनंतर तिची काय दशा होईल याचा विचार विनायक करू लागतो.

नागपुरचे हवामान यमुनेला न मानवल्यामुळे ते दोघे फिरत फिरत पंढरपूरला येतात. तेथे एका बाईच्या घरी ते वास्तव्य करतात. मूळची कुलिन असलेली ही स्त्री वैधव्यानंतर पोटासाठी कुमार्गाला लागते. तिचे ते दुःष्कृत्य विनायक उघड करतो. तेव्हा तिच्यावरती ही परिस्थिती का आली ते ती सांगू लागते. वैधव्यानंतर तिचे जबरदस्तीने केशवपन केले जाते. पुढे तिच्या जेवण्याखाण्याची, औषधपाण्याची अबाळ केली जावू लागते. अखेर एके दिवशी मुलाला घेवून ती घराबाहेर पडते. काही दिवस धर्मशाळेत राहिल्यानंतर ती एक भाड्याचे घर घेते. तिथे एका पुराणिकाशी तिची ओळख होते. आणि ती त्याच्याबरोबर राहू लागते. परंतु याच वेळेस दुस-या एका विधवेच्या अशाच कृत्याबद्दल शास्त्री, पाध्ये यांनी दिलेला निवाडा ऐकून ती बाई घाबरते आणि पंढरपूरला येते.



एका बडव्याच्या घरी ती आश्रय घेते. परंतु तेथे चोरी होते आणि तिचे सर्व सामान चोर पळवतो. त्यामुळे तिला स्वयंपाकाचे काम करावे लागले. मध्यंतरी ज्याच्या घरी ती रहात असे त्याचा पुतण्या तिला कुमार्गाला लावतो.

तिचे सर्व कथन ऐकून विनायक या दुःस्थितीचे कारण विचारतो. तेव्हा बाई म्हणते की "विधवांच्या पुनर्विवाहाला शास्त्राने बंदी घातली आहे आणि त्यामुळेच विधवांची परिस्थिती आणखीनच वाईट झाली आहे." हे सर्व ऐकून विनायक व यमुना तिला व तिच्या पतीच्या मुलाला आपल्या जवळ ठेवून घेतात.

पंढरपूरहून साता-याकडे जाताना एका मुक्कामी यमुनेचा एका भटीण बाईशी संवाद होतो. ही भटीण बाई वैधव्यानंतर पोटासाठी दारोदार भिक्षा मागत फिरत असे. तिच्याशी वार्तालाप करताना यमुनेला प्रथमच जाणवते की, काही विधवा स्त्रियांनाही पुनर्विवाहाची कल्पनासुद्धा सहन होत नाही. उलट सतीची चालच श्रेष्ठ होती असे या भटीणबाईचे मत होते. हे ऐकून यमुनेला आश्चर्य वाटते.

पुढे विनायक, यमुना, बाई आणि तिचा मुलगा साता-यास पोहचतात. तेथे विनायकाला त्याच्या एका बेळगावच्या मित्राचे पत्र येते. त्यात तेथील विधवांच्या परिस्थितीचे वर्णन असते. त्याच दिवशी विनायक व यमुना ज्यांच्याकडे उतरलेले असतात त्यांच्याकडे पुत्रजन्माचा उत्सव असतो. म्हणून अनेक मान्यवर लोक येणार असतात. त्यांच्यासमोर ते पत्र ठेवून विधवा पुनर्विवाहाविषयी अभिप्राय जाणून घेण्याचे विनायक ठरवतात.

या सभेत अनेक वाद-विवाद होतात. विधवा पुनर्विवाहाला शास्त्राधार आहे किंवा नाही, तसा शास्त्राधार नसला तरी पुनर्विवाह घडून यावेत किंवा नाही याबाबत सर्वांची चर्चा होते. शेवटी ही चर्चा आवरत असताना विधवा पुनर्विवाहाच्या बाजूचे दादोबा पंडित सत्पक्षाला जय मिळाल्याचे स्पष्ट करतात. इतरही मंडळी या विषयावर साद्यंत विचार करण्याचे ठरवतात आणि ती बैठक संपते.

दरम्यान मोरभट यमुनेचे सासरे, गणेशपंत यांना यमुनेच्या केशवपनाची आवश्यकता स्पष्ट करतो. परंतु गणेशपंत ते अमान्य करतात. शेवटी मोरभट गणेशपंतांचा विरोध असूनही यमुनेच्या केशवपनाचा बेत आखतो. त्यासाठी यमुनेला जबरदस्तीने गंगा किनारी नेत असताना पंढरपूरच्या बाईचा मुलगा शिवराय तिला सोडवतो आणि तो त्याची आई हे यमुनेबरोबर दाजिबा या खिस्ती पाद्रयाकडे येतात. तिथेच यमुना व शिवराय पुनर्विवाह करतात. त्या वेळेस गणेशपंत तिला विनायकाचे सर्व पैसे देतात. आणि मदत करतात. शिवरामही खिस्तीधर्म स्वीकारतो आणि विधवा पुनर्विवाहाच्या कार्यास स्वतःला वाहून घेतो.

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## Higher Education Policy Impact in Indian Education Policy

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### Introduction

During the last decade, the education sector has dominated economic planning. Despite many new national missions/programs and reforms agenda, by both the central and state governments with private sector intervention, the higher education sector is in a state of complete flux. While we have tremendously enhanced capacity, we lag in quality, given inadequate autonomy to our Universities. Centralized control and a standardized approach remains at the heart of regulations. We are in the 21st century with a mid-20th century regulatory architecture. During this time we have seen countries like China, Korea and Singapore, transform from developing to advanced economies in a decade due to strategic planning and a larger vision that correlated economic development to transformation in the education sector, in particular higher education and research, to become globally competitive. In this context, the FICCI Higher Education Committee has endeavored to create the 'Vision 2030' for Higher Education in India. The Vision is aspirational and futuristic, looking at India as a globally dominant economy, with a high quality higher education sector that leads and fulfills the needs of society. We have sought to get away from current constraints and challenges looking anew at what we could be by 2030, focusing on the genius and capability of our people and our civilisational ethos, and meeting our rightful destiny as a global leader. We strongly believe that a stratified three tiered structure that enables seamless vertical and horizontal mobility of students would be able to create the desired intellectual, economic and social value. The implementation framework suggests the student at the center stage to foster innovation and choice, an ICT architecture that will increase access, equity and quality, and a transparent governance framework that will enable autonomy and self – regulation. A framework for governance has been detailed in the addendum document which proposes a mechanism based on outcomes and strong institutional accountability, clearly delineating the role and responsibilities of the government as well as public and private higher education institutions. We have tried to keep the road-map to achieve the vision, aligned with the excellent policy foundation laid out in Twelfth plan for higher education where ever possible. We are grateful to the Ministry of HRD, Government of India, Planning Commission and all partners and sponsors for their support in organizing the FICCI Higher Education Summit 2013 titled “Building Networks for Transforming Indian Higher Education: Enabling to Deliver Value” on November 13 & 14, 2013 in FICCI, New Delhi. We are sure that the deliberations in the conference will help us in coming up with further recommendations to make this vision a reality



INDIA has seen a consistently high rate of economic growth in the recent years. It has now become a major player in the global knowledge economy. Skill-based activities have made significant contribution to this growth. Such activities depend on the large pool of qualified manpower that is fed by its large higher education system. It is now widely accepted that higher education has been critical to India's emergence in the global knowledge economy. Yet, it is believed that a crisis is plaguing the Indian higher education system. While, the National Knowledge Commission (NKC) set up by the Prime Minister calls it a 'quiet crisis', the Human Resource Minister calls higher education 'a sick child'. Industries routinely point towards huge skill shortages and are of the opinion that growth momentum may not be sustained unless the problem of skill shortages is addressed. There appear to be endless problems with the Indian higher education system. The higher education system produces graduates that are unemployable, though there are mounting skill shortages in a number of sectors. The standards of academic research are low and declining. An unwieldy affiliating system, inflexible academic structure, uneven capacity across subjects, eroding autonomy of academic institutions, low level of public funding, archaic and dysfunctional regulatory environment are some of its many problems.

### **Changing Policy on Higher Education in India**

From the early 20th century, there have been several high level commissions set up to provide policy orientation to the development of higher education in India. On the basis of the report of the Sadler Commission (1917-19), also referred to as the Calcutta University Commission, the Central Advisory Board of Education (CABE) was set up to define the general aims of educational policy and coordinate the work of various provinces and universities by guarding against needless duplication and overlapping in the provision of the more costly forms of education. The University Education Commission, presided over by Dr S. Radhakrishnan, in its report in 1949 recommended that university education should be placed in the Concurrent List so that there is a national guarantee of minimum standards of university education. The constituent assembly did not agree to it. It was much later, in 1976, that education was made a concurrent subject with the 42nd Amendment of the Constitution.

The Kothari Commission (1964-66) examined various aspects of education at all levels and gave a very comprehensive report full of insight and wisdom. This report became the basis of the National Policy on Education, 1968. With this, a common structure of education (10+2+3) was introduced and implemented by most states over a period of time. In the school curricula, in addition to laying down a common scheme of studies for boys and girls, science and mathematics were incorporated as compulsory subjects and work experience assigned a place of importance. A beginning was also made in restructuring of courses at the undergraduate level. Centres of advanced studies were set up for post-graduate education and research. Detailed estimates were made to meet requirements of educated manpower in the country.

In 1985, a comprehensive appraisal of the existing educational scene was made. This was followed by a countrywide debate. It was noted that while the achievements were impressive in themselves, the general formulations incorporated in the 1968 policy did not, however, get translated into a detailed strategy of implementation, accompanied by the assignment of specific



responsibilities and financial and organisational support. It was further noted that problems of access, quality, quantity, utility and financial outlay, accumulated over the years, had assumed such massive proportions that these required to be tackled with the utmost urgency.

In the background explicated previously, the National Policy on Education (NPE), 1986 was put in place. It as noted in the preamble to the policy that education in India stood at the crossroads, and neither normal linear expansion nor the existing pace and nature of improvement of the situation would help. It was also noted that education has an acculturating role. It refines sensitivities and perceptions that contribute to national cohesion, a scientific temper and independence of mind and spirit—thus furthering the goals of socialism, secularism and democracy enshrined in our Constitution. Education develops manpower for different levels of the economy. It is also the substrate on which research and development flourish, being the ultimate guarantee of national self-reliance. Accepting the fact that education is a unique investment in the present and the future, a very comprehensive policy document was approved in 1986. This was supplemented with a Programme of Action (PoA) in 1992.

On review now, one sees that many of the recommendations of the NPE, 1986 read with PoA, 1992 have been only partly fulfilled. Moreover, there has been no effort to modify the previous policy prescriptions or to develop a new one. After the economic reforms were undertaken in the early 1990s, their influence on development of higher education has been ignored. With the economic reforms of the 1990s, the private sector has come to occupy a central role in the economic development of the nation. There is a need for a holistic review of the instruments currently available for managing the higher education system such as the University Grants Commission (UGC) Act, the All India Council of Technical Education (AICTE) Act, and so on, which have become outdated in the present context. In this context, it is important to develop a new national policy framework for higher education in the current and emerging contexts. Such a policy framework should not be developed by political processes, but by an independent, high-powered commission.

### **Recent Developments in Indian Higher Education**

Higher education has received a lot of attention in India over the past few years. There are four reasons for this recent focus. First, country's weak higher education system is being blamed for skill shortages in several sectors of economy. Second, reservation quotas in higher education institutions, particularly the more reputed ones that provide access to high status and best-paid jobs became a highly divisive issue, central to the policy of inclusive growth and distributive justice, and hence politically very important. Third, in the backdrop of the first two developments, it began to be argued that the country would not be able to sustain its growth momentum and maintain competitiveness unless problems with higher education are fixed. Last, demand for higher education continues to outpace the supply due to growing population of young people, gains in school education, the growing middle class and their rising aspirations.

It is widely believed that technological advances and a shift in demographic provide India with a window of opportunity to productively engage its huge pool of human resources, and become a leader in both the rapidly expanding sectors of services and highly skilled



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manufacturing. This would, however, require revamping the higher education sector. Hence many steps have been taken to augment supply, improve quality and fix many of the problems faced by higher education.

The National Knowledge Commission (NKC) that was set up to examine the higher education sector (amongst other things) made several useful and important recommendations. The Government of India has increased funding significantly during the Eleventh Five Year Plan. Many new institutions have been planned and some of them are already operational. There are many good ideas in the plan document. All these efforts, however, appear to be somewhat disconnected. Some even appear to be at cross-purposes with each other. Several suggestions appear to be merely impressionistic views of individuals, rather than being supported by data and research. Overall, these efforts do not give a sense of an integrated reform agenda for Indian higher education. And in absence of credible data and good analysis, the media continues to perpetuate and exacerbate certain fallacies and inconsistencies.

### **The Need for a New Education**

In the beginning, education and the ideals it embodied aspired to create a “perfect” citizenry. Later, the objective shifted to ensuring that citizens were well-trained, and more recently it shifted once again to the awakening of the critical spirit. Today, the ideal is creativity: the capacity to learn and a lifelong willingness to face new things and modify learned expectations accordingly; there can be no learning without re-learning, without the revision that must be undertaken when we realise the weakness of what we thought we knew. In a knowledge society, education is the capacity to be creative in an environment of particular uncertainty, the capacity to properly manage the cognitive dissonance that gives rise to our failure to comprehend reality (Innerarity, 2010). Therefore, in the world of liquid modernity, we must move away from sporadic education and towards lifelong learning. This entails overcoming security-driven resistance: the pillars to which we cling because they lend us a sense of security: a mistake in a world filled with insecurities and ephemeral validities.

Conventionally, education has been understood as preparation for life, as personal realisation, and as an essential element in progress and social change, in accordance with changing needs (Chitty, 2002). Orr (2004) declares that if certain precautions are not taken, education may equip people to become “more effective vandals of the earth”. He describes education of the sort we have seen thus far as a possible problem, and argues for a new type of education:

“More of the same kind of education will only compound our problems. This is not an argument for ignorance but rather a statement that the worth of education must now be measured against the standards of decency and human survival. It is not education, but education of a certain kind, that will save us.”

“Education, in other words, can be a dangerous thing (...). It is time, I believe, for an educational ‘perestroika’, by which I mean a general rethinking of the process and substance of education at all levels, beginning with the admission that much of what has gone wrong with the world is the result of education that alienates us from life in the name of human domination, fragments instead of unifies, overemphasizes success and careers, separates feeling from intellect and the



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practical from the theoretical, and unleashes on the world minds ignorant of their own ignorance.”

Education for Sustainable Development (ESD) has emerged as a paradigm for revising and In a sense, education must lead to empowerment: through education, individuals should acquire the capacity to make decisions and act effectively in accordance with those decisions, and this in turn entails the ability to influence the rules of play through any of the available options. Thus, education consists in developing not only personal but also social qualities; it is the development of social conscience: awareness of how society works, knowledge of how it is structured, and a sense of the personal agency which allow action. This agency, however, at the same time restricts our interventions and makes it is necessary to decide our personal degree of action. (Goldberg, 2009). Essentially, it opens a dialogue between the personal and the collective, between common and individual interests, between rights and obligations.

**The following are the challenges faced by universities and other institutions of higher education:**

- Changes in universities as institutions and at the level of internal organisation. These changes should aim to improve the management of resources (human, economic, etc.) and be restructured to improve internal democracy. Universities must continue their mission to educate, train and carry out research through an approach characterised by ethics, autonomy, responsibility and anticipation.
- Changes in knowledge creation. Interdisciplinary and transdisciplinary approaches should be taken and non-scientific forms of knowledge should be explored.
- Changes in the educational model. New teaching/learning approaches that enable the development of critical and creative thinking should be integrated. The competencies common to all higher-education graduates should be determined and the corresponding expectations should be defined. In a knowledge society, higher education should transform us from disoriented projectiles into guided missiles: rockets capable of changing direction in flight, adapting to variable circumstances, and constantly course-correcting. The idea is to teach people to learn quickly as they go along, with the capacity to change their mind and even renounce previous decisions if necessary,
- without over-thinking or having regrets. Teaching and learning must be more active, connected to real life, and designed with students and their unique qualities in mind.
- Changes aimed at tapping the potential of information and communication technologies in the creation and dissemination of knowledge. The goal of such changes is to create what Prensky (2009) calls *digital wisdom*.
- Changes for social responsibility and knowledge transfer. The work of higher-education institutions must be relevant. What they do, and what is expected of them, must be seen as a service to society; their research must anticipate social needs; and the products of their research must be shared effectively with society through appropriate knowledge-transfer mechanisms.

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### **Higher Education Opportunities in India**

India is a vibrant country, with an estimated population of young people aged between 18 to 23 years to be around 150 millions. The sheer size of the market offers huge opportunities for development of the higher education sector in India.



### **Education in India**

India now boasts of having more than 33,000 colleges and 600 universities, which has been quite a remarkable growth during the past 60 plus years, post independence. The year 2012 witnessed a whopping 21.4 million enrollments, which makes India the 3rd largest educational system in the entire world. Unfortunately, the educational infrastructure of India is inadequate to handle such huge volumes. In spite all the government spending in the educational sector, it is just too insufficient to meet the growing requirements. Therefore, higher Education sector has now been identified as one of the promising areas for private and foreign investments. It offers immense investment opportunities in both non-regulated and regulated segments.

Some of the major drivers of education market in India are low rate of literacy, increase in the per capita income, and rapid urbanization. Government of India is also pushing for Foreign Direct Investment to encourage investments from private educational organizations from across the world. The Education Bill has been tabled in the parliament to push for more educational reforms. The second highest potential for investments is seen in the higher education sector. Steps are being taken to reduce the complexities that are associated with the FDI governance, in order to attract international investors.

Today, India offers abundance of high quality talent pool to the world. Since the country has been able to provide educated human resource in huge numbers, it has become one of the fastest growing economies among all the countries in the world. The difference has been quite noticeable after the 90s, when liberalization took place. The importance of education has always been emphasized by the founding leaders of the nation, and the same principles have been carried forward by the governments that came to power subsequently. Over 60 plus years of independence, we have seen significant importance being given to bring about better educational standards. During the time of independence, there were just around 500 colleges and 20 universities across the nation. With the growth in population, the numbers have also increased quite exponentially



**Higher Education in India: Vision 2030 India seems to have indeed entered a golden age for higher education. Many progressive steps taken in 12th, 13th and 14th Five Year Plans have come to fruition.**

The country has emerged to be a global magnet for aspiring learners, and a role model for high-quality affordable educational systems Today,

▶ India is the single largest provider of global talent, with one in four graduates in the world being a product of the Indian system

▶ India is among top 5 countries globally in cited research output, its research capabilities boosted by annual R&D spends totaling over US\$140 billion

▶ India is in the fourth cycle of its research excellence framework, with at least a 100 of Indian universities competing with the global best

▶ 23 Indian universities are among the global top 200, going from none two decades ago.

▶ In the last 20 years alone, 6 Indian intellectuals have been awarded the Nobel Prize across categories ▶ India is a regional hub for higher education, attracting global learners from all over the world

▶ The country has augmented its GER to 50% while also reducing disparity in GER across states to 5 percentage points

▶ The Indian higher education system is needs-blind, with all eligible students receiving financial aid. Twothirds of all government spending towards higher education is spent on individuals, including faculty and students

▶ India's massive open online courses, started by several elite research universities, collectively enroll 60% of the world's entire student population

▶ Indian higher education institutions are governed by the highest standards of ethics and accountability, with every single one of them being peer-reviewed and accredited To sum up, the three tiers of Indian universities produce among the best-in-class knowledge creators, problem solvers and process managers, who also display deep social, cultural and ecological sensitivity, are collaborative leaders and responsible citizens. In effect, the Indian graduate of today is not only an excellent human resource but also an admirable human being. Even as India deserves to fully revel in its resounding success of the last two decades, it must remember that to maintain its position of leadership in higher education, the next twenty years call for just as much leadership, vision and commitment as did the last twenty, and a golden vision 2050 should be India's next aspiration!

**I. Management of Higher Education** . The Indian higher education system is one of the largest such systems in the World. It is estimated that during the X Five Year Plan period (2002-07), there will be a tremendous pressure of numbers on this system and a large number of additional students will be knocking at the doors of higher education institutions in the country. There are also new challenges of management and regulation being faced by these institutions, which require serious attention, both at the institutions in the public sector and also those in the private sector now growing at a fast pace. As a result, the old structures of management established in pre-independent India and working during most of the twentieth century are now required to undergo drastic changes. Besides, the demands of the society for equity and accommodation





cannot be neglected any more. The new regime under WTO where competence is the cardinal principle of success in international operations has made it abundantly clear that the country should exploit its excellent potential in higher education and training facilities and prepare itself to export the Indian brand of education to foreign countries. Policy planning and evolving strategies for this task are somewhat new for the country. But, this is an opportunity which cannot be missed by India, as it offers interesting possibilities for strengthening of the nation's talent and resourcefulness. The following five sub-sections, cover important aspects of the deliberations, recommendations and action plans of UGC Golden Jubilee Seminars organized at different Universities in the country: • Public/Private Partnership in Higher Education, at University of Calicut, Kozhikode, Kerala; • Governance of higher Education, at University of Jammu, Jammu, J&K; • Access and Equity in Higher Education, at G.C.D. University, Bilaspur, Chattisgarh; • Export of Higher Education, at J.N.V. University, Jodhpur, Rajasthan and • Policy Planning for Higher Education under WTO and GATT regimes at North Bengal University, Darjeeling, West-Bengal. • Economics of Higher Education, at N. E. Hill University, Shillong, Meghalaya.

**1.1 Public/Private Partnership Indian higher education system** has undergone massive expansion in post-independent India with a national resolve to establish several Universities, Technical Institutes, Research Institutions and Professional / Non-professional Colleges all over the country to generate and disseminate knowledge coupled with the noble intention of providing easy access to higher education to the common Indian. The Public initiatives played a dominant and controlling role in this phase. Most of the Universities were Public institutions with powers to regulate academic activities on their campuses as well as in their areas of jurisdiction through the affiliating system. Even the private institutions enjoyed large-scale financial support in the form of grants from the public exchequer. Private funds as well as individuals played key roles in the cause of higher education. With the public funding being no more in a position to take-up the challenging task of expansion and diversification of the higher education system in the country to meet the continuously growing demands at present, there is little option other than bringing in private initiatives in a massive way to meet the various challenges. The deregulating mechanism of controls started with the granting of "Autonomous Status" to identified Colleges in the 1970s.. Some of these Colleges have graduated further to receive the "Deemed to be University" status in later years. Now, the country is on the threshold of the establishment of Private Universities in different States.

**These and related issues figured prominently in this whose recommendations are as follows:**

**1.1.1 Recommendations 1.** It is the primary responsibility of the State to provide the eligible with good quality higher education at reasonable cost. There shall be no withdrawal of the State from this responsibility. In fact, the investment in this area by the State shall be stepped-up to 3% of the GDP. This is essential for the intellectual strength of the State to address equity concerns.

**2.** A huge dedicated fund say, National Human Resource Development Fund, to the tune of at least one- percent of the GDP, may be created to tackle the equity problems. It shall be the accepted principle that 'no talented person shall be denied access to higher education

opportunities on the grounds of economic and social backwardness'. This fund may be dedicated to offer direct financial support in the form of scholarships, partial financial assistance and educational loans to students directly, based on the criteria of talent and financial and social backwardness. A well-designed mechanism to spot talents in different disciplines of knowledge is needed for this purpose. Further, foolproof criteria to determine financial or any other social backwardness is required.

3. Taxing the individuals, who had the benefit of the State resources in the past for their education, and the industries, which are likely to derive advantage from good human resources, are the options for creating such a fund. While it is difficult to arrive at an ideal solution to the equity problems, the absence of a credible and efficient method of addressing these problems will lead to lowering of the quality of human ware and large-scale discontent. The society may be the ultimate loser.

4. Industries may be encouraged to be partners with educational institutions directly for the development of human resources dedicated to their interests. This could happen in the areas of creating infrastructure, faculty sharing and direct support with funds. The UGC may set-up a High Power Committee to explore these possibilities and to workout the modalities for such a partnership.

5. The industries belonging to a specific discipline or related disciplines shall be encouraged to establish state of the art Research and Training centres to develop the necessary specialized man power. Automobile industry is a case point. Existing Public and Private Institutions and possible new Institutions may generate ample provisions for partnerships in this regard. A Committee shall work out the modalities and norms for this.

6. The areas not capable of attracting private funds shall be supported sufficiently well from public funds. This, as indicated earlier, is essential for the balanced intellectual growth of the society.

7. Industries and individuals may be encouraged to channel a percentage of their profits to the higher education sector, with no strings attached to such contributions. Viable incentives may be offered for attracting such investments from the private resources. A Committee may work out the modalities.

8. Strong quality control measures to assure performance above an acceptable benchmark is essential for the institutions. We are at the moment weak in this regard. The various rating agencies shall evolve scientific, transparent and consistent benchmarking techniques for this purpose. A regulatory system to ensure compliance to the set bench marking is needed with sufficient powers to close down non-complying institutions is a need of the hour. The Higher Education Policy needs to incorporate such features in it in the interest of the nation.

9. A Total Quality Management for courses offered, monitoring the achievement of the students at all stages of the course, shall be introduced at all higher education institutions.

10. An accreditation system for individuals in various disciplines may be thought of. Indeed, GATE and NET examinations with limited objectives are forerunners of such a system. The performance of students in such examinations may be made an important parameter for the accreditation of the institution.

11. The idea of allowing students to do Diploma or Certificate courses side by side with their Degrees, recently put forward by the UGC, is a welcome step towards empowering the students to take-up work soon after their Degree courses. This is an area where private initiatives can come up to augment the activities of the Colleges. The Colleges can develop in-house faculty and other facilities for this purpose and make these facilities available at a reasonable cost. Such a measure will turn around many Colleges from the non-performing class to the performing class. There shall be a mechanism to accredit these courses and facilities to ensure quality. This is an area where public/private partnership has a creative role to play.

12. It is important to realize that we live in a fast changing world, dictated by the developments in technology. Quick access to information has made knowledge creation fast, and the multiplier effect has made it even explosive. It is increasingly difficult to anticipate changes and respond to them with creative purpose. Designing courses with relevance to the future and developing the necessary manpower to deliver them is a challenging task. All this calls for a team of professionals in different areas to come together to develop proactive strategies for higher education to meet the future demands. A Strategy Planning Body and an Institution to design and develop futuristic courses for transferring them to the Universities and Colleges may be created.

13. Good Faculty is a must for any higher education institution aspiring for Quality. It is high time that an Indian Higher Educational Service, along the lines of the IAS, is formed. This has the advantage of quality control of the teaching faculty for higher education. A new Human Resource Development Policy shall be evolved to facilitate this. This could assure that there is continuous infusion of young blood in to the teaching cadre; which is not happening at the moment. With some restrictions on faculty appointments, the present evil of inbreeding can be eliminated. The inbreeding has destroyed many departments at Indian Universities.

14. Private Universities are a reality now and, as such, strong regulatory mechanisms are to be put in place immediately to monitor and control their activities with the objective of ensuring quality and social accountability. Higher education is a Public Good and cannot be left to the market forces to control. Those who venture investment in this area shall be properly scrutinized. Those with commercial interests dominating over the interests and ethics of higher education shall be eliminated.

15. The present archaic administrative practices need a thorough reform. A healthy Public/Private partnership can do much in this regard by way of exchanging good practices. A management system, lean but professional, making use of modern communication and information technologies is required to facilitate quality higher education.

16. According autonomous status to all performing institutions will facilitate rapid development of efficient and state of the art higher education institutions.

17. There shall be a dominant role for genuine academics in the governing structure of higher education institutions. The proposed regulatory mechanism shall have instruments to ensure this administrative set up of Universities/Institutions.

**Therefore Governance of Higher Education was deliberated at length at the main recommendations of which are summarized below.**

### **1.2.1 Recommendations**



1. The Governmental control in the Universities must be reduced, so that the University autonomy and accountability are strengthened and academic decisions are taken on merit.
2. New methods and procedures of financial regulations should be devised and direct interference of the finance department in the financial management of Universities, which is counter productive should be stopped.
3. As the Colleges are the feeding sources of the Universities, a better coordination in their working and activities is very much required. The participation of the teaching faculty in through a democratic process should be ensured.
4. Complete transparency should be maintained in the working of Executive/ Academic Bodies and other Governing Councils of the Universities. There is an urgency to review the University Acts in different States and revise the same in the light of the new requirements and the challenges being faced by the Universities.. New technologies of information and communication should be utilized for obtaining administrative efficiency.
5. Higher Education should be developed as an infrastructure for social and economic growth of the Country.

6. Students involvement in the area of University/College governance should be encouraged. 7. Political interference in the appointment of University teachers and administrators should be totally stopped.. **1.3 Access and Equity Today the world economy is experiencing**

an unprecedented change. New developments in science and technology, media revaluation and internationalization of education and the ever expanding competitive environment are revolutionizing the education scene. A paradigm shift has been noticed in higher education now a days, from 'national education' to 'global education', from 'one time education for a few' to 'life long education for all', from 'teacher-centric education' to 'learner centric education'.

These changes make new demands and pose fresh challenges to the established education systems and practices in the country. Because of interdependence and integration of world economy in recent years, the Indian higher education system has a new role and a challenge to provide to the nation and the world at large, skilled human power at all levels, having breadth of knowledge and confidence to effectively confront the social and economic realities.

**These and related issues in Equity and Access of Higher Education formed the subject matter of this, whose major recommendations are as follows:**

#### **1.3.1 Recommendations**

1. Strategies for higher education should be set within an educational chain extending from early childhood to post- graduate education to career advancement. Improving the interrelationship of all stages and levels of education should be a long - term policy goal.
2. Rural, urban and gender disparities must be kept in mind by policy makers in planning and implementing the higher education system.
3. While quantity is important, say achieving, double digit percentage for higher education, quality is paramount. Higher education should continue to be subsidized by the Government in an adequate manner. For improving the quality in education the role of public sector should be enhanced.

4. While the Western models of higher education should be suitably adopted, the education planners/implementers and the institutions should devise and develop indigenous ones.
5. A liberal milieu in the Indian Universities must be reconstructed. Diversity of opinion and critique of society and its processes need to be encouraged.
6. The appointment of bureaucrats, police officers/generals as Vice Chancellors and Registrars must be avoided as far as possible
7. Policies of higher education should be designed to strengthen indigenous research agenda.
8. One reform that is urgently needed is the right to information in the institutions of higher learning. Transparency in the functioning at all levels is required so that those committing wrong are deterred.
9. It is recommended that the method of selection of Vice Chancellors must be changed urgently, to make them accountable to the academic community and not to the political or bureaucratic bosses.
10. Policies of our country based on simplicity and sharing of facilities within and across institutions must be established and encouraged.
11. The WTO pushing the trade in services will have far reaching consequences in India, particularly for the remote areas and poorer sections of the Society. Therefore, the World Bank, WTO and GATT policies on higher education need serious consideration, National interests must be safe guarded. And, the opportunities for the deprived and under privileged people and regions must be ensured
12. There have been significant changes recently in the policies on financing of Universities in India affecting the pattern of financing and expenditure in the Universities. Given the increasing importance of higher education, it is important that the State continues to take major responsibility of financing the Universities. All other sources of income, including fees should be viewed only as peripheral. It is to be noted that reliance on students' fees has its own limitation.
13. Increasing reliance on the generation of internal revenues through consultancy and interaction with industry may produce imbalances in the Universities across various disciplines of study. So, efforts for the mobilization of resources have to be made extremely cautiously. Keeping in view our concerns of equity, efficiency and excellence in University education. Hence, the best method of financing of the Universities may still be by the State.
14. Universities have to attempt seriously to improve the pattern of allocation of resources between various activities and items of expenditure. Core academic activities should obviously receive top priority.
15. At the Universities, students' welfare, particularly scholarships, stipends etc., should be given due importance. Expenditure on administration and other miscellaneous activities needs to be rationalized.
16. New models for higher education including the following aspects need to be created and adopted in the country:
  - (a) extended traditional Universities
  - (b) technology based Universities, and
  - (c) corporate Universities..

#### 1.4 Policy Planning for Export Increasing economic integration across the World

over the past decade has cast tumultuous impact on all the areas supporting human life in the developing countries, which constitutes about 80% of the work force. The so-called structural adjustments in national policies and the new international economic order have brought about severe stresses never perceived before. There are exhortations to the policy planners of higher education emanating from GATT regulations made under WTO formulation e.g. withdrawal of subsidies, reduced control of the State, larger privatization and access to corporate players, designing of courses to meet the human resource needs of the markets in the changed scenario, and reliance on self-financing type management. at the national level.

**These and related issues were discussed at length at this, whose main recommendations are given below.**

##### 3.1.1 Recommendations

1. Curriculum Planning and Management should be studied in the perspective of knowledge management.
2. Integrated approach by involving experts from different fields with major focus on sharing of experiences in a holistic framework and having dialogues at different levels such as : at core committee level and at sub committee level. Multidisciplinary curriculum must be developed with a view to cater to the needs and fulfillment of expectations of learners, teachers parents, employers and society in general.
3. Decentralization must be encouraged with a broad frame work of University system.
4. Every University must have its own curriculum. There should not be any mechanism for central curriculum framework at higher education level. Context, specificity and inquiry oriented experience must be reflected in the curriculum. Learners' participation in the generation of knowledge must be the focus of constructive curriculum. Problem solving abilities must be developed through experimentation life-like situations.
5. Augmentation of Cognitive capital through the University curriculum will be the indicator of quality education.
6. Indegeneous knowledge system must be kept in mind while adopting scientific and technological developments as core components of University curriculum. Context specificity and global developments must be visualised with a holistic perspective.
7. Curriculum construction should transact in an authentic and real environment.
8. Curriculum transaction should involve social negotiation and mediation. Encourage group activities and make optimum use of peer as resources of higher learning.
9. Knowledge and skills must be developed with a view to provide relevance and meaningfulness.
10. Learners involvement must be encouraged to link previous experience with present learning. The learner should have full opportunity to scrutinize the learning experiences.
11. The principles of self regulation, self mediation and self awareness on the part of learners must be reflected in curriculum transaction.
12. Teachers should plan a mentor's of guiding learners to learn instead of directing them or instructing them all the time.



13. Learners must have ample scope to formulate their own queries and have multiple interpretations of knowledge through self search and experiential learning.

14. During curriculum transaction learners should be assessed formatively on a continuous basis to create the basis for acquiring new experiences.

### **3.2 Assessment and Accreditation The fact of the matter is that the Indian**

elite and middle classes have not cared for making education, what to say of higher education, accessible to the other sections of society. It is ironic that the beneficiaries of privileged access to institutions of higher learning are ever ready to persuade others to believe that the Indian education system has expanded beyond reasonable limits. The fact of the matter is that the system needs to be expanded to a much greater scale to serve the needs of the Indian youth.. Many institutions of higher education in the country are excellent in the sense that their infrastructure, resources, faculty, programmes of teaching and research are almost as good as the best in the advanced countries. But, the same cannot be said of the average institutions of higher education in the country.

**This and related issues were discussed at this resulting in the following major recommendations.**

#### **3.2.1 Recommendations**

1. Accessibility and quality upgradation are inseparable dimensions of higher education. Over-emphasis on one at the cost of the other would be counterproductive.

2. India being a country of the sub-continental size with a population above 1 billion, the quantitative expansion of education (i.e. accessibility dimension) is of paramount importance to mitigate disparities across regions, gender and social strata in the field of education. This should be given due consideration. 3. Along with the necessary and inevitable quantitative expansion of higher education, it is equally important to improve the quality of higher education. Institutions of higher education would find it difficult to meet the challenges of globalization of higher education if one fails on this front. Emphasis on quality parameters becomes all the more necessary in the light of mushrooming of private institutions with the opening up of the Indian economy.

4. Setting up of NAAC has sent the right and positive signals for generating and promoting awareness of the urgent need of quality upgradation of Colleges and Universities. The need is to identify effective ways and strategies to expedite the completion of assessment and accreditation by NAAC within a stipulated time frame.

5. Quality upgradation is not a one time phenomenon. Quest for excellence is a continuous and perennial pursuit. In view of this, post- accreditation complacency must be arrested by evolving quality assurance mechanism for self-regulation. The setting up of an Internal Quality Assurance Cell (IQAC), is one such mechanism. The IQAC comprising the Chief Executive, senior academics and officers of the institution should work as a steering group. The Cell may constitute two quality groups, one for academic excellence and another for administrative efficiency. These groups may design strategies for quality enhancement for consideration and implementation by IQAC.

6. Effectiveness of Quality upgradation initiatives in higher education largely depend on the quality of primary and secondary education. Institutional mechanisms on the pattern of NAAC, may be set up for upgrading the quality of education at these levels to further enhance the outcome of NAAC efforts.

7. Periodic assessment exercises in the future should be undertaken by IQAC as part of post assessment and accreditation exercises. These could be conducted in collaboration with NAAC.

8. With a view to ensure maximum participation of College teachers in Workshops/Seminars/Conferences and Orientation/Refresher Courses, it is suggested that these events be organized during lean periods in institutional academic work (i.e. March-July). This would help the teachers to participate in these activities without upsetting the teaching schedule.

9. The seven parameters identified by NAAC for evaluating the quality of institutions, although useful, need re-examination as they seem to be inadequate to fully assess the quality of higher education.

10. WTO has brought far reaching implications for institutions of higher education. Assessment and accreditation bodies like NAAC should take into account these implications while reviewing the quality parameters. The NAAC could also inform the institutions as to where they stand in terms of the standards of excellence from a global perspective.

11. At present NAAC is assessing and accrediting Universities and Colleges. This may not truly reflect the programmes/activities at the Departmental level. With a view to encourage this, NAAC could move a step further by starting the practice of assessing and accrediting teaching and research Departments within Universities/Colleges.

12. Multiple bodies have been undertaking assessment and accreditation of Universities and colleges. It was recommended that an institutional effort should be made to coordinate the activities of these bodies so that in togetherness they can address the issues of higher education in a broader societal perspective.

13. Other important recommendations for improving the quality of higher education include:

(i) A well-planned and structured interaction to be developed between Centres of Academic Excellence and other Universities/Institutions;

(ii) While restructuring the syllabi and courses, efforts should be made to develop an optimal combination of acquisition of theoretical and practical skills. The courses should be so designed that critical reading and interpretation of classics, practical field work wherever relevant, and application of readings and other skills are given importance;

(iii) Quality of higher education can improve considerably through an extensive and optimal use of audio-visual technologies and Internet. The courses should be so designed to make good use of these modern developments;

(iv) In restructuring of syllabi, all stakeholders such as students, teachers and users of services should be involved. However, teachers should be given flexibility within the norms and benchmarks decided by the stakeholders;

(v) Examination reforms, gradually shifting from the terminal, annual and semester examinations to regular and continuous assessment of student's performance in learning should be implemented.





(vi) Quality of higher education can also be improved by inducting quality oriented objectivity in merit promotions of teaching faculty. Specification of weightages for teaching, research publications/ supervision would help in making this transparent and credible;.

(vii) Re-organization and integration of various faculties, particularly in social sciences, around inter-disciplinary and multi-disciplinary courses can also help in quality improvement in teaching, research and consultancy. UGC, ICSSR and other research funding bodies should encourage interdisciplinary/ multi-disciplinary Seminars/ Conferences/ Research projects. These bodies could allocate at least 50 percent of their research funds for inter-disciplinary activities. UGC could also take initiatives to open Centres/ Schools for promoting multi-disciplinary teaching and research.

(viii) Basic Parameters of Academic Merit need to be developed for bringing transparency and credibility in the process of granting promotions under the Career Advancement Scheme. There should be no disparity between Readers/Professors appointed through open selections and those promoted on the basis of the Career Advancement Scheme.

(ix) A critical review of activities of higher educational institutions as well as their budgets needs to be conducted to phase out obsolete activities and create the necessary space for new activities. The shifting from traditional incremental budgeting to performance based one is now necessary to arrest the erosion in quality inspite of the resource crunch

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## Indian Diaspora In The Selected Poems Of Sujata Bhatt

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### Abstract:

Sujata Bhatt, an Indian born poetess, settled in Germany, diaspora writer expresses Indian sensibility, contemporary issues of immigrants, expatriates and their deep rooted culture in her poetry. The glimpses of these issues are vividly evident in her poetry. The key ideas identified with Diasporas are also found in her poetry. These ideas incorporate the artist's emotions of not-having a place and their composition of outcast, and the issue of the language in Bhatt's verse, which is connected with Indian character. In this paper, the researcher intends to take a glimpse at her selected works taking cognizance of some of her poems and will take a look at key ideas identified with Diasporas in the context of the poetry of Sujata Bhatt to bring the issue home.

Key words: Diaspora, Migration, Culture, Identity.

Sujata Bhatt, an Indian born poetess, settled in Bremen, Germany and publishes her poetry in England. She has travelled as well to Poland, Israel, Latvia, Ireland and won prizes in Holland and Italy. All this moving across cultures makes her a more than fit subject for analysis within the contemporary discussions of globalisation and Diasporas identity.

Talking about Diaspora as an expatriate experience, there are issues of rootlessness, and dislocation, experiences of both nostalgia and amnesia, which need to be answered and traced in Indian Diaspora. Writers living abroad live in the margins of two different cultures; there are issues of this margin to be explained. Salman Rushdie made well known the idea of 'imaginary homelands'. Most of the Indian diaspora writers have encountered these issues. These themes are explored in Sujata Bhatt's select poems like **Parvati, A Different History, History is a Broken Narrative and Search for My Tongue** which have been taken for the present paper.

The poetess Sujata Bhatt, while writing her poems gives importance to the culture and various religions in India. She has emphasized in her poems by repeating words and questions and thereby making her poem stronger. She writes about Indian traditions, lost identities, importance of language, cultural difference to create different moods and themes which account for her Indian consciousness and sensibility.

To begin with, in the first part of the poem **A Different History**, she concentrates on respect for education and learning. She claims that in Indian religion every object is sacred. There is God in trees. You should treat your books as the goddess of knowledge. You should be gentle when turning the pages of the book that you read for knowledge of religion.

'Great Pan is not dead; he simply immigrated to India./Here, the gods roam freely, disguised as snakes or monkeys;/every tree is sacred/and it is a sin/to be rude to a book'.  
(**A Different History** from the collection 'Brunizem')

The poem appeals to the reader because it is full of culture of a different country. In the initial stage it is descriptive and then changes to interrogative. The cultural background of Sujata is reflected in the first part of the poem. She has referred to God and books to talk about Indian culture. As one reads the poem further one realizes that she is talking about learning a new



language. She admits that, in spite of having to learn four languages she had to adapt herself to the English language. She compares herself with any one, who would feel scared to learn a new language because of ending up in making mistakes. This is the glimpse of Indian sensibility found in the poetry of Indian Diasporas. The issues like oppression of Indians during colonial period, great impact of English language on Indian dialects are also the issues dealt freely by the diasporic writers. In a sense the poem becomes an allegory for the lost Indian sensibility. Sujata Bhatt uses this poem as a weapon to focus on its victimized people.

The poetic devices like use of indentation, her breaking away from usual poetical syntax, assonance, free verse, all point out the contemporary diasporic issues strongly.

According to Steven Vertovec, diasporic consciousness is a particular kind of awareness said to be generated among contemporary transnational communities. Its particularity is variously described as being marked by a dual or paradoxical nature, in which the individual is [aware] of decentred attachments, of being simultaneously —home away from home or —here and there.

Michael Schmidt watched that her —free verse is quick moving, dire with stories, delicately talked. Her rhythm is characteristic, her phrasing undecorated. (Schmidt) Bhatt has been perceived as a particular voice in contemporary verse. She is, the New Statesman announced, —one of the finest artists alive. Her poem '**A Different History**' managing the issues of globalization and westernization, included in the verse treasury utilized for various connotations and denotations.

Principally, Bhatt is a poet with leanings towards the strange (dreams show up over and over again in her work), however she additionally has a solid sense on occasion of history and the postcolonial legislative issues of society. Tending to thusly the pursuers and the Hindu goddess of Siva's Himalayas, she composes:

'Do you know what it feels like/ to pick green tea-leaves /that grow on other side of the path /from the guava trees - /Parvati/why did you let Twinings take everything? /Parvati/I must confess/ I like Twinings the best/.... Heathen.Pagan.Hindu./What does it mean, what is a pagan? /Someone who worships fire? Someone who asks Parvati to account for the Industrial Revolution'.(—Parvati,Brunizem 43)

These sentiments and these sights are quite often urban Western and quite often individual. Being an Indian artist, writing in English, and living in Germany—these things don't appear to trouble her. She is calm with her circumstance. Bhatt has discovered her universe on the planet itself. The —injury of being an Indian on the planet is missing here. She has discovered an answer for herself:

'History is a broken narrative/Pick a story and see where/it will lead you/You take your language where you set it/or do you/Get your language where you take it?' (—History is a Broken Narrative (Augatora 40)

As a major aspect of this general authentic interest, additionally as her very own after effect diasporic developments, Bhatt has a proceeding with enthusiasm for historical underpinnings and issues of moving crosswise over dialects and scripts. The title of her first accumulation, Brunizem, takes the word for a dirt sort that runs over the northern side of the equator, connecting a hefty portion of her nations of home. Her title, Augatora is an Old High German word for 'window' and the history and diverse relationship of terms for the same item are followed:

'Today, unravelling the word/Augatora - and thinking of the loss/of that word - imagining the days/of a thousand years ago when these languages collided/bitterly, bloodily -/Old English, Old Norse, Latin,/Old German - I turn/to your Danish grammar book '- (—Augatorial 17-18)

This is not to recommend that Bhatt favours a basic perfection of congruity or consistency situated in settled standards or phenomena. On occasion, she does appear to recommend some vital fit in the middle of her language and experience that stays character: a memory of a tyke offering water by the rail route line can just happen in Gujarati (—Search for MyTongue - Brunizem 65); a moment from childhood in Poona is recalled in Marathi (Augatora 19).

Jane speaks of her language and body being changed by her relationship with Tarzan:

‘At first I thought I should teach you English – return to you what you have lost. But you have changed the sounds I listen for, ..... Already you have changed my eyelids, my ears, the nape of my neck – The way I lift my head to listen.’ (Augatora )

In her most famous piece, there is a physical contest enacted in the poet’s body as well as a textual competition between print types that admits of no easy resolution:

‘I can’t hold onto my tongue./It’s slippery like the lizard’s tail/I try to grasp/But the lizard darts away.’ (—Search for my Tongue-Brunizem 63)

Thus, Bhatt registers affect through mediated screens, sticking emotions to objects: food (garlic), art (paintings by Emily Carr, Edvard Munch, Picasso, Georgia O’Keefe, Frida Kahlo and Modesohn-Becker); photographs (Brunizem 45); love-making (bodily surfaces); news reports (Afghanistan, the anti-Sikh riots of 1984). One might simply say that this is the detached uprooted uncommitted nature of the cosmopolitan globetrotter.

It is hard to make definitive pronouncements on a poet’s development from looking through her published books. However, in terms of self-presentation through Bhatt’s published collections, we can generalise to note a progressive shift from memories of India, family and childhood through dream-like displacements of erotic moments with a lover and later personal mentions of miscarriages and childbirth. No doubt, they are full of such Indian sensibility and diasporic memories which characterise her poetry in general.

Cecile Sandten has categorised Bhatt’s work as “organic poetry” along the lines of Denise Levertov and densely intertextual verse (Sandten 1998). In the end, engagement with other artwork and artists forms the whole of the latest book and spans Bhatt’s entire writing career.

Bhatt herself comments in her introduction to *The Colour of Solitude* that her imagined relationship to Becker, Westhoff and Rilke via readings of their work may have been a way “for [her] mind to enter and try to understand a totally alien culture and country”. Where she is now at home in Bremen, she still presents herself as “the ultimate foreigner,” but as with much of her other work, she claims belonging in her role as artist, and performs her diasporic identity as a negotiator of gaps and dissonant edges across several languages. There is a hint always of some place beyond language where some ideal home or community may be found, and this is registered in her work via bodily-based affect and surrealist technique, but in this world Bhatt clearly finds her being as part of a literary and artistic community (and perhaps part of an artistic sisterhood as well) that seems to carry her across limitations of language and nation and time, and which provides a subtly changing “home behind the heart” and adequate identity for the unsettled traveller.

But then, Bhatt’s verse is basically a verse oeuvre. Her experiences with different articles and bodies find her however appear to affirm her persona as a private being, a void vicinity whose emotions rise up out of the escalation of an inclination in collaboration with an item or circumstance and in the demonstration of offering voice to that experience from a private, intelligent position.

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## Inscriptions in Satvahan Era

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### Introduction:

Ancient Indian Kings didn't pay attention to note important events in their reign. So writing of Ancient Indian History needs help of various parts and subparts. For example old coins, inscriptions, copper plates, evidences from excavation, and literary sources. Indian history can't be highlighted without support of these sources.

Historical sources are those by whose help history is written. Historical sources are of two types:

- 1) Primary sources
- 2) Secondary sources.

According to this there are two types of primary sources:

- 1) Written Sources, also called as literary sources
- 2) Non-written Sources, also called as material sources

The material sources like Ancient things, coins, Maps, Buildings, Statues, Monuments, and Forts etc. are helpful to written sources. In material sources inscriptions are important historical sources. The subject of this paper is "Inscriptions in Satvahan Era". Material sources are considered to be more authentic in comparison to literary sources. Material sources include inscriptions, ancient monuments, ruins; rock cut architecture carvings, pyramids, and ruins from excavation. Whereas literary sources include Puranas, Upstambhadharmasutras, Manusmriti, Katantra Vyakran, Kamsutra, Mruchchakatik, Padmaprabhrutak, Bruhatkathakosh, Gahasattasai, Dhawal Kavya, Jain Literature, Buddhist Literature, Foreign Literature etc.

### Objectives:

- 1) To understand what is inscription
- 2) To know the types of inscription
- 3) To understand the information of inscriptions in Satvahan Era
- 4) To highlight the political, social, economic, religious, cultural life during Satvahan Era through the inscriptions.
- 5) To understand the religious policy of the rulers during Satvahan Era
- 6) To focus the customs and traditions in Satvahan Era
- 7) To highlight the expansion of Empire in Satvahan Era
- 8) To understand the importance of the institution of Yadnya in Satvahan Era
- 9) To focus the Family system and place of women in society of Satvahan Era

### Hypothesis:

1. The inscriptions of Satvahan Era give the information of Religious policy of the Satvahan kings.

2. The inscriptions of Satvahan Era give the information of contemporary social, economic, political, and cultural life.
3. Contemporary inscriptions of Satvahan Era are helpful to get the information of Institution of *Yadnya* and donation.

#### Research Methodology:

Data collection and historical methods are used for present research paper.

#### Limitations and Scope:

Inscription is an important material source for historical research. We get various types of inscriptions of ancient kings. There are total 37 inscriptions in the Satvahan reign. Only some typical inscriptions are considered for this paper.

The science of inscription has progressed in modern times. Inscriptions can be seen at historical buildings like Forts, Palaces, Pillars, Pyramids, Temples, Mosques, and Churches etc. Inscriptions are written specifically by using short forms. It is important to verify the authenticity of the inscriptions. The question of deceptive inscriptions arises because of abnormality in history. The reading of the script in inscription is a hurdle. Despite this inscriptions are important material sources in writing of history.

#### Common format of inscription:

From a single word to lengthy engraved inscriptions are found in India. Engraved inscriptions are of two types:

- 1) The State Government
- 2) Personal

Kings engraved mountainous pillars like copper state. Fourteen commands of Emperor Ashoka are engraved on a slab. Pundits wrote about King's gregariousness in poetic language. If a soldier died in a war, in order to make his name memorable a pillar was erected. Such pillars are called "*Virgal*". Even a woman who burnt herself with the corpse of her husband and became Sati, a pillar was erected. Such pillar is called as "*Sati Stambha*". For example the inscription of Sati Saubhagyawati Ramabai is still seen at Theur. Such Sati Monuments are seen at various places in Rajasthan and Gujrath. A pillar erected with the names of dead relatives is called as "*Gotrashailika*". If a carved statue of a hero with inscription is erected, it is called as "*Chayastambha*".<sup>1</sup> Some persons personally or by some unions engraved some inscriptions. If a person has donated an idol, the name of the donor is carved at the seating strip. Pilgrims carved their names at pilgrim places. The names of some donors are engraved in rock cut architecture. The style of these inscriptions is sometimes like copper plate carvings. It is called as "*Pattika*". For example in the caves at Nasik Satkarni's (the son of Gautami) inscription is like appreciation and its style is like copper plate carvings. It is mentioned as "*Pattika*" in the same inscription.

#### Language and Script in inscriptions:

Inscriptions were written in various languages in ancient times. Its languages are Sanscrit, Prakrut, Marathi, Kannada, and the scripts are Brahmi, Pali. The inscriptions of Satvahan are in Prakrut language.<sup>3</sup> Nagnika's inscription in Naneghat is in Prakrut. The inscription of Satvahan King Pulumavi at Nashik is in Prakrut but has impact of Sanskrit. The inscription is written in poetic style.<sup>4</sup> The language of inscriptions of Nagnika at Naneghat, Kale, Bhaje, Bedase, Kude,

Mahad is Prakrut. As historical source, the inscriptions and copper plates have full-size share from the reign of Emperor Ashoka to the reign of Yadavas. The wonder of paper came in the Muslim reign and it reduced the importance of inscriptions and copper plates. Despite this inscriptions are material sources of prime importance in the study of ancient periods.

**Reference of time in inscriptions:**

Inscriptions at Hathi Caves were written in the first-second and third year of accession of the throne of Kharvel Kings. Satkarni's (Son of Gautami) inscriptions have reference of 19<sup>th</sup> year of the state, Summer, 2<sup>nd</sup> Paksh etc. When Satkarni uprooted Shaka, that time got the title "ShakaShalivahan".

**Information in inscription in Satvahan Era:**

inscriptions were engraved in Satvahan Era. The information of some of them is as follows:

**Advanced Science of Statistics: Cave engraving of Satvahan Empress Nagnika.** This inscription is in a cave 27 km. North-west of Junnar. This road is prepared by breaking the rock in Nane Ghat between Kalyan and Pratishtan which is also a commercial way. In this cave statues of Satvahan Empress Nagnika, Emperor Siri Satkarni, and Prince Skandhshri were erected. Actually the statues are not in existence now but their names are engraved on strips below it. This inscription is on the walls of three sides. The beginning of the inscription is from 1.5 meters above the ground. Ten lines are on the wall at left and middle. Ten lines are on the wall at right. In this way the inscription is of twenty lines. The language of the inscription is Prakrut and the script is Brahmi. It's time is of second decade of the first century A.D. Numbers 1, 2, 6, 7, 10, 12, 17, 100, 200, 400, 700, 1000, 4000, 6000, 10,000, 20,000 are in the inscription. After Ashoka this is the most ancient inscription containing such a large quantity of numbers. It shows that the science of statistics was advanced in ancient time.<sup>5</sup>

**Satvahan Dynasty's religious attitude seen through the inscriptions:**

The names of *Yadnyas* performed by Satvahan Empress Nagnika are there in her inscription.<sup>6</sup> The donations given on the occasions are also mentioned. The inscription was engraved on the commercial way to bring the great work of the Queen in front of the public. The reference to Prajapati Indra underscores the importance of Gods. Sankarshan and Vasudev were popular Gods. Later on the importance of Sankarshan vanished and the popularity of Vasudev continued. From the reference of money given as *dakshina* we get the idea of economic prosperity. Towns, golden and silver ornaments, 20,000 *kasharpanas*, cartful food grains, hundreds of cows, were given to Brahmis at the *Yadnyas*. In the same inscription the references of *Ashwamedh*, *Angiras*, *Agniyadheya*, *Atiratra*, *Anarambhniya*, *Aptoryam*, *Gavamayan*, *Gargatiratra*, *Chandompvamanatiratra*, *Trayodashratra*, *Dashratra*, *Bhagaldashratra*, *Rajsuy*, *Saptadashatiratra* etc. *Yadnyas* are mentioned.<sup>7</sup> From this it seems that the Satvahan kings were promoters of *Yadnya* Institution. The rulers from the Satvahan ancestry generously supported Buddha Religion. Rushabhdatta and his wife Dakshamitra carved a rock cut at Nashik. Son of *Gautami*, *Satkarni*, *Pulumavi*, *Yadnyasatkarmi* etc. Satkarnis carved rock cuts and offered it to *Buddha Sanghas*.<sup>8</sup> Many rulers of circumscribed regions and Knights also gave support to Buddha Religion. For example references of Mahabhoji Vijay's son Mahabhoj Skandhapalit's at Kuda's inscription, Kumar Kanbhoja's at Mahad's rock cut, Maharathi Kaushikputra's at



Bhaje rock cut. Mahabhoj Balika's at Bedsa rock cut, Gautami's son Maharathi Agnimitranka's at Chaytya Griha in Karla. Not only Kings, rulers of circumscribed regions and Knights gave donations but also common men supported Buddha Religion, carved rock cuts. It shows that there was generous attitude towards religion during Satvahan Era. There was harmony between Hindu and Buddha Religion. Krushnaraj was follower of Vedic Dharma but there is reference of carving of a rock cut by his minister. Gautami Balashri was a head-queen of Hindu Dynasty but had firm faith in Buddha Religion. That's why she asked Satkarni to donate towns to Buddha Bhikku and carve a huge rock cut at Nashik.<sup>9</sup> In inscription No.13 at Kuda reference is made of Aaitulu Brahmin devotee's wife Bhaila's donation in the form of Chaityagriha. Buddha Bhikkus were not surprised by donations given by kings to the Hindus. So Rishabhdatta had no objection in carvings of descriptions of donations given to Gods, Goddesses and Brahmins at the important places in *Viharas* given to him. Names of *Yakshas* and *Yakshinis* were given to farms. A farm named Ajkalkiya at Nashik was named after Ajkalak Yaksha. In the same area the name of a town was Sudarshana. The town was considered to be of a Yakshini named Tannamak. From this area in Nashik we can guess contemporary *Yakshapooja*.

#### **Joint Family and place of women seen through inscriptions:**

From many donation writings it seems that joint family system existed in Satvahan Era.<sup>10</sup> In donation writing the name of the head of the family is mentioned as the donor but he mentions in the writing that the religious merit be given to his brothers, sisters, sons and daughters etc. For example in writing at Junnar a devotee says it is the donation of him and his brother. They were living together after their father's death. In the same way in a writing at Kanhere the donor desired that the religious merit of his donation be given to his parents.<sup>11</sup> In many writings of Satvahan Era seems huge donations were given to Bhikshunis.<sup>12</sup> Especially it is seen that after becoming widows and initiation rite of Buddha Religion the donations were given. Women in Satvahan were rich and they gave some part of their property to charity. The reference is not made from whom they got it, from their fathers, husbands or their own riches. For example a daughter of a devotee, wife of Shivdatta Darmashri carved a rock cut at Kol in Konkan but there is no reference of expenditure. There is reference of Nagnika's daughter Padumanika who carved a rock cut and donated to a Bhikku Sangh. There is a rare reference in inscriptions of women being employed.<sup>13</sup> The custom of Sati did not exist in Satvahan Era. For example Nagnika and Gautami Balashri properly ruled after the deaths of their husbands. The description of it is in inscription no. 3 and 18. *Purdha system* did not exist in Satvahan Era. In some rock stripes at Amravati women are shown performing *pooja* at public *Chaityagriha*, participating in the debate in the meeting hall, singing and playing musical instruments. So it seems there was no *Purdha system*. The inscription shows that Satvahan Empress Nagnika successfully ruled after the death of her husband. Women had respectable status in politics and society.

#### **Economic condition seen through inscriptions:**

In the inscription of Satvahan Empress Nagnika reference is made of the coins *Kasharpan* and *Prasarak*. The reference is important from the point of view of ancient Indian numismatics. This is the most ancient reference of coins in cave writings. In the same writing Satkarni (Gautami's son) said that the farm at western Kakhadi was known by the name of Aachchalak Yaksha. The

200 *nivdtana* farm owned by Rishabhdatta. The reference of giving it to Trirashmi Bhikku Sangh is made. Similarly in writing no.13 it is mentioned that Rishabhdatta wanted to donate a field near Govardhannagar to Nashik Bhikku Sangh. He bought it from a Brahmin for 4000 *Kasharpan*. The price of the farm was dependent on its fertility. From the writing at Nashik by Satvahan Emperor Pulumavi seems that he donated a cave and Pisajipadrak town for supporting to Bhadravani Bhikku Sangha.<sup>14</sup> So it shows that Satvahan Emperor Pulumavi was secular. Some concessions were given to the donated towns.

#### Political condition seen through inscriptions:

The inscription of Satvahan Emperor Pulumavi is in the entrance of the third cave. Information of Satkarni's (Son of Gautami) valor, contemporary political condition, and of Satvahan Dynasty is there. Satkarni (Son of Gautami) occupied many countries; the names of these countries are mentioned in the writing. The expansion and valor of Satkarni Empire can be considered by it. According to the description of Satkarni, the king was strong like the Himalayas, Meru Mandar Mountain. His face was bright like the sun. His arms were muscled, round like a snake. He was devotee of mother and always toiling to the three debts. (*Trirunas*). He was always ready for charity. He was involved in pleasures and sorrows of his subject. He removed the vanity of the *Kshatriyas* and uprooted Shakas, Yavan, Pahamav and Kshaharats. So Satkarni (Son of Gautami) is compared to the greatest persons Rama, Arjuna, Bhima, Parshurama, and Ambarish. From this is seen the heroism of the founders of the Satvahan Dynasty.<sup>15</sup>

Similarly in the same writing the donations, support given to the Buddha Bhikkus by the Satvahans show their secularism.<sup>16</sup>

From the inscription in the cave of Naneghat seems that women were allowed to participate in politics. Empress Nagnika shouldered the responsibility of the rule after the death of her husband (Shri Satkarni). The rulers used to donate, perform *Yadnyas* showing their secularism.<sup>17</sup>

#### Conclusion and findings:

Considering the inscriptions during the Satvahan Empire, the Women's life was advanced. Women not only got Economical freedom but also had accession in politics. Satvahan King's secularism is seen through the donations given to the Buddha Religion. Economic prosperity and expansion of power was on increasing scale. In this way inscriptions are helpful to study the social, economic, political, geographical, cultural life of the Satvahan Era. So inscriptions have got important place in the historical research.

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## Knowledge Management : Pressing Need for Business Organisations

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### **ABSTRACT :**

The value and importance of knowledge, as seen by numerous organisations today, does without a doubt play a crucial role in the current ever-challenging and aggressive business environment. As a result, businesses that aspire to be labelled as being successful and competitive need to seek and find better ways to improve their firms' performance. Hence, Knowledge Management (KM), which is viewed as a source of sustainable competitive advantage, has attracted the attention of various companies all over the business world. With the realisation of KM, the systematic management of organisation knowledge - a strategic corporate asset not to be taken lightly; can thus be created, transferred, shared and, utilised, in pushing for greater organisational competitiveness, innovativeness and, productivity.

The environment in which businesses operate today can be summarized in terms of five key trends: globalization and the increasing intensity of competition; changing organizational structures; new worker profiles, preferences and predispositions; advances in information and communication technology; and the rise of knowledge management (KM). The basic assumption of KM is that organizations that manage organizational and individual knowledge better will deal more successfully with the challenges of the new business environment. KM is seen as a key factor in realizing and sustaining organizational success for improved efficiency and innovation. This research paper examined the factors that help to improve business performance.

**KEY WORDS:** Knowledge Management, KM Process, Success Factors, Small and Medium Size Enterprises, Competitiveness.

### **INTRODUCTION**

In today's business world, the perception and inclination of knowledge is gradually increasing. In this day and age, knowledge is viewed to be the most important organisational resource that carries unprecedented value and therefore should not be left unscrutinised as compared to conventional business assets, such as land, labour and capital. As a consequence, knowledge together with change and globalisation has become the most important driving force and commercial asset of the 21st century economy. It is this so called 'knowledge' that has in fact become an emerging crucial resource popularly known as



Knowledge Management. Firms, who are seen to have accepted and undergone KM activities as part of their business processes, are undoubtedly reaping the continuous benefits of what KM has to offer. As a result, a number of private and public organisations, attracted by the lucrative returns of what KM has to offer are therefore being lured and seemingly delighted in embracing and implementing KM. Small and Medium-Size Enterprises [SMEs) are often regarded as the backbone of industrial development and important source of economic growth. For this reason, SMEs plays a crucial responsibility in boosting the financial expansion in every country especially in meeting up with the challenges and demand of the current worldwide business environment. Knowledge Management may be particularly relevant for SMEs. Typically, SMEs have between 20-50 employees. As such, these firms tend to be relatively more dynamic and agile than larger organizations, and more ready to learn. However, they are often more vulnerable than larger organizations to the loss of key personnel. The main purpose of this paper is how to effectively establish and sustain good knowledge management practices in SMEs in order to ensure their competitiveness in the new business environment.

### **CONCEPTUAL BACKGROUND**

Knowledge is the possession of information or the ability to locate it Samuel Johnson wrote in his early dictionary: "Knowledge is of two kinds: we know a subject ourselves, or we know where we can find information upon it." Today we know that knowledge can be divided into two categories: tacit and explicit. Tacit knowledge is expertise that's difficult to document. It is knowledge acquired and stored in employees' minds, such as experiences with processes, tools, techniques, customers, managers, suppliers, and co-workers. It is also knowledge gained through study of job-related material such as business journals or trade publications. It is almost never captured for retention outside of the employee. Explicit knowledge, on the other hand, is that which is codified in documents, databases, e-mails, photos, drawings, etc. It exists in physical media and can be accessed by workers if they know where to look for it. Knowledge has been defined in other ways.

### **OBJECTIVES OF THE STUDY**

The present study was carried out with following objectives in view.

1. To study the concept of Knowledge Management.
2. To study the Knowledge Management success factors.
3. To study the Knowledge management strategy for SMEs.

### **RESEARCH METHODOLOGY**

For the present research study the data pertaining to the above objectives was collected and reviewed the literature on the topic concerned. The literature was thus collected by visiting various libraries. Some Government offices were also



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visited for getting office record and statistical data. The secondary data is also collected from various websites.

With the above objectives keep in mind the instructed Interview Method and Desk Research Method was basically adopted. The Secondary Data is collected from various reference books related to SME, Knowledge Management, Management, Commerce & Management, and Marketing & Finance etc. For said research study secondary data is also collected from the National and International Research Journals which are related to Commerce, Management, Marketing and Knowledge Management.

### **HYPOTHESIS OF THE STUDY**

The Hypothesis of present research study is as under :

**H1** : In today's business world, the perception and inclination of knowledge is gradually increasing.

**H2** : KM is best tool for SMEs management and performance improvement of SMEs.

### **KM SUCCESS FACTORS:**

To date, numerous studies had been carried out to identify the acceptance of successfactors in the perspective of SMEs. Since then, successfactors have provided important meaning to KM through the identification of the core business process that is critical to the success of KM adoption in the SME sector. Based on the review of literatures undertaken, five success factors are to be considered and determined in this study: Culture; leadership; employee participation; ICT and organizational structure. Each of the critical factors will be discussed in the following sub-section.

1. **Culture:** Each and every organisation conjures and delivers its very own unique significant culture, which inevitably includes values, norms, attitudes and behaviours (Ramus, 2001) that characterised the day-today functioning of an organisation. While culture is not the only determinant in the success or failure of a business, a positive culture nevertheless can bring significant advantages to an organisation in terms of providing an enjoyable working environment that increases business performance. This will inevitably increase the level of teamwork, sharing of knowledge and openness to new ideas amongst workers. A culture that acknowledges the importance of sharing knowledge among organisations are in fact important and should therefore be crucially considered especially when implementing KM. Hence, the significance of a culture is there by recognised as a major contributor to KM as it represents a major source of competitive advantage for organisations especially SMEs in improving their business performance (Wong, 2005), thereby increasing innovation, creativity and providing more opportunities for SMEs to compete.

2. **Leadership:** Management leadership plays a key role in influencing the success of KM. It is therefore strongly supported by Singh (2008) that the importance of



leadership should not be taken lightly especially the well sought after leadership styles, in making sure that KM processes runs smoothly. Leaders are important in acting as role models to exemplify the desired behaviour for KM. Hence a leader such as the manager should therefore be able to influence his or her workers to accomplish their objectives and directs the enterprise in a way that makes it more cohesive and coherent in obtaining the desired organisational results. Likewise, an effective leader capitalises on employees' strengths by making effective decisions and reacts promptly to changing conditions. Consequently, the support and commitment provided by leaders should therefore be ongoing in improving an enterprise business performance in contributing towards the success of KM, eventually making leadership a critical factor in supporting the KM initiative. In essence, it is this leadership support that enables KM to be implemented in organisations all over.

**3. Employee participation:** Effective employee participation brings promising employee satisfaction, quality improvement and productivity enhancement in SMEs (Pun et al, 2001). Hence, it is unquestionable that employee participation does play crucial in achieving KM initiative. By functioning in aknowledge-intensive enterprise, employees are able to apply their diverse skills and experiences in work processes and problem solving matters. With this, it is essential for all employees within an organisation, especially SME whereby agility and responsiveness at all levels are to be considered as sources for competitive advantage (Mc Adam and Reid, 2001).Therefore, encouraging participation is important in fostering the spirit of teamwork among employees to ensure that accurate information is able to reach the right individual at the exact time, which is the true goal of any KM initiative within SMEs. This will inevitably promote employee participation in promoting a culture of sharing (Chin et al., 2008), not only knowledge but essentially crucial knowledge to further increase organisational performance.

**4. Information and Communications Technology (ICT):** ICT does play a very significant and crucial role in assisting SMEs in creating both business opportunities and combating competition pressures. It seems that the effectiveness and efficiencies of ICT in supporting KM adoption is an essential requirement at the very beginning and across the KM maturity stages. Besides Maguire et al. (2007) had supported the realisation of how firms' competitive advantage can be achieved by adopting ICT and KM in SMEs. Hence, greater use of ICT may inevitably help firms increase their overall efficiency. By utilising tools such as e-mails, groupware, the Internet and intranets, employees within dispensable knowledge can be identified and connected to each other by sharing indispensable knowledge. In addition, according to Wong, it is therefore irrefutable that one of the key enablers for implementing KM is ICT.

**5. Organisational structure:** In terms of structure, SMEs have distinct

advantages when it comes to implementing KM. Rasheed (2005) had the orised that SMEs have a much simpler, flatter and less intricate structure, which thereby ease the change initiative across the entire organisation since functional integration, consisting of both horizontal and vertical, will be easier to attained. With this,, he further iterates that fewer complications will be encountered by SMEs in implementing KM as they have an advantage overlarge enterprises in respect to this structure. In SMEs/the managers are in most cases the owners, which imply that decision-making is centralised, with fewer layers of management (Rasheed, 2005). Thus, the advantage for proprietors in SMEs, is that they become the key drivers for KM adoption, assuming of course that they do somehow appreciate the importance of KM.

### **KNOWLEDGE MANAGEMENT FOR SMALL AND MEDIUM ENTERPRISES**

Small and medium-sized enterprises are the subject of much study and debate in the United States, as well as around the world. Widely recognized for their contributions of innovation and jobs creation, SMEs are often poorly positioned to maintain their growth patterns and at the same time adapt to what many of them find as a bewildering and wildly changing business climate. The influence of information technology, and the emergence of the economic power of information, can overwhelm a small business unprepared for its impact or unfamiliar with its rapidly changing uses.

**Knowledge Management Strategy For Small And Medium Enterprises-** The small business, by its very nature, normally has a high degree of informal sharing of tacit knowledge. Many people contribute and have expertise in more than one functional area, and there is a tendency for employees to be multi-disciplined simply to make the business succeed. In cases where knowledge is not openly shared in the enterprise, that becomes one of the primary objectives of a knowledge management strategy. True enterprise integration depends on the interaction of three building blocks: people, processes, and technology. These are all present at once in a successful knowledge management programme. A general knowledge management strategy can be outlined according to the architecture presented in Figure 1.

#### **1. Leadership**

- Knowledge management must be championed from the top of the organization. It will most likely be a disruptive technology and unfamiliar process. Executives must not only support but endorse, enforce and participate.
- The knowledge management strategy must be aligned with and mapped directly to the business strategy.
- A culture of sharing and tolerance of change must be cultivated.
- Benefits, including incentives, must be clear and reinforced often.





- Identification of the big issues (that have clearly identifiable payoffs] to resolve, such as customer and product information to the sales staff when and where they need it.
- 2. Organization**
  - Assessment of key processes and core competencies helps with requirements,
  - Development and Strategy mapping.
  - Progress and results must be measurable across the organization.
  - Re-alignment of functions may be necessary to achieve optimum results.
- 3. Technology**
  - Create a baseline of existing technology and map a future state that reflects business strategy.
  - Make an inventory of explicit knowledge resources and the processes that create, manipulate and manage them.
  - Identify technology that will accomplish business strategy.
- 4. Learning**
  - Provide continuous, constructive feedback across the enterprise.
  - Highlight successes, and reward accordingly. Build knowledge and enthusiasm.
  - Encourage teaming and sharing at all levels and across multiple functions.
  - Tolerate failure, and learn from it.

## CONCLUSION

KM has become an accepted part in both the business and academic arena. For this reason, organisations are well aware of the importance of KM in influencing current and future SMEs performance. Equally, measuring the business value of KM initiatives has become essential to ensure that certain business opportunities are therefore being realised.

KM also needs to be integrated into the strategic management of the organization. This can be achieved by building KM awareness, determining its intended outcomes, auditing and valuing knowledge assets and resources, and finally by developing and implementing those KM solutions that have the best potential to enhance knowledge and add value to the organization. By identifying 'proven' critical steps, key factors and possible alternative paths to follow, this paper attempts to put into the hands of SME managers practical tools that can help them unleash the power of knowledge in their organizations.

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## PARTICIPATION OF WOMEN IN PANCHAYATI RAJ INSTITUTIONS IN HIMACHAL PRADESH

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### Abstract

Present era is dominated by the mass involvement in multifarious activities of the society. Albeit masses were considered as the passive receivers and the elite of the society dominated the decision making process. These practices were common prior to the evolution of democratic institutions in most parts of the world. With the rise of the concept of the nation-state and indirect democracy, many new institutions like representative institutions, process of decision-making at different levels, participation of the masses in electoral processes and in other such processes has enhanced considerably. The participation of the people is an essential ingredient in the development process. Without the participation of the people the changes in local, political and economic fields are almost impossible and meaningless. The principle of gender equality and equity has been the prime concerns in Indian thinking right from the day of Independence. For this, special legislations have been enacted from time to time in support of women. The 73rd Constitutional Amendment of India provided reservation for women in PRIs, laying a strong foundation for their participation in the decision making in local bodies.

**Key Words-** Participation, Women, Panchayati Raj, 73<sup>rd</sup> Constitutional Amendment

### INTRODUCTION

Participation is the essence of democracy and modernization. A democratic society is a participant society. It is a rich concept that varies in its meaning and its definition. The way it is defined, largely depends upon the context and background in which it is applied. Participation means people are closely involved in the economic, social, cultural and political process that affects their lives.<sup>1</sup> It is viewed both in broader sense as well as in restricted sense- in the broader sense, this term is used to refer to all those action taken by people to participate in the process of social change and in a restricted sense, it means a specific process by which the people endeavour to achieve a limited goal.<sup>2</sup> For the last twenty years, the concept of participation has been widely used in development discourse and for the most of time the concept has been referred to participation in the social arena, in the community and in the development projects. The 73rd Amendment of the Constitution marks a distinct watershed moment in the concept and practice of people participation in rural governance. The Act makes a new ground by providing an institutional framework for rural people to actively participate in their own administration.<sup>3</sup> It has brought political revolution in India by inserting the provisions of reservation of one-third seats for women at three different levels for the members as well as for the chairpersons. It leads to empowerment of the women and enhance their status in society in terms of social, economic and political conditions which facilitate and encourage their participation in the public activities. This brings a sea change in the position of women as these institutions ensure their participation

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in political and social settings . Participation of women at local level can be viewed from two angles- quality and quantity. Quantitative aspect refers to the strength of participation and trend of participation in general and that of different groups like men, women, scheduled caste, scheduled tribes and backwards classes, etc. As far as qualitative aspects is concerned, there are three levels of quality of participation: active participation, passive participation and decision making participation.<sup>4</sup> Keeping in view the participation of women at grassroot level politics ensured by 73<sup>rd</sup> Constitutional Amendment Act we have studied their status in Himachal Pradesh.

### **Universe of the Study**

The present study confined to the state of Himachal Pradesh. The state of Himachal Pradesh came into existence on 15<sup>th</sup> April and gained full-fledged statehood on 25<sup>th</sup> January 1971 and become the 18<sup>th</sup>, state of Indian Union.<sup>4</sup> Himachal Pradesh extends over an area of 55673 Sq.Km. According to 2011 census, the population of state is 68,64,602 out of which 34,81, 873 were males (51%) and 33,82, 729 (49%) were females. The Sex Ratio of the state is 974 females per 1000 males and literacy rate of the state is 82.80 percent (Male 89.53 percent and Female 75.93 percent), it is above the national level. The rural population was on the high side i.e 90%.<sup>5</sup> At Present State have twelve districts. Una is one them. Una was the tehsil of Hoshiarpur district of Punjab till 1966. In 1972, Himachal Pradesh was reorganized and It became the district of HP. Una district is in the South-Western part of Himachal Pradesh. Una district comprises four tehsil and one sub-tehsil consisting of 848 villages as per 2011 census. For the development purpose the district is divided in to five community development blocks. These are Amb, Gagret, Una, Bangana and Haroli.

The new State of Himachal Pradesh adopted the Punjab village Panchayat Act 1952 but this Act, was repealed in 1968, when the State Legislature passed a new Panchayati Raj Act 1968. This Act provided for three-tier system of Panchayati Raj as Sabha at village, Panchayat Samiti at block and Zila Parishad at the district level.<sup>6</sup> The 1968 Act also provides for representation of women in case there are no primary women members in the Panchayat Samiti. Only two women were to be co-opted among the Panches from the block. Himachal Pradesh enacted a new Panchayati Raj legislation, the Himachal Panchayati Raj Act, 1994 in conformity with provisions of the Constitution (73<sup>rd</sup> Amendment) Act 1992. The Act of 1994, repealing the earlier State Panchayati Raj Act of 1968, became effective from April 1994. This Act provided one third seats reserved for women.<sup>7</sup> On the lines of 73<sup>rd</sup> Amendment by 1994 state had completed the process of enacting conformity legislation and holding five rounds of elections to the Panchayats. Himachal Pradesh, has made provision 50 percent reservation for women in PRIs. In the last 20 years no doubt Panchayati Raj has increased women participation in rural local bodies.

Himachal Pradesh is one of the States providing fifty percent reservation for women in Panchayati Raj Institutions. It is the result that at present more than fifty percent women elected as member and chairperson of these institutions. Though the socio-economic status of women of Himachal Pradesh is higher than neighbouring States, but our State is also not an exception to the disappointing state in regard to women's participation in State and national politics. Participation of women in PRIs higher than men, equal number of voters. Women have proved their capacity and role as a members of PRIs in HP and society is accepting women in their new roles. But still women faced so many socio-economic hindrances in PRIs

### Objectives and Sampling:

Against the foregoing assumptions, the present study explores the effectiveness of the 73rd Constitutional Amendment Act in Himachal Pradesh Panchayati raj institutions. The major objectives of the study are to explore the socio-economic and political profile of elected women leaders, reasons for contesting elections, effectiveness of women participation in PRIs meetings and hurdles faced by women in PRIs. In order to achieve the intended objectives, three women-headed Gram panchayats namely, Bathu, Polianbeet, Badhiara, Panchayat Samiti Haroli and Zila Parishad Una were selected from Una District. For the collection of data questionnaires were prepared and served to elected women (N=37) of sample of the study.

TABLE 1.1 Age

Institution	Age Group					Total
	21-30	31-40	41-50	51-60	Above 60	
Gram Panchayat Member	1(6.25%)	4(25%)	7(43.75)	3(18.75%)	1(6.25%)	16(100%)
Panchayat Samiti Member	2(16.67%)	1(8.33%)	9(75%)	-	-	12(100%)
Zila Parishad Member	-	2(22.22%)	4(44.44%)	1(11.11%)	2(22.22%)	9(100%)
Total	3 (8.11%)	7(18.92%)	20(54.05%)	4(10.81%)	3(8.11%)	37(100%)

From the table 1.1 it is evident that there are more women respondents i.e 54.05% in the age group of 41 to 50. There are lesser number of women representatives in the lower age group of 21 - 30. It is clear that in the rural society, age is an important determinant in deciding the social economic and political role of women. Rural women are bound to follow the culture and emanate their traditional role incessantly. More often, participation of young women in Panchayat is not acknowledged by the people because of the two reasons. First, is the cultural and traditional constraint that prohibits young women from emanating their political role. Second, is the belief that young women are deficit of relevant experience and confidence for performing the responsibilities of the governance.

TABLE 1.2 Educational Status

Institution	Education					Total
	Illiterate	Upto Matric	Plus Two	Graduate	Post-Graduate	
Gram Panchayat	2(12.5%)	4(25%)	8(50%)	1(6.25%)	1(6.25%)	16(100%)

Member						
Panchayat Samiti Member	1(8.33%)	7(58.33%)	2(16.67%)	2(16.67%)	-	12 (100%)
Zila Parishad Member	-	2(22.22%)	4(44.44%)	2(22.22%)	1(11.1%)	9(100%)
Total	3(8.11%)	13(35.13%)	14(37.8%)	5(13.51%)	2(5.41%)	37 (100%)

Table 1.2 reflects that 37.84 percent of the women members are educated up to higher secondary and 35.13 percent educated up to matric level. Around 13.51 percent are graduate and 5.41 percent are post graduates. Remaining 8.11 percent are illiterate. The educational level of rural women leaders is quite good but the level of higher literacy among the Panchayati Raj women leader is poor which is a lamented fact

**Table 1.3 Occupation**

Institution	Occupation				
	Agriculture	Business	Service	Any other	Total
Gram Panchayat Member	11(68.75%)	2(12.5%)	-	3(18.75%)	16(100%)
Panchayat Samiti Member	7(58.33%)	4(33.33%)	-	1(8.33%)	12(100%)
Zila Parishad Member	5(55.56%)	3(33.33%)	-	1(11.11%)	9(100%)
Total	23(62.16%)	09(24.32%)		05(13.51%)	37(100%)

From the analysis of data in table 1.3, it is evident that 62.16% respondents are engaged in agriculture work, 24.32% have their own business and remaining 13.51% are engaged in other affairs like tailoring, housewives and animal husbandry etc. In the rural area of Himachal Pradesh, agricultural activities are confined to their own fields but working on their own fields do not bring them any financial benefit.

**Table 1.4 Caste Status of women Leaders**

Institution	Caste Groups				
	Gen	SC	ST	OBC	Total
Gram Panchayat Member	9(56.25%)	4(25%)	3(18.75%)	-	16(100%)
Panchayat Samiti Member	5(41.66%)	2(16.67%)	2(16.67%)	3(25%)	12(100%)
Zila Parishad Member	5(55.56%)	2(22.22%)	-	2(22.22%)	9 (100%)
Total	19(51.35%)	08(21.62%)	05(13.51%)	05(13.51%)	37 (100%)

Caste plays decisive role in moulding the pattern of leadership at the village, state and national level. From the analysis of data in table 1.4, it is revealed that 51.35% elected women members belong to General Category, because they are socially and economically in a strong position, further 21.62% of members belong to Scheduled Caste, 13.51% of the members belong to both Scheduled Tribe and OBC. In Himachal Pradesh, approximately fifty percent population belongs to General category and rest to SCs, STs & OBCs. Trend of the elected members also reflect the same trend. Reservation to the women also reflects the caste configuration and hegemony of the higher castes. Evaluation of new roles and institutions are not free from traditional variable.

**Table 1.5 Family Background**

Institution	Types of Family		
	Joint	Nuclear	Total
Gram Panchayat Member	9(56.25%)	7(43.75%)	16(100%)
Panchayat Samiti Member	5(41.67%)	7(58.33%)	12(100%)
Zila Parishad Member	4(44.44%)	5(55.56%)	9(100%)
Total	18(48.45%)	19 (51.35%)	37(100%)

Table 4.5 shows that only 48.45% of the women leaders come from joint families and the remaining 51.35% from nuclear families. It shows that there is a greater possibility for elected women leaders to take independent decisions regarding their political role at grass root level democracy of the state. Now it is also considered to be a matter of pride that family members support Panchayati Raj women leadership .

**Table 4.6 Previous Electoral Experience**

Institution	Previous Experience		
	Yes	No	Total
Gram Panchayat Member	3(18.75%)	13(81.25%)	16(100%)
Panchayat Samiti Member	2(16.67%)	10(83.33%)	12(100%)
Zila Parishad Member	2(22.22%)	7(77.78%)	9(100%)
Total	07(18.91%)	30(81.08%)	37 (100%)

The table 4.6 clearly depicts that 81.08% of the elected women members had contested and won for the first time. Only 18.92% of the elected women members of PRIs of the sample district had contested previous elections as a member or chairperson of PRIs. Hence, it is evident that almost all the women members of PRIs of sample district are elected against reservation for women. Thus, 73rd Constitutional Amendment Act brought a new hope for women and created space for women in PRIs because before the implementations of this Act, there was no effective participation for the women in PRIs.

**Table 4.7 Determining Variables of Women Contestants**

Institution	Reason for Contesting PRIs Election				
	Family	Social Interest	Political Affiliation	Own Wish	Total
Gram Panchayat Member	8(50%)	4 (25%)	2(12.5%)	2(12.5%)	16(100%)
Panchayat Samiti Member	4(33.33%)	4(33.33%)	2(16.67%)	2(16.67%)	12(100%)
Zila Parishad Member	2(22.22%)	2(22.22%)	2(22.22%)	3(33.33%)	9(100%)
	14(37.84%)	10(27.02%)	06(16.22%)	07(18.92%)	37(100%)

Data from the above table 4.5, reveals that 37.84% of the respondents were encouraged by their family whereas 27.02% were interested in social activities. 18.92% women have self interest to contest PRIs election. Table further shows that 16.22% women were affiliated to political parties so they decided to contest the PRI election. It is clear that the women at the middle and lower levels were dependent on the support of their family for contesting PRIs elections ..

**Table 4.8 Elected Women Participation in PRIs Meetings**

Institution	Attend Gram Sabha Meetings		
	Yes	No	Total

Gram Panchayat Member	16(100%)	-	16(100%)
Panchayat Samiti Member	12(100%)	-	12(100%)
Zila Parishad Member	9(100%)	-	9(100%)
Total	37(100%)	-	37 (100%)

Attendance in PRIs meeting is an important determinant of the elected women participation. It is clear from the above table 4.8 that all elected women members attended PRIs (Gram Sabha, Gram Panchayat, block, Zila Parishad) meetings regularly. Therefore it may be said that democracy has become more effective now than before the emergence of the grassroots institutions. This agreement strengthened the socio-economic background of these women which showed that the majority of them come from the lower income group. Thus, covering regular meetings of the PRIs and the level of participation of various categories is an important indicator not only for the maternity at grassroots level democracy but also the broad based participation of the marginalised section of society.

**Table 4.9 Suggest Measures to Improve the Development Activities**

Institution	Opinion		
	Yes	No	Total
Gram Panchayat Member	12 (75%)	4 (25%)	16 (100%)
Panchayat Samiti Member	10 (83.33%)	2 (16.67%)	12 (100%)
Zila Parishad Member	9 (100%)	-	9 (100%)
Total	31(83.78%)	06 (16.22%)	37 (100%)

It is revealed from the above table 4.11 that 83.78% respondents suggest measures to improve the development activities, whereas 16.22% respondents don't suggest measures to improve development activities. From the above discussion it is clear that highest percentage of elected women at all the three levels suggest more measures to improve development activities. It has made a miraculous change in rural life. The women of villages have shown that they have a fine ability to work in the political field. Now the males of villages realised and accepted the abilities of women and they begin to accept change regarding their mentality about them.

**Table 4.10 Opinion About Variable as Hurdles in Politics**

Institution	Hurdle in politics				
	Lack of interest	Lack of political knowledge	Lack of education	All these	Total
Gram Panchayat Member	3(18.75%)	5(31.25%)	6(37.5%)	2(12.5%)	16(100%)
Panchayat Samiti Member	3(25%)	3(25%)	4(33.33%)	2(16.67%)	12(100%)
Zila Parishad Member	3(33.33%)	1(11.11%)	4(44.44%)	1(11.11%)	9(100%)
Total	09(24.32%)	09(24.32%)	14(37.8%)	05(13.52%)	37(100%)

Table 4.10, shows the main Hurdles which affect the women participation in politics. These are lack of interest, lack of political knowledge, lack of education, lack of support of male members. From the analysis of the data in table 4.40, it is seen that highest 36.52% of the respondents expressed 'lack of education' as the main hurdle followed by 24.32% who expressed 'lack of Interest', & lack of political knowledge and the least 13.52% expressed the lack of support of male members. Hence, from the above discussion it is clear that women active participation in PRIs has considerably increased but even now they are facing a lot of hurdles.





### Findings

- Women Political participation has increased considerably after the New Panchayati Raj;
- From the 'Constructive' approach of participation; Women political participation at the local level brought forward the development issues at the micro- level;
- Economic factors: economic dependence, women's work in the society is non remunerative or her involvement in unorganised sector is the major causes that block her role in political arena.

### Conclusion

At the end we can conclude that New Panchayati Raj System has become a major channel of popular participation in the process of development and political empowerment of women. From the facts stated above it can be said that the participation of women in Panchayati Raj Institutions in Himachal Pradesh is slightly increasing, but even now it is not satisfactory. However, the extent of their participation in all activities depend on a number of factors such as family, social conventions, cultural rituals etc. Women have to face numerous problems because the basic attitude towards them remain unchanged. Truly, speaking in spite of several economic, social and political changes during seven decades after Indian independence, women are still lagging far behind. Women must get greater social and political exposure so that they can be dynamic in development activities.

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## Profitability Analysis of the Income Generating Activities (IGAs) Run by Self-Help Group

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### Abstract

Self-Help Group plays dominant role to improve socio-economic development of rural poor households (HHs) belonging to SHG members through active involvement with Income Generating Activities (IGAs). The paper tried to analyze the profitability of the IGAs run by SHG members. The paper based on primary data. Total of 500 members of SHGs under SGSY have been selected for the study from Purba and Paschim Medinipur in West Bengal. Multistage random sampling technique has been used for the study. We have employed ratio, percentage etc. simple techniques and some variables like sales, Operating Costs (OC), Total Costs (TC), and Net Income (NI) are used. The study concluded that profitability and Return on Investment (ROI) has been satisfactory for all IGAs during the period under study run by SHGs.

**Key Words:** SHG, Profitability, ROI

### I. Introduction

Self-Help Group plays dominant role to improve socio-economic development of rural poor households (HHs) belonging to SHG members. Majority of the SHG members involved with Income Generating Activities (IGAs) and to increase their income in India Microfinance Status 2011-12). If we look at the scenario of the state of West Bengal it is seen that increasing trend of engagement with IGAs of the Households (HHs) belonging to SHG members. In this circumstance the present paper attempts to analyses the profitability analysis of the Income Generating Activities (IGAs) run by SHG.

### II. Literature Survey

Recent literature of many researchers highlights a number of significant features regarding profitability of Income Generating Activities (IGAs) run by Self-help Groups (SHGs) in India. Badatya, K.C., Wadavi, B. B. and Snanthi, B.B., and Ananthi, S (2006), made an evaluation study series on microfinance for micro enterprises- An impact evaluation study of self-help groups. The study has been conducted in AP covering three districts constituted 56 SHGs with 310 SHG members. The study stated that positive impact of group dynamics within SHGs and changes in pattern of enterprise mix among the SHG members. The study examined the impact of different Income Generating Activities (IGAs) and Micro Enterprises (MEs) with the help of some economic indicators like investment and Return, profit margin, net income percentage ratio of sales to operating cost, sales, total cost, loan repayment performance etc. The study also analyzed that income and employment generated by SHG members after SHG situation and had a positive impact on the incremental net income. Ganagaiah, C., Nagaraja, B., Naidu, C. V., (2006), in their studies on impact of self-Help Groups on income and employment in the states of Andhra Pradesh revealed that SHGs had a favorable impact on employment and income on the rural poor. The field level study shows that annual income of the SHG members significantly

increased from selected income generating activities. It also observed that farm based activities like agriculture generate highest income and non-farm activities create highest number of employment days. Ramachandran, T. and Balakrishnan, S. (2008), in their study on impact on Self-Help Groups on women's empowerment – a study in Kanyakumari district with 120 selected respondents from 12 villages are analyzed pre and post-SHG status of SHG members.

The study revealed that every SHG members increased their income by taking income generating activities in post-SHG period than pre-SHG period. The study also found that SHGs have given certain benefits to its members like as development of savings habit, increased income, access to large quantum of resources, better technology etc. The study further found that women members can able to contribute their family income in post-SHG period than pre-SHG period through their return.

### **III. Research Methodology**

The universe for the study incorporated the intact sample SHGs under SGSY of rural poor, motivated and promoted by DRDA, Purba Medinipur and Paschim Medinipur Zilla Parishad. The study has been conducted in 12 blocks selected from Purba Medinipur and Paschim Medinipur district in West Bengal. A study period of four years from 2011-12 to 2014-15 has been selected for the study. All the economic parameters are measured at reference year price.

Multistage random sampling method is adopted for the study at different levels. Sample SHGs randomly selected for the study, especially formed by rural poor women in the sample district in West Bengal. Total of 500 members of SHGs under SGSY have been selected for the study.

The study based on primary data. Primary data are collected from primary sources in different Blocks of the sample district through personal contact and interview with the help of structured questionnaire. Interview has been conducted with the SHG members selected by random sampling. In this study, IGAs run by the SHG members are classified into five categories.

These are:

- i. Farm activity.
- ii. Non-farm activity.
- iii. Off-farm activity
- iv. Clam and Cockles activity.
- v. Other Households activity (HHA<sub>s</sub>)

To analyze the profitability with respect to managerial performance of the classified IGAs run by sample SHGs, we have used ratio analysis technique. Return on Investment (ROI) for the IGAs units has been generalized in respect of some factors, like cost of inputs, price of output, gross income, net income etc. Estimated cost and benefits have been worked out with valuation at the reference year prices

The production cost has been worked out in respects of variable (operating) cost and fixed cost of the individual unit. The operating cost includes cost of raw materials, cost of overhead, cost of rent, electricity, wages interest on working capital etc. Interest on investment and depreciation (as per reducing balance method) includes fixed cost. Annual operating cost has been found out on the basis of total number of working days in a year.

Taking into account of varying scales of operations, investment in assets and heterogeneity on investment in IGA<sub>s</sub> run by SHG members, the Net income (NI) has been calculated per Re 1/- of investment for significant comparison of various activities covered under study. Economics of IGA<sub>s</sub> units covered under study have been also analyzed with the help of ratio analysis like sales to operating cost, sales to total cost and net income to sales etc.

#### IV. Profitability Analysis

Investment and return of classified Income Generating Activities (IGAs) run by sample SHGs in the district of Purba and Paschim Medinipur are analyzed. Summary result of investment and return according to classified IGAs run by sample SHG are presented in Table-1. It reveals that the sales to operating cost ratio for the IGA<sub>s</sub> are found to be satisfactory, i.e. all the IGA<sub>s</sub> have adequate coverage of operating cost (228.6%), followed by Non-farm activity (192.93%), off farm activity (184.95%), clam of lockless industry (160.44%) and other HH activity (158.83%). This analysis is indicative of the fact that all the selected IGA<sub>s</sub> run by the SHG members have long term sustainability. The profitability of the selected IGAs is measured by the ratio of sales to total cost. In this study, the worked out profitability of enterprises ranged from 148.15% for farm activity to 117.62% for clam and cockles industry. In percentage form, net income to sale is highest for farm activity (32.50%) and least for the non-farm activity (21.29%). The annual net income realized per Re 1/- of investment varied depending on the scale of operation of the various IGA<sub>s</sub> run by SHG members during the study period. Comparatively, low net returns of non-farm activity and others HHAs do suggest the identification of marketing centre and entrepreneurial abilities. Enterprises category wise ROI in terms of sales value has also been generalized in Table-1. It indicates that total income is higher for off farm activity (Rs. 65531), followed by farm activity (Rs. 50940), non-farm activity (Rs. 40808), clam and cockles industry (Rs. 31790) and other households activity (HHA<sub>s</sub>).

In terms of net income earned, farm activity occupied higher return (Rs. 16556), followed by off farm activity (Rs. 15673), non-farm activity (Rs. 8838), clam and cockles industry (Rs. 8480) and other HHA<sub>s</sub> (Rs. 4739). The annual net income per Re. 1/- of investment varied from Rs. 0.48 for farm activity to Rs. 0.27 for other HHA<sub>s</sub>.

**Table-1**

**IGAs Wise Investment and Return**

IGAs MEs	Total Cost (TC)	Sales (S)	Net Income (NI)	Sales TC (%)	NI S (%)	S OC (%)	NI Re. of investment
Farm Activity	34384	50940	16556	148.15	32.50	228.60	0.48
Non-farm Activity	31970	40808	8838	127.64	21.65	192.93	0.28
Off-farm Activity	49858	65531	15673	140.71	23.91	184.95	0.31
Clam & Cockles Industry	23310	31790	8480	117.62	26.67	160.44	0.36
Other HHAs Activity	17551	22250	4739	124.99	21.29	158.83	0.27

Sources: Field survey

Total cost (TC) is the combination of variable cost and fixed cost



#### V. Conclusion

The study concluded that Return on Investment (ROI) has been satisfactory for all IGAs during the period under study run by SHG. Studies further conclude that Net income is higher for Farm Activity than others.

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## जनजातियों में पारंपरिक दवाईयों का महत्व

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प्रस्तुत शोध पत्र जनजातियों में पारम्परिक दवाईयों का महत्व का अध्ययन किया गया है ।  
**प्रस्तावना:**— जब से मनुष्य है तब ही से रोग है। जब दिया सलाई का अविष्कार नहीं हुआ था तब भी आग जलाई जाती थी तरीके दूसरे थे। रोग निवारण के प्रयत्नों का इतिहास भी उतना ही पुराना है जितना पुराना मनुष्य है। आदिवासियों में रोग की जांच रोग के इलाज रोग के कारण इन सब बातों की अपनी शैली में देश, काल और परिस्थिति के अनुसार प्रतिष्ठित मान्यताएँ हैं। वे लोग रोगों के कारण देव धामी की नाराजगी भूत-प्रेतों का उपद्रव तथा किसी स्थापित मर्यादा का उल्लंघन मानते हैं। इन अधि दैविक कारणों में उत्पन्न हुए रोगों का इलाज भी वे लोग अधि दैविक तरीके से करना चाहते हैं। यह ही रहस्य है कि आदिवासी रोगी गुनिया या पंडा के पास जाता है डॉक्टर या वैध के पास जाने की कोई जरूरत ही नहीं समझता ।(1)

जनजातिया यह समझती है कि पंडा या गुनिया दुआ देगा, उसकी दुआ से वैध की दवाई अधिक असरदार हो जायेगी यहां कई प्रकार के जैसे स्वामी क्रोधानन्द बहुत उंचे दर्जे के वैध थे । वे दवाई बनाते समय असरदार हो इसके लिए शक्ति पाठ और मंत्र जाप करवाया करते थे और वनों में कई प्रकार की औषधियां होती हैं जिनका उपयोग जनजाति लोग करते हैं ।

ऐसा समझना भूल है कि जादू-टोना पर विश्वास करने वाले आदिवासी इसी कारण से पिछड़े हुये हैं। जगली क्षेत्रों में डाक्टर, वैध लोग जाना भी नहीं चाहते तब बेचारे आदिवासीयों के पास सिवाये जादू-टोना या देहाती इलाज के और क्या उपाय रखा है । कहीं कहीं पर ईसाई पादरियों ने दवाईयों की कुछ व्यवस्था की है पर उनका ध्येय धर्म परिवर्तन का है जनता की सेवा उनका ध्येय नहीं है जादू-टोना से एक प्रकार का अनुभव मुझे हुआ कुछ लोग सरकारी तथा गैर सरकारी दोनों प्रकार के लोग गरीब जनजातियों के पैसे मार देते हैं उनको ढगते हैं ढगने वाले की अन्तरात्मा धिक्कारती है तो वह बीमार पड जाता है बीमार पड जाने पर रोग का कारण जनजातियों द्वारा किया गया जादू-टोना बतलाता है अपनी हरकतों को रोग का कारण नहीं बतलाता है। जादू-टोना का तीसरा कारण प्रेम, व्यापार में सुनने को मिलता है । लोग कहते हैं की अमुक व्यक्ति ने या अमुक स्त्री ने दूसरे को मोहनी दे दी यह भी जादू-टोना का एक रूप है ।(2)

इन सब बातों का उपाय इतना ही है कि डाक्टर या वैध लोग गुनिया लोगों को अपना सहायक और मित्र समझे जादू-टोना तथा देहाती दवाईयों का अध्ययन करे तो सभ्य संसार को इन आदिवासियों से बहुत सी दवाईयों ज्ञात हो सकेगी । जादू-टोना का एक और तरीका है कि अपने गांव से रोग को निकाल देना ।

**जनजातियों के द्वारा रोगों का पहचान:**— जन जाति को किसी बात का चिंता नहीं रहती । चिन्ता से उत्पन्न आधुनिक सभ्यता के कोई रोग नहीं होते । उनका अन्तर राष्ट्रीय विषयों के अज्ञान उनके लिए वरदान सिद्ध होता है। भूख न लगी या भोजन में अरुचि हुई तो उन्होंने समझ लिया कि कुछ रोग है । आहार की मात्रा का बहुत महत्व मानते हैं। शारीरिक परिश्रम करने वाला आहार को महत्व देता है । लोकोक्ति ,

।। करै आहार, तो ये लै पहार।।

**रोगों का पारंपरिक उपचार :-** जनजातियों के दैनिक जीवन के बहुत छोटे मोटे रोग उनके समीप ही उत्पन्न होने वी वनों या घरेलु औषधियों से अच्छे हो जाते हैं । त्रिफला के तीनों फल 01. हर्रा, 02 बेहड़ा, 03, आंवला उनके वनों में बहुत मिलते हैं। दर्द मात्र के लिये भिलाव अचुक औषधि है। यह हर घर में रखते हैं न जाने कब जरूरत पड़ जावे । क्वार के मलेरिया के दिनों में चिराता बहुत होता है। चिराता के पंचांग का क्वाथ ज्वर के लिये प्रयुक्त होता है। चिराता के नीले फूल बहुत सुन्दर होते हैं इसी ऋतु में खुटला भी फलते हैं। खुटला के फलों की साग रोचक होता है। पेट साफ हो जाने में ज्वर का भय नहीं रहता। मुनगा के फल दवाई तो नहीं पर रसायन उतारने के काम आते हैं। मुनगा रखने से शरीर अपने स्वाभाविक रूप में आकर बहुत जल्दी स्वाभाविक उन्नति करता है। इस प्रकार वह अपना पारंपरिक इलाज करना पहले संभव मानते हैं ।

**रोगों के प्रचलित इलाजों का संक्षिप्त परिचय :-**

01. कृमि- कई बार छोटे बालकों के पेट में कृमि हो जाते हैं उनको गिराने के लिये पलाश के बीजों का प्रयोग होता है पलाश (फरसा) बीज के चूर्ण को गुड़ में मिलाकर खिला देते हैं या पलारा बीज को पानी में चन्दन सरीखा घिसकर लेप को शहद के साथ चटा देते हैं। दो या तीन पलाश बीजों से कृमि गिराने का इलाज पूरा जो जाता है ।

02. कुकुर खांसी- एक गलगल चिड़िया को मारकर उसके साथ करीब आधा तोला काला नमक डालकर मिट्टी के बर्तन में कपड़ मट से बन्द कर दो अच्छी तेज आंच में ताव दो। सबराख जो जायेगी। इस राख को एक चुटकी ही कुकुर खांसी की दवा है ।

03. पागल कुत्ता के द्वारा काटने पर :- वर्षा ऋतु में एक छोटा लाल कीड़ा होता है जिसको गांव गुवालिन कहते हैं। इन किड़तों को मिट्टी के बर्तन में रखकर कपड़मट से बड़े करके पीपल की लकड़ी की आग देकर इनका जौहर उड़ा दो। इस जौहर की एक रत्ती, रोटी में रखकर रोगी को खिला दो । रोगी को वमन होने । वमन में कुत्ता रूप में कीड़े गिरेंगे । रोगी को आराम हो जायेगा । यह दवा पागल लिड़ैया के काटने पर भी काम करती है ।

04. कुष्ठ :- एक और सौम्य दवा है जो कुष्ठ था रक्त शुद्धि के काम में आती है ।

ब्रही का स्वरस	- दो सेर
कागजी नीबू का रस	- आधा सेर
हरीदुब का रस	- एक पाव
गौ मूत्र	- दो सेर
गाय के दुध का मठा	- एक सेर ।

**बनाने के विधि :-** इन पांचों को मिट्टी के बर्तन में रखकर बर्तन का मुह बंद करके कपड़ मट से संधिरोग करके छाप दो । बर्तन को जमीन में गढ़वा खोदकर गाड़ दो । सात दिनों तक उसके बाद निकालकर छानकर सीसी में बंद करके रख दो । दवा तैयार इसका दो तोला का खुराक है। गाय मठा के साथ दी जाती है तीस दिनों का प्रयोग है।

**चेचक :-** चेचक के रोग को माता का रोग कहते हैं। माता शक्ति की आराधना की जाती है।

**जूं :-** सीता फल के बीजों का चूर्ण करके सिर में लगाने में जूं मर जाते हैं ।

**तपेदिक :-** बकरी का दूध एक सेर अमर बेल एक सेर काले बबूल पर ही अमर बेल अच्छी मानी जाती है दूध में अमर बेल डालकर मिट्टी के बर्तन में रखकर आग में पकाओं एक पाव रह जाने पर उतार लो । इस दूध को दो चम्मच सुबह और इतना ही शाम को रोगी को पिलाओं ।

**सर्पदश :-** सर्पदश में आत्मा रक्षता का एक और उपाय है सर्प की आराधना जिस विष को पीढा बैठाना कहते हैं । इस विधि में सर्प की आराधना और प्रार्थना करके रोगी को विष रहित किया जाता है । ग्रामीण

कुछ इस प्रकार भी करते है मुर्गी की गुदा को दंश स्थान में लगाते है। सर्पविष के कारण मुर्गी मर जाती है इस तरह दस बीस मुर्गी एक के बाद एक लगाते जाते है विष कम होता जाता है। अंत में एक ऐसी स्थिति आती है, जब मुर्गी बेहोश होकर रह जाती है । तब रोगी को निर्विष मान लिया जाता है ।

**सुझाव :-** जनजातियां दुर्गम पहाड़ी एवं बिहड़ स्थानों में भी रहकर आज भी वह अपना प्रकृति के द्वारा प्रदत्त औषधियों को नहीं भूले एवं वह अपने दैनिक जीवन में वर्तमान परिपेक्ष्य में आज भी प्रयोग करते है एवं उनके शिक्षा के माध्यम से जोड़ जाए तो वह एक प्रकार की आयुर्वेदिक से सफल हो जायेगा ।

**संदर्भ ग्रंथ :-**

01. अग्रवाल, रामभरोस, गोड़ जाति का सामाजिक अध्ययन, गोड़ी पब्लिक ट्रस्ट, मण्डला ।
02. ऐल्विन वेरियर, मुरिया और उनका घोटूल, राज कमल प्रकाश नई दिल्ली पटना इलाहाबाद ।
03. डॉ. पाण्डेय गया, उपाध्याय, विजय शंकर, जनजातीय विकास, मध्यप्रदेश हिछी ग्रंथ अकादमी ।
04. डॉ. शर्मा श्री कमल/डॉ. शिवकुमार तिवारी, मध्यप्रदेश की जनजातियां, मध्यप्रदेश हिन्दी ग्रंथ अकादमी ।

**सारांश**

जनजातियां आज भी दुर्गम पहाड़ी एवं बिहड़ क्षेत्रों में निवासरत है एवं प्रकृति से प्रदत्त जड़ी-बुटियों से अपना प्राथमिक उपचार करते है और वह डॉक्टर के पास जाने में विश्वास नहीं करते है वह जब भी कुछ होता है वहां पण्डा या गुनिया के पास इलाज के लिये जाते है एवं इसी कारण से वे पिछड़ है। कहीं-कहीं पर ईसाई पादरियों ने दवाई के माध्यम से धर्म परिवर्तन का उद्देश्य पूरा किया ।

जनजाति लोग जादू-टोना पर विश्वास करते है। यदि भोजन में रुचि न हो, भूख न लगी हो तो जनजाति समझ जाते हैं कि उन्हें कोई रोग हो गया है। जनजाति लोग घरेलु उपचार द्वारा छोटे-छोटे बीमारियों का इलाज कराते थे। त्रिफला के तीनों 01. हर्षा, 02. बेहड़ा, 03. आंवला वनों में बहुतायत में मिलती है अतः इसको उपयोग कई बीमारियों के इलाज में करते है। दर्द के लिए भिलाव, मलेरिया के लिए चिराता, मुनगा के फल का उपयोग रसायन उतारने के काम आते है ।

कृमि के लिए पलाश के बीच का उपयोग, कुकुर खांसी के लिए गलगल चिड़िया को मारकर काला नमक डालकर मिट्टी के बर्तन में रखकर तेज आंच में सेखते हैं एवं राख का उपयोग करते हैं। पागल कुत्ता काटने पर वर्षा ऋतु में पाये जाने वाले लाल कीड़े का उपयोग करते है । तपेदिक बकरी का दूध एवं अमर बेल का उपयोग करते है एवं सर्पदंश के लिए सर्प की आराधना एवं प्रार्थना करके रोगी को विष रहित किया जाता है । इस प्रकार जनजातियां के औषधियों के ज्ञान को वर्तमान में परिपेक्ष्य में उनके शिक्षा से जोड़कर आयुर्वेदिक को सफल बनाया जा सकता है ।

**संदर्भ ग्रंथ :-**

01. अग्रवाल, रामभरोस, गोड़ जाति का सामाजिक अध्ययन, गोड़ी पब्लिक ट्रस्ट, मण्डला ।
02. ऐल्विन वेरियर, मुरिया और उनका घोटूल, राज कमल प्रकाश नई दिल्ली पटना इलाहाबाद ।
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04. डॉ. शर्मा श्री कमल/डॉ. शिवकुमार तिवारी, मध्यप्रदेश की जनजातियां, मध्यप्रदेश हिन्दी ग्रंथ अकादमी ।



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## THE IMPORTANCE OF INFORMATION TECHNOLOGY IN E-BANKING BUSINESS

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### Abstract:

Businesses rely on efficient and rapid access to banking information for cash flow reviews, auditing and daily financial transaction processing. E-banking offers ease of access, secure transactions and 24 hour banking options. From small start up companies more established entities, small businesses rely on e-banking to eliminate runs to the bank and to make financial decisions with updated information. In an information - driven business climate, companies who do not use e-banking are at a competitive disadvantage.

E world is changing at a staggering rate and technology is considered to be the key driver for these changes around us ( papers 4you.com 2006). An analysis of technology and its uses show that it has permeated in almost every aspect of or life. According to Taro et at (2004) many activities are handled electronically due the acceptance of information technology at home as well as at workplace. Internet can be seen as a truly global phenomenon that has made time and distance irrelevant to many transactions. According to Heike et al (2002), the transformation from the traditional banking towards e-banking has been a 'leap' change.

**Key Words:** E-Banking, Information Technology, Teller Machine, world wide web, Service Quality.

### Introduction

The evolution of electronic banking started from the use of automatic teller machines (ATM) and has passed through telephone banking direct bill payment electronic fund transfer and the revolutionary online banking (Alter, 2002). The future of electronic banking according to some is the acceptance of WAP enabled banking and interactive TV banking (Petrus & Nelson, 2006) But it has been forecasted that among all the categories, online banking is the future of electronic financial transactions.

The fundamental shift towards the involvement of the customer in the financial service provision with the help of technology especially internet has helped in reduce costs of financial institutions as well as helped client to use the service at anytime and from virtually anywhere with access to an internet connection. According to theorists (Walfried et al., 2005) customer evaluation of the electronic services is influenced by attributions of success and failure in inter personal service situations.

### Importance of E-Banking

#### Activity Review

Business owners, accounting staff and other approved employees can access routine banking activity such as deposits, cleared checks and wired funds quickly through an online banking interface. This ease of review helps ensure the smooth processing of all banking transactions on a daily basis, rather than waiting for monthly statements. Errors or delays can be noted and resolved quicker, potentially before and business impact is felt.

#### Productivity

E-Banking leads to productivity gains. Automating routine bill payments, minimizing the need to physically visit the bank and the ability to work as needed rather than on banking hours may

decrease the time involved in performing routine banking activities. Additionally, online search tools, banking actions and other programs can allow staff members to research transactions and resolve banking problems on their own, without interacting with bank employees in some cases, month-end reconciliations for credit card transactions and bank accounts can be automated by using e-banking files.

#### **Lower Banking Costs**

Banking relationships and costs are often based on resource requirements. Businesses that place more demands on banking employees and need more physical assistance with wire transfers, deposits, research requests and other banking activities often incur higher banking fees. Opting for e-banking minimizes business overhead and banking expenses.

#### **Reduced Errors**

Utilizing e-banking reduces banking errors. Automation of payments wires or other consistent financial activities ensures payments are made on time and may prevent errors caused by keyboard slips or user error. Additionally, opting for electronic banking eliminates errors due to poor handwriting or mistaken information. In many cases, electronic files and daily reviews of banking data can be used to double or triple check vital accounting data., which increase the accuracy of financial statements.

#### **Reduced Fraud**

Increased scrutiny of corporate finances through audits and anti-fraud measures requires a high level of visibility for all financial transactions. Relying on e-banking provides an electronic footprint for all accounting personnel, managers and business owners who modify banking activity E-banking offers visibility into banking activities, which makes it harder for under the table or fraudulent activities to occur.

#### **Role of Information Technology (IT) in the Banking Sector**

Banking environment has become highly competitive today To be able to survive and grow in the changing market environment banks are going for the latest technologies which is being perceived as an 'enabling resource' that can help in developing learner and more flexible structure that can respond quickly to the dynamics of a fast changing market scenario it is also viewed as an instrument of cost reduction and effective communication with people and institutions associated with the banking business.

The Software packages for Banking Applications in India had their beginnings in the middle of 80s. When the Banks started computerising the branches in a limited manner. The early 90s saw the plummeting hardware prices and advent of cheap and inexpensive but high powered PC's and as services and banks went in for what was called Total Branch Automation(TBA) packages. The middle and late 90s witnessed the tornado of financial reforms, deregulating globalisation etc. Coupled with rapid revolution in communication technologies and evolution of novel concept of convergence of communication technologies like internet mobile/cell phones etc. Technology has continuously played an important role in the working of banking institutions and the services provided by them. Safekeeping of public money, transfer of money, issuing drafts exploring investment opportunities and lending drafts, exploring investment being provided.

The customers can view the accounts get account statements, transfer funds and purchase drafts by just punching on few keys. The smart card's i.e. cards with micro processor chip have added new dimension to the scenario. An introduction of 'Cyber Cash' the exchange of cash takes place entirely through 'Cyber books' Collection of Electricity bills and telephone bills has become easy. The upgradeability and flexibility of internet technology after unprecedented opportunities for the banks to reach out to its customers No doubt banking services have undergone drastic changes and so also the expectation of customers from the banks has increased greater.

The key driver to change has largely been the increasing sophistication in technology and the growing popularity of the internet. The shift from traditional banking to e-banking is changing customer's expectations.

#### **E-Banking :**

Many banks have modernized their services with the facilities of computer and electronic equipments The electronic revolution had made it possible to provide ease and flexibility in banking operations to the benefit of the customer. The e-banking has made the customer say good bye to huge account registers and large bank accounts. The e-banks which may call as easy bank offers the following services to its customers.

- Credit Cards/Debit Cards
- ATM
- E-Cheques
- EFT (Electronic Funds Transfer)
- DMAT Accounts
- Mobile Banking
- Telephone Banking
- Internet Banking
- EDI (Electronic Data Interchange)

#### **Benefits of E-banking :**

##### **To the Customer :**

- Anywhere Banking no matter wherever the customer is in the world Balance enquiry request for services, issuing instructions etc. From anywhere in the world is possible.
- Anytime Banking - Managing funds in real time and most importantly 24 hours a day 7 days a week.
- Convenience acts as a tremendous psychological benefit all the time.
- Brings down Cost of Banking to the customer over a period a period of time
- Cash withdrawal from any branch / ATM
- On-line purchase of goods and services including online payment for the same.

##### **To the Bank :**

- Innovative, scheme, addresses competition and present the bank as technology driven in the banking sector market.
- Reduces customer visits to the branch and thereby human intervention

- Inter-branch reconciliation is immediate thereby reducing chances of fraud and misappropriation
- On line banking is an effective medium of promotion of various schemes of the bank, a marketing tool indeed.
- Integrated customer data paves/way for individualised and customised services.

#### **Impact of IT on the Service Quality :**

The most visible impact of technology is reflected in the way the banks respond strategically for making its effective use for efficient service delivery. This impact on service quality can be summed up as below.

With automation, service no longer remains a marketing edge with the large banks only Small and relatively new banks with limited network of branches become better placed to complete with the established banks, by integrating IT in their operations.

The technology on one hand serves as a powerful tool for customer servicing on the other hand. It itself in depersonalizing of the banking services. This has an adverse effect on relationship banking. A decade of computerization can probably never substitute a simple or a warm handshake.

In order to reduce service delivery cost banks need to automate routine customer inquiries through self service channels To do this they need to invest in call centres kiosks. ATM's and internet banking today require IT infrastructure integrated with their business strategy to be customer centric.

#### **Material Method:**

This is a descriptive research paper based on secondary data. Data have been collected through various websites and publications of recent research papers available in different websites, Newspapers, Research Articles.

#### **Conclusion**

The use of electronic banking has removed the banking personal that facilitate the transactions and has placed additional responsibilities on the customers to transact with the service. Although the use of E-banking is provided for the benefit of the customers but these changes require increased work or involvement on the part of customers. These and other factors might be seen as lesser service provided in terms of customer service. But these assumptions would be wrong if the customer knows the value of using the electronic service.

In India e-banking of recent origin. The traditional model for growth has been through branch banking. Only in the early 1990s has there been a start in the non branch banking services. The new private sector banks and the foreign banks are handicapped by the lack of a strong branch network in comparison with the public sector banks in the absence of such networks the market place has been the emergence of a lot of innovative services by these players through direct distribution strategies of non branch delivery. All these banks are using home banking as a key "pull" factor to remove customers away from the well entered public sector banks.

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## USE OF DRUGS IN SPORTS

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The present day Olympic games were first started by Pierre de Coubertin. While laying foundation of the Olympic Games he had pointed out the necessity to protect the sport from dangers to which the sport could be vulnerable. In his speech delivered in Rome in 1923 he had denounced the intrusion of politics in the field of sports, the increasing venal attitude towards championship, the excessive worshiping of sport that's leads to the belief in wrong values, chauvinism, brutality, over working, over training and family doping. The recent doping scandals have draw the attention of media to practices which had hitherto had gone un-noticed. This media coverage has increased public awareness of this devil. In reality on account of the scope and sophistication of their use doping practices have become a threat to the fairness and existence of sportsman spirit in sports and games.

Doping is the intake of drugs i.e. chemical substance and adopting of method which enhance the performance of sport persons. Dope test of participants are conducted before every big event. Every winner is again tested after the performance. Sport authority of India claims that testing procedure in India is of international standard but it seems to be doubtful. There is no denying the fact the just like matchfixing in cricket doping in sports should not be swept under the tartan track. In cannot be done, it is rampant. Even officials practiced with the collusion and conspiracy of coaches and managers as hold by sports fraternity. Badminton star aprna popat had tested positive some three years back. Thus is exists in every field. it may not be common in disciplines there muscle power is not of much importance but in sport like weight lifting and races one need to be extra muscular and hence tends to adopt unacceptable means. Authorities may take strictest measure to do away with doping but it has become very very acute, so acute that participant deliberately ignore ethical and moral principles. Superiority complex or you way say inferiority complex forces then to adopt unscrupulous ways. Victory by any means: fair or foul, legal or illegal becomes their sole motive.

A few cases of use of drugs may be cited to illustrate the scope of the problem of dopping in 1986a doctor and two pharmacists had sold over 2000 phials of Tonedron at 150 times their normal price i.e. suppose legitimate price was Re 1, they were charging Rs. 150 for that. On 2<sup>nd</sup> of December, 1985 customs officers had seized 200,000 tablets and phials of anabolic drugs near Lille in France. These were to be supplied t muscle building cub-market. During 1996 out of 37 champions tested for doping 12 Drug Abuse in sport.

Were found to be positive i.e. 37% of the lot. During 1997 out of 8000 tested conducted only 69 were positive i.e. only one %. This fall in percentage might be due to seizure of banned drugs, dismantling of distribution network as also that tragic fate of some champions. Between



1987 and 1990 i.e. in a period of three years 18 cycling champions of Belgium and Holland had meter unnatural death on account of the use of "erythropoietin". This leads us to decrease number of positive tests is no indication of disappearance of the evil but goes to indicate that ways and means to hide it have been discovered.

Sports Authority of India as started tests on sports persons since 1990 only now and then, 257 in all tested positive. But in the opinion of Dr. Pushpinder. S. Bajaj, a specialist in sport injuries this figure does not present the real picture of the evil because there is no record of those sports persons who get the banned stimulants on the counters and those who evade tests which are rarely done at the state and national level and those who successfully befool the organizers. Reason behind the increased use of the banned drug can be attributed to the fact that potentiality of a person can be augmented by increasing the circulation of oxygen in blood. This is very important for physical performance by sport person who require staying power which depends upon the body's energy metabolism and requires intense efforts and varying sources of energy. After long lasting and instance physical exertion glycogen reserves must be maintained and restored. Special nutritional energy and drugs are then required to modify the metabolic process. It can also be archived by attitude training, self transfusion and glucocorticoids when the aim is to increase strength and muscular power and improve technique, protein, natural or synthetic anabolic agents are frequently use in combination with hyper protein diets and muscle building exercises. The deficiency between the increase in muscle mass and the loss o fat mass can be maintained by growth hormones associated with amino acid or other drugs with anabolic properties or with nutritional supplements. To avoid fatigue and to the enable the body to reach the utmost limits, the sports can be used antalgies, Cardio-respiratory analeptics, central nervous system stimulants. In sports where body feature or size, whether tall or short are important and such as in a body building, shape of the body can be modify by hormonal manipulation. Various drug are used to fight stress, facilitate sleep, maintain good physical features, such as benzocliapine derivatives and amphetamines cannabinoids alcohol or beta-blockers.

According to Shri Amal Dutta, a football coach "sports have turned into business and have becomes a source of living for many of them". They tack risk for quick success, medals, money, jobs and name and fame. Some of them lack self-confidants and resort to unfair means while some are simply ignorant for whom trainers words for gospel. Hence awareness program is required not only for sports person but for trainers as well. Some of the banned substance are-narcotics and strong analgesic; painkillers such as morphine, stimulants like caffeine, amphetamines cocaine; diriretics and local anesthetics and cortico-steroids, alcohol, merijiana ad some cold and cough medicine. The word Anti-Doping Agency has decided to remove caffeine and pseudoephedrine from the list of banned substance for internal sports and to add modafinil to the list of banned substances.

Methods of doping include blood doping; pharmacological, chemical or physical manipulation, manipulation such as drinking lot of water or taking probenecid before the tests or dilute the effect of the banned substance. Some drugs are easily detectable while some are difficult to detect. Detection techniques are more or less similar in laboratories all over the world.



Blood and urine samples are collected to be tested for the banned substance whether these are present within permissible limits or are in excess.

There have been instances where winner of gold medal in the Olympics were deprived of their medals when they tested positive for the prohibited drug. In last Asian games Sunita Rani of India had won gold medal in women's 1500 meter and bronze in 5000 meter race. She established a new Asian games record in 1500 meter race with a timing of 4:6:3 sec beating the previous record 4:12:48 sec with stood in the name of china's Qu Yunxia Hiroshima in 1994. but sunita Rani's urine sample taken after 1500 and 5000 meter race tested positive for Nandrolone, a banned steroid. An appeal again the tested was made which was accepted. But the level of banned steroid was found to be above the prescribed limits. Sunita Rani was stripped of her medals. Never the less in this case the two samples taken at different time showed different concentration leading to suspicion on the testing result or in other words in testing procedure. Sunita Rani throughout maintained that she had not taken any banned substance and so did her coach and her doctor. The matter was deferred to the medical commission of the international Olympic committee which cleared her of doping charges. The Amateur Athletic federation of India strongly defended Sunita Rani who had cleared dope test in New Delhi before leaving for busan. The Central Govt. of India institute a high level inquiry headed by sport secretary Shri S. S. Sharma to enquire into the doping charges.

The Amateur Athletic Federation of India had already absolved Sunita Rani of Doping Charge and decided to refer the matter to the world athlete body to seek justice for the athlete. The report of the Asian Games Laboratory was challenged since there were major discrepancies in the test results. Ultimately the international Olympic Committee reported that certain discrepancies. In the testing procedure in the dope laboratory of Seoul were detected. Sunita Rani was cleared of the doping charges and medals have been restored to her It is for the first time in the history of Asian Games that medals once forfeited on doping charges have been returned to an athlete.

The number of doping cases reported refers to the number of positive tests found by international Olympic committee and the WADA- accredited laboratory run by Anti-Doping scientists from multiple countries. Athletes who tested positive for banned substances prior to the Olympics and were not allowed to complete are not included in these numbers. For Example WADA President John Fahey announced that at least 107 athletes who play Olympic sports were sanctioned for doping in the six month leading up to the London Olympics, making them illegible to compete.

Olympic Doping cases				
Year	Place	# of drug tests	# of Doping cases Reported	% of Doping cases Reported
2012	London, England	5,051	9	0.18%
2008	Beijing, china	4,770	25*	0.52%
2004	Athens, Greece	3,667	26**	0.74%



2000	Sydney , Australia	2,359	11	0.47%
1996	Atlanta, USA	1,923	2	0.10%
1992	Barcelona, Spain	1,848	5	0.27%
1988	Seoul, s. Korea	1,598	10	0.63%
1984	Los Angles, USA	1,507	12	0.80%
1980	Moscow, Russia	645	0	0.00%
1976	Montreal, Canada	786	11	1.40%
1972	Munich, Germany	2,079	7	0.34%
1968	Mexico city, Mexico	667	1	0.12%
-----	<b>Total</b>	<b>26.900</b>	<b>119</b>	<b>0.44%</b>

# Of Doping Cases Reported	III. Olympic Doping Cases by Sport, 1968-2010
36	Weightlifting <sup>1,2,3</sup>
28	Athletics (Track and Field) <sup>4,5,6</sup>
12	Cross Country Skiing <sup>7,8</sup>
1	Equestrian
6	Ice Hockey <sup>9,10,11</sup> , Wrestling <sup>12</sup>
5	Cycling <sup>13</sup>
3	Biathlon <sup>8</sup> , Modern Pentathlon, Volleyball
2	Baseball <sup>14</sup> , Gymnastics <sup>15</sup> , Judo, Rowing, Swimming, Shooting
1	Alping Sking <sup>16</sup> , Basketball, Boxing <sup>17</sup> , Canoeing, Sailing
<b>127</b>	<b>Total</b>

# Of Doping Cases Reported	III. Olympic Doping Cases by Sport, 1968-2010
10	Austria <sup>8</sup>
9	Greece <sup>1,5,14</sup> , Russia <sup>1,11</sup>
8	USA
7	Bulgaria, Hungary <sup>10</sup>
5	Poland <sup>10</sup> , Spain <sup>13</sup>
4	Germany, Sweden
3	Great Britain <sup>16</sup> , Mongolia <sup>7,12</sup> , Norway, Ukraine <sup>3,6</sup>
2	Belarus <sup>4</sup> , Brazil, Canada, Czechoslovakia <sup>9</sup> , India <sup>2</sup> , Ireland, Italy, Japan, Puerto Rico, Romania



1	Afghanistan, Algeria, Armenia, Australia, Bahrain, China, Croatia, Finland, Iceland, Iran, Kenya <sup>17</sup> , Latvia, Lebanon, Lithuania, Moldova <sup>2</sup> , Monaco, Morocco <sup>2</sup> , Myanmar, Netherlands, North Korea, Slovakia <sup>11</sup> , Turkey <sup>2</sup> , Unified Team (CIS), USSR, Uzbekistan, Vietnam <sup>15</sup> , West Germany
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**Tables I and II :** The data for the number of drug tests conducted and the number of doping cases recorded from 1968-2008 were extracted from the International Olympic Committee's (IOC's) Jan. 2014 report "Factsheet: The Fight Against Doping and Promotion of Athletes' Health." (100 KB). The data for the number of drug tests conducted and the number of doping cases recorded for 2010 were obtained from the World Anti-Doping Agency's publication "Report of the Independent Observers : XXI Olympic Winter Games, Vancouver 2010." (405 KB).

Narsing Yadav, according to Court of Arbitration of Sport (CAS) ad-hoc hearing panel, intentionally took the drug in tablet form.

**Conclusion:**

It would be in the interest of the sports and sport persons to publicise a list of the banned drugs and create awareness among the sport persons. Athletes must be provided medical service to monitor their diet and training. The use of contrabanned drugs may prove fatal and may also cause morphological disformities. There is also a need to institute measures to avoid use of banned drugs and lay down stringent punishment to users, facilitators and agencies responsible for testing.



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## **PRIVATIZATION OF HIGHER EDUCATION IN BIHAR**

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### **Introduction**

In India Higher education is a sector which usually starts with undergraduate programs and moves laterally forward. Thus colleges which are mostly responsible for offering post-secondary courses, remains the major stake-holder in higher education. Higher education is perhaps the greatest source of social mobility in the present times. Through education people get the chance to build a better life for themselves and their future family; explained as 'life-chances' by one of the greatest sociologist Max Weber. Everyone, regardless of his or her socio-economic background, should have the opportunity to pursue the education of he or she is inclined to, subject of course to fulfilling the basic requirement of merit as enshrined in the Directive Principles of the State Policies of our Constitution.

The United Nations International Covenant on Economic Social and Cultural Rights of 1966 declares in article 13 that, "*Higher education shall be made equally accessible to all, on the basis of capacity, by every appropriate means, and in particular by the progressive introduction of free education.*" According to Dr. Shankar Dayal Sharma, "*The aim and objective of all education is to maintain sustain and develop a healthy mind in a healthy body.*" Dr. Shankar Dayal Sharma further said, "*Thus a Teachers must succeed in conveying the larger ideals of service to the community, virtues of tolerance and respect for all faiths, the importance of character, integrity and discipline and the value of humanism to his pupil&they should be also made mirror for heritage and culture.*" Pandit Nehru said, "*A vast responsibility rests on our educational institutions and those who guide their destinies. They have to keep their lights burning and must not stay from the right path even when passion convulses the multimedia and blinds many amongst those whose duty is to set example to others.*" Rabindranath Tagore had a vision for education, "*Education must aim at the development of moral spiritual and ethical values and we should see them in our own heritage as well as in other cultures and civilizations.*" As per Confucius, *human beings are teachable, improvable and perfectable through personal and communal endeavor especially including self cultivation and self creation.* The main idea of Confucianism is the cultivation of virtue and the development of moral perfection. (Ping-cheung, 1999). Gandhiji tried to tie education with the ground realities of day to day life through the concept of 'Basic Education.'

**Keywords:** Higher Education, Pedagogy, Dispossessed, University Teachers, Privatization

### **Privatisation of Higher Education in India**

The private initiative in higher education has not been a new phenomenon in India, for instance, some of the prestigious modern universities in India even established by the efforts of certain dedicated individuals with private financial aid. This, indeed, was unique in India as a form of public private partnership (Levi 1994: 313). The concept of Private Institutions, however, in the initial stage was meant to be sheer arbitrary, and was relative category to express miscellaneous classes of educational institutions. Such an arbitrary term, without much complexity gained public image from its inception and became a normative language in the domain of philanthropy (Cotton 1999: 566-67). Hence, philanthropy was understood by the fact that Private Institutions were being supported by the public. During British rule, through the directives of East India Company, the policy of grant-in-aid system was executed to encourage Private Institutions. There were three types of Private Institutions, for instance, nationalist, sectarians and caste communities, were operational with the support of individual philanthropist and local notables, before independence (Rudolph, 1972: 19). Even, in the post-independent India, private sector was continued to be thrived and become a major domain in shaping the system of higher learning in the back drop of the constitutional provision.



### **Privatization of Education in Bihar**

Higher education scenario is gloomy and dismal in general and Bihar in particular. This sector is facing great challenges and hardships right from early days of independence. The story of higher education is also similar to the case of elementary education. Major portion of education is also largely neglected. More than 90% percent of all the students in higher education system are enrolled in general courses at the undergraduate level and only 3.6% students are in engineering, medical and Teachers training courses. The enrolment in general education in age group of 17-23 is lower than the all India average of 7.7 per cent and the professional education is only 0.29 per cent, which is very low in comparison to the all India average of 0.62 per cent in 1998. The reason is the poor state of education machinery at every level. At university level, education both in terms of quality and governance is very poor. The financial liability of the Government has become very high since is granted constituent status to a large number of private colleges in response to increasing demand for higher education in mid 70s and 80s. The colleges and universities suffer in the absence of adequate number of Teachers. Vacant posts of Teachers are increasing year by year which resulted in the worst from of educational environment in the state. There are 9 universities including one Sanskrit University in Bihar but almost all universities are suffering from the scarcity of Teachers, staffs, funds and other infrastructural facilities since long time. The professional courses like, medical and technical education are worst neglected in the state. Almost all medical institutions including Homeopathic and Ayurvedic system of medical colleges are crying for its survival. A large number of vacancies exist in these institutions and these vacancies are increasing every year but these institution have been left out on fate. Technical education institutions consist of engineering colleges, and polytechnics. It is supposed to cater to the needs of technical manpower in the economy at different levels.

Considering the state of affair in higher education the views of Gandhiji and John Devey on education required reference. The views of Gandhiji and John Devey on education appears to have great parallelism. The conclusions of John Devey may be summed up along the following points:

- (a) The pupil be provided maximum freedom.
- (b) The aptitude of the pupil be given supreme consideration.
- (c) The pupil mustn't be made inactive within the confines of the class, rather be encouraged to be active.
- (d) Individual differences be paid attention.
- (e) The sense of sociability be instilled in the pupil.
- (f) More attention be paid to work than words.

Obviously Gandhi and Devey share close views on education. But the system of modern education appears to be moving in the reverse direction. Hence, a serious thought must be given to these two great philosophers of education; while formulating truly fruitful and people-centric education policies, as all of them are in very poor state in Bihar. Presently there are only three functional engineering colleges in Bihar. Presently there, though the engineering colleges at Gaya, Motihari and Darbhanga were taken over by Government in 1986-87 but are non-functional till date due to shortage of funds. There are 13 polytechnics in the state. Out of these



13 polytechnics, only 3 polytechnics have regular principals. Workshops in the polytechnics are under the charge of workshop superintendent. It is very surprising that present none of the polytechnics has workshop superintendent or a foreman to run the workshop. Besides these, to maintain the regular supply of craftsman in the economy there are 21 ITIs out of which 4 ITIs are exclusively for women but these are in extremely pitiable condition due to lack of infrastructure, equipment, instruction material, adequate funds and apathy of the government authority. Management education in the absence of a conducive industrial base is not flourishing in Bihar. Currently 3 university management institutions and 4 private management institutions are running in the state but all these institution are not properly functioning and not showing satisfactory performance. Management institutions in the state should be of national standards as far as the quality and infrastructural status is concerned. Although one IIT, one NIT, one NIFT and one National Law University is functional but the state is still waiting for opening of a Management Institute of National repute.

Five best states in higher education are: Tamil Nadu, Uttar Pradesh, Andhra Pradesh, Rajasthan and Maharashtra whereas five worst states in higher education are: Goa, Mizoram, Manipur, Tripura and Arunachal Pradesh.

#### **Number of Universities and Colleges in Bihar:**

Bihar has 2 Central University, 14 State University, 1 State Open University, 4 Institute of National Importance, 1 University of International Stature, 1 Institute established under State Legislature Act and 1 Government Deemed University. No Private University is established in Bihar. Thus total 24 University are existing in Bihar; which is 3.11% of the total Universities of India (642). When we come on private and government colleges we found that there are 479 government colleges and 70 private colleges are existing in Bihar. Out of which 32 colleges are Private Un-Aided and 38 colleges are aided by Government Agencies. Thus a total 549 colleges are functioning in Bihar; whereas in India there are total 21158 colleges; out of which 2.59% colleges are existed in Bihar only. We found that there are total 673 types of colleges in Bihar; out of which 371 are affiliated colleges, 280 are Constituent/University Colleges, 9 are PG Centre/Off-Campus Centre and 13 are Recognized Centre. Whereas in India there are total 37840 types of colleges; out of which 1.77% different types of colleges are existed in Bihar.

#### **Enrolment of Students in Colleges:**

There are total 1,45,202 students are enrolled in private colleges and 8,71,649 students are enrolled in Government Colleges. Out of which 34336 students are enrolled in Private Un-Aided Colleges and 110866 students are enrolled in Private Aided Colleges. Thus a total 1016851 students are enrolled in Bihar which is 6.77% of India's total enrolled (15010262). We found that there are total 825237 male and 539961 female are enrolled in higher education in Bihar; which is 5.19% male and 4.25% female of India's male and female. Out of which 84704 male and 45515 female from Scheduled Caste and 8099 male and 5747 female from Scheduled Category are enrolled in Bihar.

#### **Methodology**

**The Conceptual Framework: -**

This study is an attempt to obtain the: “Attitudes of University Teachers toward Privatization of Higher Education.” Through this study it will be cleared that is the privatization of higher education is in favour of the state and their students or not? It will also be tried to make clear that what are the opinions of the University Teachers and the Institutional Heads about this concern. It will also be focused on the problems faced by the poor brilliant students due to the privatization of higher education.

**Objectives:**

The following objective are taken to complete this study.

1. To examine whether University Teachers and Institutional Heads differ significantly on quality dimension of attitude towards privatization of higher education or not.
2. To examine whether University Teachers and Institutional Heads differ significantly on Control dimension of attitude towards privatization of higher education or not.
3. To examine whether University Teachers and Institutional Heads differ significantly on Exploitation dimension of attitude towards privatization of higher education or not.
4. To examine whether University Teachers and Institutional Heads differ significantly on Welfare dimension of attitude towards privatization of higher education or not.
5. To examine whether University Teachers and Institutional Heads differ significantly in their attitude towards privatization of higher education or not.

**Hypotheses:**

The following null hypotheses have been formulated to examine this study.

1. University Teachers and Institutional Heads do not differ significantly on Quality dimension of attitude towards privatization of higher education.
2. University Teachers and Institutional Heads do not differ significantly on Control dimension of attitude towards privatization of higher education.
3. University Teachers and Institutional Heads do not differ significantly on Exploitation dimension of attitude towards privatization of higher education.
4. University Teachers and Institutional Heads do not differ significantly on Welfare dimension of attitude towards privatization of higher education.
5. University Teachers and Institutional Heads do not differ significantly in their opinion towards privatization of higher education.

**Coverage:**

**Sample:-** Multistage Stratified Random Sampling Method will be used for the selection of various constituents of the universe population. The process of sample selection based on random techniques begins from the selection of State, Universities, University-Teachers and Institutional Heads.

**Sampling Design:-**

1. In first stage Bihar will be divided into two parts: North-Bihar and South-Bihar.
2. One University for each part of Bihar viz. From North-Bihar: Baba Bhim Rao Ambedkar University, Muzaffarpur and from South-Bihar: Patna University will be selected to obtain data.
3. Five colleges for each University will be selected on random basis.

4. Twenty percent University Teachers or about 20 Teachers (assuming 100 teachers in a college) from each college will be selected to complete this study.
5. The same number of Institutional Heads from various private institutes will also be selected on the random basis for comparison.
6. Thus a total two hundred (200) University Teachers and two hundred (200) Institutional Heads will be entertained in this study.

**Tests and Tools:**

Attitude towards Privatization of Higher Education (ATPHE) Inventory developed by Kumar, Lalit will be used in this study. It is a bilingual inventory (Hindi and English), which contains 24 items. This, like type attitude inventory has five alternatives and a separate response sheet. The inventory has four attitude dimension – Quality, Control, Exploitation and Welfare, Each dimension has three positively and three negatively worded items. Scoring of the responses is as 0, 1, 2, 3, and 4 in the direction from strongly disagree to strongly agreed for positively worded items. The dimension scores range from 0 – 24 whereas total score on attitude inventory ranges from 0-105. The inventory has high split half reliability and high construct validity. Students and Experts views have also been taken for face and content validity.

**Data Collection:-**

Attitude towards Privatization of Higher Education (ATPHE) Inventory will be given with a request to the various University Teachers and Private Institutional Heads to give suitable answer of each of the question of Inventory. After 25-30 minutes the answer – sheets will be collected and kept in separate categories. Then, the result will be tabulated and finally, it will be analysed by the SPSS technique.

**Data Processing:-**

Statistical tools will be applied to make the study more meaningful and interesting. Statistical-average will also be applied to find the mean attitude of the University Teachers and Institutional Heads of Bihar. Estimated values will be verified in the light of t-test or ANOVA. Correlation will also be used to find the relation between groups. And finally it will be submitted to the ICSSR for the evaluation. Single Star (\*) means significant at .05 level and Double Star (\*\*) means significant at .01 level.

**Result**

**Table 1**

Are you satisfied with the condition of higher education in the state		
College	Yes	No
Patna University	55.00%	45.00%
BhimraoAmbedkar University, Muzaffarpur	38.00%	62.00%
Patna Private Institution	42.00%	58.00%
Muzaffarpur Private Institution	65.00%	35.00%
<b>Total</b>	50.00%	50.00%

From table 1 we found that 50% of the total teachers of Bihar reported that they are satisfied with the condition of higher education in the state whereas 50% teachers showed no satisfaction about it.

**Table 2**

If no; give opinion on five reasons					
College	Not completion of syllabus in time 1	Invain politization of institution 2	Lack of work -culture in teacher and students 3	Lack of responsibility in institution 4	Lack of able teachers 5
Patna University	30.00%	42.00%	5.00%	17.00%	6.00%
BhimraoAmbedkar University, Muzaffarpur	23.00%	20.00%	21.00%	14.00%	22.00%
Patna Private Institution	29.00%	21.00%	20.00%	16.00%	14.00%
Muzaffarpur Private Institution	28.00%	26.00%	13.00%	18.00%	15.00%
<b>Total</b>	27.50%	27.20%	14.80%	16.20%	14.20%

From table 2 we found that in case if not satisfied with the condition of higher education; Not completing syllabus in time and invain politization of institution were mostly approved.

**Table 3**

Tick the five problems on priority basis which are responsible for the current situation of higher education in state					
College	Lack of infrastructure facility 1	Lack of responsibility in teachers 2	Neglignce of State Government 3	Invain participation of teacher and students in politics 4	Lack of able teachers 5
Patna University	17.00%	42.00%	5.00%	6.00%	30.00%
BhimraoAmbedkar University, Muzaffarpur	14.00%	20.00%	21.00%	22.00%	23.00%
Patna Private Institution	16.00%	21.00%	20.00%	14.00%	29.00%
Muzaffarpur Private Institution	18.00%	26.00%	13.00%	15.00%	28.00%
<b>Total</b>	16.20%	27.20%	14.80%	14.20%	27.50%

From table 3 we found that lack of able teachers and lack of responsibility in teachers were most probably found problems responsible for the current situation of higher education.

**Table 4**

Give five suggestions on priority basis for the betterment in present condition of higher education in state					
College	Institute should far away from the politics 1	Development of Basic Infrastructure facility 2	Arrangement of employment oriented education in institution 3	Completion of syllabus in time 4	Positive attitude of State Government 5
Patna University	22.00%	31.00%	10.00%	33.00%	4.00%
BhimraoAmbedkar University, Muzaffarpur	32.00%	16.00%	28.00%	15.00%	9.00%
Patna Private Institution	13.00%	23.00%	24.00%	26.00%	14.00%
Muzaffarpur Private Institution	4.00%	29.00%	19.00%	46.00%	2.00%
<b>Total</b>	17.80%	24.80%	20.20%	30.00%	7.20%



From table 4 we found that the betterment of present condition of higher education will be completed by the completion of syllabus in time and development of Basic Infrastructure.

**Table 5**

Do you think that higher education should be privatized		
College	Yes	No
Patna University	29.00%	71.00%
BhimraoAmbedkar University, Muzaffarpur	43.00%	57.00%
Patna Private Institution	59.00%	41.00%
Muzaffarpur Private Institution	32.00%	68.00%
<b>Total</b>	<b>40.80%</b>	<b>59.20%</b>

From table 5 we found that on the question “Higher education should be privatized”; about 60% teachers of Bihar said that it should not be privatized; otherwise it would be for reach to the poor section of the society.

**Table 6**

If no; tell the losses on priority basis due to the privatization of higher education					
College	Fear of being disadvantaged to the poor section of the society 1	Less possibility of getting chance to the intelligent students 2	Going beyond the concept of welfare state 3	Possibility of being limited of education to a special category people 4	Possibility of being that education is a business 5
Patna University	28.00%	10.00%	2.00%	55.00%	5.00%
BhimraoAmbedkar University, Muzaffarpur	24.00%	16.00%	7.00% (#)	25.00%	28.00%
Patna Private Institution	68.00%	3.00%	3.00%	18.00%	8.00%
Muzaffarpur Private Institution	46.00%	8.00%	4.00%	32.00%	10.00%
<b>Total</b>	<b>41.50%</b>	<b>9.20%</b>	<b>4.00%</b>	<b>32.50%</b>	<b>12.80%</b>

From table 6 we found that on counting the losses due to privatization of education; we see that 41.50% teachers showed fear of being disadvantaged of the poor section of the society and 32.50% teacher showed possibility of being it limited to a special category of people.

**Table 7**

If yes; please tell the benefits of privatization of higher education on priority basis					
College	Creation of opportunity of employment 1	Help in universalization of education 2	Availability of assets in developing the infrastructure facility 3	Increment in employment oriented and vocational education 4	Availability of better and quality based education for growing population 5
Patna University	69.00%	4.00%	2.00%	3.00%	22.00%

BhimraoAmbedkar University, Muzaffarpur	25.00%	9.00%	7.00%	46.00%	13.00%
Patna Private Institution	39.00%	14.00%	7.00%	27.00%	13.00%
Muzaffarpur Private Institution	24.00%	32.00%	6.00%	19.00%	19.00%
<b>Total</b>	<b>39.20%</b>	<b>14.80%</b>	<b>5.50%</b>	<b>23.80%</b>	<b>16.80%</b>

From table 7 we found that on counting the benefits of privatization of higher education we see that 39.20% teachers said that it will create the opportunity of employment and 16.80% teachers said it will make available the quality based education whereas 14.80% teachers said it will help in universalization of education.

### Discussion

Teachers of Bihar are not much satisfied with the present condition of higher education in the state and they also fear that after the privatization, it will be far reach from the poor people and it will be only available for the rich section of the society. Although it was favoured here that privatization of education will create more employment and it will provide quality based education for all which will help in universalization of education. When we compare these thoughts; we find that a section of society (of rich people only) has made up their mind to educate their child in technical institutions only. Thus those (poor section people); who are not economically strong; are forced to educate their child in traditional courses. Although this stream is flowing slowly in society and people who are somehow strong economically; trying to send their child in technical education. During the year 2013-14 admission in Philosophy subject in B.N. College, Patna was only one in number (According to an official record). It shows that faith on traditional subjects are now being abolished because they are not job oriented. Our result is also supporting this fact that now admission in vocational courses has increased in compare to traditional subjects and it was accepted by 71.20% teachers that poor students cannot get education in private institution due to high fees and it will be controlled by the corporate sector in future. All these facts are indicating that although privatization of education is job oriented; but they are valueless. At present it is limited to the economic section of the society and in future it will be far reaching to a large section of society. As well as this section (poor section people) will follow this stream; they will gradually loss their values. They will become machine like; who has no thoughts or ideas for future. In this situation loneliness, depression and adjustment problem be more prone in the society.

So it is suggested here that at the place of moving towards privatization of education; they should try to improve the quality of traditional education and help in developing the value based society

### Conclusion

After the discussion it can be concluded that there is lack of capable teachers in higher education. Teachers of government institutions are only bearing their social



responsibilities. They are taking more interest in politics than teaching. Poor students cannot get education in private institution due to high fees and it will be controlled by the corporate sector in future. All these facts are indicating that although privatization of education is job oriented; but they are valueless and beyond the theory of a Welfare State. Due to the privatization of education poor and intelligent student of society will be de-barred from education because it is affecting the poor section people fraudgirily. At present it is limited to the economic section of society and in future it will be far reaching to a large section of society. As well as this section (poor section people) will follow this stream; they will gradually loss their values. They will become machine like; who has no thoughts or ideas for future. In this situation loneliness, depression and adjustment problem be more prone in the society. So it is suggested here that at the place of moving towards privatization of education; they should try to improve the quality of traditional education and help in developing the value based society.

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## THE WOMEN REFUGEES IN TAMILNADU CAMPS

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### **Abstract:**

The first exodus of Refugees began on 24<sup>th</sup> July 1983 and continued till 29<sup>th</sup> 1987 .During this period, 1, 34,053 Srilankan Tamils arrived India .This was the period when mass exodus was handled by the State government of Tamilnadu .Due to the sentimental ties of the people of Tamilnadu with this exodus the government had facilitated them with all the basic needs. In the time the refugees faced so many Problems like, socially, politically and economically, but in this situation. The people wanted so many basic amenities in the camp level, but all ready those People were not peace full, in the camp. The refugees did not mingle and join with the common People. The camp is isolated from the common residential areas. They are not given any financial assistance. As far as the srilankan women refugees, most of the women dwellers in the camp are living without their husbands. As they are refugees, they are living in the camps with less freedom and rights. In general the women refugees are facing more problem than men. In this regard this explores and analyzes the problem faced by the women refugees in the camps of Tamilnadu.

Key words: Mass exodus, basic amenities, women refugees, financial assistance.

### **Women refugees**

More than fifty per cent of the refugee population residing in the, camps were women. Women-folk were of diverse nature. At times, they were the uniting force linking the ties of different families. The women, in the camps belonged to different categories: In fact, in many of the families they were the wage earners in different capacities. Some were teachers, tailors and petty shop owners and many had been working as servants and daily wage earners in several houses of the host society. When the refugees came to this land initially everything was difficult for them. For instance the climate was very hot, many of their food habits were different. For instance, they used more amount of coconut in every dish they prepared which was occasionally



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used in Tamil Nadu dishes. The increase in the use of coconut by these people raised the demand in the surrounding areas and the prices rose shortly.

These Sri Lankan Tamil women were the custodians of the culture of their native territories for which they were very proud. But at times when they saw their younger siblings growing in the cosmopolitan surroundings amidst the multiple TV channel programmes and electronic marvels, their dress habits changed to some extent, behaviour with their elders slightly started differing and practices also had undergone some changes. They became very bold and the young men and women started adopting the western methods. To this change the women folk felt that their society was losing control over their younger ones. In fact, such developments in the refugee camp caused some concern to the conservative tradition bound women refugees.

### **Women Headed Family**

Most of the refugee women were the self employed lot who were either widows or mothers who lost their children during ethnic violence or women who suffered the loss of their property, rights and dignity and were uprooted from the Sri Lankan Tamil community. Their new role had made them compatible to face fresh burdens and new responsibilities. They became the breadwinners to support their family members including the elders. Taking care of the education of their offspring's and guiding and grooming them to face the challenges of the future had become their prime task. Sometimes in certain families even husbands had become dejected and depressed while women were more resilient and they struggled steadfastly against heavy odds, to rebuild the broken lives and homes. Whatever circumstances prevailed in an existing environment, women remarkably responded to the challenges of the hard times and rescued themselves and others of their household to relive the life again. At times some women were left shattered, miserable, frustrated and these few women became diffident and disappointed in life and such unfortunate women had developed a tendency to look for the ultimate salvation in death. Though their condition of existence had been pathetic, their virtual pride of the past sometimes revived the strength for survival, leading them to fight the odds.

### **Rules and Regulations of the Camp Refugee Women**

Rights of the Women and her children in the Husbands' Family had become the question of the day of all the destitute women who had lost their husbands in the ethnic violence. Disruption of Inter - and Intra-Family Relationships had become a problem of the Sri Lankan Tamil refugees in the Tamil land during the past few years. Many of the women refugees clearly stated that the relationship with the husband's relatives (including his mother and father)



deteriorated in many instances after the death or disappearance of the husband. Thus, one section of the related family member ceased to be supporting members of the women and her dependents. In fact, on many occasions, the cessation of interaction was sudden, leaving the bereaved family in serious financial and social crisis. For example, in one family, when the husband was killed by a member of Janatha Vimukthi Perumana (JVP), his family took over his grocery store, removed all the goods to their own home, and denied the woman and her children any access to the property. It is not an exception and such problems with the husband's family over property occur frequently in many of the refugee families. There have been attempts by members of the husband's family to seize lands as well as the homes occupied by the dependents of the deceased. In fact, the properties of the deceased did not reach the heirs properly and it is sad tale to hear.

A great majority of the women have had to seek help from their own parents. But, even such networks were not as effective as one would have expected, mostly as a result of poverty. It is also to be pointed out here that in many of the families the parents themselves were not in a position to help their daughters whose husbands had either been killed or had disappeared during the ethnic violence.

Further, problems of many kinds have also cropped up within the families. Many of these problems were linked to notions of justice and revenge on the part of children, particularly sons, and their mothers' efforts to pacify them. Sons who were very young at the time of their father's murder or abduction have grown up with a certain amount of hatred precipitated also by the fact that justice in the conventional legal sense did not appear to be forthcoming. For many of them revenge seemed to have become a primary pre-occupation, disrupting the families' efforts to rebuild their lives by forcibly raking up the memories of a painful past. The tasks of these women become more hazardous by such developments. Overcoming this serious feeling and marching with the regular life had become very difficult for them. It was also difficult to console these victimised women living in the camps from such painful memories of events that drowned them in great miseries.

### **Women and Remarriage**

Remarriage was not considered as a reformatory act by the majority of the women living in the camps, as most of the women felt that it would disrupt the lives of their children. Also, there was serious social pressure not to remarry among the camp refugees. On the other hand, there was also a certain degree of ostracization of widows. Some women have opted to remarry or simply to seek a male partner without going through the legal procedures and formalities both



for economic reasons as well as for purposes of companionship. But, the fact remained that many of these women received compensation for the death or disappearance of their husbands and the men who entered into such relationships were interested only to gain access to the money. On many occasions it could be seen that they moved out after the money ran out.

### **Economic Contribution of Women-Folk in the Refugee Camps**

While the men in the camps were engaged in various kinds of employment in different places near and far from the camps, the women also kept themselves busy with some job or other suitable to them. The women living in the camps generally work on daily wages. In almost all the refugee camps, people were interested to seek jobs that were available close to their camps, as there were restrictions for the movement of the refugees. Refugees would leave the camp by eight in the morning and must return by six in the evening. These kinds of rigid rules affected the job opportunities for them. Most of the women were engaging themselves as the road-laying coolies, betel nut peelers, construction workers, tailors in the garment factory, stone breakers in quarries etc. All these jobs were strenuous for them as in these jobs they were engaged for long hours. Some living near the shores procured catches and sold fish in the market. Few women were found selling flowers near the temples situated in many areas of Tamil Nadu. On the whole, the women folk have molded themselves according to the needs of the times and with all kinds of odds they were working with much fortitude and confidence.

It may also be pointed out that some destitute women registered in the camps had worked as housemaids in the nearby villages and stayed with that family all the time. They used to return to the camp on the day of 'Cash Dole' distribution. These women were mostly old, weak and less fortunate. The police and revenue officers in charge of the camps permitted them to stay outside the camps due to the nature of their employment as exceptional cases. In all the cases the camp '*talaivar*' was always informed about the movement of each and every individual. Their huts were either rented to their close relatives or to some persons for running petty shops in the camp. The income generated out of it was spent on her food and medicine. Sometimes this money was given to their children who were struggling hard to meet their essential needs.

It was often found that the refugees staying the camps had always considered their stay here as temporary and this place as the launching pad for their entry into some foreign land which would give them better life and opportunities. Generally, it was very difficult for the men-folk to get jobs in foreign countries and particularly for those who were not in possession of any technical qualification or work experience. Under these circumstances women had to take up this





responsibility. Some women who initially registered in the camps were working abroad and supporting their families living in the refugee camps in Tamil Nadu and in Ceylon. One of the local headmen ("Talaivars") in the refugee camp in Dharmapuri district stated that his daughter was working in the Middle East as a housemaid and he had spent about 60,000 rupees to get her that job. He stated further that she was earning about twenty-five to thirty thousand rupees per month after a period of about four years. She had been working for the past four years, and her earnings had been utilized later for repaying the debt and also for sending his son to Canada on student's visa. He had also been sending money to his wife and his youngest son who were very much depended on this income for their survival. In fact, his daughter's income had relieved him of much of his financial burdens. He had also planned to send another son to Canada to earn more for the family. This was the condition of the refugees in many camps and this was how women as breadwinners in the family had been contributing to the general well-being and subsistence of the family. So all the level the women affected all the problems. But Tamilnadu refugees helping organization helped and promoted the women refugees in camps the OfERR helped in women refugees in all over camps.

### **CONCLUSION**

There are so many problem having in the refugees women camp, but the some other non – organization, and organization helped and up liftment of women refugees in the camp level. UNHCR (United Nations High Commission For Refugees) helped and decentralized the powers in the Refugees camps. we focus great attention on girls in the camps because all most all violence you see in camps is against girls .To a certain extent, all girls face problems in the camps. The houses (more like Thatched sheds) in the camps are so small, and there is no privacy. Whatever you say in your home can be heard by the heighbours. Even in Tamilnadu camp all the privileges enjoyed the women. We taken the all over the nation Refugees Indian Refugees lived peacefully and developed their life secure and abolition of poverty and discrimination of poverty and totally lived peacefully.

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## भारतीय लोकशाही आणि आढाने

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सारांश :

सर्वात मोठा लोकशाही देश म्हणून भारताची जगत ओळख आहे. भारतीय लोकशाहीला फार मोठी परंपरा आहे. व्यक्तिस्वातंत्र्याचे रक्षण केवळ लोकशाहीतच शक्य आहे, याबाबत संविधाननिर्मात्यांचेही दुमत नव्हते. म्हणूनच डॉ. बाबासाहेब आंबेडकर यांनीही लोकशाहीचा जोरकसपणे पुरस्कार केला होता. अन्याय अत्याचार व गुलामगीरी या सर्वांमधून सुटका करणारी एकच शासनव्यवस्था आहे, आणि ती म्हणजे लोकशाही, तसेच सर्वसामान्याची प्रतिष्ठा सांभाळणारा एकमेव शासनप्रकार म्हणून ते लोकशाहीचा उल्लेख करित होते. भारताची लोकशाही सोबतच एक धर्मनिरपेक्ष राष्ट्र म्हणूनही ओळख आहे. भारतामध्ये विविध धर्मसंस्कृती असूनही गेल्या सहा दशकात येथील लोकशाही संरचनेला अजूनही तडा गेलेला नाही. आधुनिक काळात शासनसंस्थेचा सर्वात चांगला प्रकार म्हणून लोकशाही पध्दतीला मान्यता प्राप्त झाली आहे. लोकशाहीमध्ये सामान्यातील सामान्य लोकांना महत्व असल्याने त्यांच्यामध्ये सामान्यातील सामान्य या प्रकाराविषयी आकर्षण आहे. आज जगातील अनेक राष्ट्रांनी लोकशाहीचा स्वीकार केला आहे. ज्या देशांनी लोकशाही व्यतिरिक्त अन्य प्रकारांचा अवलंब केला आहे, त्या देशाची सद्यस्थिती काय आहे, हे सर्व जगाला माहित आहे. म्हणूनच विसावे शतक हे लोकशाही पध्दतीच्या यशस्वीतेचे शतक म्हणून ओळखले जाते. असे असले तरीही लोकशाही पुढील अनेक आढानांमूळे लोकशाही अयशस्वी होताना दिसून येत आहे. प्रस्तूत शोधनिबंधामध्ये लोकशाहीपुढील काही आढानांचा अभ्यास करण्यात आला आहे.

उद्दिष्ट्ये : लोकशाही पुढील आढानांचा अभ्यास करणे.

मुळशब्द : धर्मनिरपेक्ष, धर्माधता, विषमता, भ्रष्टाचार, लोकशाही

प्रस्तावना :

‘लोकांनी, लोकांचे, लोकांकरीता चालविलेले शासन’ अशी लोकशाहीची व्याख्या केली जाते. लोकशाही शासन प्रकार हा अन्य प्रकारांपेक्षा चांगला आहे. हे वेळोवेळी सिध्द झाले आहे. भारतानेही स्वातंत्र्यानंतर सांसदिय लोकशाहीचा स्वीकार केला आहे. स्वातंत्र्याच्या सहा दशकानंतर भारतीय लोकशाहीचा प्रवास चढ-उताराचा राहिला आहे. जगातील अनेक राष्ट्रांनी लोकशाहीचा स्वीकार केला असला तरीही प्रत्येकच ठिकाणी ती यशस्वी ठरली असे म्हणता येणार नाही. अमेरिका खंडातील विकसीत राष्ट्रांचा अपवाद वगळता आशिया व आफ्रिका खंडातील अनेक देशात लोकशाहीला अपेक्षित प्रतिसाद मिळाला नाही. लोकशाहीच्या यशस्वीतेसाठी जे घटक आवश्यक आहे, त्यांचा अभाव हेच मुख्य कारण म्हणता येईल. यासंदर्भात भारतीय लोकशाही पुढील नेमकी कोणती आढाने आहेत, ते पाहणे संयुक्तिक ठरेल.

### 1) धार्मिक कडृतावाद व जातीवाद :

भारत हा एक धर्मनिरपेक्ष देश आहे. भारताचा कोणताही एक असा अधिकृत धर्म नाही. धर्मनिरपेक्षता म्हणजे सर्व धर्मांना समान महत्व असा त्याचा अर्थ आहे. असे असतानाही येथे धर्मांच्या आणि जातीच्या नावावर दंगली होताना दिसून येते काही धर्मियाकडून जो धार्मिक कडृतावाद जोपासला जातो त्यामूळेच दंगली होताना दिसून येते. भारताची फाळणी होवून पाकिस्तानची निर्मिती होताना ज्या दंगली झाल्यात त्यामध्ये लाखो लोकांना आपले प्राण गममावे लागले.

स्वातंत्र्यांतरच्या काळातही देशात अनेक ठिकाणी जातीय व धार्मिक दंगली घडून आल्यात. 1992 च्या बाबरी मस्जिद प्रकरणानंतर खऱ्या अर्थाने देशातील वातावरण बिघडले. त्यानंतर 1993 मध्ये बाबरी विध्वंसाची प्रतिक्रिया म्हणून मुंबईमध्ये बाम्बस्फोट मालिका घडवून आणल्या गेली. आजही देशात अनेक ठिकाणी शुल्लक-शुल्लक कारणांवरून दंगली होताना दिसून येते.

या सर्व प्रकारामूळे लोकशाहीतील बंधुता या तत्वाला हरताळ फासला जातो.

## 2) राजकाणाचे गुन्हेगारीकरण :

सद्यस्थितीत भारतीय राजकारणाचे गुन्हेगारीकरण झाल्याची स्थिती आहे. कधीकाळी लोकांच्या सेवेसाठी असणारे राजकारणाचे क्षेत्र, गुन्हेगारी प्रवृत्तीच्या लोकांनी व्यापून टाकले आहे. इमानदार व सज्जन लोकांना निवडणूका लढणे व जिंकणे कठिण झाले आहे. गुडप्रवृत्तीच्या लोकांकरीता निवडणूका जिंकणे सहज शक्य झाले आहे. वर्तमान संसदेत 300 च्या वर खासदारांवर गुन्हेगारी स्वरूपाचे खटले दाखल आहेत, यावरून राजकारणात गुन्हेगारी स्वरूपाच्या लोकांच्या भरणा झाला आहे हे सिद्ध होते.

बंदुकीच्या जोरावर धाक दपटशा करून निवडून जाणाऱ्यांची संख्या वाढत आहे. बीहार, उत्तरप्रदेश, बंगाल या राज्यात निवडणूकांच्या दरम्यान हिंसाचाराच्या घटनेत दिवसेंदिवस वाढ होत असल्याचे दिसून येते. लोकशाही हे बहुमताचे शासन आहे, याच गोष्टीचा फायदा गुन्हेगारी प्रवृत्तीचे उमेदवार घेत असतात. अशा लोकांचा देशाच्या निर्णय-निर्धारण प्रक्रियेत समावेश होणे निश्चितच लोकशाहीला घातक आहे.

## 3) जनतेची उदासीनता :

लोकशाहीच्या यशस्वीतेसाठी नागरीक राजकीयदृष्ट्या जागृत असावे लागतात. कारण नागरिक जागृत असेल तर ते राज्यकर्त्यांवर वचक ठेवू शकतात. लोक क्रियाशील असेल तरच राज्यकर्त्यांवर नियंत्रण ठेवू शकतात. अन्यथा राज्यकर्ते बेफिकीर वृत्तीने राज्यकारभार करतात. भारतात आजही राजकारणाच्या बाबतीत लोकांमध्ये उदासीनता दिसून येते. याचे मुळ कारण म्हणजे राजकीय प्रश्नांबाबत त्यांच्यामध्ये असणारे अज्ञान व निरक्षरता होय. भारतात निरक्षरतेचे व अज्ञानाचे प्रमाण अधिक आहे. अनेकांना आपली राजकीय कर्तव्ये व जबाबदाऱ्यांचे भान नाही. त्यामूळेच राज्यकर्त्यांवर त्यांचा प्रभाव पडत नाही.

## 4) सामाजिक विषमता :

सामाजिक विषमता हे सुध्दा लोकशाहीपुढील एक आव्हान आहे. भारतीय संविधानाने सर्व नागरिकांना समतेचा मुलभूत अधिकार प्रदान केला आहे. मात्र परिस्थिती यापेक्षा वेगळी आहे. कारण समाजातील अनेक वर्ग व गटांना विशेषाधिकार व सवलती प्रदान करण्यात आल्या आहेत. आरक्षणाच्या माध्यमातून अनेक घटकांना इतरांपेक्षा जादाचे अधिकार बहाल करण्यात आले आहेत. शिक्षण, नोकरी, बढती यामध्ये असे निकाष लावल्याने ज्यांना सवलती नाही, अशा वर्गांमध्ये असंतोषाची भावना वाढीस लागते. तसेच अशा प्रकारच्या सामाजिक विषमतेमूळे समाजातील काही घटकांना त्यांच्या न्याय हक्कांपासून वंचित रहावे लागत असल्याचे चित्र आहे.

सद्यस्थितीत आरक्षणाच्या मुद्यावरून वर्गावर्गांमध्ये, जाती-जातीमध्ये द्वेषाचे वातावरण निर्माण झाले आहे. त्यामूळे अनेकांच्या मनात लोकशाही विषयी अनास्था निर्माण झाली आहे.

## 5) आर्थिक विषमता :

आर्थिक विषमता हे सुध्दा लोकशाही पुढील एक आव्हानच आहे. आज भारतात टोकाची आर्थिक विषमता दिसून येते. भारतातील 50% जनता दारिद्र्य रेषेखाली असणे हे आर्थिक विषमतेचे ज्वलंत उदाहरण आहे. एकीकडे श्रीमंत अधीक

श्रीमंत होत आहे तर दुसरीकडे गरीब अधिक गरीब होताना दिसून येत आहे. आजही भारतातील अनेक नागरिकांना किमान गरजाही भागविता येत नाही. एकीकडे मुकेश अंबानीसारखा अब्जाधीश व्यक्ती भारतात आहे की ज्याच्याकडे रहायला अब्जावधी रुपयांची इमारत आहे, तर दुसरीकडे लाखो लोकांना उघडयावर जीवन व्यतीत करावे लागत आहे. अशी टोकाची आर्थिक विषमता असल्याने अनेकांना लोकशाही व्यवस्था नकोशी वाटते.

6) नक्षलवाद व दहशतवाद :

भारतीय लोकशाहीपुढे सर्वात मोठे कोणते आव्हान असेल तर ते नक्षलवादाचे व दहशतवादाचे आहे. नक्षलवाद ही भारतातील आंतरीक समस्या आहे. महाराष्ट्र, बिहार, छत्तीसगढ, आंध्रप्रदेश, तेलंगना या राज्यामध्ये नक्षलवादी कारवायामूळे जनजीवन प्रभावीत झाले आहे. नक्षलवादाचा लोकशाही व्यवस्थेला विरोध आहे, निवडणूकीला विरोध आहे, विकासाला विरोध आहे. त्यामूळे हिंसक कारवाया करून जनतेच्या मनात दहशत पसरविण्याचे कार्य त्यांच्याकडून होत आहे. तसेच पाकिस्तान व बांग्लादेश सिमेवरील वाढत्या दहशतवादी कारवायामूळे भारताची सुरक्षितता धोक्यात आली आहे. देशाचा वेळ व पैसा या बाबीवर खर्च होत आहे.

7) प्रशासनातील वाढता भ्रष्टाचार :

भारतातील दिवसेंदिवस वाढत जाणारा भ्रष्टाचार हे सुद्धा लोकशाहीपुढील एक मोठे आव्हान आहे. आज सर्वच क्षेत्रात भ्रष्टाचार बोकळलेला दिसून येतो. पूर्वी ज्या भारताची ओळख गांधीचा देश म्हणून व्हायची, त्या देशाला आज भ्रष्टाचारावरून ओळखले जाते.

भारताला भ्रष्टाचाराची लागण स्वातंत्र्यप्राप्ती पासूनच झाल्याचे दिसून येते. पं. नेहरू यांच्या मंत्रीमंडळातील काही मंत्रीसुद्धा भ्रष्टाचारात लीप्त होते. मात्र तेव्हा भ्रष्टाचाराचे स्वरूप काही लाखाच्या घरात होते. मात्र आता अब्जोवधी रुपयांच्या भ्रष्टाचार सुद्धा सहज होवून गेला आहे. स्वातंत्र्य प्राप्तीपासून भ्रष्टाचाराची मोठमोठी प्रकरणे सामोर आली आहेत. त्यामध्ये कॉमनवेल्थ घोटाळा, 2G स्पेक्ट्रम घोटाळा, बॉफोर्स घोटाळा, कोल घोटाळा यांचा समावेश आहे.

भ्रष्टाचारांमूळे भारताच्या आंतरराष्ट्रीय प्रतिमेवर परिणाम होत आहे. कोणत्याही कार्यालयात चिरीमिरी दिल्याशिवाय लोकांची कामे होत नाही. सर्वसामान्य जनता यामूळे मेटाकुटीस आल्याचे दिसून येते. भ्रष्टाचाराची व्याप्ती आता संरक्षण खात्यापर्यंत जाऊन पोहोचली आहे. त्यामूळे भारताच्या सार्वभौमत्वालाही धोका उद्भवू शकतो.

मा. अण्णा हजारे यांच्या भ्रष्टाचार विरोधी आंदोलनाला संपूर्ण देशातून जो अभुतपूर्व पाठिंबा लाभला होता, तो भ्रष्टाचाराने त्रस्त झालेल्या लोकांचा होता. भ्रष्टाचारांमूळे सर्वसामान्य जनतेचा व्यवस्थेवरचा विश्वास उडत चालला आहे. ही लोकशाहीसाठी धोक्याची घंटा आहे.

समारोप :

भारतीय लोकशाहीपुढे वरीलप्रमाणे काही प्रमुख आव्हाने आ वासून उभी आहे. या आव्हानांचा मुकाबला करून लोकशाहीला मार्गक्रमण करायचे आहे. आजही भारतीय लोकशाही ही जगातील अन्य राष्ट्रांसाठी रोल मॉडेल म्हणून उभी आहे. भारताच्या शेजारी असलेल्या आणि एकाच कालावधीत स्वातंत्र्य प्राप्त झालेल्या पाकिस्तानमध्ये लोकशाहीची काय आवस्था आहे, हे जगाला ठाऊक आहे. भारत हा विशाल आकाराचा, मोठया लोकसंख्येचा आणि विविध धर्म व जातीचा देश असूनही लोकशाही अजूनही जिवंत आहे.

निष्कर्ष :

वरील शोधनिबंधावरून पुढीलप्रमाणे काही प्रमुख निष्कर्ष निघतात. धर्माधता व जातीवाद यामूळे सामाजिक स्वास्थावर विपरीत परिणाम झाल्याचे दिसून येते. जातीय व धार्मिक दंगलीमूळे संविधानातील बंधुत्वाच्या तत्वाचा न्हास होताना



दिसून येतो. राजकारणात गुन्हेगारीप्रवृत्तीच्या लोकांचा सहभाग अधिक वाढल्याने इमानदार व सज्जन लोकांचा राजकीय सहभाग कमी होत असल्याचे दिसून येते. आरक्षणाच्या तत्वामूळे सामाजिक विषमतेत वाढ झाल्याचे दिसून येते. आर्थिक विषमतेमूळे लोकशाही सर्वासाठी आहे, या भावनेला तडा जात आहे. आंतरीक दहशतवाद, नक्षलवाद यामूळे लोकशाहीपुढे खरे आव्हान उभे राहल्याचे दिसून येत आहे.

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## Growth and Magnitude of Child Labour in India

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### Abstract:

The Census of India defines person below the age of fourteen as children and a child is classified as 'labourers' if the child is 'economically active'. The aim of the present study is to analyse the state wise distribution of child labour in India. It covers the Time period from 1981 to 2011. The analysis is based on secondary data which is obtained mainly from Census of India. It was found that the problem of child labour in India is basically the problem of some states, such as Andhra Pradesh, Uttar Pradesh, Bihar, Rajasthan, Madhya Pradesh, Maharashtra, West Bengal, Karnataka and few others, as these states comprised almost 90 per cent of the total child labour. According to Census 2011 there were 10.12 million child labour in India. Out of which about 80 per cent belongs to the rural areas. It was also found that out of the total number of child workers the majority was constituted by male child workers

**Keywords:** Child Labour, India, Census, workers, Analysis

### Introduction

To understand the problem of child labour, it is essential to understand the meaning of 'child' and 'labour' differently. The Census of India defines person below the age of fourteen as children. The Child Labour (prohibition and regulation) Act 1986, says that a child means a person who has not completed his fourteen years of age. In India child population comprises more than 30 per cent of the total population<sup>1</sup>. Despite one-third part of the total population, children in India face many health hazards and many die young for lack of timely care. Most of the deaths occur among children below 5 years of the age. These deaths are aggravated by poor environmental sanitation, overcrowded living conditions and malnutrition. Ignorance of simple health precautions also takes its toll.

A child is classified as 'labourers' if the child is 'economically active'. Sharma and Mishra<sup>2</sup> defines child labour in broad sense. According to them "child prematurely leading adult lives working with or without wages, under condition damaging their physical, social and spiritual development, denying them their basic rights to education, health and development" are

<sup>1</sup>. Calculated from the Census of India, 2011

<sup>2</sup>. Sharma, Subhash and Mishra, Devendra, 2008, "Child Labour- Myth and Reality", *Yojna*, May, pp. 32-36.



considered as child labourers. Generally the concept of child labour stands for the participation of children below 14 years of age in the workforce for paid and unpaid work.

It is usually argued and accepted that the phenomenon of working children is associated with poverty. The highest incidence of child labour is said to be found in the poorest countries of the world and in the poorest region of these countries. That is why Uttar Pradesh (21.49%) and Bihar (10.75%) are leading states in India for the case of child labour. Poverty makes the parents to send their children to seek employment at an early age as their earnings are essential for the survival of the family. In India, an estimated 27.5 per cent of the population lives below the poverty line<sup>3</sup>, which leads the children to work and to support their family livelihood resources.

### Review of Literature

**Gayathri (2002)**<sup>4</sup> analyzed the trends in children's work participation rates in Karnataka. Study found that since it was a relatively advanced state, it has failed so far to achieve universal education, despite substantial efforts over the last few years. Study examined that the child work participation rates in the state was about 6 per cent, and suggested that the eradication of child labour in Karnataka depends on the commitment of the government in two ways: enforcement of the existing legislation and the creation of meaningful alternatives for the present army of children in the workforce.

**Aggarwal (2004)**<sup>5</sup> aimed his study at four states, namely, Madhya Pradesh, Maharashtra, Tamil Nadu and Uttar Pradesh. Within these states he selected certain sectors on the basis of high visibility of working children- *bidi, brassware, bricks, carpets, fireworks, footwear, glass bangles, locks, matchies, silk and stone quarrying*. His analysis showed that among other things, poverty and illiteracy had a strong bearing on child labour and suggested that a policy was needed to make education more meaningful and rewarding so that households were incentivized to send their children to school and keep them there.

**Singh (2005)**<sup>6</sup> reported that India topped the world in child labour. Further it was reported that out of the total child labour, approximately half were concentrated in four states- Andhra Pradesh, Madhya Pradesh, Maharashtra and Uttar Pradesh. It was estimated that 80 per cent of

<sup>3</sup> Planning Commission of India

<sup>4</sup> Gayathri, V., 2002, "Situational Analysis of Child Labour in Karnataka", **The Indian Journal of Labour Economics**, Vol. 45, No. 3, pp 577- 596.

<sup>5</sup> Aggrawal, Suresh Chand, 2004, "Child Labour and Household Characteristics in Selected States", **Economic and Political Weekly**, January 10, pp. 173-185.

<sup>6</sup> Singh, Kamaljeet, 2005, "Tackling Child Labour", **The Tribune**, June 28, Chandigarh Edition, p.13



the working children in India were in agriculture sector and another in agricultural related activities.

Satyarathi (2008)<sup>7</sup> found in his study that number of working children were six crores. He then compared both child labour and adult labour and suggested that a positive impact on GDP will be observed if child labour was replaced by adult labour. It was estimated that earning of one child labour was approximately Rs. 10 per day which means that earning of all children was 60 crores, which was one fifth of GDP of our country. The study concluded that if an adult is working then he would earn six or eight times more, and he will be able to fulfill his family needs and send his children to school. Further study explained that the line between poverty and child labour is neither direct nor proportional, but certainly important. Child labour was not exclusively related with poverty but also related with low human development, since education was not widespread.

#### Material and Methods

The aim of the present study is to analyse the state wise distribution of child labour in India. It covers the Time period from 1981 to 2011. The analysis is based on secondary data which is obtained from Census of India, government publication as well as studies carried out by various research institutions. In addition, various books, journals, reports, newspapers, etc are studied for collecting information for the present study. In order to analyse the data, simple statistical tools like percentage and graphs are used.

#### Results and Discussions

So far there is no single estimate about the number of working children in the country. Here however an estimate of the Census Commission of India has been highlighted.

Table 1: Child Labour in India

Category	1981	1991	2001	2011
Child Labour	13.64 Million	11.15 Million	12.64 Million	10.12 Million
Male Child Labour	59.48 %	54.88 %	53.72 %	55.47 %
Female Child Labour	40.52 %	45.12 %	46.28 %	44.43 %
Main Child Labour	82.07 %	81.40 %	45.52 %	42.97 %
Marginal Child Labour	17.93 %	18.60 %	54.48 %	57.03 %

Sources: Calculated from Census Reports 1981, 1991, 2001 and 2011, Office of the Registrar General, India.

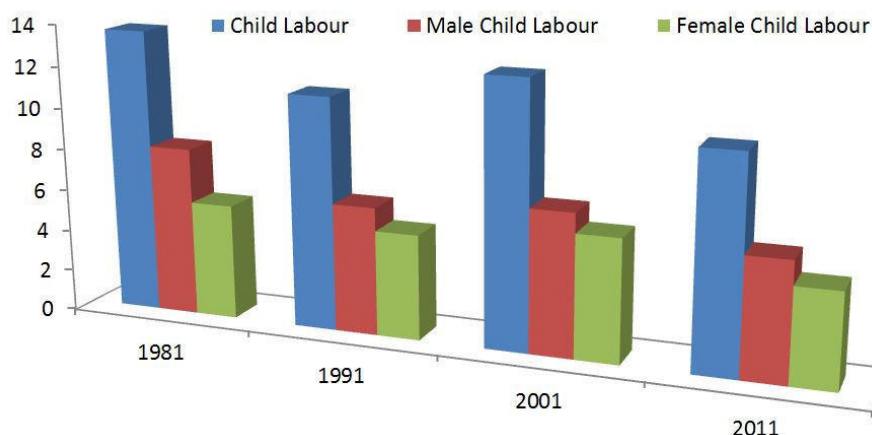
It has been found that the problem of child labour in India is basically the problem of some states, such as Andhra Pradesh, Uttar Pradesh, Bihar, Rajasthan, Madhya Pradesh, Maharashtra, West Bengal, Karnataka and few others, as these states comprised almost 90 per cent of the total

<sup>7</sup> Satyarathi, Kailash, 2008, "Child Labour: No More Tools in Tiny Hands", *Yojna* May, pp. 13-15.

child labour. The child labour declined from 13.64 million (in 1981 Census) to 11.15 million in 1991. It again rose to 12.64 million in 2001 and declined to 10.12 million in 2011. It was found that there is no clear cut trend in the magnitude of the problem for the period 1981 to 2011. State-wise comparison over this period showed three different trends. There were states like Madhya Pradesh and Tamil Nadu where percentage share of child labour had declined from 1981 to 2011. The other group of states included Delhi, Uttar Pradesh, Bihar, Nagaland and Manipur where the maximum percentage share of child labour had increased over study period. The maximum percentage share was of Uttar Pradesh (21.49%) followed by Bihar (10.75%). The third trend was inherited by states like Rajasthan, Maharashtra, Kerala, West Bengal, Himachal Pradesh, Punjab, Haryana, Sikkim, Arunachal Pradesh and Meghalaya in whose case the percentage share of child labour shows cyclical trend.

Further it is clear that most of the child labour is found in rural areas as about 80 per cent child labour belongs to the these areas. In 2011, 8.10 million child labours were found in rural areas while in urban areas it was 2.02 million. From gender-wise analysis study reveals the fact that percentage share of male child labour declined from 59.48 (in 1981 Census) to 54.88 in 1991 Census and further to 53.72 in 2001. But as against of it in 2011 it was found that percentage share of male child labour rose to 55.57 %. As against of it, female child labour increased from 40.52 in the year 1981 to 45.12 in the year 1991 to 46.38 in the year 2001 and marginally declined to 44.43 % in 2011. Further it was found that out of the total number of child workers the majority was constituted by male child workers.

**Figure 1: Gender wise Distribution of Child Labour**



Sources: Calculated from Census Reports 1981, 1991, 2001 and 2011, Office of the Registrar General, India.



Census of India defines main workers as a person who has worked for the major part of the reference period (i.e. 6 months or more during the last one year preceding the date of enumeration) in any economic activity. While a person who has worked for less than six months of the reference period (i.e. the last one year preceding the date of enumeration) in any economic activity is termed as a marginal worker. Analysis of main and marginal status of the child labour revealed that in 1981 and 1991 Census, majority of the workers were main child workers. It was found that there were 82.07 per cent main and 17.93 per cent marginal workers in 1981, 81.4 per cent main and 18.60 per cent marginal child workers in 1991. But in Census 2001 and 2011, the situation suddenly changed and majority of the child labour constituted marginal workers. It was found that there were 45.52 per cent main and 54.48 per cent marginal child workers in 1981 and in Census 2011 it was 42.98 per cent for main and 57.02 per cent for marginal child workers. The states responsible for this shift were Himachal Pradesh, Rajasthan, and Sikkim, Nagaland, Mizoram, Orissa and Madhya Pradesh. For example in Himachal Pradesh's share of marginal workers in total workers increased from 39.37 per cent in 1981 to 45.48 per cent (in 1991) and further to 87.60 per cent in 2001 Census. In Census 2011 this ratio stood at 88.15 per cent.

### **Conclusion**

As poverty and illiteracy are the breeding ground for child labour, programs relating to poverty alleviation and education, formulated and implemented in a decentralized manner with the participation of people would go a long way for the abolition of child labour. Since more than 80 per cent people of country still depend on agricultural activities, this sector should be developed in a proper way. In rural areas investment in better irrigation, credit and market facilities should be made available so that rural people can get more out of their land. Programs of dairy development and fisheries must be started. Campaigning against child labour can make use of the variety of forms in multi-media which reach varied segment of people. Since this is the age of media it can be used as an effective tool in combating the child labour. The children are the human capital of the nation, and if we neglect them even economic development might be difficult, therefore in any planning in social welfare, we have got to take into account the most basic section of population that is the child.

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## Issues and Challenges of Higher Education in India

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### 1.0 Introduction

The role of higher education in national development is well established. Higher education in India has expanded very rapidly in the last six decades after independence. Presently India's higher education system is the largest in the world in terms of number of institutions and is often cited as one of the main contributors in the economic rise of India. It has undergone rapid development in the post independent era. At the launch of first five year plan 1950-51 there was in India only 28 universities, 695 colleges and 1,74,000 students. Today we have 504 universities, 25, 951 colleges and more than eighteen million students. In spite of this large education system of higher education in the country is not very rich. Presently Gross Enrollment Ratio (GER) for higher education in the country is only 12.4 per cent while GER for china is more than 23 per cent, for UK. 57 per cent and 83 per cent for U.S, therefore, it is the biggest challenges before us, there are urgent need of inclusion of those remaining peoples in higher education in India. To achieve the enrolment ration of 30 per cent it would need another 800 to 1000 Universities and over 40, 000 colleges by the year 2020.

### 2.0 Objectives of the paper

1. To study the development of higher education in India.
2. To identify the issue and challenges of higher education
3. To study the expenditure on higher education in India.

### 2.0 Methodology

This study intends to examine the issues and challenges of India higher education system based on secondary data. The data had been collected and furnished from the official websites of the HRD Ministry of India, University Grand Commission, recent economic surveys of India and other related research paper, books, news papers and published work.

### 4.0 Higher Education in India

India has the largest number of higher education institutions in the world. The number of students enrolled is 10.5 million, the third largest globally after China and USA. As noted by Pawan Agarwal (2006), higher educational institutions in India are of different types, depending on their academic, administrative and financial systems.<sup>1</sup> Universities may also recognize institutions as "Deemed to be universities" or set up institutes of national importance. The institutions may be funded publicly, be aided by the government, to be funded privately. In additions, it is estimated that more than 1 lakh Indian students are enrolled in higher education institutions in foreign countries such as USA, UK, Australia, Singapore, and New Zealand. Many students also venture out to countries where English is not the local language, making use of facilities provided specifically for overseas students. China, Russia, and the Ukraine are some

such countries. At the same time, the facilities provided for foreign students in India are appreciable

#### 4.1 Development of Higher Education

After independence Indian Government has adopted policy of welfare state and providing facilities of educational services to the peoples of the country. In India Education has been joint responsibility between the unions (Central) and state governments. The union government can pass nationally- binding legislation for higher education and is the final accreditation authority. The department of higher education lies within the ministry of Human Resources Development in the union government. There has been phenomenal growth in the higher education system and virtual explosion in the number of universities and colleges. Over past six decades, India has covered a long distance on the path of expanding the institutional capacity in higher education. Institutions of higher education and their intake capacity are given in the following table 1.

Table-1

**Institution of higher education and their intake capacity**

Capacity indicators	1950	1991	2004	2006	2009	2011	2012
No. of University Level Institution	25	177	320	367	467	533	700
No. of Colleges	700	7,346	16,885	18,064	25,951	33,023	35500
No. of Teachers ( in Thousands)	15	272	457	488	588	-	
No of Students Enrolled (in Million)	0.21	4.9	9.95	11.2	13.6	-	20

Source: Website of UGC & Annual Report 2010-11 of UGC<sup>2</sup>

It is seen from the table 1 that only 25 university level institutions were in the year 1950 but it raised up to the 7 hundred. The number of registered student has gone up from 0.21 million to 20 million. Number of colleges also increased by more than 50 times during the years 1950 to 2012. In India university-level institutions widely differ in terms of their structure and coverage. These could be sub- divided into six broad groups: central universities, state universities, deemed universities, institutions of national importance, established under central legislation, and private universities.

#### 4.2 University level institutions in India

In Indian university level institutions widely differ in terms of their structure and coverage. These could be sub-divided into six group viz. Central Universities, State universities, Deemed universities, Institutional of national importance established under Central legislation and private universities as shown in the table 2.

Table 2

**University Level Institutions in India**

Sr. No.	Type	2002	2006	2007	2009	2010	2012	2015
1	Central Universities	18	20	25	40	41	44	46
2	State Universities	178	217	231	234	257	306	336

3	Deemed Universities	052	102	105	128	130	129	127
4	Institutions of National Importance (Central legislation)	12	13	33	39	39	62	76
5	Institutions of National Importance (State legislation)	05	05	05	05	05	05	05
6	Private Universities	-	10	21	21	61	154	154
<b>Total</b>		265	367	417	467	533	700	744

Source: Website of UGC (the figures for 2010 are up to July 2010)<sup>3</sup>

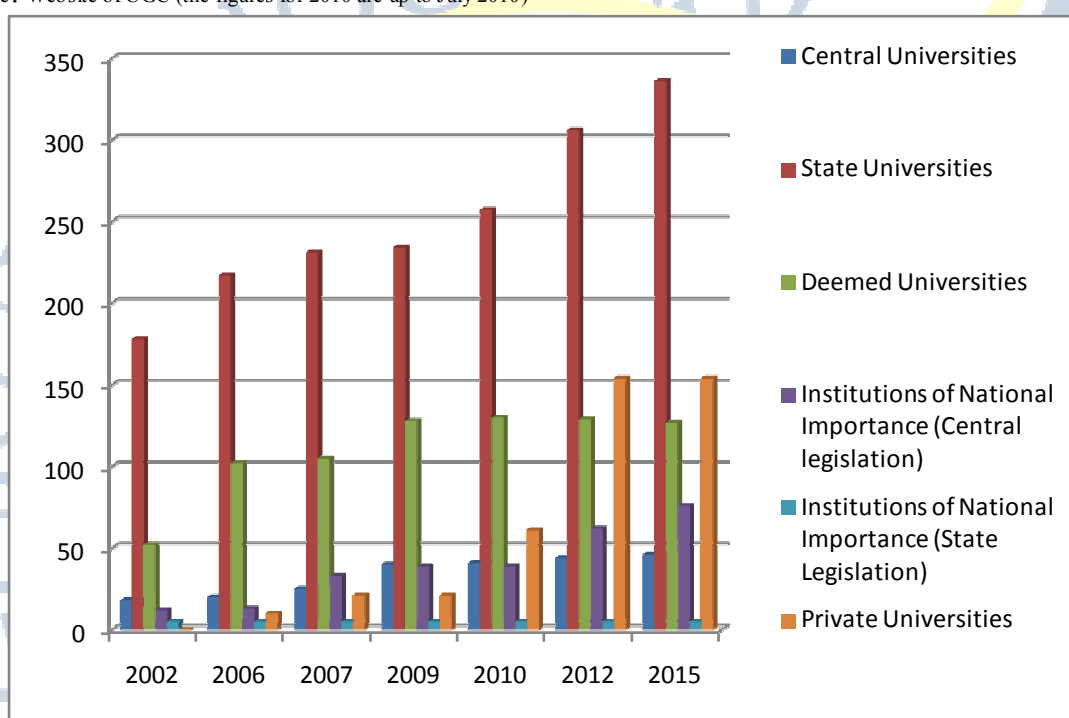


Figure 1

The table 2 discloses the trends of university level institutions in India. It is seen from the above table that only 18 Central universities exist in India in 2002 but raise up to 46 in the year 2015. State universities also make remarkable growth from 178 to 336 during the period 2002 to 2015 and 342 as on 15.01. 2016. Except institutions of national importance all other institutions shows the growth in their numbers. When we seen at the combined to all universities level institutions in India then it is seen that the numbers of all University level institutions has been increased from 265 to 744 during the period 2002 to 2015.

#### 4.3 Public Expenditure on Higher Education:

The amount of money allocated by the government for higher education is shown in table 3.

**Table-3**  
**Sector-Wise Allocation & Expenditure of the Central Government**

(Value in Rs. Crore)

Name of the Scheme	Xth Plan (2002-07)		XIth Plan (2007-12)
	Allocation	Expenditure	Approved Outlay @
University & Higher Education	4176.50	4180.10	50661.00
Language Development and Distance Learning,	434.00	578.17	1100.00
Scholarships and ICT*	52.00	16.66	6734.00
Book Promotion	67.00	45.88	70.00
Planning and Admn	70.50	32.96	78.00
Technical Education	4700.00	3368.58	26300.00
<b>Total (HE)</b>	<b>9500.00</b>	<b>8222.35</b>	<b>84943.00</b>

\* Distance Learning was included in University & Higher Education in Xth Plan @ Provisional

Source: 1. Educational Statistics at a Glance 2005-06, MHRD, Department of Higher Education, Government of India, 2008.<sup>4</sup>

2. Dr. K. Kamar Jahan, and Dr. D. Christy Selvarani (2015), 'Higher Education in India : issues and Challenges', International Conference on Humanities, Literature and Management (ICHLM'15) Jan. 9-10, 2015 Dubai (UAE)<sup>5</sup>

The table given indicates that the public expenditure on higher education has been increased in the 11th Plan compared to 10th Plan. It also seen from the above table that the actual allocation was made in the tenth plan was 9500 crores but actual expenditure was lower than allocations.

### 5.0 Issues and challenges before higher education

The rapid expansion of higher education system in India has brought many issues. In the present scenario following are the main issues and challenges before the higher education system in India.

#### 5.1 Issues related to Gross Enrollment Ratio (GER)

As pointed out earlier, the growth and expansion of higher education in the country, in post-independence period, has been rapid and sizable. Yet it could have been quite inadequate. Moreover, it has been uneven which has given rise to numerous access-related issues. Presently Gross enrollment ratio (GER) for higher education in the country is only 12.4 per cent. The GER is 23 per cent for china, 34 per cent for Brazil, 57 per cent for U.K., 77 per cent for Australia and 83 percent for the U. S. Lower GER is the biggest challenges before us.

#### 5.2 Issues related to inclusion in Education

The biggest challenges facing Indian higher education system are that of inequality in educational development. A large section of the population remains illiterate and a large number of children not getting even primary education. The problem of unequal distribution of educational development is quite complicated. It is not uniformly distributed across the country. Many regions and many segments of population appear to be left out. Due to unequal development of education leads to various types of disparities in India such as rural urban disparities, Inter State disparities, Inter religious group differences, Inter caste variations, Gender disparities, etc.





### **5.3 Quality Related issues**

According to a recent government report two third of the India's colleges and universities are below standard. Out of 16, 000 colleges that come under the UGC purview, only 5,813 (36 %) are recognized under section 2 (f) and only 5,273 colleges (38%) are eligible to receive development assistance. A large number of colleges are precluded for UGC development grant, as they are unable to meet the minimum eligibility criteria laid down by the UGC.

### **5.4 Relevant education related issues**

Offering relevant education is also important aspect. Relevant education should not only involve with imparting of scientific knowledge so that we can create knowledge society with scientific approach but also involves imparting of skills and working knowledge human resources for the economic development. And also relevant education involves providing value education so that education serves as an instrument of creating responsible citizens.

### **5.6 Research and Development issues**

According to the available official statistics the expenditure on R&D in the field of science & Technology as a percentage of gross domestic products (GDP) was 0.8 percent during the year 2005-06 in India. For perspective, countries spending the most on S&T as a percent of their GDP were Israel (5.11%), Sweden (4.27 %), Japan (3.11 %), South Korea (2.95 %), the United States (2.27 %), Germany (2.74 %), and France (2.27 %), Among Other Countries, China (1.54 %), Russia (1.74 %), U. K. (1.88 %),and Brazil (1.04 %), have spent more than India

Moreover, India's higher education institutions are poorly connected to research centers. So this is another area of challenges to the education in India.

According to recent report of HRD Ministry premier educational institutes like the Indian institute of Technology (IITs) and the Indian Institute of Management (IIMs) are facing a faculty crunch with nearly one-third of the posts vacant. According to a report published in IANS around 35 per cent posts are vacant in the central universities, 25 per cent in the IIMs, 33.33 percent in the National Institute of Technology and 35.1 per cent in other central education institutions coming up under the Human Resources Development Ministry.

### **6.0 Conclusions**

Higher education in India plays many roles. It is of extraordinary importance to many and reforms are often seen as significant threats to specific, social arrangements that provide benefits to powerful groups. Although higher education in India has expanded very rapidly in the last six decades after independence yet is it not equally accessible to all. Till today a large section of the population remains illiterate. Our higher education system has not been able to change its organizational structure and forms. It is necessary that we need to implement the reforms in the higher education system, also India try to become 'Knowledge economy'.

### **7.0 References**

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## कृषी क्षेत्रावर आधारित व्यवसायात शेळी पालनाचे महत्त्व

मधुकर पिराजी शेळके  
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औरंगाबाद.

गोषवारा

महाराष्ट्रामध्ये मोठ्या प्रमाणात शहरीकरणात वाढ होत असली तरी आजही ग्रामीण भागात मोठ्या प्रमाणात राहत असल्याचे दिसून येते. ग्रामीण भागात राहत असलेल्या लोकांचा शेती हाच व्यवसाय मोठ्या प्रमाणात असून, महाराष्ट्रातील शेती हा व्यवसाय मोठ्या प्रमाणात मान्सूनवर अवलंबून आहे. त्यामुळे अवेळी पडणारा पावूस, दुष्काळ, अतिवृष्टी, शेतमालाला नसलेला हमी भाव, व्यापारी वर्गाकडून होणारी लूट, इत्यादी काणामुळे शेतकरी कर्जबाजारी होत असून, त्यांच्यावर मानसीक दबाव निर्माण होतो. त्यामुळे शेतकरी आत्महत्यासारखे गंभीर परिणाम दिसून येत आहे. यावर उपाय म्हणून ग्रामीण विकास करणे गरजेचे आहे. ग्रामीण विकास व्हावा यासाठी शेतीला असलेल्या जोडव्यवसायाचा विकास करून शेतकऱ्यांनी जास्तीत जास्त जोडव्यवसाय करावा यासाठी शासकीय स्तरावरून प्रयत्न करणे गरजेचे आहे. शेळी पालन हा व्यवसाय कमी खर्चात जास्तीत जास्त उत्पादन देणारा व्यवसाय असून, तांत्रिक पध्दतीने शेळी पालन, शेळी पालनाचे फायदे, शेळी व मेंढी पालनास आर्थिक सहाय्य व मार्गदर्शन करणाऱ्या विविध संस्था, विकास महामंडळ इत्यादीची माहिती सदर संशोधन लेखामध्ये देण्याचा प्रयत्न करण्यात आलेला आहे.

प्रस्तावना :

भारत हा कृषी प्रधान देश असून जगात ग्रामीण भागात राहणाऱ्या लोकसंख्येच्या बाबतीत भारताचा पहिला क्रमांक लागतो. २०११ च्या जणगणनेनुसार भारताची एकूण लोकसंख्या १२१ कोटी असून, त्यापैकी ग्रामीण भागात राहणारी लोकसंख्या ८३.३ कोटी आहे<sup>१</sup>. देशाच्या जलद व सर्वसमावेशक विकासाबरोबरच कृषी क्षेत्राला असलेल्या जोड व्यवसायाचा विकास करणे गरजेचे आहे. महाराष्ट्र राज्यात सुद्धा भारताप्रमाणेच ७० टक्के लोकसंख्या ही प्रत्यक्ष व अप्रत्यक्षरित्या कृषी क्षेत्रावर अवलंबून आहे<sup>२</sup>. राज्यातील कोरडवाहू शेतीचे प्रमाण हे ८३ टक्के असून बागायती शेतीचे प्रमाण १७ टक्के आहे<sup>३</sup>. यावरून असे दिसून येते की, महाराष्ट्र राज्यामध्ये सिंचनाचा अभाव असून मोठ्या प्रमाणात शेतीक्षेत्र हे पावसाच्या पाण्यावर अवलंबून आहे. तसेच गेल्या तीन चार वर्षा पासून महाराष्ट्रात दुष्काळ स्थिती असल्याचे दिसून येते. यामुळे शेतीक्षेत्रातून मिळणारे उत्पादन घटले व परिणामी उत्पन्नात घट झाली आहे. त्यामुळे शेतकरी कर्जबारी होत चालला आहे. कारण शेतकऱ्यांना कमी खर्चात व अल्प भांडवलामध्ये करतायेण्यासारखा शेतीवर आधारित असा जोड व्यवसायाची माहिती नाही. किंवा माहित असेल तर तो कशा पध्दतीने करावा, शेळ्यांच्या जाती, शेळी पालनाचे फायदे, तांत्रिक माहिती कशापध्दतीने मिळवावी, आर्थिक मदत कुठून मिळेल. तसेच अशा कृषी आधारित व्यवसायाची माहिती कशी मिळवावी या बाबींच्या अभावामुळे शेतकरी अज्ञानी असल्याचे दिसून येते.

शेळी व मेंढी पालन व्यवसायाचे महत्त्व :

महाराष्ट्रात शेळी व मेंढी पालन हा व्यवसाय धनगर समाजाकडून मोठ्या प्रमाणात केल्या जातो. शेळ्या व मेंढ्या पासून मांस, दुध, कातडी, लेंडीखत, आणि मेंढ्यांपासून लोकर व लोकरी पासून लोक उपयोगी वस्तुचे उत्पादन मिळते. तसेच हा व्यवसाय शेती व्यवसायाला पूरक व्यवसाय आहे. शेळी पालन हा व्यवसाय अल्प भूधारक शेतकरी, शेतमजुर, सुशिक्षित बेरोजगार, इत्यादी लोक अल्प भारंडवलात उभारून आपला उदरनिर्वाह चालवू शकतात. शेळी व मेंढी पालन व्यवसाय महाराष्ट्रात आवर्षनप्रवन जिल्ह्यासह सर्व जिल्ह्यात केल्या जातो. परंतु व्यवसायाला तांत्रिक पध्दतीने करण्याची गरज आहे. त्यामुळे उत्पादनात वाढ होवून आर्थिक प्रगती होईल. शेळी पालनाचे महत्त्व लक्षात घेऊन "महात्मा गांधी" शेळी ला गरीबाची गाय आहे असे म्हणत.

शेळी व मेंढी पालनाचे फायदे :

महाराष्ट्रामध्ये मांसाला वाढती मागणी व शेळ्या मॅड्यांच्या मांसाचे वाढते भाव, त्यामुळे खात्रीची बाजापेठ, एकापेक्षा अधिक करडे देण्याची क्षमता, इतर रंथ करणाऱ्या जनावरांपेक्षा लवकर वयात व वजणात येण्याची क्षमता इत्यादी बाबींमुळे प्रगतशील शेतकरी, सुशिक्षित बेरोजगार युवक, अल्पभूधारक शेतकरी, हे या व्यवसायाकडे आकर्षित होत असून बंदिस्त शेळी पालनास चालना मिळत आहे. मांस उत्पादनाबरोबरच शेळीच्या दुधापासून सुद्धा खुप फायदे आहे. शेळीच्या दुधात अनेक औषधी वनस्पती असतात. कारण शेळी आपल्या आसपास असलेल्या अनेक औषधी वनस्पतीचा पाला खात असते. त्यामुळे शेळीच्या दुधात त्या वनस्पतीचे औषधी गुणधर्म उतरलेले असतात. तसेच हे दुध इतर दुधापेक्षा पातळ असते त्यामुळे ते पचण्यास हलके असते.

जगात जवळपास शेळ्यांच्या १०० जाती आहेत. त्यापैकी भारतात. २३ जाती पाळल्या जातात. तसेच मांसाहाराचे वाढते प्रमाण, वाढते भाव आणि इतर मांसाच्या तुलनेत सर्वात जास्त शेळ्यांच्या मांसाला असलेली मागणीचा फायदा शेतकऱ्यांना नक्कीच होईल. त्यामुळे शेतकऱ्यांना मांस व दुध यापासून उत्पादन तर मिळेलच परंतु शेती साठी अतिशय उपयुक्त असे लॅंडी खत मिळेल. या लॅंडी खतापासून सुद्धा चांगले पैसे मिळून शेतकऱ्यांच्या उत्पन्नात नक्कीच वाढ होईल. यामुळे दुष्काळा सारख्या परिस्थितीत शेतकऱ्यांना कर्ज काढावे लागणार नाही. शेळी पालकांना हवा त्यावेळी पैसा मिळेल. परिणामी शेतकऱ्यांची आर्थिक व सामाजिक स्थितीत सुधारणा होऊन शेतकरी आत्महत्ये सारखे प्रश्न सुटण्यास मदत होईल.

महाराष्ट्रातील शेळ्या व मॅड्यांच्या जाती :

भारतात शेळ्यांच्या २३ जाती असून त्यापैकी महाराष्ट्रात प्रमुख ५ जाती असल्याचे दिसून येते. त्यामध्ये उस्मानबादी, संगमनेरी, कोकण कन्याल, सुरती आणि बेरारी या जाती महाराष्ट्रात प्रामुख्याने पाहण्यास मिळतात. बेरारी या जाती पासून मोठ्या प्रमाणात मांसाचे उत्पादन मिळते. उस्मानबादी ही जात राज्यातील प्रमुख शेळीची जात असून ही उस्मानाबाद व त्या आसपासच्या जिल्ह्यांमध्ये आढळून येते. तर उस्मानबादी शेळ्यांची जात मोठ्या प्रमाणात मांस उत्पादन देण्यास उपयुक्त आहे. तसेच संगमनेरी ही शेळीची जात नगर जिल्ह्यातील संगमनेर व त्या आसपासच्या तालुक्यात आढळून येत असून, संगमनेरी शेळीची जात मांस व दुध उत्पादनासाठी उपयुक्त आहे. सुरती ही शेळीची जात सुरत, धुळे आणि जळगाव इत्यादी ठिकाणी आढळून येते. तर सुरती शेळीची जात मांस व दुध उत्पादनासाठी उपयुक्त आसल्याचे दिसून येते.

शेळी पालनाच्या पध्दतीचे, महत्त्व व फायदे :

शेळी पालनाच्या मुख्य तीन पध्दती आहेत. मुक्त व्यवस्थापन, मिश्र व्यवस्थापन, बंदिस्त शेळी पालन.

अ) मुक्त व्यवस्थापन या पध्दतीमध्ये शेळ्या कळपामध्ये पाळल्या जातात. त्यांच्या साठी कोणतीच असी वेगळी सोय नसते. या पध्दतीत नैसर्गिक साधन संपत्तीचा पुरेपुर वापर करून घेतल्या जातो. राहण्यासाठी काटेरी कुंपन किंवा झाडाखाली त्यांची सोय केलेली असते. मुक्त व्यवस्थापन पध्दती ही कमी पावसाच्या ठिकाणी, उष्ण हवामानात, तसेच डोंगराळ प्रदेशात सोईस्कर आहे.

मुक्त व्यवस्थापन पध्दतीचे फायदे :

१. शेळ्यांची शारीरिक हालचाल वाढते.
२. शेळ्यांना व्यायाम मिळतो.
३. शेळ्या त्यांच्या आवडीनुसार चारा खातात.

ब) मिश्र व्यवस्थापन किंवा अर्ध बंदिस्त या पध्दती मध्ये शेळ्यांना पूर्ण नैसर्गिक चान्यावर अवलंबून राहवे लागत नाही. यामध्ये शेळ्यांना दिवसातील ६ ते ८ तास नैसर्गिक कुरण, शेताच्या बांधावर, धान्य पिकाची काढणी केलेल्या क्षेत्रावर चारण्यात येते. यामध्ये नैसर्गिक चान्यावर त्यांची गरज पूर्ण होत नसल्यामुळे त्यांना रात्रीच्या वेळी ओला चारा, सुकाचारा आणि खुराक इत्यादी देण्यात येतो. तसेच सदर पध्दतीमध्ये शेळ्यांची आहार क्षमता वाढल्यामुळे शरीराच्या वाढीचा वेग, मांस उत्पादन, शेळ्यांची पुनरुत्पादन क्षमता आणि दुध उत्पादन वाढण्यास मदत होते. तसेच लॅंडी खतापासून उत्पादन सुद्धा अधिक मिळते.

मिश्र व्यवस्थापन पध्दतीचे फायदे :

१. शेळ्यांची आहार क्षमता आणि पचनक्षमता वाढण्यास मदत होते.
२. स्वस्त मांस उत्पादनासाठी उपलब्ध साधन सामग्रीचा पुरेपुर उपयोग होतो.
३. गाभण, दुभत्या शेळ्या आणि करडांची विशेष काळजी घेता येते.
४. लॅंडीखतापासून उत्पादन अधिक मिळते.

क) बंदिस्त शेळी पालन या पध्दतीमध्ये शेळ्यांना सुरक्षीत ठिकाणी दिवस रात्र वाड्यात ठेवल्या जाते. म्हणजेच शेळ्यांना बाहेर चरण्यासाठी नेत नाही. तर त्यांना गरजेनुसार वैरण, खाद्य, पाणी आणि औषधोपचार वाड्यातच केल्या जातो. या पध्दती बारामहीने सिंचन सुविधा असलेली साधारणपणे लागनारी २ गुंठे जमिन एका शेळी साठी असली पाहिजे. या पध्दतीमध्ये जातीवंत शेळ्यांची अनुवंशिक उत्पान क्षमता विकसीत होऊन अधिक चालना मिळण्यास मदत होते. तर उत्पादनाचे साधन म्हणून या पध्दतीचा वापर करण्यात येतो.

बंदिस्त शेळी पालन या पध्दतीचे फायदे :

१. दैनंदिन व्यवस्थापन करणे सोपे होते.
२. पिकांचे नुकसान होत नाही
३. २४ तासामधील शेळ्यांपासून मिळणारे लॅंडी खत उपलब्ध होते.
४. बंदिस्त व्यवस्थापन पध्दतीमध्ये सांसर्गिक रोगाचा आणि जंताचा प्रादुर्भाव नियंत्रणात येतो.
५. मर्यादित स्वरूपात हालचाली होत असल्यामुळे शेळ्यांची शक्ती वाचते आणि मांस उत्पादन वाढण्यास मदत होते.
६. पैदशीकरीता निवड किंवा संकर पध्दत अंमलात आणने सोपे होऊन अधिक उत्पन्न देणाऱ्या शेळ्यांचे चांगल्या प्रकारे संगोपन केल्या जाते.

शेळी व मेंढी पालन व्यवसायतील संधी :

१. शेळ्या व मेंढ्यामध्ये विशेषतः शेळ्यांमध्ये जुळे देण्याची क्षमता.
२. बदलत्या तापमानास तोंड देण्याची क्षमता शेळ्या व मेंढ्यामध्ये विशेषतः शेळ्यांमध्ये अधिक असते.
३. वाढते शहरीकरण आणि आर्थिक सुबत्ता, आहरशैलीतील बदल ह्यामुळे मांसाला असलेली मागणी त्यामुळे मांस प्रक्रिया व्यवसाय विकास आणि त्याचे वृद्धीकरण.
४. दुष्काळप्रवण जिल्ह्यात करता येणारा व्यवसाय, तसेच दुर्गम भागातील आदिवासींसाठी शाश्वत व आर्थिक स्थैर्य देणारा व्यवसाय.
५. कृत्रिम गर्भधारणा कार्यक्रम राबविण्यास उत्तम संधी.
६. पर्यावरण रक्षण करून उत्पादन वाढविण्यासाठी शेळी व मेंढी पालनामध्ये ठाणबंध पध्दत विकसीत करण्याची योग्य वेळ.

महाराष्ट्रातील शेळी विकास महामंडळ व शेळी पालन करणाऱ्या विविध सहकारी संस्था :

शेळी व मेंढी पालकांची आर्थिक व सामाजिक स्थिती सुधारण्यास मदत व्हावी म्हणून राज्य सरकारने महामंडळाची स्थापना कंपनी कायदा १९५६ अन्वये दि. ८/८/१९७८ रोजी केली. परंतु महामंडळाचे प्रत्यक्ष कार्य १/११/१९७९ पासून सुरू झाले. महामंडळ स्थापनेच्या वेळी महामंडळाचे भाग-भाडवल १ कोटी होते. त्यात वाढ होऊन ते ६ कोटी आहे. तर भरणा झालेले भाग-भाडवल ५.६८ कोटी एवढे आहे. महामंडळाची आर्थिक उलाढाल १५ कोटी एवढी आहे.

पुण्यश्लोक अहिल्यादेवी महामंडळाचे मुख्य कार्यालय गोखलेनगर पुणे येथे असून महाराष्ट्रामध्ये ९ ठिकाणी त्याच्या शाखा आहेत. १) बिलाखेड, जि.जळगाव, २) पडेगाव, जि.औरंगाबाद, ३) अबांजोगाई, जि. बीड, ४) मुखेड, जि.नांदेड, ५) महुद, जि.सोलापुर, ६) तीर्थ बु. जि.उस्मणाबाद, ७) दहिवड, जि.सातारा, ८) राजणी, जि.सांगली, ९)पोहरा, जि.अमरावती इत्यादी ठिकाणी महामंडळ कार्यरत आहे. या महामंडळाद्वारे केंद्रपुरस्कृत योजना राज्य पुरस्कृत योजना, तसेच महामंडळामार्फत शेळी व मेंढी पालनाचे प्रशिक्षण, प्रस्थापित योजना आणि विकासात्मक कार्यक्रम राबविल्या जातात.

राज्यामध्ये महामंडळाव्यतीरीक्त २२२५ सहकारी संस्था कार्यरत आहेत.त्यांचा तपशिल खालील तक्त्यात दर्शवलेला आहे.

तक्ता क्र.१

राज्यातील शेळी व मेंढी पालन करणाऱ्या सहकारी संस्था

अ. क्र.	महाराष्ट्रातील विभाग	संस्थांची संख्या
१	पश्चिम महाराष्ट्र	४५०
२	मराठवाडा	३८०
३	विदर्भ	१७०
४	कोकण	२५

५	खानदेश	१२००
	एकूण	२२२५

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राज्यामध्ये ज्याप्रमाणे सहकारी संस्था व महामंडळ कार्यरत आहे. त्याप्रमाणेच ६ खाजगी (अशासकीय) संस्था सुध्दा कार्यरत आहेत.

१. निंबकर अग्रिकल्चन रिसर्च इन्स्टिट्यूट (NARI) फलटण.
२. BAIF डेव्हलपमेंट रिसर्च फॉउंडेशन उरळीकांचन पुणे.
३. अंतरा, पुणे.
४. BOSCO, ग्रामीण विकास केंद्र, कडेगाव, नगर-पुणे मार्ग, अहमदनगर.
५. रूरल अग्रिकल्चर रिसर्च इन्स्टिट्यूट नारायणराव (RAIN).
६. कृषी विज्ञान केंद्र बारामती जिल्हा पुणे.

समारोप :

महाराष्ट्राच्या ग्रामीण विकासाबरोबरच महाराष्ट्रातील शेती क्षेत्राला असलेल्या जोड व्यवसायाचा विकास करणे गरजेचे आहे. शेतीक्षेत्राला जोडव्यवसाय म्हणून शेळी व मेंढी पालन हा व्यवसाय कमी खर्चात जास्त उत्पादन देणारा व्यवसाय आहे. हा व्यवसाय वाढीस लागण्यासाठी शासनाने प्रयत्नशिल राहणे गरजेचे आहे. त्यामुळे सदर व्यवसाय वाढीस लागल्यास शेतकऱ्यांच्या आर्थिक सामाजिक स्थितीत सुधारणा होईल. तसेच सर्वसमावेशक ग्रामीण विकास होऊन ग्रामीण भागात राहत असलेला शेतकरी वर्ग सुखी व समाधानी राहील. त्यामुळे सततच्या होणाऱ्या शेतकरी आत्महत्या, दुष्काळ, दारिद्र्य, कर्जबाजारीपणा, वाढते स्थंलांतर, शहरीकरणात पडणारी भर इत्यादी समस्या ला आळा बसण्यास मदत होईल.

संदर्भ :

१. जनगणना अहवाल २०११.
२. व्यवस्थापकीय संचालक, पुण्यश्लोक अहिल्यादेवी महाराष्ट्र मेंढी व शेळी विकास महामंडळाची माहिती पुस्तिका.
३. शंभरकर अर्चना (२०१३), लोकराज्य, "दुसरी हरितक्राती", नोव्हेंबर, पृ.क्र.३६.
४. पशुधन ऐश्वर्य (२०१५), पशुसंवर्धन आयुक्तालय, पशुसंवर्धन विभागाचे मासिक, महाराष्ट्र राज्य, पुणे.
५. व्यवस्थापकीय संचालक, पुण्यश्लोक अहिल्यादेवी महाराष्ट्र मेंढी व शेळी विकास महामंडळाची माहिती पुस्तिका.
६. <http://www.destatalk.com/goat-farming/> 20/07/2016.

## Implementation of hand and voice biometrics based on gmm

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**Abstract** This paper focuses on hand biometrics applied to images acquired from a mobile device. The system offers the possibility of identifying individuals based on features extracted from hand pictures obtained with a low-quality camera embedded on a mobile device, then we extract features from voice using GMM and MFCC. Furthermore, the acquisitions have been carried out regardless illumination control, orientation, distance to camera, and similar aspects. In addition, the whole system has been tested with an owned database.

**Keywords** Hand image, Mobile device, Vector machine, Segmentation.

### 1. Introduction

Here we provide the novel method in recognition hand and voice biometrics. In pre-processing we remove the noise from the image. For removing noise here we use the imfilter function. Then we segment hand from the image, after that we segment the finger from the segmented image. From that we calculate the length of the finger. Then we extract the feature for voice. We use GMM and MFCC for voice feature extraction. Hand biometrics applied to images acquired from a

mobile device. The system offers the possibility of identifying individuals based on features extracted from hand pictures obtained with a low-quality camera embedded on a mobile device. Furthermore, the acquisitions have been carried out regardless illumination control, orientation, distance to camera, and similar aspects. Gaussian mixture model

(GMM)-based speaker verification system used successfully in several NIST Speaker Recognition Evaluations (SREs). The system is built around the likelihood ratio test for verification, using simple but effective GMMs for likelihood functions, a universal background model (UBM) for alternative speaker representation, and a form of Bayesian adaptation to derive speaker models from the UBM.

### 2. Database acquisition

This biometric method is oriented for mobile applications and therefore, the algorithm must be tested with images acquired from mobile devices. To our knowledge, there exist no public database satisfying our requirements, and therefore an owned database has been collected



**Fig 1:** Different examples of hand acquisitions. It is remarkable that there exist different illuminations, different sizes, orientation, scales, distance to camera and similar aspects that provides this database with special characteristics and simulate proper standard environments.

Such a database contains hand captures of 50 different individuals of an age range from 16 to 60 years old, gathering men and women in the same proportion containing also samples from different races. Therefore, it is a database with a huge variability in terms of size, skin color, and the like. Furthermore, considering a contact-less approach for biometric hand recognition, every hand image was acquired without placing the hand in any platform neither requiring any removal of rings, bracelets, or watches. Instead, the individual was required to open his/her hand naturally, so that the mobile device (an Apple iPhone) could take a photo of the hand at 10–15cm of distance. This acquisition implies no control on illumination, background (behind the hand), hand orientation, and distance to mobile camera, and every acquisition was carried out under natural light. This approach combines several current challenges in hand biometric recognition with the limitation of mobile devices.

Both hands were taken, in a total of three sessions: during the first session, 10 acquisitions from both hands are collected; second session is carried out after 10–15 min, collecting this time 5 images per hand. Finally, third session is taken after three months, collecting 5 images per hand.

Similarly there is another section in database for voice. All voice files are (.wav) format and arrange them using numeric index value.

#### Steps of process

- 1) Input an image.
- 2) Remove noise from that image using suitable filter.
- 3) Segment image
  - First, segment hand image from existing image.
  - Convert that image to BW for easily identifying boarders.
  - Again, extract fingers from BW image.
  - Then, convert that segmented image to greyscale.
- 4) Calculate length of all fingers.
- 5) Now, input a voice file.
- 6) Extract GMM features from that file.
- 7) Calculate MFCC features from that file.

In fusion SVM compare calculated result with local database attributes.



### 3. Pre-processing

In pre-processing we remove the Gaussian noise from the image. For removing Gaussian noise we used the imfilter function. Imfilter is the one of the filter for remove the noise. In pre-processing we get the noise free image.

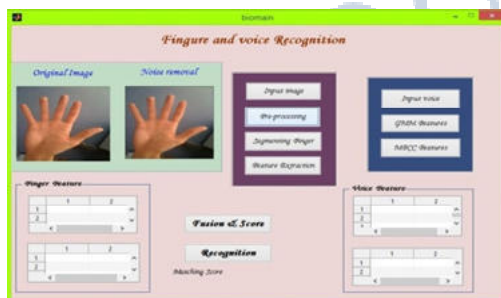


Fig 2: Noise removed from original image.

### 4. Segmentation

Each image is acquired without constraints in terms of illumination, background, and the like. This characteristic provides the technique with an increment in the acceptance among individuals, based on its lack of invasiveness. However, this fact represents a more demanding aspect in segmentation, since no previous knowledge is assumed regarding background, and as a consequence, isolating hand from background means more effort for the algorithm. In addition, considering mobile restrictions in terms of computational operations, a future implementation on portable devices means less capability in terms of image processing. In other words, the segmentation algorithm must be oriented to

achieve good results combining time performance and segmentation accuracy. The segmentation approach proposed in this document is based on a family of multistage aggregation algorithms. More in detail, the proposed approach focuses on a sort of algorithms within previous multistage aggregation procedure, which is known as segmentation by weighted aggregation. This former approach has provided

Segmentation process done by four steps:

- 4.1. Extract hand from the original image.
- 4.2. Convert the extracted image to BW (Binary Image).
- 4.3. Extract only fingers from BW image.
- 4.4. Convert the image to greyscale.

Here is where we actually get the postcode; in other words we extract from the image that part of it which contains just the postcode

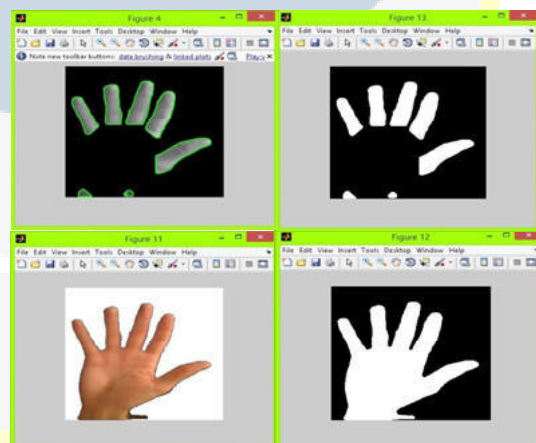


Fig 3: Segment fingers from original image.

## 5. Feature extraction

The biometric information contained within the hand must be reduced to few features so that a feasible comparison between two acquisitions is possible. These features represent the biometric template.

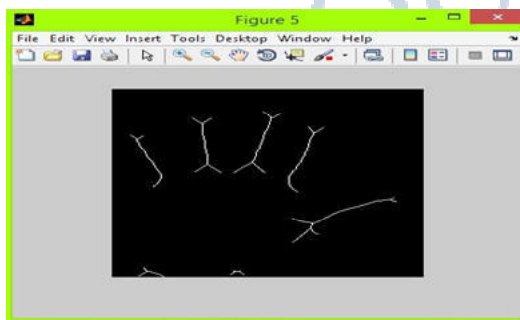


Fig 4: Extract feature from segmented image.

Considering the characteristics of the database (hands with different scales, sizes, orientations, and the feature extraction must be performed regardless any of the aforementioned characteristics.

For Feature extraction we find the number of boundary of the image. Then we calculate the length of the boundary. This will save as a template file.

## 6. GMM and MFCC features extraction

For voice here we extract the GMM and MFCC feature. GMM is Gaussian mixture model and MFCC is Mel Frequency Cepstral Co-efficient.

Gaussian mixture model: In statistics, a mixture model is a probabilistic model for representing the presence of subpopulations within an overall population, without requiring that an observed data-set should identify the sub-population to which an individual observation belongs. Formally a mixture model corresponds to the mixture distribution that represents the probability distribution of observations in the overall population. However, while problems associated with "mixture distributions" relate to deriving the properties of the overall population from those of the sub-populations, "mixture models" are used to make statistical inferences about the properties of the sub-populations given only observations on the pooled population, without sub-population-identity information.

Some ways of implementing mixture models involve steps that attribute postulated sub-population-identities to individual observations (or weights towards such sub-populations), in which case these can be regarded as types of unsupervised learning or clustering procedures. However not all inference procedures involve such steps.

## 7. Mel frequency cepstral co-efficient

Mel-frequency cepstral coefficients (MFCCs) are coefficients that collectively make up an MFC. They are derived from a type of [cepstral](#) representation of the audio clip (a nonlinear "spectrum-of-a-spectrum"). The difference between the [cepstrum](#) and the mel-frequency

cepstrum is that in the MFC, the frequency bands are equally spaced on the [mel scale](#), which approximates the human auditory system's response more closely than the linearly-spaced frequency bands used in the normal cepstrum. This frequency warping can allow for better representation of sound, for example, in [audio compression](#).

### 8. Fusion and decision

For fusion we are using the SVM classifier. It wills fusion the feature.

SVM classifier is the one of the supervised classifier. This is one of the Kernel-based techniques which represent a major development in machine learning algorithms. We provide our feature values to the SVM classifier. The classifier will train about the feature. Finally it will classify about the result. The goal of SVM is to produce a model (based on the training data) which predicts the target values of the test data given only the test data attributes.

After that the feature will pass to the decision module. In this module here we will find distance between the input image with the database image. Finally it will match to the database image feature. And then it will recognize it.

### 9. Results

Evaluating a biometric system has typically involved the use of the well-known parameter equal error rate (EER) , which provides

After testing seven images EER (Equal Error Rate) calculated in the following table.

	I1	I2	I3	I4	I5	I6	I7
I1	23±0.6	26±0.4	25±0.54	26±0.6	28±0.55	27±0.5	25±0.55
I2	26±0.5	23±0.6	27±0.5	22±0.56	26±0.6	28±0.55	26±0.6
I3	28±0.55	24±0.57	22±0.6	28±0.55	26±0.51	26±0.5	24±0.57
I4	26±0.51	22±0.56	28±0.55	22±0.6	24±0.57	25±0.55	27±0.5
I5	27±0.5	25±0.55	25±0.4	24±0.57	23±0.66	27±0.5	23±0.6
I6	25±0.4	26±0.46	26±0.6	26±0.6	26±0.46	24±0.57	24±0.57
I7	26±0.6	27±0.44	27±0.5	26±0.46	26±0.46	24±0.57	22±0.6

information on the accuracy of a biometric system in identifying or verifying a given individual. In order to validate the proposed approach, the acquisitions within the database were used according to a *k*-fold cross-validation scheme (Leave-one-out, concretely), since

the samples in the database correspond to 50 individuals. A modification of this validation technique was considered to assess to what extent the number of samples in training affects the final performance of the whole system. This study is of great importance since it indicates precisely how many samples are required to create a proper template for each individual.

A compromise between samples during training and system performance must be achieved.

### 10. Conclusion and future work

This paper proposes a biometric system based on finger geometry, oriented to a mobile device environment, where the acquisition procedure is uncontrolled, and hand images can present differences in scale, size, and orientation. A very important characteristic of

this proposed technique relies on not requiring any platform as to where to locate the hand, being completely invasive. Furthermore, the images are required to contain only the fingers of the individual, making easier the acquisition of the biometric data. The segmentation procedure offers the possibility of good accuracy combined with low computational cost, which means that this algorithm is suitable for mobile implementation. Moreover, the feature extraction procedure provides with accurate results to build the template, gathering invariant features to these previous factors with the benefit of being easily extracted and computed. The method proposed based on SVM with linear kernel functions allows a performance in EER of 6.0% } 0.2, which is a promising result considering the involved constraints:

Images acquired, features extracted, and the fact that only fingers are considered. Furthermore, the image size affects also negatively to the results (400 × 300 pixels), but a deeper understanding of the relation between size and EER deserves more future work. An interesting goal is to decrease also the number of training sample without having effects on the overall accuracy. In order to compare performance rates with those approaches in literature, authors would like to apply these algorithms to other public databases, so that a fair comparison with other approaches could be carried out.

Many different scenarios may benefit from this biometric technique like mobile phones, laptops, and any device with a camera embedded. Concretely, considering mobile phones, notice that a given individual can make a picture of his/her hand by him or herself and that will be enough to access the Mobile device. On the other hand, an implementation oriented to mobile devices, finishing third session from database and increasing the number of individual's remains as a desirable future work, together with increasing the accuracy of the system in identifying individuals. Furthermore, authors would like to research the independence of the technique regarding mobile devices, in other words enrolling and accessing the system with different mobile devices. In addition, it is of interest to study the effect of geometry modifications due to changes in temperature or any external factor, provoking for instance, thinning or thickening. Their effect will be studied according to standard normalization SC37 Biometrics committee.

Finally, since the hand images have been acquired with the palm up, a possible fusion scheme with palm print biometrics could be of interest as future research lines.

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## A comparative Study of Self Actulazation of Male and Female among B. Ed. Trainees

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### Abstract:

The present study has been conducted of self actulazation among the B.ed trainees self actulazation test developed by Dr.K.N.Sharma has been used. The total sample 100 Trainees from Amravati city has been selected for the study . 50 students were selected both male female and are included in sample Survey research method has been used. The data was analyzed using Mean, S.D., t-test . The findings of the study revealed self actulazation between the students of b.ed college differ significantly.

**Key words:** self actulazation male and female Trainees.

### INTRODUCTION

Maslow has given more importance to needs of human. If these needs are not fulfilled then there is a effect on the human mental health. The needs of human should be completed whenever these needs should be completed than the feels about his selfactlizations. This is the highest level of needs. Maslow belived that man has natured drive to healthiness, or selfactization. He belived that man has basic (biological and Psychological) needs that have to be fulfilled in order to be free enough to feel the desire for the higher levels of relalization he also belived that the organism to seek its needs

According to Maslow every person has in born needs .The structure of needs is like a parmidi at the bottom In the their steps man tri to acquire the knowledge .If there are diffeiculties to acquire the knowledge ,than there is aa effect on the abilty to get knowledge There is a need to fulfil the cognitive abilty of the persons in the forth step.is the need to fulfil the asthetic sense.This is the last steps of to fulfil the need of the persons The last selfactulization .In this steps he know about his self abilities.He gets his actualization.This is the last need of the person.Whenever there is development of personality of person ,then there is a developments of self this is the highest levels of the fulfil the needs of a person.

Hence is very essential to see the self aculazation of the students.The aim of the education is to develop the personality of the child.

### STATEMENT OF THE PROBLEM

## A comparative Study of Self Actulazation of Male and Female among B. Ed. Trainees - HYPOTHESES OF THE STUDY

- There is no significant difference between self actulazation of male and female and girls of b.ed trainees.
- There is no significant difference between the self actulazation of male of urban and rural area
- There is no significant difference between the self actulazation of femal of urban and rural area

### METHODOLOGY

The present study has been conducted a comparative study of self actulazation of male and female of b.ed college students. Test developed by Dr.k.n.shrama has been used. Sample of Amravati city was selected for the study .The selected 100 students as a total sample of B.ed college.From each type of B.ed college male and female were selected including both students . Survey research method has been used. The data was analyzed using Mean, S.D., t-test

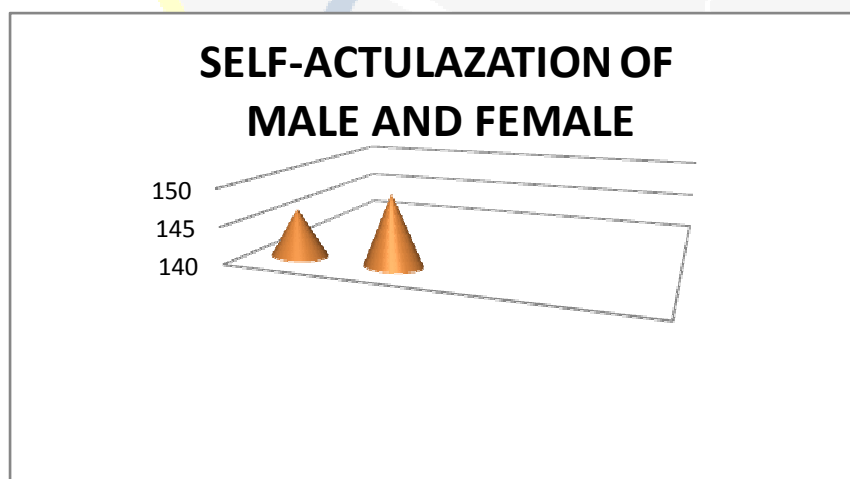
### DATA ALYSIS AND INTERPRETATION

#### Hypothesis :

- 1 There is no significant difference between self actulazation of male and female of B.ed trainees.

**Table No. 1 shown the significance to 't' value between male and female of b.ed college in respect of their self actulazation**

Variables	Number of Students	Mean	Standard Deviation	't' value	Level of significance
Male of b.ed college	50	146.36	21.2062	0.81	0.05
Female of b.ed college	50	149.36	15.1130		0.01



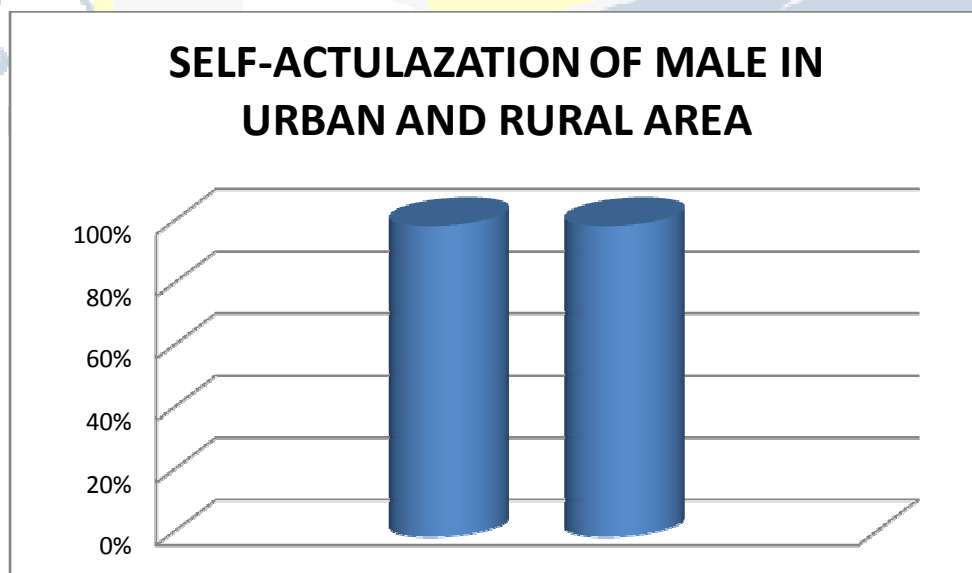
It is evident from the Table 1 that the calculated 't' value is found to be 0.84 which is less than table value at 0.05 and 0.01 level of significance. Hence the hypothesis is accepted.. Thus,we can say that both groups might have similar and there is no significant difference between the male and female of B.ed colleges in rural and urban area in Amravati city.The reason may be that the both type of male and female have developed the equal self actulazation.parents are not doing difference between male and female.

**. Hypothesis -2**

There is no significant difference between the self actulazation of male of urban and rural area

**Table No. 2 shown the signigance to 't' value between boys of urban and rural area in respect of their self actulazation**

Variables	Number of Students	Mean	Standard Deviation	't' value	Level of significance
Boys of urban area	25	123.16	19.59	0.50	0.05
Boys of rural area	25	119.92	25.55		0.01



It is evident from the Table 2 that the calculated 't' value is found to be 0.50 which is less than table value at 0.05 and 0.01 level of significance. Hence the hypothesis is accepted.. Thus,we can say that there is no significant difference between the self actulazation boys of



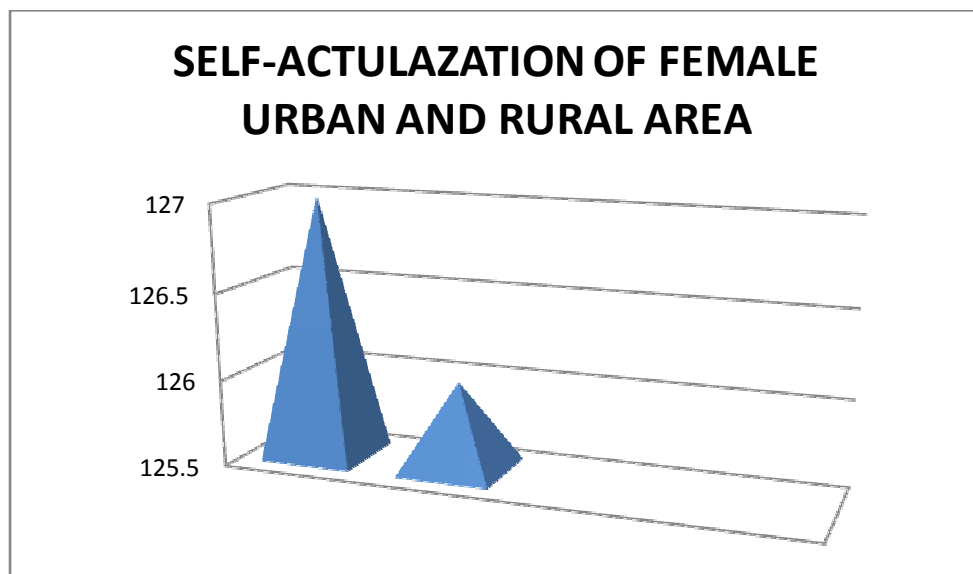
urban and rural area..The reasons may be that the in giving the atmosphere for developing the self actualization is the same.

**Hypothesis -3**

3 There is no significant difference between the self actualization of female urban and rural area

**Table No. 3 shown the significance to 't' value between girls of urban and rural area in respect of their self actualization**

Variables	Number of Students	Mean	Standard Deviation	't' value	Level of significance
female of urban area	25	127.52	20.1658	2.48	0.05
Female of rural area	25	126.6	9.1877		0.01



It is evident from the Table 6 that the calculated 't' value is found to be 2.48 which is greater than table value at 0.05 and 0.01 level of significance. Hence the hypothesis is rejected. That means there is a significant difference between the self actualization of female of urban and rural area. It is clear that self actualization of girls of urban area is better than the girls. of rural area .The reason may It is clear from the diagram also

**CONCLUSION**

1. There is no significant difference between the male and female of B.ed colleges in rural and urban area in Amravati city.The reason may be that the both type of male and female have developed the equal self actualization.parents are not doing difference between male and female.



2. There is no significant difference between the self actualization boys of urban and rural area. The reasons may be that the environment for developing the self actualization is the same

3. There is a significant difference between the self actualization of female of urban and rural area. It is clear that self actualization of girls of urban area is better than the girls of rural area. The reason may be It is clear from the diagram also

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## आदिवासियों में भूमि आन्दोलन

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आन्दोलन को एक ऐसे प्रयत्न के रूप में देखा जाता है, जिसके द्वारा एक विशेष समूह या समुदाय अपनी सामाजिक संस्थाओं तथा सामाजिक संरचना में वांछित परिवर्तन ला सकें, वास्तव में सामाजिक आन्दोलन का उद्देश्य सामाजिक व्यवस्था में परिवर्तन लाना ही नहीं होता बल्कि कभी-कभी परिवर्तन को रोकना भी होता है, इसका तात्पर्य है कि सामाजिक आन्दोलन एक ऐसा सामाजिक प्रयत्न है जो किसी विशेष विचारधार के आधार पर लोगों को संगठित करके अपनी समस्याओं का समाधान करने तथा वांछित उद्देश्यों को प्राप्त करने की प्रेरणा देता है, प्रत्येक सामाजिक आन्दोलन में प्रत्यक्ष या अप्रत्यक्ष रूप में बाध्यता और दबाव का तत्व भी मौजूद रहता है। एम०एस०ए० राव ने अपनी पुस्तक भारत में सामाजिक आन्दोलन (Social Movement in India) में लिखा है कि "एक सामाजिक आन्दोलन समाज के किसी भाग द्वारा समाज में आंशिक या पूर्ण परिवर्तन लाने के लिए किया जाने वाला संगठित प्रयत्न है, इसमें एक विचारधार पर आधारित सामूहिक संगठन निहित होता है।

प्रत्येक आन्दोलन की दो मूल-भूत विशेषताएं होती हैं— सामाजिक प्रचालन तथा परिवर्तन। कुछ समाज वैज्ञानिक अन्य उपदानों का भी उल्लेख करते हैं यथा विचारधारा की उपस्थिति, संगठन का तरीका एवं आन्दोलनों के परिणामों की प्रकृति। आन्दोलनों को संगठन, विचार एवं प्रकृति के आधार पर अनेक श्रेणियों में विभक्त किया जाता है जैसे— धार्मिक आन्दोलन, राष्ट्रवादी आन्दोलन, पुनर्जागरण पुनुरुत्थान आन्दोलन आदि।

भारत में अंग्रेजी शासन के पूर्व से ही आदिवासी जंगलों एवं पर्वत मालाओं के मध्य एकान्तिक जीवन जीने के अभ्यस्त रहे और इस प्रकार वे बाहरी मूल्य विकास धाराओं से कटते चले गए। लेकिन जब अंग्रेज मिशनरियों ने इस क्षेत्रों में प्रवेश करना आरम्भ किया, तो आदिवासियों ने कटुता का अनुभव किया कि अंग्रेज उन्हें शेष भारत में अलग-थलग करके उन्हें धर्मच्युत करने जा रहे हैं, धीरे-धीरे इन क्षेत्रों को यातायात के साधनों से जोड़ा जाने लगा तथा स्कूलों की स्थापना की जाने लगी। जंगलों के संरक्षण के बहाने वन अधिकारी, गुमाशतें एवं ठेकेदारों के आने जाने का सिलसिला शुरू हो गया। इन परिवर्तनों से आदिवासियों से सहज असुविधा होने लगी। घुरिये के शब्दों में आदिवासियों में उदासीनता, नैतिक पतन एवं जनसंख्या में घटोतरी आरम्भ हो गयी। अलगाव की नीति ने आदिवासियों के शोषण की प्रक्रिया में भी योगदान दिया। शोषण के यंत्र थे— जमीनदार, ताल्लुकदार, सूदखोर महाजन एवं जंगलों के ठेकेदार जिनकी उपस्थिति सर्वत्र कोपपूर्ण थी। इन बाहरी लोगों ने आदिवासियों का छक कर शोषण आरम्भ किया।

भू-संरक्षण एवं जंगलों की सुरक्षा नीति भी आदिवासियों के लिए उनके अधिकारों पर एक प्रकार का प्रहार ही था। जंगल के ठेकेदारों ने वन उत्पादों का अनुचित लाभ लेना आरम्भ कर दिया और जागीरदारों ने इनकी भूमि का। आदिवासियों ने ईंधन, लकड़ी तथा भोजन की कमी महसूस की। परिणामतः आदिवासियों की अर्थ व्यवस्था में अनावश्यक बाहरी हस्तक्षेप ने आदिवासियों को बाहरी लोगों से प्रतिशोध लेने के लिए उकसाया। अर्थव्यवस्था की अस्तता-व्यस्तता एवं पराजय की भावना ने आदिवासियों की व्यग्रता की स्थिति में ला खड़ा किया।

उपर्युक्त कारणों से 1789, 1801, 1807 और 1808 में छोटा नागपुर में उपद्रव उठ खड़े हुए। किसी तरह से अंग्रेजों ने सेना की सहायता से उन्हें शान्त किया। 1831-32 में भूमि बन्दोबस्त के तहत "कोल आन्दोलन" हिन्दु मस्लिम व सिखों के विरुद्ध भड़क उठा। लगान वृद्धि, बेगार, खुंटकी भूमि की बेदखली इन आन्दोलन की पृष्ठभूमि में विशेष कारण रहे। 1855 में "संथाल आन्दोलन" साहूकारों एवं जमीनदारों के शोषण के विरुद्ध था। थाम्पसन व गैरेंट लिखते हैं कि संथाल लोग जो स्वभाव से सरल एवं प्रिय प्रकृति के हैं और अच्छे शिकारी भी हैं किन्तु बाहरी लोगों के प्रवेश, भूमि के छिनने एवं ऋणों में बुरी तरह से फंस जाने के कारण लाचार होते चले गए। होशियार लोगों के चतुर चंगुल से उन्हें बेवकूफ अधिकारी भी नहीं बचा सके।

तब पूर्व सूचना के बिना संथाल आन्दोलन शुरू हो गया जो जंगलों से बंगाल के कलकत्ता शहर तक फैल गया। असंख्य यूरोपीय लोगों के कपालों को तोड़ डाला गया और इनसे सहानुभूति रखने वाले अनेक भारतीयों को भी अछूता नहीं छोड़ा गया। संथालों ने अपने जहरीले बाणों से झोपड़ियों एवं महलों को भी नहीं छोड़ा। सब कुछ सामूहिक हत्याओं में बदल गया। 1869 और 1870 के बीच घटित यह संथाल और टुडो के जमीनदारों का उपद्रव कर्नल डाल्टन की असाधारण सूझ-बूझ से सुलझ सका। 1870 का "सरदारी आन्दोलन" भी जबरन श्रम कराने एवं जमीनदारों द्वारा लगान वृद्धि के कारण भड़का।

लेफ्टिनेंट गवर्नर सर स्टूअर्ट बेली ने इस कृषिज आन्दोलन द्वारा प्रादुर्भूत असंतोष को कुछ ठोस उपायों द्वारा सुलझाने का प्रयास किया। 1895 में विरसा मुण्डा के नेतृत्व में 'मुण्डा' एवं 'औरांव' जनजातियों ने भी जमीनदारों एवं साहूकारों के विरुद्ध उपद्रव खड़े कर दिए। अलूरी सीताराम राजू की देख-रेख में 'कोया आन्दोलन' छिड़ा जो शुद्धरूप से छोटे अफसरों द्वारा जबरन बेगार लेने तथा अधिक लगान वसूली के कारण हुआ। फिर भी, सुतादर, बिचौलिये तथा अन्य लगान लेने वाले अभिकर्ता 'वेत्तो', बेगार आदिवासियों पर थोपते जा रहे थे और गांवों के उत्तम भूखण्डों को हथियाते जा रहे थे और कहे जा रहे थे कि जब तक वे हैं, वे आदिवासियों को उपर नहीं आने देंगे।

इन आन्दोलनों के अतिरिक्त, रम्पा विद्रोह, पूर्वी गोदावरी, 1911 का बस्तर आन्दोलन तथा उड़ीसा के खोंड महिलाओं का असयोग आन्दोलन, 1920 का 'थाना भगतों की क्रांति, 1941 की 'गोड़ एवं 'कोमल' की सशस्त्र क्रान्ति मूलरूप से आदिवासियों को भू-स्वामित्व से अलग करने एवं जंगल संरक्षण के नये

कानूनों द्वारा जंगलों के उपयोग से वंचित करने के कारण ही हुए। डब्लू० कुलशाह के शब्दों में, संथाल-जीवन में भू-स्वामित्व एक प्रेरक तत्व है। इसके अतिरिक्त दो वस्तुएं कबीली जीवन में बहुत ही महत्वपूर्ण हैं: कबोले की जीवन शक्ति को निरन्तर बनाये रखने एवं कबीली परम्पराओं को चलाते रहने की अदम्य इच्छा। संथाल की भूमि न केवल उसे आर्थिक सुरक्षा प्रदान करती है वरन् उसके तथा पूर्वजों के मध्य एक शक्तिशाली कड़ी है। फिर वे मानते भी हैं कि हम दूसरों की तब तक जमीन पर अधिकार नहीं करने देंगे जब तक भूमि की रक्षा करने वाली देवात्माएं कहीं और नहीं चली जाती। इस प्रकार भूमि उनके जीवन में एक आर्थिक विरासत है।

‘बर्लियो’, ‘ठाकुरों’ एवं ‘कोली’ कबीलों में बाहरी लोगों की द्रव्य अर्थव्यवस्था के अशुभ प्रवेश ने भी कम परेशानियां उत्पन्न नहीं कीं। जे०पी० ओर की भाषा में, “धानू क्षेत्र में आदिवासियों की समस्त भूमि पर ब्राह्मण, पारसी प्रभु तथा मारवाड़ी अधिकार करते जा रहे हैं।” 10% ‘बर्ली’ एवं ‘कोली’ जो कभी लम्बी कास्तों के मालिक थे, अब एक एकड़ भूमि के मालिक भी नहीं रह गए हैं। सूदखोरी के प्रचलन ने तो और भी आग में घी डालने का काम किया अर्थात् दासत्व- ‘गोथी’, ‘बेत्ती’ या ‘सगरी’ को सहज ही कबीली क्षेत्रों में प्रवेश दिला दिया विशेषकर मध्य एवं दक्षिणी भारत में। इन अंचलों में जो भी विद्रोह हुए उनके मूल में यही कारण प्रमुख रहे।

स्वाधीन भारत में संविधान ने एक प्रकार से संरक्षण और रचनात्मक नीति को प्रोत्साहन दिया। अनेक प्रसिद्ध समाज कार्य कर्ताओं जैसे ए०बी० ठक्कर, सर्वेन्ट्स आफ इण्डिया सोसाइटी के कार्य कर्तागण एवं शरत कुमार राय ने भी इन लोगों के अधिकारों के लिए आवाज उठाई। ईसाई मिशनरियों और कुछ अंग्रेस अफसरों, जैसे डब्लू०बी० गिरासन, डॉ० जे०एच० हट्टन एवं वारियर एलविन ने आदिवासियों की आवश्यकताओं की ओर लोगों का ध्यान आकृष्ट किया। खेद है कि इनके द्वारा सुझाये गए उपायों को क्रियान्वित नहीं किया गया।

1951 की जनगणना के अनुसार 191 लाख आदिवासियों में से 173 लाख (90-5%) स्थानान्तरित कृषि में लगे थे। भू-अधिकारों के संरक्षण के लिए दो प्रकार के कानून बनाये गए- (1) संरक्षणात्मक एवं (2) सुधारात्मक। पहली तरह के कानूनों ने गैर आदिवासियों को आदिवासी क्षेत्रों में बसने पर रोक लगा दी और भूमि क्रय पर प्रतिबन्ध। दूसरे प्रकार के कानून भू-सुधारों से सम्बद्ध थे। किन्तु पहले प्रकार के कानूनी प्रभावी नहीं हो सके क्योंकि आदिवासियों के लिए ऋणों से मुक्ति के लिए कोई वैकल्पिक व्यवस्था नहीं थी। इसी प्रकार सुधारात्मक कानून भी अधिकार उपयोगी सिद्ध नहीं हुए क्योंकि उनका क्रियान्वयन आदिवासियों द्वारा मुश्किल था। 1958 का भू-सीमा कानून, आसाम राज्य जमीनदारी प्राप्ति कानून 1951, आसाम अधिकार संरक्षणात्मक एक्ट 1948 ने सचमुच भू-स्थानान्तरण पर तो पूरी तरह रोक लगा दी किन्तु गरीबी एवं ऋण की विवशता के कारण आदिवासियों को अपनी जमीन (गिरवी रखनी) रेहन करनी पड़ी या फिर हमेशा के लिए

उससे अलग हो गए। जहां तक भू-सुधार कानूनों के प्रभावों का सम्बन्ध है, वे भी संतोषजनक नहीं रहे। आदिवासियों की सरलता का नाजायज फायदा लेने वाले शोषक इन कानूनों के माध्यम से भी पूर्ण लाभ लेने में नहीं चूके। लगभग 20% आदिवासी कानूनों के गलत क्रियान्वयन एवं भूमि खाली कराने एवं छोड़ने सम्बन्धी नियमों में त्रुटियों के कारण अपनी जमीनों से हमेशा-हमेशा के लिए हाथ धो बैठे।

भूमि के अतिरिक्त, आदिवासियों के मिथकों एवं कथाओं में वनों के प्रति भी अद्भुत तादात्म्य दिखाई पड़ता है। वन उनके जीवन का आधार है। पहले उन्हें वनों के उपयोग के पूर्ण अधिकार प्राप्त थे किन्तु वर्ष 1894 में उनके अधिकार सीमित कर दिए गए और सब कुछ सरकार के हाथों में चला गया। इस अकस्मात् परिवर्तन ने आदिवासियों एवं सरकार के बीच एक नाजुक स्थिति को जन्म दिया। कहा गया कि जंगलों के बड़े हितों में छोटे हितों को रोका जाए। यद्यपि वर्ष 1952 में इस वन नीति का पुनर्मूल्यांकन किया गया। इस नीति में भी यह स्वीकारा गया कि राष्ट्रीय हित में जंगलों के उत्पादों को लुटने से बचाया जाए। नई नीति कई अर्थों में पुरानी नीति से भिन्न थी, जैसे—

- 1— जंगल की भूमि पर कास्त करने पर रोक,
- 2— संरक्षित वनों से थोड़े बहुत लाभ लेने पर भी प्रतिबन्ध।
- 3— निजी वनों पर रोक
- 4— वनों में पशुचारण पर प्रतिबन्ध तथा शुल्क की शुरुआत। पशुओं की चराने की अल्प छूट।
- 5— झूम खेती का विरोध— इसे समझा बुझाकर बन्द करने का निवेदन किया जाए।

नई वन नीति ने आदिवासी मन में घृणा, अविश्वास एवं दुर्भावाना को उत्पन्न करने में कोई कोर-कसर शेष नहीं छोड़ी और वनवासियों को पूर्ण रूपेण बाहरी लोगों की दया पर छोड़ दिया। बिहार, पं० बंगाल एवं उड़ीसा में 14, 561 परिवारों को 62,494 एकड़ भूमि से वंचित कर दिया गया। केवल 3479 परिवारों को ही वैकल्पिक भूमि आवंटित की जा सकी। सरकार द्वारा आवंटित भूमि कृषि के लिए या तो अनुपयुक्त रही या फिर सिंचाई सुविधाओं से वंचित: खेतों में उत्पादन की नाम मात्र गुंजाइश रही। जेवियर लेबर रिलेशंस में नौमण्डी आइरन ओर खदानों में काम करने वाले 10% श्रमिक भू-पृथक्करण के शिकार थे।

स्वाधीनता के उपरान्त आदिवासियों के भू-आन्दोलन कुल मिलाकर दो बिन्दुओं पर घूमते रहे हैं: (1) भू-सीमा निर्धारण तथा (2) जंगलों के उपयोग पर रोक। बस्तर, नागालैण्ड, आसाम, मिजोरम, बिहार (झारखण्ड आन्दोलन) तथा पश्चिम बंगाल में गैर आदिवासियों के अनाधिकृत प्रवेश तथा दूसरी ओर साहूकारों द्वारा शोषण एवं सरकारी अभिकरणों द्वारा भू, कृषि एवं जंगलों के क्षेत्र में अनचाहे हस्तक्षेप ने आदिवासियों को आन्दोलन की ओर प्रवृत्त किया है।



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## स्थलांतर व पुनर्वसन: एक सामाजिक प्रश्न

श्री. मिथुन बाबुराव राऊत  
नेट, सेट, एम. फील.

प्रस्थावना :-

मानवी स्थलांतर हे मानवी जीवनाइतकेच पुरातन आहे हे इतिहास सांगतो. उदरनिर्वाहासाठी मानव सतत धडपडत असतो. शिकारी व अन्नसंकलन अवस्थेत सतत भटकत असणारा मानव समाज कृषीच्या शोधामुळे व कृषी करण्याच्या पध्दतीमुळे स्थिर झाला व वस्ती करून एका ठिकाणी राहू लागला. परंतू आजही संपूर्ण मानव समाजाचा विचार केल्यास तो पूर्णतः स्थिर नाही. जीवनावश्यक सोयींची अपर्याप्तता, नैसर्गिक वातावरणातील प्रतिकूलता, मानसिक अस्वस्थता, नवीन गोष्टी शोधून काढण्याची उत्सुकता, सुरक्षितता, शत्रुच्या आक्रमणातील भयानकता, राज्य व शासनकर्त्यांची क्रूरता इत्यादी अनेक कारणांमुळे काही मानव समाजांना स्थलांतरण करावे लागते. परंतू मानव समाज म्हणजे निर्जिव वस्तू नाही की जी एका ठिकाणावरून उचलली व दुसऱ्या ठिकाणी ठेवली. स्मिथ च्या मते, "स्थलांतरण प्रत्यक्ष रूपाने जनसंख्येच्या केवळ शारीरिक रचना व स्वास्थ्यालाच प्रभावित करित नाही तर समाजाची रचना, प्रक्रिया आणि व्यक्तित्वावर सुध्दा प्रभाव टाकते."<sup>1</sup>

भारत हा कृषिप्रधान देश आहे. विकासासाठी नवनवे प्रयोग, शोध, प्रकल्प हाती घ्यावे लागतात. त्यासाठी भांडवल निर्मिती करावी लागते, काही कठोर निर्णय घ्यावे लागतात. तेव्हा हरितक्रांतीसाठी सिंचन प्रकल्प हाती घेण्यात आले. उदा. 1941 मध्ये कर्नाटक राज्यातील बेल्लारी जिल्हात तुंगभद्रा सिंचन प्रकल्प सुरु करण्यासाठी 63 खेड्यातील 4 हजार कुटूंब विस्थापित झाली होती. याच सुमारास पंजाबमधील पोंग व भाक्रा-नांगल धरण, ओरिसातील हिराकुंड धरण, गुजरातमधील ऊकाई धरण, 1962 मध्ये बांधलेले महाराष्ट्रातील कोयना धरण, जायकवाडी धरण, येलदरी धरण यासारख्या धरणांच्या निर्मितीसाठी अनेक गावातील लोकांना विस्थापित करावे लागले. मराठवाड्यातील परभणी जिल्ह्यातील येलदरी धरणामुळे जवळपास 43 गावांना विस्थापित करावे लागले. परंतू त्यांचे सन्मानपूर्वक पुनर्वसन मात्र शासनाने केले नाही त्यामुळे अनेक लोक देशोधडीला लागले. पश्चिम बंगालमधील दामोदर खोरे 'योजना' अंतर्गत 32 गावातिल 4500 कुटूंबातील 93 हजार लोक विस्थापित झाले. 30 मोठ्या प्रकल्पापैकी गुजरातमध्ये नवागाम येथील सरदार पुनासा येथे नर्मदा सागर प्रकल्प, तसेच ओंकारेश्वर व महेश्वर प्रकल्पही आहेत. यामध्ये विस्थापित होणाऱ्या लोकांची सख्यां फार मोठी आहे. 1970 च्या दशकात नर्मदा पाणी तंटा निवारण समिती नेमण्यात आली. ओरिसातील कोरापूट जिल्ह्यात राष्ट्रीय अॅल्युमिनियम कंपनीसाठी शासनाने शेकडो एकर जमीन ताब्यात घेतली. त्यामुळे या प्रकल्पातही 15 गावातील 610 कुटूंबे विस्थापित झाली. रांचीजवळील 'हतिया' येथील हेवी इंजिनिअरिंग कार्पोरेशन या प्रकल्पात 25 गावातील लोक विस्थापित झाले तर राऊरकेला स्टील प्लँटमुळे गावातील 15590 लोकांना विस्थापित व्हावे लागले.<sup>2</sup>

महाराष्ट्रातील नागपूर येथे प्रकल्पासाठी तसेच कार्गोहब अशा मोठ्या विमानतळासाठी (आंतरराष्ट्रीय माल वाहतूक विमान सेवा) सोनेगाव व लगतच्या जमीनी ताब्यात घेण्याचे सरकारचे धोरण आहे. महाराष्ट्रातील गडचिरोली जिल्ह्यात प्रामुख्याने वैनगंगा, गाढवी, कठानी, पोर, वर्धा, प्रणहिता, इंद्रावती इत्यादी प्रमुख नद्या आहेत. या भागात सातत्याने महापुराचा प्रश्न निर्माण होत असतो. त्यामुळे नदी काठावरील गावांचे, मानव आणि मानवेत्तर प्राण्यांची वित्तहानी, जिवीतहानी होतेच शिवाय उभे पिक नष्ट होते. घरातील किरकोळ व मौल्यवान वस्तूंची सुध्दा धुळधाण होत असते. भारताच्या कोसी आणि ब्रम्हपुत्रा नद्यांना येणाऱ्या महापुरामुळे या क्षेत्रातील अनेक लोकांना विस्थापित करण्यात आले. तसाच प्रकार चिन देशाच्या 'हो-यांग-हो' नदीच्या प्रदेशातील लोकांचा आहे. ही नदी चीनची दुःखाश्रु नदी म्हणून ओळखली जाते. येथे सातत्याने महापूर येत असल्यामुळे लोकांना जगणे



अश्वक्यप्राय होवून बसते. तेव्हा महापुरामुळे सुध्दा देशादेशातील लोकांना पुनर्वसीत करण्याचे शासकीय कार्य दिसून येत आहे. प्रारंभीची दोन-तीन दशके या विस्थापितांच्या प्रश्नांची तीव्रता फारशी जाणवली नाही. परंतु विस्थापित होणाऱ्या व्यक्तींची संख्या महत्तम असल्यामुळे 1980 ते 90 च्या दशकात काही नामवंत लेखक, प्रत्रकार, विचारवंत, स्वयंसेवी संस्था, समाजसुधारक यांचे लक्ष या विस्थापितांकडे वळून त्यांच्या समस्यांची जाणीव त्यांना तीव्रतेने झाली. आजही विदर्भातील पंच प्रकल्प, गोसीखुर्द प्रकल्प, वीजनिर्मिती केंद्रे, विशेष औद्योगिक वसाहती इत्यादी प्रकल्प उभारले जात आहेत. त्यामुळे त्या जागेवरील शेकडो गावे उठविली जात आहेत. अनेक पिढ्यांपासून एकत्र राहिलेली त्यांची घरे व गावे उद्ध्वस्त होत आहेत. ते बेघर बनत आहेत. त्यातूनच विस्थापनाचा व पुनर्वसनाचा प्रश्न समोर येत आहे. अशा विस्थापित लोकांच्या फार मोठ्या समस्या समोर येत आहेत. त्यांना योग्य मोबदला मिळावा व पुनर्वसनाची सोय व्हावी. ती उपलब्ध करून द्यावी म्हणून येथील लोकांनी आंदोलने उभारलेली आहेत. जनतेचे लक्ष विस्थापितांच्या समस्येकडे वेधले गेले आहे. जनमत विस्थापिताबाबत सहानुभूतीपूर्ण बनू लागले आहे. त्यांचे सन्मानपूर्वक विस्थापन झाले पाहिजे यातून मानवीय दृष्टीकोण दिसून आला पाहिजे.<sup>3</sup>

स्थलांतर व पुनर्वसन हा एक सामाजिक प्रश्न आहे. विशेषतः स्थानिक आदिवासी व ग्रामीण लोकांवर या विकास योजनांचा प्रतिकूल परिणाम होतो. विस्थापितांना त्यांची शेती, घरदार व मालमत्ता सोडून दुसऱ्या ठिकाणी स्थलांतरीत व्हावे लागते. आपल्या गावातून विस्थापित व्हावे लागते. या विस्थापित लोकांचे पुनर्वसन करणे आवश्यक असते. परंतु सर्व विस्थापित लोकांचे पुनर्वसन योग्य पध्दतीने केले जात नाही. विस्थापित लोकांचे पुनर्वसन करता येणे शक्य आहे. विस्थापित झालेल्या लोकांना केवळ आर्थिक मोबदला देवून त्यांचा प्रश्न सुटण्यासाठी नाही किंवा पुनर्वसनाची समस्या ही केवळ आर्थिक समस्या आहे या दृष्टीने पाहूनही चालणार नाही. विस्थापितांचा प्रश्न हा सहानुभूती, काळजी आणि निष्ठेने हाताळण्याचा प्रश्न आहे. पुनर्वसन प्रश्नाला आर्थिक, मानसिक, सामाजिक, सांस्कृतिक व पर्यावरणीय असे बहूविध आयाम आहेत. या दृष्टीकोणातून पुनर्वसन समस्येकडे पाहून त्या समस्या हाताळाव्या लागतील.

माणसाने अजूनही निर्सगावर पुर्णतः विजय मिळविलेला नाही. त्याला अनेक नैसर्गिक संकटांना समोरे जावे लागते. उदाहरणार्थ चंद्रपुर जिल्ह्यातील ब्रम्हपुरी तालुक्यातील वैनगंगा नदीच्या काठावरील पुरग्रस्त लाडज गावातील कुटूंबांना नदीच्या पुरामुळे होणारी प्राणहानी तसेच वित्तहानीला नेहमी समोरे जावे लागते. त्यामुळे तेथील लोकजीवन प्रभावित झाले आहे. लाडज हे गाव वैनगंगा नदीच्या अगदी काठाजवळ असल्यामुळे पुरग्रस्त व पुरबळी या प्रभावित करणाऱ्या घटकांपासून मुक्ती मिळविण्यासाठी, तेथील लोकजीवन सुरक्षित करण्यासाठी, त्यांच्या सामाजिक, आर्थिक व शैक्षणिक जीवनाचे उच्चीकरण करण्यासाठी, त्यांच्या पीकांच्या, दळणवळणच्या, जनावरांच्या व व्यवसायाच्या अशा अनेक समस्या सोडविण्यासाठी शासन प्रतिबंध दिसून आला असून त्याचे पुनर्वसन गडचिरोली जिल्ह्यातील देसाईगंज तालुक्याच्या सांवगी गावाजवळील 1 कि.मी. अंतरावरील टेकडीच्या पायथ्याशी शासकीय घरांची निर्मिती केलेल्या व गांधीनगर हे नाव देण्यात आलेल्या वसाहतीमध्ये स्थलांतरीत करण्यात आले आहे.

**स्थलांतराचा अर्थ :-**

लोकसंख्या परिवर्तनाकरीता उत्तरदायी तीन तत्वामध्ये आहे. ज्यात जन्म, मृत्यू व स्थलांतर यामध्ये स्थलांतराची व्याख्या व मापनाचे कार्य सर्वात कठीण आहे. स्थलांतर शब्दाची व्याख्या अनेक स्वरूपात प्रचलीत आहे.

ई. एल. सी. यांच्या मते स्थलांतराला स्थायी किंवा अर्धस्थायी निवास परिवर्तन मानतात. तसेच दुरीला अधिक महत्त्व देत नाही. बॉग यांच्या मते, ज्यामध्ये कुटूंबाचे पुर्ण आवास परिवर्तन नाही तर दुसऱ्या समाजामध्ये समायोजन सुध्दा झालेले असते. अशाप्रकारे इथे स्थानिय विवरण व संचलनाला सोडून दिल्या जात असते. अशा संचातून आणि स्थलांतरामध्ये फरक केल्या जातो. संकलनांतर्गत जास्तीत जास्त गतीशिलता व विशेषतः कमी

दुरी तसेच जे नेहमी नेहमी चक्रिम प्रकृती समान असते. त्यामध्ये कोणत्याही स्थायी, दिर्घायुषी आवास परिवर्तनाचा अभाव होत असतो. अशाप्रकारे एक व्यक्ती प्रवाशाच्या रूपामध्ये दिसत असतो. हे या संपूर्ण विषयामध्ये एक गुढ तत्व आहे. हे सुध्दा या मध्ये सत्य आहे की, क्षेत्रीय गतिशिलता मध्ये सर्वच प्रकारचे क्षेत्रगत संकलन येत असतात. परंतू सर्वच क्षेत्रीय गतिशिलतेला प्रदर्शित करीत असतो. हे लोकसंख्येच्या एका निवासस्थानावरून दुसऱ्या निवासस्थानापर्यंत आर्थिक, सामाजिक व राजनैतिक कोणत्याही कारणाने संचलन किंवा गतिशिलतेला प्रदर्शित करीत असते. दुसऱ्या शब्दांमध्ये एखाद्या व्यक्तीने अथवा लोकसमूहाने भौगोलिक, राजकीय वा प्रतीकात्मक सीमा पार करून दुसऱ्या प्रदेशात व लोकसमूहात कायमस्वरूपी वास्तव्य करण्याच्या प्रक्रियेला स्थलांतर असे साधारणपणे म्हटले जाते.<sup>4</sup>

1. डॉ. एस. सी. दुबे :-

“स्थलांतर ही सामाजिक परिवर्तनाची अशी प्रक्रिया आहे की, ज्याद्वारे लोकसंख्येचे अंतर्गमन आणि बहिर्गमन होत असते.”

2. वकले आणि नसरत :-

“व्यक्ती किंवा अन्य सामाजिक एकक जसे कुटूंबाचे एका स्थानापासून दुसऱ्या स्थानावर निवास करण्याचे आंदोलन आहे. ज्याच्या अंतर्गत मूळ स्थानाच्या सामाजिक व्यवस्थेतून दूरवरच्या स्थानावरील व्यवस्थांमध्ये परिवर्तन देखील समाविष्ट आहे.”

पुनर्वसनाचा अर्थ :-

“पुनर्वसन म्हणजे कोणत्याही कारणाने उद्ध्वस्त झालेल्या व्यक्तीच्या जीवनाला नवसंजीवनी देऊन परत जुने सर्व विसरून नवीन जागी नवजीवन जगण्याची उर्मी निर्माण करणे होय.”<sup>5</sup>

विकासाकरिता मोठ्या प्रमाणात उदयगंधं दे स्थापन करणे, विविध प्रकल्प सुरु करणे, धरणे बांधणे इ. विविध योजना राबविल्या जातात. ज्या क्षेत्रात विकासाच्या योजना सुरु केल्या जातात त्या क्षेत्रातील आदिवासी आणि ग्रामीण लोकांवर त्याचा प्रतिकूल परिणाम होतो. कारण त्या क्षेत्रातील लोकांना आपल्या गावातून स्थलांतरीत व्हावे लागते. या स्थलांतरीत लोकांचे पुनर्वसन करणे आवश्यक असते. परंतु सर्व स्थलांतरीत लोकांचे पुनर्वसन योग्य पद्धतीने केले जात नाही म्हणून पुनर्वसनाच्या विविध समस्या निर्माण झाल्या आहेत.

1. अलेक्झांडर, प्रसाद आणि जहागीरदार :-

“पुनर्वसन म्हणजे लोकसंख्येची एका क्षेत्रातून दुसऱ्या क्षेत्रात नियोजनाच्या आधारावर स्थानांतरण (बदली) करणे होय.”

2. सॅम्युअल ब्लूम :-

“पुनर्वसन ही अशी लवचिक संज्ञा आहे की जी पूर्वीच्या सर्व प्रकारच्या संधी किंवा परिस्थिती पूर्ववत सुधारित स्वरूपात मिळवून देण्याच्या बाबींवर अवलंबून असते.”

पुनर्वसनासाठी आंदोलने :-

सामाजिक चळवळी हा विशिष्ट तत्वप्रणालीवर विश्वास असणाऱ्या लोकांना संघटितरित्या केलेला प्रयत्न असतो. समाजव्यवस्थेत अथवा समाजाच्या एखाद्या अंगात त्यांना अपेक्षित बदल घडवून आणावयाचा असतो. प्रस्थापित व्यवस्थेबाबत त्यांच्या मनात एक प्रकारचा असंतोष असतो. त्याचबरोबर अपेक्षित परिवर्तनाचे एक अस्पष्ट चित्रदेखील त्यांच्यासमोर असते. आपण आपल्या न्याय अधिकरांपासून वंचित आहोत, या व्यवस्थेने आपल्याला अधिरापासून वंचित ठेवले आहे, आपली न्याय अपेक्षा आणि वास्तविक स्थिती हा वंचिततेचा आधार असून त्याकडे समाजव्यवस्था लक्ष देत नाही तेव्हा त्यातूनच चळवळीचा जन्म होतो.

सामाजिक चळवळ म्हणजे एखाद्या समस्येचे निराकरण करण्यासाठी समूहाने विचारपूर्वक सुरु केलेले परिवर्तनाचे कार्य होय. वंचितांच्या समस्येकडे जेव्हा शासनाचे दुर्लक्ष होते तेव्हा त्यांचे लक्ष वेधण्यासाठी

आंदोलनाचा किंवा चळवळीचा जन्म होतो. विस्थापितांचे प्रश्न डोळयासमोर ठेवून नर्मदा खोरे विकास प्रकल्पाच्या रूपाने सर्वप्रथम ही चळवळ निर्माण झाली. 'नर्मदा बचाव आंदोलन' ही नवीन सामाजिक चळवळ विस्थापित लोकांना सोबत घेऊन उभारण्यात आली. पूढे नवीन आयामाने व धोरणाने ही चळवळ पूढे सरकत गेली. जागतिक स्तरावर यावर चर्चा झाली. अमेरीकेच्या संसदेपर्यंत आंदोलनकारांनी हा प्रश्न पोचविला. या आंदोलनाने विस्थापितांच्या प्रश्नांना केवळ भारतातच नव्हे तर आंतरराष्ट्रीय स्तरावर प्रसिध्दी मिळाली. गुजरात शासनाने या संदर्भात नमते घेवून मानतावादी दृष्टिकोन स्वीकारला. विश्व बँकेच्या अध्यक्षतेखाली पुनर्विचार गट नेमला होता. महाराष्ट्र व मध्यप्रदेशातही विस्थापितांचे पुनर्वसन सन्मानपूर्वक झाले पाहीजे ही जागरूकता चांगल्या भविष्याची नांदी म्हणता येईल. त्यातूनच प्रत्येक प्रकल्पग्रस्त विस्थापित आणि त्यांच्या पुनर्वसनाचे प्रश्न हा सर्वेक्षणात्मक संशोधनाचा विषय बनला.

स्थलांतरन व पुनर्वसनाची तज्ञांनी सांगितलेली कारणे

1. आर्थिक घटक :-

- हलाखीची आर्थिक परिस्थिती
- नागरी आर्थिक परिस्थिती
- सामान्य आर्थिक परिस्थिती
- गावामध्ये रोजगाराचा अभाव
- आधारभूत संरचनेत नगण्य परिवर्तन
- नोकरी व व्यापार

2. लोकसंख्या घटक :-

3. सामाजिक आणि सांस्कृतिक घटक :-

- सामाजिक सुरक्षा उपायाची प्रगती असमाधानकारक
- शिक्षणाच्या अपूऱ्या सोयी

4. भौगोलिक आणि भौतिक घटक :-

5. विकास प्रकल्पातील गावांचे पुनर्वसन -

- नैसर्गिक वातावरणातील प्रतिकूलता
- भूकंप
- त्सुनामी
- महापूर
- ज्वालामुखी
- अणुभट्टी
- पाण्याचे प्रदूषण

6. राजकीय आणि संस्थात्मक घटक :-

- श्रमिकांच्या श्रेणी संघटन संरचनेचा अभाव
- व्यक्ती स्वातंत्र्याच्या वाढत्या अपेक्षा

निष्कर्ष :-

- 1) पुनर्वसीत गाव मुख्य रस्त्याला जोडून असल्यामुळे लोकांना पुर्वीपेक्षा अधिक सोयी व सवलती मिळत आहेत.
- 2) पुनर्वसीत गावाच्या सर्वांगीन विकासात दळणवळणाच्या साधणामुळे भर पडत आहे.

3) पुनर्वसीत गावाकडे शासनाचे अधिक लक्ष असल्यामुळे शासनाच्या नवनवीन योजनांचा लाभ मिळत आहे.

4) जाणीव जागृतीमुळे पुनर्वसीत लोकांचा सामाजिक, राजकीय सहभाग वाढत आहे..

5) पुनर्वसीत गावालागत शिक्षण सुविधा असल्यामुळे लोकांचा शैक्षणिक दर्जा उंचावत आहे.

**सुचना व शिफारशी :-**

1) पुनर्वसीत लोकांची सामाजिक व कौटूंबिक स्थिती खूपच विस्कटलेली आहे. त्यामुळे त्यांची मानसीकता पूर्णपणे ढासाळलेली आहे. त्याच्यावर योग्य त्या प्रमाणात शासनाने उपाययोजना करून त्यांची कौटूंबिक स्थिती सुधारण्यास मदत करावी.

2) पुरग्रस्त लोकांना शासनाच्या खास योजनांद्वारे व्यवसायाच्या संधी उपलब्ध करून देवून त्यांना आपल्या स्वतःच्या पायावर उभे राहण्यास मदत करावी आणि त्यांच्या शेतीच्या व्यवसायात फायदा करून देवावा व त्यांच्या उदरनिर्वाहाचा प्रश्न सोडवावा.

3) पुरग्रस्त लोकांची आर्थिक परिस्थिती मजबूत करण्यासाठी त्यांच्या शेतीला लागणारे साधन तसेच सिंचनाच्या सोयी उपलब्ध करून द्याव्यात.

4) पुरग्रस्त लोकांचे अशा ठिकाणी पुनर्वसन करावे की जेणेकरून त्यांना त्यांची शेती मिळाली पाहिजे तसेच आरोग्याच्या व दळणवळणाच्या सोयी उपलब्ध असल्या पाहिजे.

5) पुरग्रस्त भागात जाण्या येण्याच्या सोयी निर्माण करून द्याव्यात तसेच आरोग्य उपकेंद्र स्थापन करून त्यांच्या आरोग्याच्या समस्या दूर करण्यासाठी शासनाने तशा सोयी निर्माण करून द्यायला पाहिजे.

6) पुरग्रस्त भागातील लोकांनी विविध मार्गातून कर्ज घेतले असेल ते कर्ज माफ करून त्यांना स्वयंरोजगारासाठी बँकेद्वारे कमी व्याजदराने कर्ज उपलब्ध करून द्यावे व रोजगाराच्या विशेष सवलती द्याव्यात.

7) पुरग्रस्तांच्या मुलांना शिक्षणाच्या सोयी उपलब्ध करून द्याव्यात व गावामध्ये शाळा, महाविद्यालयांची सोय करून द्यावी.

8) शिकलेल्या युवकांना शासकीय नोकरी मिळणे अशक्य असल्यामुळे सुशिक्षित बेरोजगारांसाठी औद्योगिककरणाच्या सोयी उपलब्ध करून द्याव्यात म्हणजेच या भागातील युवकांना रोजगार मिळेल.

9) कुटीर उद्योग, लघूउद्योगाच्या सोयी उपलब्ध करून द्याव्यात. शेतीला आधुनिक तंत्रज्ञान व साधनांचा पुरवठा करावा जेणे करून सुधारीत शेती करता येईल.

10) शेतकऱ्यांना जंगल वाटप करून दिलेली शेती शासनाने पुनर्मोजनी करून ज्यांची शेती त्यांना दाखवून द्यावी.

**सारांश :-**

स्थलांतर व पुनर्वसनामुळे लोकांच्या समोर अनेक प्रश्न व समस्या निर्माण होतात. या समस्यांचे निराकरण करून घेण्यासाठी शासकीय व अशासकीय पातळीवर व्यापक स्वरूपाचे प्रयत्न होणे आवश्यक आहे. स्थलांतरीतांचे नियोजनपूर्वक पुनर्वसन केले तर स्थलांतरीतांच्या विविध समस्या निर्माण होणार नाहीत. परंतु पुनर्वसनासाठी प्रचंड पैसा लागतो. एवढा पैसा खर्च करण्याची कधी कधी शासनाचीही तयारी नसते. त्यांच्यासाठी काही सोयी – सवलती पुरविण्याचे आश्वासन दिले जाते, परंतु त्यांची पुर्तता काटेकोरपणे होत नाही, म्हणूनच पुनर्वसनाच्या विविध समस्या निर्माण होतात.

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## शाश्वत विकासाची गरज

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### प्रस्तावना

शाश्वत विकास म्हणजे चिरंतन विकास न थांबणारा विकास, त्यामुळे सर्व सजिवांचे कल्याण करणे हा या मागचा हेतु होय. मानवाने विज्ञान तंत्रज्ञानाच्या आधारावर आपले जीवन सुखमय करतांना त्यांच्या समोर अनेक अडचणी निर्माण झाल्या या समस्यांवर योग्य तोडगा काढणे आवश्यक झाले आहे. पर्यावरणाचा 'ह्यास थांबवला पाहिजे' येणा—या पिढीचे भविष्य सुखकारक करण्याकरीता योग्य नियोजन तसेच पर्यावरणाचा समतोल राखून वर्तमानपिढीच्या सध्याच्या गरजा पूर्ण करणे म्हणजे शाश्वत विकास होय.

दिवसेंदिवस वाढत जाणा—या लोकसंख्येमुळे जमिनीवर भार पडत आहे जिजनावश्यक गरजांच अन्न वस्त्र, निवारा यांचा तुटवडा पडत आहे आणि त्यामुळे पर्यावरण व्यवस्था कोलमडु लागली आहे. आर्थिक विकास करत असतांना नैसर्गिक साधनसंपत्तीचा वापर मोठ्या प्रामाणात होत असल्यामुळे येणा—या पिढीसमोर अनेक समस्या निर्माण होण्याची संभावना आहे त्याकरीताच शाश्वत विकासाची गरज आहे. शाश्वत विकासात मानवी क्रिया, पर्यावरण व नैसर्गिक साधनसंपदा यांच्यामध्ये परस्पर समतोल राखला पाहिजे.

भविष्यातील मानवी जीवन आनंददायी करण्याकरीता वर्तमानकालीन समस्या कमी करून साधनसंपत्तीचे जतन कसे होईल याचा विचार करणे व त्याच प्रमाणे मानवी क्रिया असाव्यात तंत्रज्ञान पध्दतीत सुधारणा करून नविन पर्यायी वस्तुंचा शोध घेतला तर साधनसंपत्तीवर ताण पडणार नाही पुढील पिढीसाठी नैसर्गिक संपदा टिकून राहिल.

आर्थिक विकास साधण्यासाठी मानवाने पर्यावरणाकडे दुर्लक्ष केले आहे. औद्योगिकीकरण शेतीच्या प्रगतीसाठी मनुष्याने वने नष्ट केले परिणामी वन्यप्राणी, पाऊस, वनस्पती धोक्यात येऊ लागले, अनुचाचण्या, बॉम्बस्फोट करण्यापूर्वी पर्यावरणाचा विचार मानवाने केला पाहिजे म्हणूनच आवश्यक तेवढाच विकास पर्यावरणावर कोणताही विपरीत परिणाम न करणारा पर्यावरणाचा समतोल राखून गुणवत्ता टिकविणारा आवश्यक तेवढाच विकास आज अभिप्रेत आहे.

### शाश्वत विकासाचा उद्देश :-

१. शाश्वत विकासाचा महत्वाचा उद्देश वर्तमानकालीन आणि भविष्यकालीन पिढीला समानता मिळणे.
२. उपलब्ध साधनसंपत्तीचे संवर्धन करण्याकरीता प्रयत्नशील असणे.

### शाश्वत विकासाचे महत्व :-

शाश्वत विकासाची मुळ संकल्पना म्हणजे वर्तमान पिढी व भविष्यात येणारी नंतरची पिढी यांच्या भवितव्याचा विचार करणारी आहे. साधन संपत्तीच्या उपयोगावर नियंत्रण आणण्यासाठी चिरंतन विकासाची गरज आहे. शाश्वत विकास म्हणजे असा विकास ज्याद्वारे भावी पिढ्यांच्या गरजा भागविण्यासाठी क्षमतेला धक्का न

लावता वर्तमानकालीन गरजा भागविल्या जातात जीवनावश्यक गरजा म्हणजे पुर्वी सारख्या अन्न, वस्त्र, निवारा नसुन स्वच्छपाणी शुध्दपर्यावरण तसेच प्राथमिक शिक्षण होय.

चिरंतन विकासाचा मुख्य उद्देश म्हणजे समानता होय. वर्तमानकालीन आणि भविष्यकालीन पिढीतील समानता यात अभिप्रेत आहे. प्रत्येकाला समानसंधीची उपलब्धता करून देणे चांगल्या गुणवत्तेच्या पर्यावरणाच्या वापराला पर्याय शोधने दगडीकोळसा, खनिज तेल, इंधन, नैसर्गीक वायु यांचा वापर मर्यादित करून जलशक्ती विद्युत शक्तीचा वापर करणे. साधनसंपत्तीचे पुनःचक्रिकरण करणे, साधनसंपत्ती होणा-या अनिर्बंध वापरावर बंदी आणणे, मृदासंधारण करणे, जंगलतोड थांबवणे, अनिर्बंध खाणकाम व्यवसायावर, प्राण्यांच्या शिकार करण्यावर कडक कायदे व कठोर नियमन करणे आवश्यक आहे. साधनसंपत्ती ही निसर्गाने मानवाला दिलेली अनमोल देणगी आहे या अनमोल ठेव्यांचा कसाही वापर न करता तो योग्य प्रकारे जतन केला पाहिजे हा विचार जनमानसात रूजविणे, त्यांचा प्रचार करणे, पर्यावरण शिक्षणाने सामाजिक जागृती करणे यामुळे पुढील पिढीला समस्यांना तोंड द्यावे लागणार नाही वर्तमान व भविष्यकाळाचा समन्वय साधण्याचा शाश्वत विकासाचा उद्देश सफल होईल.

समानता ही दोन पिढ्यातील आहे. आज केलेली कृती ही भविष्यातील मानवी जीवनावर विपरीत परिणाम करणारी नसावी ही कृती त्यांना आनंद व समाधान देणारी असावी

शाश्वत विकासामुळे निर्माण होणा-या समस्या :-

१. आर्थिक विषमता व राजकीय अस्थिरता
२. दारिद्र्य कुपोषण रोगराई
३. वाढती लोकसंख्या
४. संसाधनाचा अतिरीक्त वापर

विविध संपदा मानवास उपलब्ध असुन त्यामधुन मानव आपल्या गरजा भागवित आहे. वने, मृदा, खनिज जलसंपदाचा वापर करून आपण विकास प्रक्रिया घडवित आहेत त्यामुळे मानवी समाजासमोर अनेक समस्या उभ्या आहेत. आर्थिक सामाजिक विषमता, रोगराई, लोकसंख्येची वाढ, तिव्र गरिबी या सामाजिक समस्या उभ्या आहेत औद्योगिक समस्यापैकी उद्योगातील सांडपाणी नद्यामध्ये सोडुन नद्या व पिण्याच्या पाण्याचे स्रोत दुषीत होत चालले यामुळे अस्वच्छ पाण्यामुळे रोगराई वाढत आहे याकरीता योग्य उपाययोजना करणे आवश्यक आहे.

१. स्थानीक धोरणे, शासनाचे निर्णय, राजकीय इच्छाशक्ती तसेच तज्ञाची भूमिका पर्यावरणाच्या रक्षणाकरीता योग्य उपाययोजना करू शकतात.
२. आर्थिक विकास करतांना साधनसंपत्तीचा वारेमाप वापरावर अनिर्बंध आणणे आवश्यक आहे.
३. वर्तमानकाळ पिढीचा आर्थिक विकास साधतांना भविष्यकालीन पिढीला समस्या निर्माण झालेले प्रदुषण कमी करण्यात मानवाने शासनाला मदत करणे.
४. पर्यावरणाच्या शोषण शक्तीपेक्षा जास्त टाकाऊ पदार्थ पर्यावरणात सोडु नये.
५. पुर्नवापराच्या स्रोतांचा दर त्याच्या निर्मीतीपेक्षा जास्त नसावा.



**निष्कर्ष :-**

शवाश्वत विकास या संकल्पनेमुळे नैसर्गिक, आर्थिक व सामाजिक घटकांचा विचार करणे जरूरीचे आहे निसर्ग ही मानवाला मिळालेली देणगी आहे ज्यांच्यामुळे मानवी जीवनाला एक आकार आला आहे त्याच्या दैनंदिन जीवनातील एक महत्वाचा हिस्सा म्हणजे निसर्ग म्हणून निसर्गाने दिलेली साधनसंपत्ती काळजीपूर्वक वापरली पाहिजे यासाठी पर्यावरणाचे महत्त्व सर्वसामान्य व्यक्तीला समजवून त्याला योग्य शिक्षण व त्याचा प्रचार करणे आवश्यक आहे. दैनंदिन व्यवहारात पर्यावरणाचा विचार आचरणात आणला पाहिजे आर्थिक विकासापेक्षा मानवाच्या विचारप्रणालीचा विकास होणे गरजेचे आहे हाच योग्य विचार मानवाला ख-या अर्थाने सुखी ठेवणारा व भविष्याचा विचार करणारा शाश्वत विकास होणे गरजेचे आहे. हाच योग्य विचार मानवाला ख-या अर्थाने सुखी ठेवणारा व भविष्याचा विचार करणारा शवाश्वत विकास योग्य ठरेल.

**संदर्भ :-**

१. पर्यावरण शिक्षण

प्रा. लक्ष्मण मालसुरे, प्रा. मानसिंग साळुंके,  
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Mumbai)

२. Economics  
Development  
Planning

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## BIODIVERSITY PROBINGS OF AQUATIC PLANT IN KANKER DISTRICT OF CHHATISGARH

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### ABSTRACT-

Hydrophytes or aquatic plants are important in order to understand the functioning of aquatic ecosystem. The aquatic plants have major role in economic important they also have vital role in human welfare. Its major role in source of food for water fowl and other animals and protection for spawning fish and in horticultural as purely ornamental plants. In the present study an account is given of aquatic plants conducted in some fresh water bodies at Kanker district Chhatisgarh, India. Field survey of the study area was carried out to describe diversity of aquatic macrophytes. Here Aquatic macrophytes species are identified.

### INTRODUCTION

Aquatic macrophytes are large predominantly angiosperm plants, inhabiting various section of aquatic ecosystems and are of considerable importance from the productivity point of view in shallow water bodies or in the littoral zones of the deep water bodies. Aquatic macrophytes both flowering and non flowering confine themselves to the shallow euphotic zone of the water bodies. They play an important role in providing food to fish and to other aquatic animals.

The study of macrophytes is important in order to understand the functioning of aquatic ecosystems. Most of the aquatic macrophytes may become a nuisance, when growing profusely. eradication has become futile, in present state of energy crisis, therefore it is essential to look for other ways to utilize them for the betterment of mankind. In this respect many studies are under going through out the country as well as abroad. These studies have revealed that many of the macrophytes have energy resource in present time of energy crisis. As the ponds have variety of macrophytes of diverse nature therefore, it is useful to investigate them.

**MATERIALS AND METHODS-** The sample of selected macrophytes were collected from different water bodies of Kanker city.

Kanker is situated within longitudes 20.6-20.24 degree and latitudes 80.48-81.48 degrees. The total area of the district is 5285.01 square km. The region is land locked plateau, dotted with hills and valleys. Ponds, rivers and small water channel are the source of water. The weather of kanker city is very good. The climate of kanker can be described as humid tropical. The summer season is very hot March and April are the hottest months with mean temperature 40°C and the winter is cool and the rainy season is full with water. The selected ponds are always full fill with water but someone are affected from drought. During the survey, plants are found in different ponds were collected, and photographed and identified. The field survey was done in every month. The species are identified with the help of inhabitants and also by relevant literature.

#### Study area Map in kanker District :-



#### RESULTS-

The present study focuses on the aquatic macrophytes diversity of Kanker district of Chhattisgarh. Selection of ponds for collection of plants has been done as per the richness of ponds. After screening aquatic macrophytes have been identified and classified.

##### 1 *Echorniacrassipes*

Habitat - free floating - Leaves are broad and large. Flowers are violate, blue.

2 *Hydrillaverticillat*

Habitat - Anchored submerged -Stem is long and branched with oppositely arranged leaves.

3 *Ipomiaaquatica*

Habitat - Anchored floating.

Annual or biennial pretty water plant with hollow stem. The cymes are few flowered and the pinkish corolla is darker in the throat. It is common throughout Kanner found tanks lakes and stream. The young leaves shoot and roots are used as vegetable. Its grown for their green herbaceous foliage.

4 *MarsileaQatrifolia*

Habitat -Free submerged

The stem long and slender The branch arise at base of leaves and the leaves arise froms the upper side of the stem alternatively arranged in two row.

The petiole of the submerged plant are long thin and flexible with the lamina floatingon the surface of water .

5. *Monochoriahastata* :-

A robust herb with erect or obliquely erect stem .It occurs in fresh -water pools water canals and some time in paddy field. It usually flowers and fruits during and after the rainy season.

6. *Nelumbunucifera*

Hbitats - Anchored floatig - perennial aquatic herbs with creeping, stout, branching, root-stocks flowers floating .fruit a many seeds berry embedded in the receptacle.

*Nelumbunucifera* has been widely cultivated and its fruits and rhizome used in variety of cooked and fresh dishes for many centuries.

7. *Nymphaeanauchali*

Habitat -Anchored floating

The leaves are broadly rounded.the flower are 15-20 cm diameter It has blue and white colure .

8 .*Otelia* spp.

Habitat - free floating submerged leaves differentiated in to submerged leaves with narrow blade and stalked leaves with broader blade which may be submerged.

9. *Pistiastratiotes*

Habitat -free floating

Plants consist of distinct rosettes, green leaves Tufts of long unbranched . fibrous root. Leaves have definite veins radiating from leaf base .

10 *Poligonum spp.*

Habitat -Emergent amphibians

Erect rooted herbaceous plant with alternate leaves flower are small generally pink colored .Plants may be emergent in shallow water .

11. *Sagittariatrifolia* :-

Erect aquatic herbs, emerged leaves sagittate occurring several species of sagittaria have been important of source carbohydrates ,so its used as food.

12 *Trappanantan*

Habitat-Free floating

Leaves are large triangular have fan shaped .toothed edged .  
the two 2 thorned fruits ,which is one seeded nut is eaten either raw or cooked  
Trapa flowers found in during rainy season, fruits later and these ripen in the cold season.

DISCUSSION

Biodiversity is the incredible dizzying variety of life that surrounds us, including of the earth's plants It has importance for human survival .There is an urgent need today for more detailed scientific approach to relationship between among people and plants and their environment Now the days ponds are decreasing due to human activities ,like uncontrolled construction work . The present work is to give importance to ponds plants and their conservation before both are lost in society's quest for land.

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## Design Methodology of Compliant Mechanism: A Review

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**Abstract - Rigid joints traditional mechanism converted into the flexible mechanism by replacing joints with flexural hinges. These mechanisms achieve their motion by elastic deformation, with frictionless monolithic constructions. Compliant mechanism widely used in precession and nano application. Nowadays systems require high stiffness and accurate positioning capability, which is accomplished by the optimal geometrical shape of flexural hinges. This review is based on synthesis and optimization of the design process of compliant mechanism. The different consideration and affecting parameters in design process of a compliant mechanism is reviewed in this paper. Optimization techniques of compliant mechanism are also described with their advantages and disadvantages briefly.**

**Keywords - Complaint mechanism, optimization, synthesis.**

### 1. INTRODUCTION

The design of micro-mechanisms, compliant mechanisms have become a quite popular in recent years because of their wide applications. Such mechanisms become more and more common in various fields of applications; examples are measuring instruments, medical engineering, precision application and microsystem technology. This is due to the many advantages of compliant mechanisms such as no friction, consequently little to no wear, no necessity for maintenance, and its monolithic construction. Flexure-based compliant mechanisms are widely used in macro and micro scale applications such as actuators, sensors, robotics, grippers, and precision positioning devices. Compliant mechanisms achieve their motion with the elastic deformation of flexural hinges which are the replacement of traditional rigid joints. These monolithic and inherently flexible compliant mechanisms consist of solid elements coupled by elastic hinges. The functional performance which means the path of motion of these mechanisms depended on its compliant joints. They generate even and continuous displacement without any backlash. With a suitable choice of material, flexure joints exhibit repeatable and predictable relationship between force and displacement.

Considering the use of compliant mechanisms are concerned about fatigue failure as generally been trained to avoid repeated deflections of materials especially in large deflections. While fatigue life of compliant mechanism is, of course, a concern, there are many ways to mitigate fatigue and achieve the desired level of performance. Fatigue failure of the flexible elements of compliant mechanisms can occur from compression, tension, torsion or bending.

In general, the compliant mechanism having more advantages with some challenges, but it also carrying some-what critical design process, such design process can be divided into a series of decisions. This each and every decision serves to leads towards the final methodology of compliant mechanism.

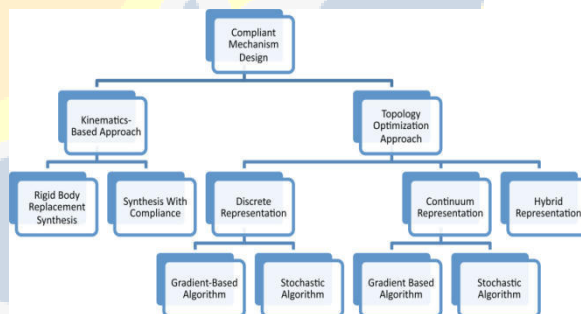


Figure1 General compliant mechanism design decision tree [1]

### 2. MECHANISM SYNTHESIS

The most widely known task in the methodology of design mechanism is a synthesis, which used to determine the characteristic motion of the mechanism. This kinematic synthesis gives an idea about motion and structure of mechanism for specified performance. This kinematic based approach can achieve by rigid body replacement synthesis or synthesis with compliance. Pseudo rigid body model is one of best synthesis method, which describes correspondence between the motion and force of an elastic member and a rigid body mechanism. [2]. There are three main tasks for kinematic synthesis 1. Path generation, 2 motion

generation and 3 Function generations. In path generation, a point of the mechanism is required to travel along a specified path. In motion generation, a moment of the flexible part must in sequence carrying all precision points. Function generation is the correlation of the input and output links of mechanism.

## 2.1 The Pseudo-Rigid-Body Model (PRBM)

The pseudo-rigid-body model is used to model the deflection of flexible members by using rigid body members that have equivalent force-deflection characteristics [3, 4, 5]. Theory of rigid-link mechanisms used to design and analyses the compliant mechanism. Different pseudo-rigid models require correlating the deflection path and forcing deflection relationship of a flexible hinge. [6]. The figure shows the pseudo-rigid-body model of a large deflection beam, in which it has assumed that the almost circular path can be perfectly modeled by two rigid links joined at a pivot along the beam [5]. This approach is useful for designing compliant mechanisms to perform a traditional path of kinematic synthesis path following, function generation and motion generation not a concern for the energy storage in the flexible hinge. Planar is two-dimensional and spatial is three-dimensional, these two categories of compliant mechanism are derived, based on the design and overall motion of the mechanism.

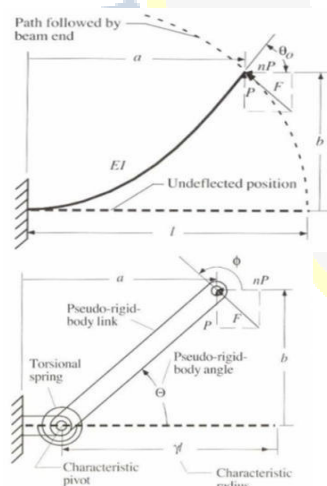


Figure 2 Large-deflection beam (left) and its pseudo-rigid body model (right) [5]

Rigid-Body Replacement Synthesis is easy to achieve by identifying rigid-body components of flexible

members to synthesize [7]. PSBM serve as a fast and efficient method of evaluating many different trial designs to achieve the specific design objectives. In the case of critical mechanism design and full numerical analysis of compliant mechanism, the pseudo-rigid-body model gives preliminary design which may then be optimized. Once a design is obtained such that it meets the specified design objectives, it may be further refined using methods such as nonlinear finite element analysis, and it may then be experimented or tested. Approximate dynamical information can be obtained with this model. PRBM is always used in combination with other methods, such as imaginary mechanism [8], and the automated explorations of such imaginary compliant mechanisms are proposed addressed for rigid and compliant planar linkage mechanisms [9]

## 2.2 Compliance synthesis

Synthesis of the flexural member is necessary to motion generation point of view, so analysis of such member is required. There are different types of flexural hinges are used as per the deflection of mechanism requirement [10]. A half circular-elliptical hybrid flexural hinges based on castiglianos displacement theorem, are designed. This was used for derivation of flexibility calculation formula and correlation by computer aided analysis and parametric design program and capacity of the hinge, large ratio indicates high rotational capacity of hinge capacity about its rotational axis [11]. Hui Tang introduces the new traditional displacement amplifier for large stroke micro positioning. The piezoelectric actuators P840-20 with open loop travel of 30  $\mu\text{m}$  is employed instead of voice coil motors are used, and results are confirmed by FE modeling as well as experimentally [12]. In asymmetric flexural hinge to minimize the shift of rotational axis by using the different notch counters with respects to transverse axis height. The potential of novel contours with undercuts will be studied and compare with simulated typical hinge geometry [13]. But such notch counters increases the stress level due to tension, compression, torsion or bending forces and decreasing the fatigue life of compliant mechanism. To overcome such challenge describes a methodology for tension and bending [14]. Torsion can handle by a similar manner. There was number of torsional equations for measuring torsional compliance, in that one of wider dimension of the cross section must be required, this not refers to geometry in a specific direction. Hence gives improved equation for

torsional compliance with the relation of neck thickness and width of the flexural hinge. These equations were totally independent of relative magnitude of cross section. Closed form of equations was also derived for circular and elliptical form of flexural hinge [15].

### 3. TOPOLOGY OPTIMIZATION

From early 1990's development in compliant mechanism was grow up, sense from the design of compliant mechanisms that departed from the work done with the pseudo-rigid body model. Kota and his students developed an approach utilizing methods in structural optimization [16], [17], [18]. That pioneered the formulation of synthesis for fully compliant mechanisms. Much of his work focused on the generation of mechanism topology by means of structural optimization. The homogenization method for compliant mechanism synthesis is adapted. The homogenization method was originally developed to provide optimal structural topologies with maximum stiffness [19]. In the structural optimization approach departed from the homogenization method. A multi-criteria topology optimization using truss elements is formulated. In this work, the initial topology consists of a network of truss elements which are reduced to the final topology through an optimization which minimized the mutual strain energy [20], [21]. This selectively reduces an initial network of finite elements to yield desired performance. To synthesize large displacement compliant mechanisms, topology, size and geometry optimization utilizing non-linear finite element analysis and tapered frame elements [22]. A synthesis methodology for shape morphing compliant mechanisms using a load-path formulation and genetic algorithms are recently developed [23]. For shape optimization fuzzy logic combined taguchi method is best with application of catiglianos theorem, which analyzed by numerically, analytically and experimentally also [24]. New topology optimization method is symmetric five bar profile, this gives high amplification ratio and natural frequency in compact size due to symmetric structure no lateral displacement is accomplish. By using this topology right circular, rectangular, single corner fillet, double corner fillet, and elliptical hinges are analyzed. These results indicate the heights of initial position, length and neck thickness of hinges are important in way of development of compliant mechanism in displacement amplification

approach [25]. The various formulations are described for topology optimization of compliant mechanism design in [26]. Further for dynamic application approach different extension are given by the many researchers [27], [28], [29]. A comparative study of three approaches for topology design, cellular automaton method, the optimality criteria method, and the method of moving asymptotes is given in [30].

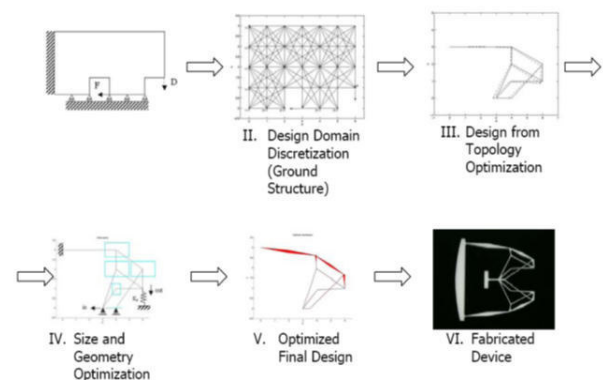


Figure 3 Two-step design procedures for structural optimization

Lastly, dimensional synthesis was performed by the implementation of size and geometry optimization. Kinematic and structural goals were satisfied through the optimization of energy efficiency. The combination of (i) topology optimization and (ii) size and geometry optimization represents a general two-step method to compliant mechanism design. This two-step method is shown in Figure 3.

### 4. CONCLUSION

Many advantages and challenges with wide range application of compliant mechanism, growing interest in its design process. A brief review of most utilized design methods for compliant mechanisms was presented. The different properties or parameters and scope of each method were described.

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## Engineering Student's Perception of physical Education courses and its Relationship with their Participation in sports Activities.

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**Abstract:** - This study examined Engineering students attitudes towards PE lessons and their perceptions of physical Education lessons. The methodology of this study was a quantitative research. The population of this study mounded all students of Engineering and Technology. Student's attitudes towards PE their perceptions of PE lessons perceived athletic competence, perceived benefits of exercise, intention to exercise, and current exercise behavior. The results showed that most of the students were having positive Perception and favorable attitudes towards physical Education lessons. Almost, in all variables boys adopted more favorable attitudes than girls. Byes spent more of their leisure time in sports activities. According to the findings above suggestions were given to sport system and future research.

**Keywords:** - Perception, Attitudes Sports Activities Physical Education Lessons, Engineering Students.

### Introduction:-

Today, despite Participation in sports activities are available and relatively cheap, however, few people would like to pay to physical activity and exercise. Although from the theoretical points, almost everyone knows thank sporting activities can enhance physical health and also is an entertainment, but importunately from the practical point of view, a few interested in regular exercises physical activity, fitness, and relaxation have many benefits for the human body.

According to the report, engineering student's perceptions and positive attitude towards physical activity is one of the important aliments in evaluating the success of a physical education curriculum. They believed develop and string then students attitudes towards sports are the instructors and couches key task.

Sports activities basically empowered especially impotent to empower the people with disabilities. Thin belief clearly indicates that physical activities are reared for all regardless of the difference between men and women. Physical activity not only affects individual's weight loss

and healthy permeation but also helps individuals in social relationships with others. It shows that when people are engaged in physical activity their relation between each other is an important factor Results showed that more than 70 parent of subjects believed regular partnership at recreational exercises result health. Physical fitness improvement athletic skills level and finally increase the social skill level. However, they stated factors such as scourge of sports facilities, showage of financial resources, lack of time, and interest are the most important barriers to participate in physical activates.

At describing the attitude and the tendency of engineering students towards sports activities is important. Percentage of subjects had no physical activity in Indian engineering students. It shows that most of the Indian girls and boys of engineering students perceptions about physical education and sport which helps them to be healthy and fit. In another study the physical education and sport helps the students, which shows that the average amount of moderate daily physical activity with moderate and high intensity was respectively 4.7 and 0.8 hours a day? Activities with a high degree of mobility during guidance were higher than elementary.

The mean activities of moderate and vigorous activities in bogs were more than girls which the difference was statistically significant.

### Materials and Methods:-

The present study was a survey and solidarity. The study population consists of all engineering students at college A reseated made questionnaire was used which included 30 questions with likert four choice, the questionnaire molded two main parts subjects general profile such as gender, age, college location and numbers of education years and education. Related questions to the test hypotheses were set in section four subsidiaries.

**Table: - The alpha coefficient for reliability**

Row	Variable	Total questions	Alpha
1	Students perception about physical Courses	12	0.79
2	Students attitudes towards physical education Courses	12	0.78

3	The impact of these courses understands the benefits of exercise.	5	0.83
4	The impact of these courses The current exercise behaviors	4	0.61
	<b>Total inventory</b>	<b>33</b>	<b>0.86</b>

### Results: -

The purpose of this study was to gain insights into students' perceptions of physical education teachers caring. The researchers sought to describe the perceptions students had regarding caring behaviors exhibited by their physical education teachers. The qualitative research methods of semi formal interviews and field observations were utilized as the sources of data collection to answer the research questions.

### Conclusion: -

The purpose of this study was to gain insights in engineering students' perceptions of physical education teachers caring. The engineering students described their general concept of caring as behaviors initiated by the teacher towards the student the students initially provided narrowly defined conceptions of caring. These conceptions broadened where applied to teachers, specifically their physical education teachers.

The researcher sought to describe the perceptions students have regarding caring behavior exhibited toward them their physical education teachers. Student's responses noted multiple caring behaviors existed along dimensions content and pedagogy and festering interpersonal relationships.

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## Environmental Pollution and Sustainability: A Review

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### Abstract

Today, all over the world there is a great concern and worry as to what will become of the earth, considering the inherent effect of the ever increasing environmental pollution that has adversely distorted the ecosystem, thereby spurring but the international communities, the government, generation public, cooperate bodies, policy makers, professionals and even politicians to take adequate measures aimed at addressing environmental problems. This paper discussed on environmental pollution and sustainability. It presented what our environment is made up, its ever-increasing problems and challenges facing our environment from different perspective. The purpose of this paper is timely; with a consideration that due action is ripe for the proper implementation of environmental planned strategies (Techniques) and tools for addressing environmental menace in different part of the world, by different government, public and private sectors. The obtained results in this paper are rich enough to provide adequate solutions to many environmental problems in different parts of the world, especially in india and other countries.

**Keywords:** Environmental Pollution, Sustainability, Deforestation, Land degradation, Noise etc

### Introduction

The arrival and reproduction of man on earth has caused a lot of impact and havoc on the Biosphere (environment) which supports life and sustains various human activities. Due to man unchecked actions, for example large scale deforestation of forest for residential and agricultural land uses has changed the habitat organism living in the forest. The hunting of animal by man as led to the extraction of certain animal species. Man has also developed new types of domesticated animals as well as plants to serve his own needs. The rapid increase in activities today in many cities without proper planning and control is the outcome of slums that has penetrated in our physical environment. This is evident particularly in housing sector, transport, water supply, sanitation, power supply and even in employment sector. Those that are presently not employed are equally polluting our environment by engaging themselves in different harmful activities (stealing, pollution, idleness, Etc.) since there is nothing to keep them busy always in the society. The problem of environmental degradation and pollution of water, air, and noise is always on high increase in many cities without proper check, which evidently has resulted in low standard of living in many of our cities and town in india.

### Discussion on Environment and Pollution

Environment The word “environment” may mean different thing to different people. Scientifically, the Physical, environment is different from social or economic. Environment means” that which surround or that which envelop the earth and it consist of the entire ecosystem. Scientifically, the four spheres or division of the earth VIZ:- Lithosphere, Hydrosphere, Biosphere, and Atmosphere. This could be broken to include the water body and

life therein, landmass, forests, grassland, deserts, animals, man himself and all the interactions taken place among those group. Environment is also defined as the circumstances surrounding or regions in which everything exist. Everything external to the organism is included in it. It also includes open field, mountains, forest, Deserts, snow, Seas, River, Lakes, Wells, Springs, Atmosphere etc Environmental quality and its effects .Environment quality is a product of many factors that reduce the quality of an environment from what it should be in the physical outfit. General factor such as land degradation, pollutions of water and Air, noise, Sanitation, over pollution, slums, etc, usually reduced the quality of an environment. Since environmental quality involves standard, Samuel et al (2008) provided a simple approach for ensuring the quality of an environment with illustrative sketch as shown above (figure 1) Samuel et al (2008) also added that the main concerned for the environment are the following:-

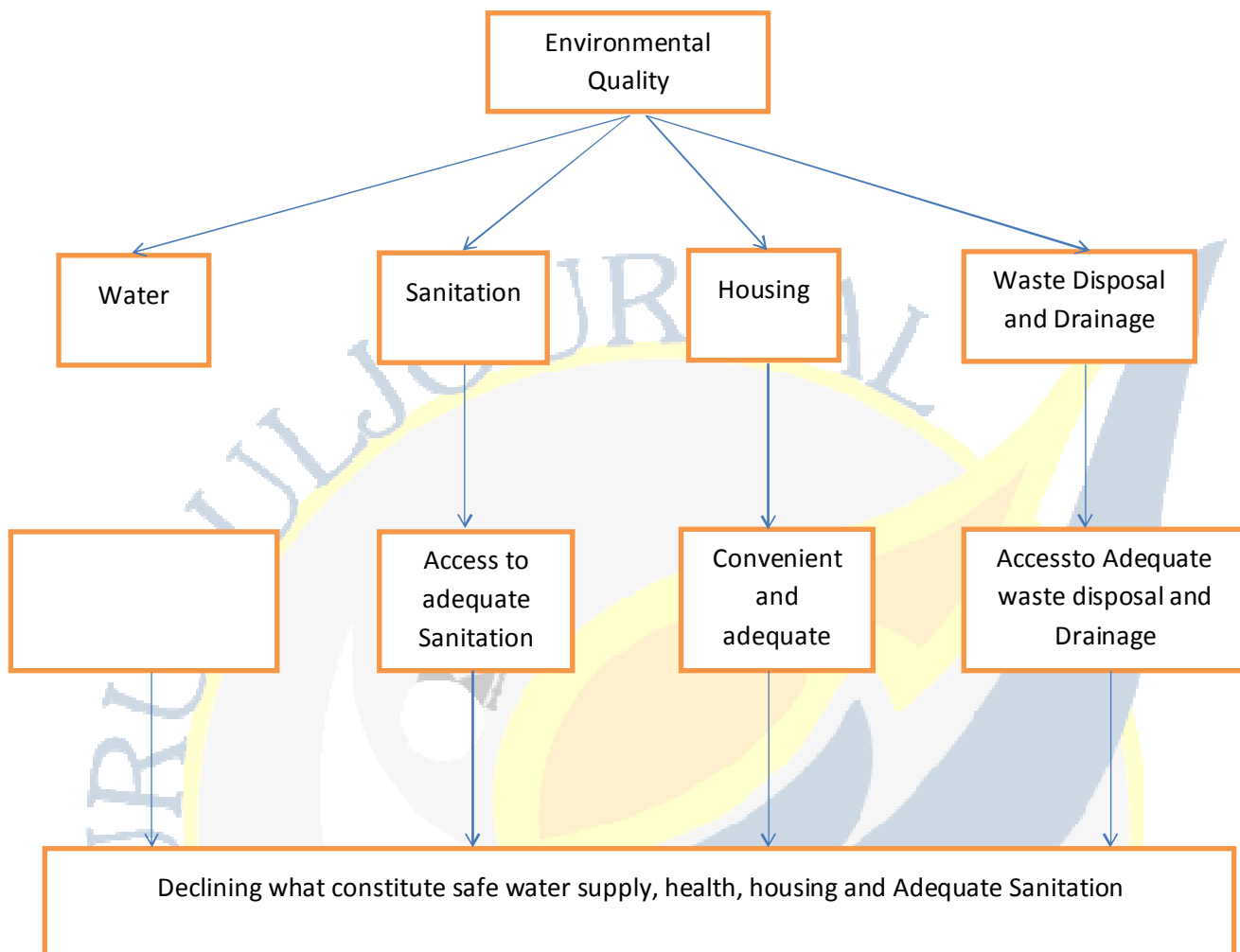
- How the Atmosphere, the rivers and the oceans are being polluted
- How people might be causing global warming.
- How people are destroying the world's forests and other wilderness areas.
- How people are endangering the survival of other species
- How people are being careless with toxic (life- threatening) wastes.

Research also added that the above measuring technique is applicable in many countries of the world. In addition, the account for environmental differences in many countries is based on the following:-

- Climatic condition.
- Topographic and fertility of the soil.
- Availability of industries
- Commercial centers and parks



**Diagram**



**Figure 1.** Showing different components of Environmental quality

**Pollution and general view**

The urban environment is usually polluted by three major sources, VIZ, Water, Air, and Noise. The world development report of 1992 highlighted the general effect of pollution on health. It also noted that the Tropical forest- the primary source of livelihood for about 140 million people are being lost at the rate of 0.9% annually. The above facts clearly speak for themselves about the alarming rate and situation that many developing countries are facing, including Nigeria due to environmental Degradation.

**Types of pollution within urban environment**

**1. Water pollution:** Water become contaminated from disease bearing human wastes and also become polluted through industrial influent. The classification can also be in the order

(a) **Water communicable disease:** Infection related to water supply and sanitation are many and their relationship is complex. However, in many countries, a conception system for understanding disease related to water and sanitation has been developed.

(b) **Water related infections**:- Water related disease is one which is in same gross way related to water in the environment (Bodies of water) and the impurities within water.

**Transmission Route Of Water Related Infections** (water borne route): Water borne transmission occurs when the pathogen is in the water, which is infected by a person or animal which may then become infected.

(c) **Water-wash route**:- Water wash disease is the one whose transmission will reduce by an increase in the volume of water used for hygienic purpose irrespective of the quality of that water. Diseases Cause By Water- Washed route are numerous. An example of such are: Typhoid, Eholeva, Darrheas, Ascarrasis, cholera, Dysentries, polio, infection Hepatitis, bacillary, eye infection, craw-craw, house bone, fever, etc.

(d) **Water based route**:- A water based disease is one in which the pathogen spend a part of its life cycle in a water snail or other aquatic animal. The diseases are due to infection by parasite worm which depends on aquatic intermediate hosts to complete their cycles. Diseases cause by water based Route: Diseases cause by water based is as followed: Guinea worm, Schishomiasis, paragommense, clonorchvasis, etc

(e) **Insect vector route**:- This is spread by insect which lives either in water or lives near water. Diseases cause by insect vector Route:- sleeping sickness, malaria, River blindness, filariasis, mosquito bone, viruses-yellow fever etc.

(f) **Excreta –Related infection**: An excreta –related infection is one which is related to human – excreta (i.e. urine and feaces).The two transmission mechanisms for this are:

i. Transmission: Via infected excreta: In this case pathogen is release into the environment through feaces or urine of infection individuals.

ii Transmission: By an excreta – Related insect vector: An insect which visit excreta to breed or to feed may mechanically carries excreta pathogen to food or an insect vector of a non-excreted pathogen and may preferably breed in feacally polluted sites.

## 2. Air pollution

Air pollution means the presence of any abnormal material or property in the air that reduce the usefulness of the air resources. The term pollution may be referred in context with outdoor open atmospheric conditions, localized air condition, and enclosed space conditions.

### Sources of Air Pollution

1. Fuel burning operation for heat and power generation in large steam electric generating plant, in-residence, in hotels, clubs, hospitals and in different processing of laundries, Drycleaners, garage and service station.

2. The refuse burning operation in different ,municipalities industries and residential apartment

3. Burning of fuels for modes of transportation which includes trucks, buses motor vehicles, rail using petrol, diesel and gasoline's.

4. Industrial and commercial process emission in different manufacture process namely metallurgical plants, chemical plants, refineries mineral production, etc.

### Cause of air pollution

1. increase in population and traffic

2. Development of industries

3. Development of automobile engineering

4. Thermal and nuclear generation

5. Development of agriculture etc.

#### **Forms of air pollutions**

1. Smoke 2. Dust 3. Gases 4. Particulate matter from industrials, power generation plants, road-way dust. Etc. 5. Hydrocarbon- from automobile exhaust 6. Sulphur compound 7. Nitrogen compound 8. Carbon compound 9. Fluorine compound 10. Chlorine compound

#### **Effects of air pollution**

**Effects on human health:** Sulphur dioxide causes suffocation, respiratory diseases, irritation to eyes and throat. Hydrogen sulphide causes respiratory paralysis. Hydrogen fluoride causes skin diseases. Carbon monoxide causes Lungs diseases and slow poisoning leading to death. Oxidants causes Lungs diseases.

**Effects on Materials** i. Causes deterioration of building materials ii. Causes corrosions of metals iii. Causes discoloration of paint, Cement colour, etc. iv. Causes reduction of strength of materials.

**Effects on vegetation** i. Plants may be dried up ii. The yield of crop may decrease iii. The quality of crops may decline or may be affected by disease iv. The growth of vegetation may stop and the quality may be inferior or may be affected by disease v. The quality of fruit may become inferior or the quality may also decrease vi. The forests area may get destroy gradually vii. The growth of trees may become stunted or they may dry up completely

#### **3.Noise pollution**

Violent noises may cause temporary or permanent impairment of hearing. Noise is also of the major causes of stress and many of the other human afflictions associated with tension, anxiety, accident proneness, high blood pressure and other diseases. The noise produce in urban area due to industrial activities, increases in traffic etc, cause tension and stressed related disorders.

#### **Adverse effect of noise**

i. It can cause loss of sleep ii. It can increase blood pressure iii. It can cause irritation of mind iv. It can cause digestive disorder v. It can develop hypertension vi. Sudden loud noise can cause heart failure vii. The prolong exposure to noise may result into temporal deafness or nervous back down viii. It affect attitude and psychological reaction ix. It can spoil the essence of music and speech x. It can creates uncomfortable living conditions xi. It usually interferes with speech communication.

#### **Sources of noise**

i. Domestic noise ii. Public noise iii. Traffic noise iv. Construction noise v. Industrial noise

#### **Environmental–Human settlements –Culture - Education**

There is a great relation between environment, human settlement, culture and education. A country like Nigeria is a typical example of environmental developments, technological advancement, Religions diversities, large or small scale industries, increase in infrastructural development, tribal differences, marriages etc. All the above are factor that goes along with environment, human-settlement, culture and education.

#### **Other specific forms of pollution**

- Human wastes



- Industrial Pollution
- Overcrowding
- Lack of civic amenities
- Solid waste
- Vehicular pollution
- Land Degradation
- Flooding
- Impacts of construction industries

### Poverty problems

There is a high rate of poverty in many countries today, as a result of unemployment and uncontrolled growth, leading to the establishment of slums. Poverty is the most appropriate word with which to describe the human condition in many countries today. The world commission on environment, and development states:- poverty pollutes the environment, creating environment stress in a different way. Those who are poor and hungry will often destroy their immediate environment in order to survive. They will over use marginal land and in growing numbers, they will crowd into congested cities. (Nest, 1987). This is the growing situation of many people who don't have anything to earn a living.

### Sustainability

The word "sustainability" originates from an ancient principle in forestry that is simply not to gain more timber from the forestry for centuries. In 1987 the "brundland commission" set up by the United Nations (UN) published their report as "our common future" and defined "sustainable development" for the first time as "development that meets the need of the present without compromising the ability of the future generation to meet their needs" sustainable also comes from the Latin word "sustainer" meaning "to bear". Sustainability can be translated simple as long-term compatibility. In engineering profession sustainability is seen in three-dimensional view. Different world scholars equally believe that sustainability is hanging on four major pillars namely: **a.** Ecological configuration **b.** Economic activities and output (i.e. Monetary system) **c.** Good governance and politics (i.e. Equity and efficiency) **d.** Institutional capacity and performance of Education. Since sustainability embrace all aspect of human's life, a trilling question that is always ask is what should be sustained and develop in our environment? A few areas that usually possess challenges are:

- People:** child survival, equity, equal opportunities for everybody, etc.
- Economy:** wealth creation, productive sector, consumption etc.
- Society:** social capitals, states, wealth, regions, etc.
- Good governance:** leadership and politics.
- Education:** a lot has been written and said on education in different countries of the world, especially in African countries. Knowing fully well the sustaining values of Education, it is still good to bear our understanding on it. Herbert Spencer, an English philosopher (1820-1903) said the following on education:
  - The great aim of education is not knowledge but action"
  - "Real education is the one that will bring changes to the people, not information"
  - "Real Education is a process of enquiring and composed of

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acts or recognition rather than transfer of information” iv. “Education is critical for promoting sustainable development”

#### **Better Environmental Planning On Projects**

Every environmental Engineer should take interest in environmental infrastructure and facilities which should follow a holistic approach. For example, it is always a better approach to commence environmental impact assessment very early and continue through the project conception, baseline studies, pre-feasibility and feasibility studies, to design, construction, commission, operation, and maintenance stage.

#### **Research and development**

Adequate research and development of sustainable environment development. Such effort should not be limited to pure science and technology, but should also include political will and implementation, social values, economic and commercial consideration and public perceptions. Consistence and adequate research and development will result in the “6Rs” i) Replace unsustainable activities with sustainable, polluting activities with clean process and efficient process with more efficient ones ii) Re-use and recycle products to conserve resources iii) Renewable resources used whenever practicable iv) Re-structure institutions (both Government and non- Governmental organizations) to incorporate commitment to philosophy of sustainable development v) Reduce consumption of resources and production of wastes vi) Restore land, water, Air, and ecosystem

#### **Educating and creating public environmental awareness**

Environmental Engineers and other related Engineering professional bodies have a vital role to pay in mobilizing the public for action aimed at improving the quality of man’s physical environment. This can be achieved by organizing relevant programmers, seminars, workshops, public debates, etc. on environmental issues. The role of the medial profession cannot be over emphasized here. There is the need for a better understanding of issues of the environment by media Practioners, news editors, features editors, news producers etc. in print and electronic media, to enable them improve on their unique roles in the global efforts on sustainable development

#### **Conclusion**

The importance of improved life living standard, especially in countries like india is in the area of water pollution, air pollution, noise pollution, and solid waste disposal in urban cities has long been identified, and loudly spoken in many ways, nearly all developing countries are currently engaged in substantial programs to improve the quality of life of the people, both in rural and urban cities. This paper therefore throws a clarion calls and challenge to the government of different countries, at Federal, state, Local levels, all NGOS and Stakeholders, professionals, and individuals to rise up and save our precious environment from further destruction Now!

#### **Questions of note**

- Who should our environment be sustained for?
- How long should our environment be sustained?
- Who should be involved in sustaining environment?
- Where do we start?



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**Answers**

- The future generations
- Many generation to come
- Everybody, inspective of position, titles, achievements locations etc.
- Where we are now!

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## व्यावसायिक, प्रगत रंगभूमी व ग्रामीण रंगभूमी एक शोध आणि बोध

प्रा.किशोर वरगंटीवार

छात्र संशोधक

वरोरा

मार्गदर्शक

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### गोषवारा :

ग्रामीण रंगभूमी व्यवसायाची नाळ ही तेथील जनतेच्या हृदयाशी जुळलेली असल्याकारणाने ग्रामीण रंगभूमी व्यवसायाने तेथील जनतेला काय दिले पाहिजे जेणेकरून त्यांचे समाधान होईल याचे भान ग्रामीण रंगभूमी व्यवसायाकडे आहे आणि म्हणूनच विशिष्ट हंगामात महानगरांच्या तुलनेत नगण्य समजल्या जाणा-या ग्रामीण भागात सुध्दा सादरीकरणाला तुंबळ गर्दी दिसून येते, तर शहरी भागात मात्र हाच प्रेक्षकवर्ग कमी होत चालल्याचे चित्र दिसते. कित्येक सभागृह अर्थे रिकामे दिसते, त्यामुळेच ग्रामीण भागातील रंगभूमी व्यवसायाची होणारी भरभराट हा संशोधनाचा विषय झालेला आहे. रंगभूमी व्यवसायाला सादरीकरणाला असलेला गर्दीचा उच्चांक व रंगभूमी व्यवसायाची होणारी भरभराट हा संशोधनाचा विषय झालेला आहे. आज प्रगत रंगभूमीच्या व्यवसायाला स्पर्धात्मकदृष्टिने मागे टाकून ख-याअर्थाने रंगभूमीच्या व्यवसायात जिने आपली ओळख निर्माण केली आहे अशी ही ग्रामीण रंगभूमी होय.

### बीजशब्द :

व्यावसायिक रंगभूमी, अभिरूचिसंपन्नता, व्यावसायिकदाष्टिकोण,  
ग्राहक केंद्री व्यवसाय, मनोरंजनातून व्यवसाय.

### प्रस्तावना :

महाराष्ट्राला उपजतच मिळालेला सांस्कृतिक वारसा म्हणजे महाराष्ट्र राज्याला मिळालेली एक अनमोल देणगी होय आणि ही देणगी ठेवीच्या स्वरूपात जतन करण्याचे कार्य ही त्या-या काळातील लोकांनी केलेले आहे म्हणूनच तो अनमोल ठेवा आजच्या पिढीलाही तितकाच नवीन वाटतो. नाटयसंस्कृती हा अशाच ठेवीपैकी एक होय. ज्या काळात मनोरंजनाचं कुठलंही साधन अस्तित्वात नव्हतं तेंव्हापासून महाराष्ट्रातल्या विव्दान साहित्यिकांनी विविध नाटके लिहून व तितक्याच उमद्या कलावंतांनी ती सादर करून समस्त महाराष्ट्राला मनोरंजनाचे एक दालन खुले करून दिले, त्यासोबतच नाटयमंडळांच्या रूपात एक नवीन व्यवसाय उदयास आला,

तेंव्हापासून मनोरंजनासोबतच एक व्यवसाय म्हणून ही मंडळे व्यावसायिक रंगभूमीच्या रूपाने कार्यरत आहेत. असंख्य लोककलावंत आणि इतरही या व्यवसायाशी संबंधित क्षेत्रात राहून आपले उदरनिर्वाहाचे साधन जोडीत आहेत.

### व्यावसायिक, प्रगत रंगभूमी व ग्रामीण रंगभूमी :

रंगभूमीच्या व्यवसायाचे प्रगत म्हणजेच शहरी किंवा सुधारित असेही याला म्हणता येईल आणि दुसरे म्हणजे ग्रामीण किंवा अप्रगत अशा दोन भागात वर्गीकरण करता येते. रंगभूमी हा मनुष्याचा पूर्वापार आवडीचा विषय राहिलेला आहे. ती एक अभिरूचि असेही म्हणता येते, आणि ही अभिरूचि जपणारा एक मोठा वर्ग महाराष्ट्रात आहे आणि म्हणूनच रंगभूमीचा व्यवसाय हा प्रचंड फोफावला आहे. ग्रामीण आणि प्रगत अशा रंगभूमीचा व्यवसायातील साम्य म्हणजे दोन्हीचा दृष्टिकोण व्यवसाय हाच असतो, म्हणजेच निखळ मनोरंजन किंवा समाज प्रबोधन हा मुद्दा अतिषयोक्त वाटेल पण खरोखरच कालबाह्य झालेला आहे आणि हे ढळढळीत सत्य प्रत्ययास देखील येते. केवळ गल्लाभरू नाटके मोठयाप्रमाणात व्यवसाय करून जातात आणि रंगभूमीच्या व्यवसायाला अधिक भरभराटी येते.

ग्रामीण भागातील रंगभूमीचे चित्र हे प्रगत रंगभूमीच्या तुलनेने काहीसे वेगळे असते, अर्थात हा अभिरूचिचा भाग झाला. कोणत्याही व्यवसायात ग्रामीणकेंद्री व्यवसाय आणि नागरी केंद्री व्यवसाय असा फरक राहातो किंवा आधुनिक बाजारपेठा आणि ग्रामीण बाजारपेठा असाही भेद असतो तोच भेद रंगभूमी व्यवसायाला देखील लागू होतो आणि हाच मूद्दा धरून ग्रामीण रंगभूमी व्यवसाय आणि प्रगत रंगभूमी व्यवसाय हे दोन्हीही व्यवसायाच्या बाबतीत आपली स्वतंत्र वैशिष्ट्ये राखून आहेत.

### व्यावसायिक प्रगत रंगभूमीचे स्वरूप :

प्रगत रंगभूमी ही प्राचीन काळापासून उदयास आलेली असून उगमस्थानीच तिचे स्वरूप व्यावसायिक होते. ज्यावेळेला मनोरंजनाची कुठलीही साधने अस्तित्वात नव्हती त्यावेळेला राजदरबारांमध्ये नृत्यनाटिका सादर व्हायच्या अर्थात आयोजकांचा उद्देश निखळ मनोरंजन असला तरी कलावंत मात्र पैशाच्या मोबदल्यात ही कला सादर करायचे म्हणजेच हा त्यांच्या पोटाची व्यवसाय होता आणि तेंव्हा पासूनच प्रगत रंगभूमीने व्यवसायाची कास धरलेली आहे. अर्थात तेंव्हाचे आणि आजचे स्वरूप यात आमुलाग्र बदल झालेला आहे.

### व्यावसायिक प्रगत रंगभूमीची वैशिष्ट्ये :

आधुनिक किंवा प्रगत रंगभूमीची वैशिष्ट्ये पुढील प्रमाणे सांगता येतील.

- १) प्रगत रंगभूमीचा दृष्टिकोण हा निखळ व्यावसायिक असा दृष्टिकोण असतो. अधिकाधिक नफा कसा मिळेल यावर त्यांचा विशेष भर असतो.
- २) प्रगत बाजारपेठातील ग्राहकांची अभिरूचि जशी वेगळी असते तोच मुद्दा. रंगभूमीच्या बाबतीतही येतो आणि शहरी अभिरूचिला रूचेल अशाच नाटयसंहिता सादर केल्या जातात.



३) प्रगत रंगभूमीच्या व्यवसायात ग्राहक म्हणजेच रसिक प्रेक्षक कसे समाधानी होतील यावर जोर दिला जातो, म्हणजेच ग्राहकांना अभिरूचिचा अभ्यास केल्याशिवाय कुठलाही नवीन Product (नाटक) व्यवसायाला निघत नाही म्हणजेच ते संपूर्णतः रसिक केंद्रित असते.

४) व्यवसाय वाढविण्याकरीता प्रगत रंगभूमी व्यवसायाची किंवा नव्याने सादर होणा-या सादरीकरणाची मोठया प्रमाणात जाहिरात करून व्यवसायवृद्धीचा प्रयत्न केला जातो. इतकेच काय तशा मोहिमासुद्धा आखल्या जातात.

५) गुणवत्ता टिकवून ठेवली तरच मागणी वाढते हा नियम प्रगत रंगभूमी व्यवसायाला तंतोतंत लागू पडतो. या गुणवत्तेत सर्वच बाबींचा समावेश होतो, कधी कधी रसिक प्रेक्षकांनी पाठ फिरविलेले सादरीकरण तोट्यातही जाते.

या प्रकारे प्रगत रंगभूमी स्वतःचे वेगळे असे वैशिष्ट्य राखून टापला व्यवसाय फोफावण्याचा प्रयत्न प्रदिर्घकाळापासून करित आहे.

#### व्यावसायिक ग्रामीण रंगभूमीचे स्वरूप :

ग्रामीण रंगभूमीचे स्वरूप हे मात्र पूर्वापार अगदी निखळ मनोरंजनाचे राहिले आहे. ग्रामीण भागात हंगामी काम असल्यामुळे उर्वरित दिवसात काही हौशी मंडळी स्वतःची हौस पूर्ण करणे व इतरांचे निखळ मनोरंजन याच दृष्टीकोणातून सादरीकरण करायची. कालांतराने हे मनोरंजन आणि हौसही ग्रामीण रंगभूमी देखील सहजगत्या व्यावसायिकतेकडेच ओढली गेली.

#### व्यावसायिक ग्रामीण रंगभूमीची वैशिष्ट्ये :

व्यावसायिक ग्रामीण रंगभूमीची वैशिष्ट्ये किंवा वेगळेपण हे पुढील मुद्द्यांवरून स्पष्ट होते.

१) ग्रामीण रंगभूमीचा प्रारंभिक दृष्टिकोन हौस आणि निखळ मनोरंजन एवढाच असल्यामुळे हौसेला मोल नाही असे म्हणून मोबदल्याचा प्रश्नच निर्माण होत नव्हता उलट पदरमोडच व्हायची.

२) ग्रामीण अभिरूचि ही प्रगत भागापेक्षा निश्चितच काहीशी वेगळी असते यात भाषा हा प्रमुख मुद्दा येतो. या अभिरूचिनुसारच ग्रामीण रंगभूमीचा व्यवसाय सुद्धा चालतो.

३) ग्रामीण रंगभूमीच्या व्यवसायात ग्रामीण ग्राहकांना म्हणजेच रसिक प्रेक्षकांना काय हवे तेच देण्याचा प्रयत्न केला जातो.

४) ग्रामीण जनता काहीशी भोळीभाबडी व चालिरितीला माननारी असल्यामुळे तशाच प्रकारच्या PRODUCT ला विशेष मागणी राहते त्यामुळे तशाच प्रकारचे व्यावसायिक सादरीकरणावर जोर दिला जातो.

५) ग्रामीण रंगभूमी व्यवसायातून अनेक पुरक व्यवसायांना देखील चालना मिळते.

ग्रामीण रंगभूमीचे हेच वेगळेपण किंवा वैशिष्ट्ये ग्रामीण रंगभूमीला रंगभूमी व्यवसायाचा विस्तार वाढविण्याला कारणीभूत ठरली. ग्रामीण रंगभूमीच्या माध्यमातून अनेक लोकांना रोजगार मिळाला आणि उद्योग विरहित अशा या ग्रामीण व दुर्गम भागामध्ये रंगभूमीच्या रूपाने एका उद्योगाला सुरुवात झाली आणि पाहता पाहता मोठया प्रमाणात विस्तार देखील झाला.

रंगभूमी व्यवसायाचा अभ्यास करित असतांना केवळ एकांगी अभ्यास उपयोगाचा नाही हे अगदी खरे आहे कारण व्यवसायाचे खाचखळगे बघतांना जो फरक जाणवतो तंतोतंत तोच फरक रंगभूमी व्यवसायात देखील जाणवतो. मोठया प्रमाणात जाहिराती तथा व्यवसायवृद्धीची अनेक साधने वापरून एकूणच मोठया प्रमाणात गुंतवणूक किंवा खर्च करूनही प्रगत रंगभूमी सद्यास्थितीत जे उलाढाल करते आहे त्या तुलनेने ग्रामीण रंगभूमी असा कुठलाही खर्च न करता किंवा व्यवसाय संवर्धनाची कुठलीही साधने न वापरता कोटयावधीची उलाढाल करते याची प्रचिती आली.

असे कां घडते हे मात्र अगदी तंतोतंत सांगता येणार नाही परंतू काही मुददे मात्र जाणवतात ते पुढील प्रमाणे.

एकेकाळी मनोरंजनाचे निखळ साधन म्हणून रंगभूमीला पाहायचे पण त्याच काळात म्हणजेच १०० वर्षापूर्वी सिनेमा हा नवीन उद्योग किंवा व्यवसाय सुरू झाला आणि रंगभूमी व्यवसायाला उतरती कळा लागली आजच्या काळात तर मनोरंजनाची असंख्य साधने घराघरात पोहचलेली आहेत त्याचा परिणाम म्हणून व्यावसायिक रंगभूमीकडे अनेकांनी पाठ फिरविली तरी देखील अभिरूचिसंपन्न सादरीकरण झाल्यास आजही ग्राहक खेचले जातात तरी देखील पाहिजे तितकी

रंगभूमी व्यवसाय घोडदौड करू शकत नाही हि वास्तविकता आहे. अनेक प्रयत्न करून हा व्यवसाय टिकवून रंगभूमी व्यावसायिक यशस्वी झालेत हे मात्र निश्चितपणे म्हणता येईल.

याउलट ग्रामीण किंवा अप्रगत रंगभूमीने निखळ हौस किंवा मनोरंजन म्हणून सुरू केलेल्या रंगभूमीने आज विकासाची कास धरलेली आहे. त्याचाच परिणाम म्हणून फारशी जाहिरात न करता किंवा व्यवसायवृद्धीच्या कुठल्याही साधनांचा वापर न करता ग्रामीण रंगभूमीचा व्यवसाय सातत्याने फोफावत चाललेला आहे. एका गावात दिवसाला दोन – दोन सादरीकरण झालेत तरी दोन्ही ठिकाणी भरगच्च गर्दी असते कित्येकदा तर नफ्याचे उच्चांक गाठले जातात आणि सर्वात जमेची बाजू अशी की, प्रगतरंगभूमीवरिल अनेक कलावंत व्यवसायाच्या हंगामात ग्रामीण रंगभूमीकडे तळ ठोकून असल्याचे चित्र पाहायला मिळते, शिवाय उद्योग विरहित ग्रामीण परिसरात व्यावसायिक रंगभूमीच्या व्यवसायाने मोठा प्रगतीचा पल्ला गाठलेला आहे हे कोणत्याही अभ्यासकाला मान्य करावेच लागेल इतकी स्पष्टता अभ्यासातून जाणवली आहे.

### निष्कर्ष :

रंगभूमी व्यवसाय म्हटला की, प्रगतीशिल परिसरच नजरेसमोर तरळतो कारण मोठया शहरांमधूनच होणारा हा उद्योग होता परंतू रंगभूमी व्यवसायाच्या सखोल अशा सकल संशोधनातून मात्र असा बोध झाला की, आज ग्रामीण रंगभूमी वैदर्भिय जनता तिला झाडीपट्टी रंगभूमी या नांवाने संबोधतात तिच आज व्यवसायाच्या दृष्टिकोणातून अधिक प्रगतीपथावर आहे. इतकेच नव्हे तर या झाडीपट्टी रंगभूमीच्या व्यवसायातून अनेक लघू – उद्योग उदयाला आले आहेत व अनेक ग्रामीण युवकांना यातून रोजगार प्राप्त झालेला आहे ही निश्चितच जमेची बाजू होय.

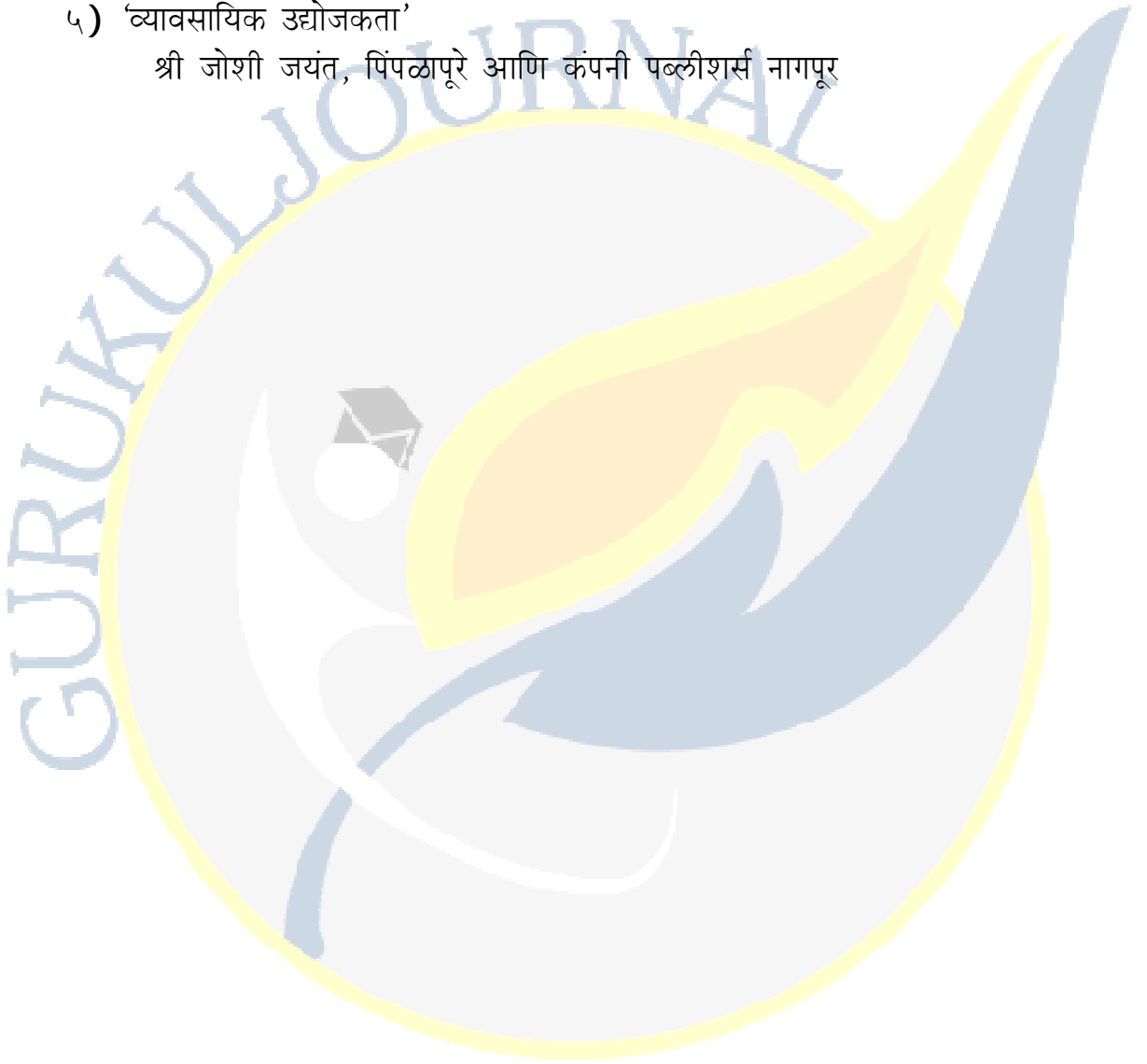
### संदर्भ ग्रंथ :

१) 'नाट्य दर्शन'

श्री घोंगे पराग, विजय प्रकाशन नागपूर



- २) 'मराठी रंगभूमी' प्रतिमा, रूप आणि रंग  
श्री काळे नारायण – अक्षय प्रकाशन, पूणे
- ३) 'महाराष्ट्रातील संगीत परंपरा'  
कुळकर्णी शुभदा
- ४) 'झाडीपट्टी रंगभूमीची शतकोत्तर वाटचाल'  
मोहरकर श्याम – राघव पब्लिशर्स नागपूर
- ५) 'व्यावसायिक उद्योजकता'  
श्री जोशी जयंत, पिंपळापूरे आणि कंपनी पब्लिशर्स नागपूर



## वैश्वीकरण के सामाजिक-सांस्कृतिक आयाम

डॉ० अनिल कुमार मिश्र\*

### सारांश

भूमण्डलीकरण की संस्कृति भारतीय समाज एवं संस्कृति को प्रभावित कर रही है। भौतिकतावादी व उपभोक्तावादी मूल्य भारतीय जीवन पद्धति का हिस्सा बनते जा रहे हैं। विश्व के विविध संस्कृतियों के मध्य हो रहे अन्तःक्रिया से निश्चित ही एक नये रूप में भारतीय संस्कृति का भूमण्डलीकरण हो रहा है। भारतीय संस्कृति के अनेक तत्व विश्वव्यापी हो गए हैं।

वैश्वीकरण एक बहुआयामी प्रक्रिया है। कुछ विचारक इसे एक आर्थिक अवधारणा मात्र समझते हैं। उनके लिए वैश्वीकरण-उदारीकरण है, निजीकरण है और निवेश है। कुछ अन्य विचारक वैश्वीकरण का अर्थ सामाजिक-सांस्कृतिक आदान-प्रदान के संदर्भ में निकालते हैं। वैश्वीकरण को एक ऐसी प्रक्रिया का वर्णन करने के लिए भी प्रयुक्त किया जाता है जिसके द्वारा पूरे विश्व के लोग मिलकर एक समाज बनाते हैं तथा एक साथ कार्य करते हैं। यह प्रक्रिया आर्थिक, तकनीकी, सामाजिक और राजनीतिक ताकतों का एक संयोजन है। समाजशास्त्रीय दृष्टिकोण से वैश्वीकरण की अवधारणा को विश्लेषण करने वाले समाजशास्त्री एंथनी गिडडेन्स हैं। गिडडेन्स के अनुसार "विभिन्न लोगों एवं विश्व के विभिन्न क्षेत्रों के मध्य बढ़ती हुई पारस्परिकता ही वैश्वीकरण है। यह पारस्परिकता सामाजिक-आर्थिक सम्बन्धों में निहित होती है। इसमें समय एवं स्थान का कोई महत्व नहीं होता है।"

एक विश्वव्यापी व्यापार विधा के रूप में वैश्वीकरण यद्यपि एक नवीन अभिगम है किन्तु इसकी जड़ें द्वितीय युद्ध के बाद के पाँच दशकों में निहित हैं। 1960 के दशक को समाज वैज्ञानिकों और नीति नियोजकों ने वृद्धिकाल के रूप में देखा, 1970 को आधुनिकीकरण, 1960 के दशक को सामाजिक रूपान्तरण और विकास तथा 1990 के दशक को संवहनीय विकास के रूप में व्याख्यायित किया और अन्ततः इस दशक के उत्तरार्द्ध अर्थात् 20वीं सदी के समापन के दौर में उदारीकरण और निजीकरण पर विशेष बल देते हुए वैश्वीकरण का उद्घोष किया।

अर्थव्यवस्था के भूमण्डलीकरण का परिणाम आर्थिक शासन में राज्य की भूमिका में गिरावट के रूप में प्रकट हुई है। सरकार की आर्थिक भूमिका में यह गिरावट सार्वजनिक व्यय में कमी के रूप में आयी है। सार्वजनिक व्यय में भारत का कुल सरकारी खर्च साठ के दशक में 11.0 प्रतिशत वार्षिक की दर से, सत्तर के दशक में 7.1 प्रतिशत की दर से, अस्सी के दशक में 6.46 प्रतिशत की दर से बढ़ा, लेकिन नब्बे के दशक में घटकर यह मात्र 4.7 प्रतिशत वार्षिक रह गया। सरकार एवं सार्वजनिक क्षेत्र की भूमिका में गिरावट के परिणाम और उसके स्थान पर निजी क्षेत्र के आ जाने का अर्थ होता है लोगों को रोजगार, पूँजी और सामाजिक

\* असिस्टेन्ट प्रोफेसर, समाजशास्त्र विभाग, डी०ए-वी० कॉलेज, कानपुर

सेवाओं जैसे शिक्षा, स्वास्थ्य और आवास सेवाओं की सुलभता काफी कम हो जाना। आर्थिक गतिविधियों को सार्वजनिक क्षेत्र से लेकर निजी क्षेत्र के हाथों में सौंप दिये जाने समेत राष्ट्रीय सरकार की संरचनात्मक समायोजन नीतियाँ यथा राज्य आर्थिक नियोजन से दूर होते हुए और आर्थिक निर्णय बाजार पर छोड़ते हुए जनता के लिए सामाजिक सुरक्षा प्रत्याहार में पारित होगी।

भूमण्डलीकरण की प्रक्रिया में बाजार के माध्यम से एक मूल्य व संस्कृति को परोसा जाता है। यह मूल्य निश्चित रूप से अमेरिकी व यूरोपीय जीवन शैली को अपना आदर्श मानता है। यह समूचे विश्व में संस्कृति के समरूपीकरण का प्रत्यक्ष या अप्रत्यक्ष प्रयास करता है। चूँकि प्रत्येक संस्कृति में कुछ विशिष्टताएँ होती हैं जो अपनी परिस्थितियों व मूल्यों के अनुसार स्वयं को समायोजित करती है। अतः भूमण्डलीकरण ने जिस नई संस्कृति को प्रस्तुत किया है वह नए मूल्य संकट को जन्म देती है। मीडिया, विज्ञापन व बाजार के माध्यम से यह ऐसी संस्कृति को बढ़ावा देता है जिसे अपना सरल नहीं होता, लेकिन व्यक्ति स्वयं को इस नई संस्कृति के आकर्षण से अलग नहीं रख पाता है। क्योंकि इसे सदैव आधुनिकता से जोड़कर प्रस्तुत किया जाता है। दूसरी ओर व्यक्ति अपने पुराने मूल्यों को भी छोड़ने में भी संकोच करता है। फलतः वह नये सांस्कृतिक संकट से जूझता रहता है। यह वर्ग न आधुनिक ही बन पाता है और न पारम्परिक आदर्शों में स्थिर रह पाता है। जीवन का प्रत्येक क्षेत्र अब बाजार द्वारा संचालित हो रहा है। बात चाहे उपभोक्तावाद को अलग अभिव्यक्ति से जोड़ने की हो या फिर अपनी पहचान को उपभोक्तावाद के रूप में प्रदर्शित करने की। यही नहीं बाजार सुन्दरता को सेक्स अपील से जोड़ता है, धर्म व अध्यात्म का व्यावसायीकरण करता है और प्रेम को प्रदर्शन की वस्तु मानता है। यह अश्लीलता एवं नग्नता को कला, संस्कृति व स्वतंत्रता से जोड़ने में कोई संकोच नहीं करता। कुछ समय पहले तक सभी लोग होली, दीपावली, दशहरा, ईद और क्रिसमस जैसे त्यौहार पर एक-दूसरे से मिलकर अथवा उन्हें उपहार देकर हर्ष व उल्लास के साथ मनाते थे। बाजार की उपभोक्तावादी प्रवृत्ति ने इन त्यौहारों को पेपर त्यौहार का रूप दे दिया है। अब अधिकांश लोग टेलीफोन, ई-मेल या ग्रीटिंग्स कार्ड के द्वारा ही बंद कमरे में बैठकर एक दूसरे को शुभकामना देने और त्यौहार को मना लेने की रस्म को पूरा कर लेते हैं। इससे सामूहिकता कम हो रही है। लोगों पर बाजार इस तरह हावी होता जा रहा है कि कुछ समय पहले तक जिस तरह परिवार में त्यौहार को मनाने की तैयारी की जाती थी, वे तैयारियाँ अब देशी व बहुराष्ट्रीय कम्पनियाँ कर रही हैं। विभिन्न अवसरों और मौसमों में सेल-डिस्काउण्ट एक के साथ एक मुफ्त विशेष खरीद पर अतिरिक्त उपहार जैसी आकर्षक योजनाओं के कारण लोग सही और गलत के अंतर को समझने में असहाय होते जा रहे हैं।

लोगों की मानसिकता को समझने वाला बाजार ऐसे सभी फार्मूले काम में लाता है जिससे उपभोक्ता वस्तुओं की कहीं अधिक कीमत देकर विशेष संतुष्टि का अनुभव कर सकें। जो नाश्ता या भोजन घर पर 40-50 रूपये में तैयार किया जा सकता है, उसके लिए तीन-चार सौ रूपये के बिल का भुगतान करना उपभोक्तावादी संस्कृति की ही देन है।

वैश्वीकरण ने शिक्षा व्यवस्था को उद्योग बना दिया है। शिक्षा अब आर्थिक व्यवस्था का एक महत्वपूर्ण हिस्सा है। विशेष रूप से उच्च कोटि की क्षमता को विकसित करने और उच्च शिक्षितों को पदार्थ (Commodity) की तरह आयात अथवा निर्यात उत्पादन प्रक्रिया में शामिल होने के लिए महत्वपूर्ण योग्यता आदि पहले की अपेक्षा नए तथ्य हैं। वैश्विक स्तर पर शिक्षा का पदार्थीकरण (Commodification) तथा व्यापारीकरण (Commercialisation) तथा निजीकरण (Privatization) हुआ है। अब शिक्षा में मानविकी विमर्श घटा है। फलतः मानवीय संवेदनाएँ कम हो रही हैं। तकनीकी उन्मुख शिक्षा ने भौतिकवादी प्रवृत्तियों को बढ़ावा दिया है। शिक्षा के बाजरीकरण से बड़ी संख्या में शैक्षिक संस्थाओं की स्थापना हुई है। इसमें अधिकांश संस्थाएँ ऐसी हैं जिसकी गुणवत्ता निम्न है। निजी क्षेत्र की गुणवत्तापरक संस्थाएँ शिक्षा के नाम पर अभिभावकों का भरपूर शोषण कर रही हैं।

अर्थव्यवस्थाओं का उदारीकरण एक ऐसे कार्यतंत्र के रूप में देखा गया जहाँ व्यापार 'ग्रोथ इंजन' के रूप में काम करेगा और विकास परिणाम गरीब तक रिस-रिस कर पहुँचेंगे। ऐसे समय में जबकि आर्थिक विकास की दर सात से ऊपर है तो भी गरीबी की दर भी कम होने के बजाय बढ़ रही है। नेशनल सैम्पल सर्वे आर्गनाइजेशन (एनएसएसओ) की 2006-07 की रिपोर्ट खराब खबर उजागर करती है। आर्थिक विकास और भूख का रिश्ता जबर्दस्त तरीके से सकारात्मक है। अर्थात् जितनी ज्यादा विकास दर उतनी ज्यादा गरीबी। यह तथ्य उस व्यापक विचार को चुनौती देता है कि आर्थिक विकास गरीबों को उनकी गरीबी और भूख से छुटकारा दिलाता है। इसी तरह एनएसएसओ की 66वें दौर की रिपोर्ट रोजगार में वृद्धि की संभावनाओं को खारिज करती है। इसके मुताबिक 2004-05 से 2009-10 के दौरान ग्रामीण क्षेत्रों में रोजगार के अवसरों में 0.34 ऋणात्मक घटाव आया है जबकि शहरों में यह 1.36 फीसदी तक बढ़ा है। 2004-05 में योजना आयोग ने गरीबों की संख्या 27.5 प्रतिशत निर्धारित की थी। फिर इसी आयोग ने इसी अवधि में गरीबी की तादाद आंकने की विधि की पुनर्समीक्षा के लिए तेंदुलकर कमेटी का गठन किया था, जिसने गरीबों की संख्या 37.2 प्रतिशत कर दिया। अर्जुन सेन समिति के मुताबिक 77 प्रतिशत आबादी गरीब है क्योंकि वह रोजाना मात्र 20 रुपये भी कम में जीविकोपार्जन करती है। अतः आर्थिक विकास को मानवीय विकास से नहीं जोड़ा जा सकता है। जब भी गरीबों के लिए सामाजिक-आर्थिक सुरक्षा सब्सिडी का विमर्श होता है तो सरकार को वित्तीय घाटे की चिन्ता सताने लगती है। हालांकि इसमें लगभग एक लाख करोड़ रुपये खर्च होने का आकलन है लेकिन इसको ऐसे पेश किया जाता है जैसे कि अर्थव्यवस्था धराशायी हो जायेगी।

भूमण्डलीकरण के वर्तमान दौर में परिवार पर आर्थिक तंत्र प्रभावी हो गया है। महानगरों व बड़े शहरों में नौकरियों की तलाश में लोग अपने पुश्तैनी घर छोड़ने को बाध्य होते हैं। व्यक्तिगत परिवार का आरम्भ उन्हें जीवन की प्राचीन दर्शन व परम्पराओं से मुक्ति दिलाता है और व्यक्ति की नई पहचान को स्थापित करता है, लेकिन इसके कई नकारात्मक परिणाम भी देखे जा सकते हैं। रिश्तों के मर्म पर आर्थिक तंत्र के निर्मम प्रहार से परिवार के सदस्यों के

बीच दूरी, खालीपन व निराशा बढ़ी है। भूमण्डलीकरण के सामाजिक-आर्थिक दर्शन से तनाव और व्यक्तिगत महत्वाकांक्षाओं की टकराहट से पति-पत्नी का संबंध अस्थायी बनता जा रहा है। तलाक अब इतने आम हो गए हैं कि आज उन्हें किसी तरह के सामाजिक कलंक के रूप में नहीं देखा जाता है। पहले विवाह को जन्म-जन्मान्तर के बंधन, सामाजिक सुरक्षा प्रदान करने वाले एक कवच के रूप में देखा जाता था, अब लोग नौकरियों को ज्यादा समय दे रहे, जबकि परिवार को कम। उनमें रिश्ते टूटने के स्थान पर नौकरियाँ खोने का भय कहीं ज्यादा है। संबंधों में दरार पड़ना भूमण्डलीकरण समाज की एक सामान्य विशेषता है जो भारतीय परिवेश में पति-पत्नी के मध्य व्यापक स्तर पर देखी जा सकती है।

भूमण्डलीकरण के दर्शन ने अधिकांश वृद्धों को उपेक्षित व असहाय बना दिया है। वृद्धों के अनुभव अब उपयोगी नहीं रह गये हैं। उनकी जगह अब इण्टरनेट ने ले लिया है जहाँ पर तर्क और प्रमाण दोनों एक साथ मौजूद हैं। उपभोक्तावादी समाज में रिश्तों की गर्माहट कम हुई है। सफलता की दौड़ में भागते पति-पत्नी के पास समय का अभाव रहता है और धन की प्रचुर उपलब्धता के बाद भी महिलायें अकेलेपन और बच्चे तनाव से ग्रस्त देखे जा सकते हैं। ऐसे परिवार में बुजुर्ग स्वयं ही त्याज्य बन जाते हैं जो नये जीवन मूल्यों व दर्शन में कहीं स्थान नहीं बना पाते हैं।

वैश्वीकरण ने सम्पूर्ण दुनिया में एक साझी संस्कृति को विकसित करने में मदद की है। वैश्वीकरण ने उन शक्तियों का विस्तार किया है जो राज्य, राजनीति, प्रजातंत्र तथा सिविल सोसाइटी पर होने वाली बहसों से जुड़ा है। आज सम्पूर्ण विश्व एक ही टी.वी. कार्यक्रमों, फिल्मों, समाचार, संगीत, जीवन शैली एवं मनोरंजन से तारबद्ध हो गया है। सेटेलाइट, केबल फोन, वाकमैन, वी सी डी, डी वी डी तथा मनोरंजन, प्रौद्योगिकी के चमत्कार एवं आश्चर्यजनक वस्तुएं संस्कृति के जन विपणन एवं उपभोक्ता संस्कृति के विस्तार को बढ़ावा दे रही है। इससे समरूप संस्कृति विकसित हो रही है। विज्ञान एवं प्रौद्योगिकी की उन्नति एवं बाजारों के सुधार के साथ ही पृथ्वी एक विश्वग्राम में बदल गयी है। यह उपभोक्तावाद में वृद्धि के चलते विश्व जनसंस्कृति के उद्गमन में पारित हुआ है। कहीं पर वैश्वीकरण स्थानीय सांस्कृतिक उपादानों के लिए संकट के रूप में उपस्थित हुआ है तो दूसरी तरफ लोक संस्कृति, स्थानीय दस्तकारी व स्थानीय कलाकृतियों के निर्माता वैश्वीकरण को ही अपना मित्र मानते हैं। वैश्वीकरण इन सबको प्रोत्साहित करता है, अन्तर्राष्ट्रीय बाजार को खोलता है, पूँजी के प्रवाह को खोलता है और सांस्कृतिक उत्पादों को नये स्वरूप प्रदान करता है। बजाय इसके कि उनकी पहचान उखड़ने लगे, वैश्वीकरण उस पहचान को नया अर्थ दे रहा है।

वैश्वीकरण ने एक ओर लाभप्रद स्थितियाँ पैदा की हैं तो दूसरी ओर आर्थिक, सामाजिक व सांस्कृतिक चुनौतियाँ भी पैदा की हैं। सूचना तकनीक की अपार वृद्धि से समय और दूरियाँ सिकुड़ गयी हैं। मानव विकास के बहुत से अवसर पैदा हो गये हैं। कई सफलताओं के बाद भी भारत में कई चुनौतियाँ पैदा हुई हैं जो कुछ विकास और वृद्धि हो रही है वह सामाजिक



आर्थिक समावेशी व क्षेत्रीय आधार पर संतुलित नहीं है व उपलब्ध जनशक्ति व उसमें निहित संभावनाओं का पूरा सदुपयोग नहीं हो पा रहा है।

संदर्भ ग्रन्थ सूची

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ग्रामीण भागातील विद्यार्थ्यांचा वाणिज्य विषयाकडे पाहण्याचा नकारात्मक  
दृष्टिकोण – एक वास्तव

प्रा.किशोर वरगंटीवार

छात्र संशोधक

वरोरा

मार्गदर्शक

प्राचार्य.डॉ.प्रकाश.एन.सोमलकर

गुरूकुल कला वाणिज्य महाविद्यालय,

नांदा,ता.कोरपना जि.चंद्रपूर

गोषवारा :

जागतिकरीकरणाच्या आजच्या युगातही वाणिज्य विषयाकडे ग्रामीण विद्यार्थ्यांचा ओढ का वाढत नाही हा चिंतेचा तसेच चिंतनाचा विषय आहे, हे एक वास्तव असले तरी त्यावर तोडगा शोधणे अनिवार्य आहे, कारण भारतीय अर्थव्यवस्थेचा कणा समजला जाणारा ग्रामीणभाग वाणिज्यासारख्या अर्थव्यवस्थेला प्रवाहित ठेवणाऱ्या अभ्यासशाखेपासून दुरावणे निश्चितच संयुक्तिक नाही. संपूर्ण अर्थव्यवस्था पेलणारी अशी ही वाणिज्य शाखा मुख्य कण्यापासूनच दुरावली तर अर्थव्यवस्थेचे काय होणार? व्यावसायाभिमुख असलेली ही शाखा ग्रामीण विद्यार्थ्यांच्या का पचनी पडत नाही हा खरोखरच संशोधनाचा विषय होय त्यावर तज्ञांची मते घेवून तोडगा शोधणे अनिवार्य आहे.

बीजशब्द:

वाणिज्यशाखा, ग्रामीण अर्थव्यवस्था,

व्यावसायाभिमुख कृषी अर्थव्यवस्था, कृषी पुरक व्यवसाय

प्रस्तावना:

व्यापार व उद्योगाच्या क्षेत्रात जागातिकिरणाची लाट येते आहे, वाणिज्याच्या श्रृंखलेत संबंध जगाची लांबी – रुंदीच कमी होत आहे. त्यामुळे आंतरराष्ट्रीय पातळीवर वाणिज्य शिक्षणाला विशेष महत्व येत आहे. उदयाचा व्यापार व उद्योग वाणिज्य शिक्षणाभेवती केंद्रीत होणार आहे.

एकविसावें शतक हे माहितीच, संगणकाचं, व तंत्रज्ञानाचं राहणार आहे, या शतकापुढील विविध आव्हान पेलण्याचे बळ शैक्षणिक क्षेत्रातील निरनिराळ्या ज्ञानशाखांना संपादन करावे लागेल. सउभं ठाकलं आहे.वाणिज्य शाखेपुढे तर व्यापार व उद्योगांच्या प्रगतीचं आव्हान उभं ठाकलं आहे

वाणिज्याचा हा संक्रमण काळ आहे. या शतकात विविध स्तरावरून वाणिज्य शिक्षित उमेदवारांची प्रचंड मागणी वाढणार आहे. रोजगाराच्या अनेक संधी वाणिज्य पदवीधारकांकडे येणार आहेत, असं चित्र संबंध जगभर असतांना आमच्या विदर्भात (ग्रामीण) मात्र वाणिज्य शिक्षणाकडे पाहण्यात उदासिनता दिसते. आंतरराष्ट्रीय व्यापार, व उद्योगांचे खाजगीकरण त्यातून वाढणारी स्पर्धा तद्वतच विमा, बँका, वाहतूक या क्षेत्रात होऊ पाहणारी क्रांती हे संपूर्ण चित्रच वाणिज्य शिक्षणासाठी आशादायी आहे. व्यापार व उद्योगात वाणिज्याचे योगदान अतिशय महत्वाचे राहणार आहे.

वाणिज्य शिक्षणाचे राज्य पातळीवर विचार केल्यास महाराष्ट्रात आजही पुणे, मुंबई व नाशिक या सारख्या शहरात वाणिज्य विद्याशाखेत प्रवेश मिळत नाही एवढी विसंगती ग्रामीण व नागरी विभागात दिसते. विदर्भात जिल्हास्तरावर या शाखेत प्रवेश घेणारे विद्यार्थी मिळतात पण तालूका स्तरावर मात्र प्रवेशासाठी अक्षराशः घोघरी फिरावे लागते.

पण विद्यार्थी या शाखेत प्रवेश घ्यायला तयार नसतात परिणामता ग्रामिण भागातील वाणिज्य विषयाच्या तुकड्या तुटल्या व अनेक वाणिज्य शिक्षक अतिरिक्त ठरले, त्यामुळे त्यांच्या समायोजनाचा प्रश्न शासनासमोर उपस्थित झाला विविध उद्योग व व्यापार शाखात आजही वाणिज्य शिक्षितासाठी रोजगार उपलब्ध आहेत. ग्रामिण मानसिकता ही परिसरवादी असते, पंचकोशीत राहणारी वृत्ती ग्रामस्थांची असते.त्याच्या महत्वाकांक्षाही माफक स्वरूपाच्या असतात. B.ed व D.ed. करून शिक्षकी पेशा पत्कारावा हीच वृत्ती ग्रामीण विभागात दिसून येते. शिक्षकी व्यवसायात असणारी सहज उपलब्धता विनाअनुदानतत्वावर,विनावेतन नौकरी करण्याची प्रवृत्ती दिसून येते. मात्र विविध स्पर्धात्मक परीक्षा देऊन, लोकसेवा व राज्यसेवा आयोग व तत्सम परीक्षा देण्याची वृत्ती/मानसिकता नाही.

प्राथमिक व माध्यमिक शिक्षण व्यवस्थेतून वाणिज्य शाखेला गौणत्व आहे,त्यामुळे या क्षेत्रात रोजगार उपलब्ध करून देणे दुरापास्त झाले आहे. त्यामुळे वाणिज्य विषयाऐवजी कला व विज्ञान शाखेकडे अनेक विद्यार्थ्यांचा कल दिसून येतो. त्यातही कलाशाखेकडे ही गर्दी अधिक दिसते. २१ व्या शतकातली आव्हाने पेलण्यासाठी विविध ज्ञान शाखा समृद्ध असायला पाहिजे, ज्या वाणिज्य शाखेची पाच दशकपूर्तीची यशस्वी परंपरा आहे, जी शाखा जीवनाभिमुख व व्यवसायाभिमुख आहे त्या शाखेबदल अलिकडे कमालीची अनास्था दिसते. किंबहुना या शाखेकडे पाहण्याचा दृष्टीकोण सदोष आहे विशेषतः ग्रामीण क्षेत्रात या विषयाची उपेक्षा केली जाते. या मागची अनेक कारणे असू शकतात तसे पाहता देशाच्या आर्थिक व्यवस्थेत वाणिज्य विषयाचे योगदान फार मोलाचे आहे. आर्थिक व्यवस्थेची जडणघडण ही त्याला वाणिज्य विषयाची जोड प्राप्त झाल्यास अधिक चांगल्याप्रकारे साधता येवू शकते. तसे पाहता सामाजिक जीवनाचा पाया हा विषय ठरू शकतो.

त्याचे प्रमुख कारण असे की, इतर सामाजिकशास्त्राप्रमाणे समाजाचे अर्थकारण या विषयावर बरचसे अवलंबून आहे. मात्र ग्रामीण भागात वाणिज्य विषयाकडे पाहण्याचा दृष्टीकोण म्हणावा तितका चांगला नाही.

आजही वाणिज्य शाखेचे उद्योग व व्यापार यात महत्वपूर्ण योगदान आहे पण अलिकडे D.ed व B.ed प्रशिक्षणे करून शिक्षक होण्यासाठी वाणिज्य शाखेची उपेक्षा करणे परवडण्यासारखे नाही. आंतरराष्ट्रीय स्तरावर व्यापार व उद्योगाला आलेले महत्व उदारीकरण, खाजगीकरण व जागतिकीकरणामुळे वाणिज्य शाखेपुढे नवनवी कार्यक्षेत्रे उभी असताना केवळ शिक्षकी पेशेसाठी शाखा अनुकूल नाही म्हणून या शाखेचे प्रतारणा करणे योग्य नाही, उलट या शाखेची सखोलता व व्यापकता कशी वाढविता येईल यासाठी प्रयत्न करावे लागतील त्यासाठी वाणिज्य शाखेकडे पाहण्याचा दृष्टीकोण मात्र सकारात्मक ठेवावा लागेल.

#### वाणिज्य शिक्षणाचे महत्व :

- १) वाणिज्य शिक्षण हे जीवनाचा सर्वांगीण अभ्यास करणारी शाखा.
- २) वाणिज्याशिवाय कुठल्याही क्षेत्रात पर्याय राहिलेला नाही.
- ३) वाणिज्य शिक्षणाचा संबंध देशाच्या आर्थिक विकासासाठी येतो.
- ४) इंटरनेट, ई-कॉमर्स, संगणक, ई-बँकींग व विपणन विषयक विविध कार्ये ई-गव्हर्नन्स, ई-विझिनेस इत्यादी संबंधी सर्व अद्यावत माहिती वाणिज्य शिक्षणात मिळते.
- ५) देशाचा सर्वांगीण विकास वाणिज्य शिक्षणामुळे साधता येतो.
- ६) वाणिज्य शिक्षणामुळे नागरी व ग्रामीण क्षेत्रात लघू व कुटीर उद्योगांना चालना मिळून स्वयंरोजगाराची संधी निर्माण होते व बेरोजगारीची समस्या मिटते.

वाणिज्य शिक्षण आणि ग्रामिण अर्थव्यवस्था :

भारताच्या एकूण लोकसंख्येपैकी ७५% लोकसंख्या ही ग्रामीण भागातच आढळते. तेथील अर्थव्यवस्था ही शेतीच असते. त्यांचा उदरनिर्वाहच त्याचावर असतो. त्यामुळे ग्रामीण भागातील ग्रामस्थ व युवकांची मानसिकता पारंपारिक शेतीकरणे व तदनुषंगिक शेतीपुरक व्यवसाय करणे हा त्यांचा आवडीचा व्यवसाय असतो. वाणिज्य शिक्षण घेऊन त्यांचा कृषी विकासाकरीता फारसा उपयोग होत नाही अशी धारणा ग्रामीण जनतेची झालेली असते. कृषी व तत्सम उपयोगी ज्ञान वाणिज्य शिक्षणातून मिळत नाही असा ठाम विश्वास बसल्यामुळे ग्रामीण भागातील विद्यार्थी व पालक देखील वाणिज्य शाखेकडे डोळेझाक करतात हिंदीतील 'भेडीया धसान' प्रवृत्तीमुळे मोजके विद्यार्थी जरी वाणिज्य शाखेपासून जरी दूर गेले तरी त्यांचा मोठा परिणाम होऊन संपूर्ण ग्रामीण भाग वाणिज्य शाखेपासून दूर जायला लागतात, हि वास्तविकता प्रत्यक्ष पहायला मिळते. एकूणच

ग्रामीण अर्थव्यवस्थेचा पायाच हा कृषीप्रधान असल्यामुळे कृषी शिक्षणालाच त्यांचे प्राधान्य असते आणि विदर्भातील कुठल्याही भागात कृषी महाविद्यालये पोहचली नाहीत. वाणिज्य अभ्यासक्रमात कृषीवर आधारित अभ्यासक्रम आहेत पण तो अगदी तुटपुंज्या आहे, त्यामुळे ग्रामीण अर्थव्यवस्थेला अनुसरून वाणिज्य अभ्यासक्रमात जो पर्यंत बदल होत नाही तो पर्यंत ग्रामीण विद्यार्थी मोठया संख्येने आणि ते ही स्वेच्छेने वाणिज्य अभ्यासक्रमाकडे वळतील असे वाटत नाही.

### निष्कर्ष/सारांश :

ग्रामीण भागातील विद्यार्थ्यांचा वाणिज्य विषयाकडे पाहण्याचा नकारात्मक दृष्टीकोण या संदर्भात संशोधनात खालील निष्कर्ष सांगता येईल.

- १) ग्रामीण भागातील विद्यार्थ्यांचा कल एकंदरीत कला शाखेकडे जास्त दिसतो, त्यानंतर विज्ञान शाखा पसंत करतात, वाणिज्य शाखेविषयी पुर्णतः असमाधानी असल्याचे अभ्यासअंती कळते.
- २) या शाखेविषयी ग्रामीण विद्यार्थ्यांना मुळीच रस नाही.
- ३) ग्रामीण भागात शेतीवर आधारित रोजगाराच्या संधी उपलब्ध नाही
- ४) ग्रामीण भागात वाणिज्य शाखेबद्दल गणितीय भागाची भिती दिसते.
- ५) ग्रामीण परिसराच्या दृष्टीने वाणिज्य अभ्यासक्रम व्यवसायाभिमुख/रोजगाराभिमुख नाही.
- ६) स्पर्धात्मक परीक्षांमध्ये ग्रामीण वाणिज्य शाखेचे विद्यार्थी टिकूच शकत नाही.
- ७) इंग्रजी शिक्षणाचा अभाव दिसतो.
- ८) खुप परिश्रम घेऊन त्यात यशस्वीही झाला तरी देशाच्या कानकोप—यात जावून नौकरी करण्याची त्याची तयारी नसते, यालाच 'होमसिक' म्हणतात.

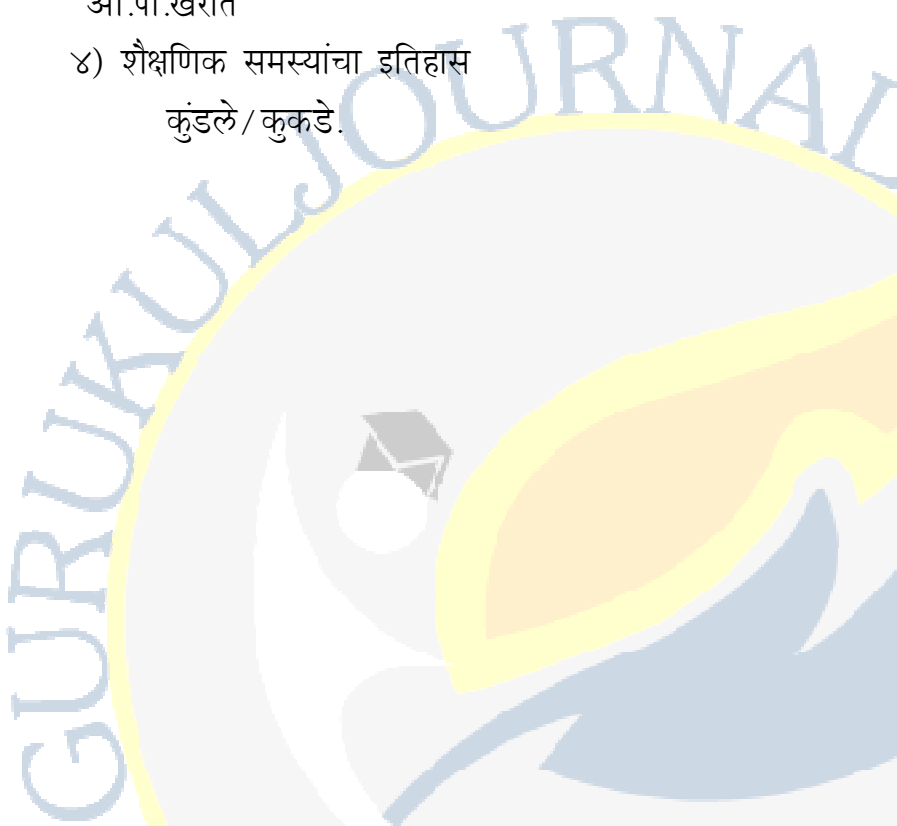
### सूचना व शिफारशी :

- १) माध्यमिक स्तरावरील अभ्यासक्रमात वाणिज्य विषयांचा अंतर्भाव आवश्यक
- २) डी.एड व बी.एड कोटयात वृद्धी करणे.
- ३) शालेय स्तरावर ग्राहक भांडारांची स्थापना करून त्यांच्यामार्फत शालोपयोगी विविध वस्तूंची विक्री करण्यात यावी, खरेदी – विक्री विषयी पर्यायाने वाणिज्य शिक्षणाची गोडी निर्माण होईल.
- ४) वर्ग ११ वी वाणिज्य अभ्यासक्रमात शेती व शेतीपुरक लघू उद्योग विषयांची समावेश करणे.
- ५) तहसिलीच्या ठिकाणी व्यवसाय मार्गदर्शन केंद्रे उघडावीत.
- ६) शालेय अभ्यासक्रमात वर्ग ८, ९, १० पर्यंत वाणिज्य विषयांचा समावेश करा

### संदर्भग्रंथ सूचि:



- १) वाणिज्य अध्यापन पध्दती  
प्रा.गाजरे, प्रा.नानकर नुतन प्रकाशन पुणे
- २) शैक्ष.तत्वज्ञान व शैक्ष समाजशास्त्र  
म.बा.कुंडले विद्या प्रकाशन पुणे
- ३) शैक्षणिक मानसशास्त्र  
आ.पा.खरात
- ४) शैक्षणिक समस्यांचा इतिहास  
कुंडले/कुण्डे.



***In-situ* Chemical Oxidative Polymerization of Pyrrole  
In Different Oxidant/Solvent Systems**

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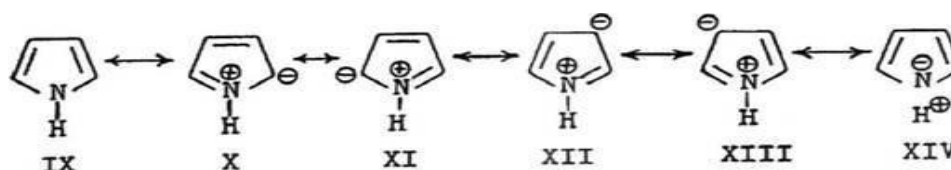
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**Abstract:** Polypyrrole is most promising member of conducting polymers which attracted all community of researchers remarkably. Polypyrrole may prepare by number of polymerization techniques by using different oxidant in different solvent systems. However its low cost bulk synthesis is of prime interest owing to his potential applications in a variety of field. Present study checks the effectiveness and usefulness of some different possible oxidant/solvent systems mainly to evaluate chemical oxidative polymerization technique which confirm that FeCl<sub>3</sub>/water is most favorable system in precise 1:2 monomer-to-oxidant ratio for low cost convenient mass production of Polypyrrole, its composites and various derivatives.

**Keywords:** Polypyrrole (PPy); Oxidative polymerization; FeCl<sub>3</sub>; monomer-oxidant ratio etc.

## 1. Introduction

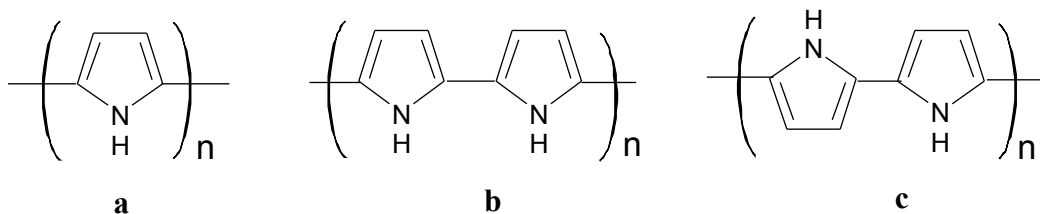
Pyrrole, nitrogen containing planner 5-membered heterocyclic organic compound was discovered by W. Runge in 1833 [1] as a weak base which loses its 7u-electron sextet on protonation, and thus it is aromatic. Pyrrole is  $\pi$ -excessive (electron-rich) in nature having six  $\pi$ -electrons delocalized over the ring. The resonance structure (Fig-1) of pyrrole indicates, nitrogen donates electrons to ring and thereby increases electron density and delocalization property on the ring. Due to all these properties, Pyrrole may undergo electrophilic substitution normally at 2 or 5 positions which is also favorable for its polymerization to form a novel material known as Polypyrrole (PPy).



**Fig - 1: Resonance structures of pyrrole**

Polypyrrole (Fig-2); also called pyrrole black [2], is a chemical compound formed by a number of connected five-membered heterocyclic pyrrole rings. Polypyrrole is one of the most promising members of Conducting Polymers (CPs) family. Conducting polymers are those materials that possess properties of both organic polymers and inorganic conductors or semiconductors [3-4] in which the monomeric units are covalently linked [5]. The best known property of these conjugated polymers is their ability to conduct electric current after being partly

oxidized or reduced [6]. In recent years, conducting polymers is a subject of great interest to researcher due to their high potential applications in variety of fields.

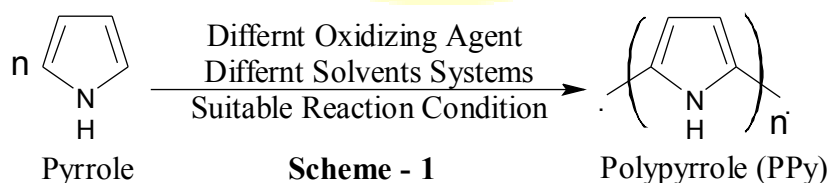


**Fig. 2: Different possible structure of Polypyrrole (PPy)**

Among all these CPs, Polypyrrole has attracted much attention because of its excellent properties [7-9] like ease of synthesis, good conductivity, redox, optical, high mechanical and good environmental stability that allow his use where inorganic materials are not suitable. PPy has variety of potential applications in batteries [10-11], capacitors & super capacitors [12-13], sensors [14-17], actuators [18-21] electronic devices [22-23], etc. In view of this fact, research activity in Polypyrrole has continued with increasing pace.

Such advanced polymer-Polypyrrole can be synthesized by number of polymerization technique such as chemical oxidative polymerization [24-29], electrochemical polymerization [30-32], emulsion polymerization [33-34], vapour phase polymerization [35-37] and plasma polymerization [38-39], etc. In compare to others; Chemical polymerization has an advantage since it is convenient and rapid. Furthermore, it is suitable for both aqueous and non-aqueous solvents, conducting and non-conducting substrates and not limited by area and surface properties of substrates.

In chemical polymerization, Pyrrole could be polymerized by wide variety of regular and unusual oxidizing agents [40] such as  $\text{FeCl}_3$ ,  $(\text{NH}_4)_2\text{S}_2\text{O}_8$ ,  $\text{H}_2\text{O}_2$ , Iodine and many kinds of salt containing transition metal ions for example  $\text{Fe}^{3+}$ ,  $\text{Pb}^{2+}$ ,  $\text{Cu}^2$ ,  $\text{Zn}^2$ ,  $\text{Mn}^{+7}$  etc. to give an insoluble black conducting powder in various aqueous and non-aqueous solvents such as water, methanol, ethanol, diethyl ether, acetonitrile, ethyl acetate, etc. In general, pyrrole can be polymerized as shown in scheme - 1.



From the literature survey we reveal that; there is a need to check the effectiveness and usefulness of different possible oxidant/solvent systems for synthesis of PPy. This work mainly

evaluates an effectiveness of chemical oxidative polymerization techniques of Pyrrole to formulate the most promising oxidant/solvent system for convenient mass production of Polypyrrole which make it processable to use in suitable applications.

## 2: Experimental

### 2.1: Reagents and Raw Materials

Pyrrole (SRL Pvt. Ltd., India) monomer was distilled under reduced pressure, put in desiccators and stored in the refrigerator to use. Ethyl Ether, Methanol, Ethanol, acetone (Loba Chemicals, India), was used as solvent. Anhydrous  $\text{FeCl}_3$ ,  $\text{K}_2\text{S}_2\text{O}_8$ ,  $\text{CuCl}_2 \cdot 2\text{H}_2\text{O}$ ,  $\text{I}_2$  (Oxidants / S.D. Fine Chemicals, India) are other analytical reagents and used as received. Double distilled water was prepared in laboratory by double distillation apparatus (Borosil) and used for the preparation of all the solutions.

### 2.2: Different Oxidant/Solvent Systems

For the chemical polymerization of Pyrrole and to check its related effectiveness and usefulness in definite combination we formulate some possible systems as shown in table-1, to sort out the best promising oxidant/solvent system for synthesis of Polypyrrole.

S. No.	Monomer	Oxidizing agent	Solvent
1	Pyrrole	$\text{FeCl}_3$	$\text{H}_2\text{O}$
2	Pyrrole	$\text{FeCl}_3$	Diethyl Ether
3	Pyrrole	$\text{FeCl}_3$	Methanol/water
4	Pyrrole	$\text{FeCl}_3$	Ethanol
5	Pyrrole	$\text{K}_2\text{S}_2\text{O}_8$	$\text{H}_2\text{O}$
6	Pyrrole	$\text{K}_2\text{S}_2\text{O}_8$	Methanol/water
7	Pyrrole	$\text{K}_2\text{S}_2\text{O}_8$	Ethanol
8	Pyrrole	$\text{CuCl}_2 \cdot 2\text{H}_2\text{O}$	$\text{H}_2\text{O}$
9	Pyrrole	$\text{I}_2$	$\text{H}_2\text{O}$

Table – 1: Different possible oxidant/solvent systems

### 2.3: Chemical oxidative polymerization of Pyrrole in different oxidant/solvent system

In round bottom flask 100 ml 0.02 mole pyrrole monomer was prepared in selected solvent of particular system by continuously stirring on magnetic stirrer for 1 hour at  $10^\circ\text{C}$  in ice bath. To this reaction mixture separately agitated 100 ml 0.06 mole selected oxidant was added



dropwise. This approach promotes molecular level mixing of both reactants [40, 41]. As soon as the pyrrole mixed with the oxidant, it turned to characteristic black colour indicating polymerization reaction start which was carried out about 3 hrs where pyrrole oxidizes completely. After 3 hours black Polypyrrole powder was obtained. The product was washed with distilled water several times to remove any impurities present and followed by ethanol and dried at 60-70°C in hot vacuum oven and stored in dry and dark place.

#### 2.4: Chemical oxidative polymerization of Pyrrole in FeCl<sub>3</sub>/Water System

In round bottom flask 100 ml 0.02 mole pyrrole monomer was prepared in water by continuously stirring on magnetic stirrer for 1 hour at 10<sup>0</sup>C in ice bath. To this reaction mixture separately agitated 100 ml 0.06 mole FeCl<sub>3</sub> as oxidant [25, 26, 29] was added dropwise in 1:2 mole ratio. This approach promotes molecular level mixing of both reactants. As soon as the pyrrole mixed with the oxidant (FeCl<sub>3</sub>), it turned to characteristic black colour indicating polymerization reaction start which was carried out about 3 hrs where pyrrole oxidizes completely. After 3 hours black Polypyrrole powder was obtained. The product was washed with distilled water several times to remove any impurities present and followed by ethanol and dried at 60-70°C in hot vacuum oven and stored in dry and dark place.

### 3: Result and Discussion

#### 3.1: % Yield of Polypyrrole in different oxidant/solvent system

A different composition feeds of monomer, oxidant and solvent gives different yield of product. The data available in form of % yield after polymerization of Pyrrole in every individual possible oxidant/solvent system is summarized in table– 2. After complete analysis of % yield of products in different combinations of oxidant/solvent system, it was found that the maximum % yield is in FeCl<sub>3</sub>/water system.

S. No.	Monomer	Oxidizing agent/ Solvent	% Yield (PPy)
1	Pyrrole	FeCl <sub>3</sub> / H <sub>2</sub> O	54.16
2	Pyrrole	FeCl <sub>3</sub> / Diethyl Ether	51.20
3	Pyrrole	FeCl <sub>3</sub> / Methanol/water	53.54
4	Pyrrole	FeCl <sub>3</sub> / Ethanol	50.19

5	Pyrrole	$K_2S_2O_8 / H_2O$	48.46
6	Pyrrole	$K_2S_2O_8 / \text{Methanol} / \text{water}$	52.16
7	Pyrrole	$K_2S_2O_8 / \text{Ethanol}$	50.40
8	Pyrrole	$CuCl_2 \cdot 2H_2O / H_2O$	44.78
9	Pyrrole	$I_2 / H_2O$	43.92

Table – 2: % Yield of Polypyrrole in different oxidant/solvent system

### 3.2: % Yield of Polypyrrole and Monomer-to-Oxidant Ratio in $FeCl_3$ /Water System

$FeCl_3$ /water system studied carefully to find out most favorable monomer-to-oxidant ratio for the Chemical oxidative polymerization of Pyrrole. For these purpose three experimental molar combinations was formulated to carry out further polymerization to trace out the most favorable one. The result summarized in table– 3 in form of % yield shows that 1:2 monomers-to-oxidant ratio is best. Chen et al. [42] showed that the monomer-to-oxidant ratio determined the properties like electrical conductivity and morphology of the resulting PPy. The high oxidation potential of  $FeCl_3/FeCl_2$  at a low Py/ $FeCl_3$  ratio can induce the formation of a highly doped PPy, whereas a high Py/ $FeCl_3$  ratio favors the depletion of the oxidant, leading to lower doping levels and lower conductivity. Additionally, degradation of conjugated bonds is possible at a very high  $FeCl_3$  concentration because of the formation of covalent carbon-chloride bonds [43-46].

S. No.	Solvent	Monomer to Oxidant Ratio (Pyrrole / $FeCl_3$ )	% Yield
1	Water	1 : 1	54.16
2	Water	1 : 2	50.39
3	Water	2 : 1	56.72

Table 3: % Yield of Polypyrrole in  $FeCl_3$ /water system in different Monomer to oxidant Ratio [47]

### 3.3: Solubility

Solubility of different polymers was tested in many organic solvents at room temperature. It is summarized in Table 2. It has been seen that almost all the Polypyrrole are partially soluble only in strong hydrogen bonding solvents like THF, DMF, and DMSO are insoluble in common organic solvents like alcohol, benzene, etc.

S. No.	Polymers	Solvents	Solubility
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1	All PPY - FeCl <sub>3</sub>	THF, DMF, DMSO	Partially Soluble
2	All PPY - FeCl <sub>3</sub>	Ethyl alcohol / Benzene	Insoluble

**Table 4: Solubility of Polymer in different Organic Solvents****3.4: Melting temperatures of Polymers:**

Generally, when polymer melts, the low molecular weight part of it melts first while the high molecular weight part of it melts later. Due to this there is no sharp melting point as such but a range of temperature. The melting range (i.e. the temperature at which the samples starts phase separation and the temperature at which melting completes with no solid phase) of polymer has to be noted instead of melting point. All the Polypyrrole shows the melting points between 220<sup>0</sup>C – 230<sup>0</sup>C that means the entire polymers are thermally stable due to the crystalline nature of the macromolecules.

**Conclusion:**

In the present study, the chemical oxidative polymerization method was used to prepared polypyrrole. It is simple, easy to handle and fast method which carried out by basic equipment. It does not require any special assembly. Fine powdered form Polypyrrole is obtained in bulk quantity. Hence it appears as a useful technique not only for the synthesis of Polypyrrole but also for other conducting polymers and their composites. Polypyrrole was prepared in various possible formulate systems of different oxidant in different solvent. From the collected statistics we concluded that FeCl<sub>3</sub> / H<sub>2</sub>O system gives better results indicating that Iron (III) chloride as best oxidant and water is the best solvent. After complete analysis of FeCl<sub>3</sub>/water system it was found that the most favorable monomer-to-oxidant Ratio is 1:2 for the chemical oxidative polymerization of Pyrrole for low cost convenient mass production of Polypyrrole, its composites and various derivatives. Melting temperature of polypyrrole was recorded between 220<sup>0</sup>C-230<sup>0</sup>C which shows that polymers are thermally stable. The oxidant metal salt also helps in polymerization to increase the crystalline behavior of product.

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## शंकरराव खरातांच्या कथेतील विद्रोहाचे हुंकार

प्रा. विलास गोवर्धन पेटकर

मराठी विभाग प्रमुख

नीळकंठराव शिंदे विज्ञान व कला महाविद्यालय,  
भद्रावती, जि. चंद्रपूर

डॉ. बाबासाहेब आंबेडकरांनी दलितांना आपल्या भावना अभिव्यक्त करण्यासाठी क्रांतीप्रवण केले. मृतप्राय झालेल्या मनुष्य समुहाला जागे केले. माणुसकीच्या हक्काची जाणीव करून दिली. त्यामुळे नव्या जाणीवांनी प्रेरित झालेला दलित आपल्यावर झालेल्या अन्यायाविरुद्ध आवाज उठवू लागला. त्यांनीच या देशातील सर्वदृष्टीने गुलाम करणाऱ्या समाज व्यवस्थेविरुद्ध विद्रोह करायला शिकविले. दलितांच्या विद्रोहाचे ते उद्गाते आहेत. अन्यायाविरुद्ध बंडे उभारण्याची प्रेरणा त्यांनीच दिली. लाचारी नाकारण्याची प्रेरणाही त्यांनीच दिली.

शतकानुशतकापासून मागासलेल्या समाजावर होणारा अन्याय, होणारा अपमान, असह्य वेदना सहन करायला भाग पाडणारी व्यवस्था शंकरराव खरात कथांमधून मांडतात. अस्पृश्यतेचे चटके सहन करणारा मागासलेला समाज मांडतांना शंकररावांनी प्रथमतः सहनशील असा अस्पृश्य कथेत मांडला आणि नंतरच्या कथांमध्ये बंड करून उठणारा नायक हा विद्रोहाची भाषा बोलतो आणि व्यवस्थेलाच आव्हान देण्याचा प्रयत्न करतो. त्याला परिस्थिती बदलविण्यासाठी पुढे येण्याचे धाडस करावे लागते. कारण संघर्ष हा अटळ असतो. वेळप्रसंगी तो जीवावर बेतणारा, परंतु रोजच मरण डोळ्यांनी पाहणारा मागासलेला समाज कथांमधून शंकरराव खरात व्यवस्थेपुढे मांडतात.

‘वाटसरू’ या कथेत भारतमाता हॉटेलात महार—मांगासाठी बशी बाहेर ठेवलेली असते. त्यांनी ती बशी उचलायची हॉटेलवाला त्यावर वरून चहा टाकायचा आणि मग ती व्यक्ती चहा प्यायची. त्या हॉटेलात एक दणकट खाकी पॅन्ट व शर्ट घातलेला वाटसरू येतो व भारतमाता हॉटेलच्या मालकाला आव्हान देतो. हॉटेल मालक त्याला ओळखतो. तो महार असल्याचे म्हटल्यावर तो म्हणतो, “कोण म्हणतो मी महार? मी स्वतंत्र भारताचा जिवंत नागरिक! शूर सैनिक!”<sup>१</sup> असे उत्तर दिल्यावर महार—मांगासाठी ठेवलेल्या बशा तो बुटाने ठोकतो. हॉटेल मालक चाल करून जाताच व इतरही माणसे त्यावर धावतात हे पाहून तो खिशातला रामपुरी काढतो. लोक सैरावैरा धावत सुटतात. तो भारत मातेला हात जोडतो व मी तुझाच पुत्र आहे, असे म्हणतो.

शंकरराव खरातांनी ‘वाटसरू’ कथेतला नायक हा विद्रोही मांडलेला आहे. शतकानुशतकापासूनचा अन्याय सहन करीत असल्यामुळे हा अन्याय अधिकाधिक वाढत गेल्याचे दिसते. कथेतल्या नायकाने हा अन्याय चिरडून टाकण्याचा प्रयत्न करताच सारी मंडळी सैरावैरा धावायला लागली. अन्याय सहन न करता त्याविरुद्ध प्रतिकार करण्याची ऊर्मी ही कथा देते.

डॉ. बाबासाहेब आंबेडकरांचा विचार वाड्या—वस्तीत, गावागावात जिवंत असतांना तो विचार आत्मसात करणारा नाना हे ‘बहिष्कार’ या कथेतील एक पात्र. तो आपल्या वाड्यातल्या लोकांना डॉ. बाबासाहेब आंबेडकरांचे विचार पटवून देत यापुढे गावकीची कामे आपण करायची नाहीत, असे सांगतो आणि गावातली सारी मंडळी त्याला होकार देतात. गावकरी व वाड्यातली माणसे बैठकीसाठी चावडीवर जमतात. नाना गावकऱ्यांना आम्ही आता गावकीची कामे करणार नाहीत, असे बजावून सांगतो. बैठक संपल्यावर दुसऱ्या दिवसापासून गावातली कामे बंद होतात. रानात गेलेली गुरेढोरे दुपारी घरी येतात, काही जनावरे लंगडत येतात. रानात गेलेली बायामाणसे मोकळ्या हातानी येतात. गावाने महारांवर बहिष्कार टाकलेला असतो.

माणसासारखे वागण्यासाठी प्रयत्न करणाऱ्या दलितांना पूर्ववत जीवन जगण्यास भाग पाडणारी सवर्ण मंडळी त्यांचा छळ करतात. शोषणाची ही परंपरा कायमच राहावी, असा विचार करणारी मंडळी किती नीच वृत्तीची असते, हे कथेवरून स्पष्ट होते.

डॉ. बाबासाहेब आंबेडकरांच्या विचारांनी प्रभावित झालेली, परंपरेला मोडू पाहणारी, विद्रोही भूमिका घेणारी माणसं समाजात निर्माण झाली. शंकरराव खरातांनी या प्रवृत्तीचा मागोवा जाणीवपूर्वक घेतलेला असून त्याचे प्रत्यंतर त्यांच्या ‘देवाच्या

दारात होलार', भामट्याचं बंड, गोंधळी, मुलाखत, चीड, बंडाची जमीन' या कथांतून येते. 'देवाच्या दारात होलार' या कथेतील संबा होलार पंढरीच्या वारीला नियमित जाणारा पण जेव्हा त्याला पंढरपूरात विहिरीला स्पर्श केला म्हणून स्पृश्य मारतात त्यावेळी तो आपल्या गळ्यातील माळा तोडून फेकून देतो. "धे ह्या भक्तीच्या आठवणी! आता तुझा माझा संबंध तुटला" असे देवाला उद्देशून म्हणतो आणि घरी परत येतो. पण गावी तो भावकीनं केलेल्या देवीच्या यात्रेत सामील झाला नाही म्हणून त्याच्या घरावर बहिष्कार टाकला जातो. त्यावेळी तो हताश होतो. त्याचे अंतर्मन म्हणते, "अरेच्या! माणूस चांगला वागतो त्याच्याच माग ही सगळी इडा पिडा काय हाच काय देवाचा न्याय!" परंपरा आणि समाज यांच्या चक्रातून सुटू पाहणारा माणूस, त्याची कशी केविलवाणी स्थिती होते हे सत्य नाकारता येत नाही. पण अशा ह्या परिस्थितीतून मार्ग काढणारा 'भामट्याचं बंड' या कथेत बंडखोर धोंड्या, पांड्या, शिरप्या, गंग्या पाहावयास मिळतात. गावकऱ्यांनी त्यांची वाईट दशा केलेली असते. ते शेती करून आपले पोट भरणारे पण त्यांच्यावर चोरीचा आळ आणून त्यांना हद्दपार करण्यात येते. पोलीस अधिकारीही गावकऱ्यांच्या कटात सामील होतात आणि त्यांना तडीपारीच्या नोटिसा मिळतात. पण पोटाचा प्रश्न सोडविण्यासाठी काही तरी करणे आवश्यक होतेच. तेव्हा ते म्हणतात, "लेकानो! असं बिन अन्नाचं कुत्र्याच्या मयतीनं मरायचं सोडून वाघागत शिकार साधून मरायला काय हरकत." बंडाशिवाय दुसरा उपाय नाही. शेवटी धोंड्या, पांड्या, शिरप्या, गंग्या अन् काही तरुण पोरं बाहेर पडतात. आणि धान्याने भरलेली गाडी लुटतात. चांगले प्रामाणिकपणाने वागूनही गावकरी त्यांच्यावर चोरीचा आळ आणतात. त्यामुळे त्यांच्यातील स्वाभिमान जागृत होतो आणि शेवटी पोटासाठी ते चोरी करतात. गावकरी आपल्याला चांगले जीवन जगू देणार नाहीत हेही त्यांना कळून चुकले होते. शेवटी जशास तसे हा पवित्रा ते घेतात. आपल्या परंपरागत चालत आलेल्या व्यवसायातून आपण कित्तीही प्रामाणिकपणे गावकऱ्यांची सेवा केली तरी आपल्या वाट्याला उपासमारी, अत्याचारच येतो म्हणून 'गोंधळी' आपल्या व्यवसायाबद्दल चीड निर्माण करतो आणि गोंधळ घालण्यासाठी लागणाऱ्या सर्व वस्तू वाद्यासहित आपले घर पेटवून निंबा गोंधळी आपली मुलंबाळ, पत्नीसहित गाव सोडून निघून जातात.

'मी माझ्या गावाच्या शोधात' या कथेतील शिक्षणाने जागृत झालेले लोक आपले स्वतंत्र गाव बसविण्याचा प्रयत्न करतात की जिथे सर्वांच्याच्या अत्याचाराचा, जुलूमाचा वाराही लागणार नाही. या कथेचा नायक आनंदा इंजिनियर होतो. बौद्ध इंजिनियर म्हणून गावाकडून त्याचा सत्कार होईल असे आनंदाला वाटते. पण त्याचा उल्लेख गावकरी 'शिवा महाराचा पोर' म्हणूनच करतात. त्याची थड्या केली जाते. त्याच्या समाजाची गावकरी मंडळी गळचेपी करतात तेव्हा तो आपल्या समाजाची स्वतंत्र वसाहत स्थापन करण्यासाठी गाव सोडतो आणि म्हणतो, "हे गाव माझं नाही, हे आमचं गाव नाही, हे गाव सनातन्याचं आहे. बुरसटलेल्या विचारवाल्याचं आहे." आनंदावर डॉ. बाबासाहेब आंबेडकरांच्या विचारांचा प्रभाव जाणवतो. म्हणूनच तो आपली नवीन वसाहत स्थापन करू पाहतो. नकारात्मक आणि विद्रोही अशीच त्याची भाषा आहे. त्याचप्रमाणे 'बंडाची जमीन' ही कथा तर संघर्षाची, प्रतिकाराची आणि विद्रोहाचे एक प्रकट रूपच आहे. या कथेत दुःखाचे चित्रण नाही तर जीवन जगण्यासाठी वाटेल ते करण्याची तयारी बंडाने दाखविली आहे. बंडा आपल्या वतनी जमिनीसाठी इनामदाराचा खून करतो आणि स्वतः जेलमध्ये जातो. आपल्या पत्नीस मात्र वतनी जमीन करण्यास सांगतो. येथे बंडाचे विद्रोही रूप तर दिसतेच त्याचबरोबर आपला हक्क असणारी वतनी जमीन मिळवितांना स्वतःवर होणाऱ्या अन्यायेचे निर्दालन स्वतःच करतो. असाच प्रत्यय त्यांच्या 'डाव' या कथेत येतो. सतू तराळाला सरकारने दिलेली जमीन उभ्या पिकांसह पंचनामा करून ताब्यात घेण्याचा गावकरी व सर्कल 'डाव' खेळतात. तेव्हा सतू तराळ हातात कुदळ घेऊन सर्कलला यमसदनाला पाठवून तुरुंगात जातो.

खरातांच्या 'माझं गाव' या कथेत डॉ. बाबासाहेब आंबेडकरांच्या प्रेरणेने निर्भिड झालेला बंडा कांबळे धर्मातरानंतर अभिमानाने सांगतो की, "मी महार नाही, मी बौद्ध झालेला आहे." नवीन पिढीतील बदल खरातांनी अचूक टिपलेला आहे. आपले वर्चस्व कायम टिकविण्याचा प्रयत्न करणाऱ्या सर्वांच्याचा प्रयत्न आणि आत्मभान आलेल्या दलितानी कायद्यानेच त्याला दिलेले उत्तर 'स्वातंत्र्य आल्यावरही आम्ही' या कथेत खरातांनी अतिशय समर्पकपणे दिले आहे. डॉ. बाबासाहेबांच्या वैचारिक प्रबोधनातून दलित समाज जागा झालेला आहे. परंपरागत चालत आलेले जुने व्यवसाय सोडून तो वतनी जमिनीत राबून ताठ मानेने जीवन जगण्याचा प्रयत्न करतो. त्यांच्यातील हा बदल सर्वांच्या गावकऱ्यांना सहन होत नाही. त्यांनी केवळ गावकीचीच कामे करावित असे त्यांना वाटते. पण अस्पृश्य या गोष्टीला तयार होत नाही. तेव्हा गावकरी दलितांचा छळ करण्यास प्रारंभ

करतात. दुकानातील तेल—मीठ ते बंद करीत, गावात हिंडणे—फिरणेही मुष्कील करतात. एवढेच नव्हे तर त्यांनी पिकविलेल्या पिकातून गुरे सोडून त्यांच्या पिकाची नासाडी करतात. अस्पृश्यांनी शेतात खोदलेल्या विहिरी दगड माती टाकून बुजवून टाकतात. शेवटी दलित वरिष्ठांकडे अर्ज करतात की, “आम्ही स्वातंत्र्यातही पारतंत्र्याचं जीवन जगतो. म्हणून आम्हाला आपल्या देशाच्या घटनेने दिलेल्या नागरिकपणाचा हक्क आम्ही या अर्जाद्वारे परत करतो. तो परत घ्यावा आणि आता आम्हाला गुलामाच्या यादीत घालावे.”<sup>१</sup> ही बातमी वर्तमानपत्रात ठळकपणे छापून आल्यावर जिल्हापातळीवरचे सगळेच वरिष्ठ अधिकारी खडबडून जागे होतात व त्या खेड्याकडे धाव घेतात. गावात पंचायत भरवून सर्व चौकशी करतात. दलितांवर अन्याय सिद्ध होतो. आणि दलितांवर अन्याय केल्याच्या आरोपाखाली गावातील मुख्य लोकांना गाडीत घालून घेऊन जातात. स्वातंत्र्य मिळाल्यानंतरही लोकशाही राजवट सुरू झाल्यावर सुध्दा लोकशाहीला नाकारणाऱ्या मनोवृत्ती अजूनही अस्तित्वात आहेत. तसेच कायद्याने समान हक्क मिळाल्यावर सुध्दा सर्वाणिय समाज त्यांच्यावर गुलामी लादू इच्छितो. तेव्हा दलित समाज आपले नागरिकत्व परत करण्याची भाषा करतो. ही लोकशाहीची दुःखद कहाणी आहे. हे अतिशय मार्मिकपणे खरातांनी चित्रित केले आहे.

‘प्रा. वाघमाऱ्यांचं आव्हान’ या कथेतही दलित तरुणाची गळचेपी कशी होते आणि दलित तरुण निर्भिडपणे सर्वाण्यांना कसे आव्हान करतो याचे अगदी जिवंत चित्र खरातांनी रंगविले आहे. प्रा. वाघमारे प्रामाणिकपणे विद्यार्थ्यांना ज्ञानदान करीत असतात. पण वाघमारे दलित प्राध्यापक असल्यामुळे इतर सर्वाणिय प्राध्यापकांना वाघमारे सहन होत नाही. विद्यार्थ्यांना चिथवून त्यांच्या शिकवणीतील दोष काढून त्यांना त्रास दिला जातो. पण वाघमारे अशा चिथावणीला घाबरत नाहीत. उलट न घाबरता सर्वांना ते जाब विचारतात, “केवळ मी दलित तुमच्या पिढीजात हितसंबंधाच्या आड आलो म्हणूनच तुमच्या दृष्टीनं मी लायक नाही काय? लायकीचं पात्रतेचं तुमचं तुमच्या मुलांच्या पालकाचं माप तरी काय आहे? ते तरी मला एकदा स्पष्ट कळू द्या.”<sup>२</sup> तरुण पिढीमध्ये जागृत झालेला स्वाभिमान खरातांनी अतिशय मोजक्या पण परिणामकारक शब्दात या कथेतून व्यक्त केला आहे.

प्रा. वाघमारे प्रमाणेच सर्वाण्यांच्या गैरवर्तवणुकीबद्दल सुपरवायझर जाधव सर्वाण्यांना जाब विचारतात याचे अतिशय मनोज्ञ दर्शन ‘खेड्यातील तिढा’ या कथेत खरातांनी घडविले आहे. जाधव खेड्यापाड्यातून प्रौढ शिक्षणाचा प्रसार करण्यासाठी व पाहणी करण्यासाठी फिरत असतात. अशाच एका वेळी एका खेड्यामध्ये ते गेले असता जातीच्या तिढ्यात ते अडकतात. जाधव आडनावावरून त्यांना मराठा समजून त्या शाळेतील कर्मचारी जाधव त्यांना आपल्या घरी घेऊन जातो. हे सुपरवायझर आपल्याच आडनावाचे असल्यामुळे ते आपल्याच जातीचे असतील असे त्याला वाटते. पण घरी आल्यावर सुपरवायझर ‘महार’ असल्याचे त्याला समजते तेव्हा त्याची झोपण्याची व्यवस्था सरळ गुरांच्या गोठ्यात तो करतो. तेव्हा सुपरवायझर जाधव चिडून म्हणतो, “मी काय जनावर आहे? माझी इथं गोठ्यात झोपण्याची सोय केली?” असे रागाने बोलून तो आपल्या वस्तीत जाऊन शांतपणे झोपतो. दलित कितीही शिकला, कितीही मोठा अधिकारी झाला असला तरी सर्वाण्यांच्या दृष्टीने तो हीनच असतो. त्यांचे मोठेपण त्यांना जाचत असते आणि त्यांच्यातील जातीय विषमतेचे विष त्यांना स्वस्थ बसू देत नाही याचे यथार्थ चित्रण खरातांनी केले.

कायद्याच्या जोरावर समाजातील विषमता नष्ट करण्याचा प्रयत्न जरी होत असला तरी सर्वाण्यांच्या मनातील जातीयतेची तेढ कमी होत नाही. आतल्या आत ती धुमसत असते. प्रसंगी उफाळून ती बाहेरही पडत असते. पण आजचा जागृत अस्पृश्य तरुण या समस्यांना निर्भिडपणे तोंड देत असतो याचे चित्रण खरात आपल्या कथांमधून अगदी यथार्थपणे करतात.

भटक्या, गुन्हेगार जमाती हा खरातांच्या प्रतिभेचा आवडता विषय. खरातांनी त्यांच्यात प्रत्यक्ष काम केल्यामुळे व अनेकदा वकीलपत्र स्वीकारल्यामुळे खरातांचा या जमातीचा सखोल अभ्यास आहे. परिणामतः त्यांचे दारिद्र्य, उपासमार, त्यांच्यावरील अन्याय, गावगाड्यातून त्यांना मिळणारी वागणूक, त्यांच्याकडे पाहण्याचा लोकांचा दृष्टिकोन, माणूस म्हणून जगण्याची त्यांना लागलेली ओढ आणि असहाय होऊन शेवटी गुन्हेगारीची त्यांनी पत्करलेली वाट या साऱ्यांचे दर्शन खरातांच्या वाड्यात सर्वत्र घडते. ‘दिवसा अंधार होता’, ‘मुलाखत’, ‘फासे पारध्यांची पाले’ यासारख्या कथांमधून घडते. या कथेतील माणूस अन्यायग्रस्त असला तरी स्वाभिमानी आहे. त्यामुळे अगदी निर्वाणीच्या क्षणी तो बंड करून उठतो. परिणामांची तो पर्वा करीत नाही. त्यातून त्याचे तेजस्वी व विद्रोही व्यक्तिमत्व साकार होते. या कथांमधून विद्रोही ठिणग्यांचा प्रत्यय येतो. “तरणी



पोरं आपल्या झोपड्यांची अवस्था पाहून संतप्त झाली होती. त्यांच्या उरात राग पेटला होता. त्या त्वेषाच्या, संतापाच्या भरातच त्यांनी आपल्या उद्ध्वस्त केलेल्या झोपड्यांच्या वासे काठ्या तशाच हातात घेतल्या. हाताच्या बाह्या मागे सारल्या. ते बेभान होऊन गावाच्या दिशेने धावत सुटले... ते तरणेबांड गडी आपल्या हातातल्या काठ्या उंचावत गर्जतच गावाच्या दिशेने वेगाने निघाले.”<sup>४</sup> “तू कशाला माझी काळजी करतोच. आता चार महिन्यातच पाहुण्याच्या मानानं परत येतात तसा येईल.”<sup>५</sup> “मी वाघमाच्याची अवलाद हाय. गरिबाचा काळ होतोस? तुला मी आता भेटलो. तुझा माजच जिरवतो.”<sup>६</sup> “मी फासाला जाईन पण माझी जमीन जाऊ देणार न्हाय.”<sup>७</sup> ‘मुलाखत’ या कथासंग्रहातील पात्रांनी जहाल विद्रोह अंगिकारला नसला तरी विद्रोही ठिणग्यांचा प्रत्यय सातत्याने येत राहतो.

‘बारा बलुतेदार’ या कथासंग्रहातील ‘आबा रामोशी’ या कथेत रामोशाची जया मनात भरली म्हणून फौजदार आबांवर वेगळाच फास टाकून तिच्यावर बलात्कार करण्यासाठी जाळे टाकतो. तेव्हा “रामोश्यालाही अब्रू आहे आन् तेच्या आब्रूला कुणी हात घातला तर त्याचाही चेंदामेंदा रामोश्याला करता येतो.”<sup>८</sup> असे आबा सुनावतो. हा विद्रोही आवाज व त्याचा परिणाम व्यक्त करणारी ही खरातांची कथा आहे.

खरातांच्या कथेतील स्त्रिया ह्या पुरुषांपेक्षा बंडखोर असलेल्या दिसून येतात. खरातांनी काही कथेतून परंपरेच्या गावगाड्याच्या वतनी कामाविरूद्ध आणि अंधश्रद्धा, दैववाद, परंपरा यांच्याविरूद्ध संघर्ष करणाऱ्या स्त्रिया चित्रित केलेल्या आहेत. त्या परंपरेच्या व्यवसायाला नकार देतात. गावकीच्या कामाबद्दल आपला विद्रोह प्रकट करतात. त्यांना हे गुलामीचं जीवन नको असते म्हणून त्या नवऱ्याबरोबर संघर्ष करतांना दिसतात. ‘बारा बलुतेदार’ या कथा संग्रहातील ‘रामा महार’ कथेतील साऊबाई गावकीच्या कामाबद्दलचा संताप व्यक्त करते. हा संताप ती नवऱ्यापुढे व्यक्त करते. चुलीत जाळ सारून नवऱ्याला कडक आवाजात ती म्हणाली, “पोरंगं तापानं पडलयं. मी घरी बसून पोडाला का बिबं घालावं? जळू द्या की गावकी आन टपाल. या गावकीपाय पारं तेवढी मारून बसा.”<sup>९</sup> असा हा साऊबाईचा गावकीच्या कामाबद्दलचा विद्रोह आहे. मात्र तो तीव्र स्वरूपाचा वाटत नाही. तो फक्त नवरा—बायको पुरताच मर्यादित राहतो. असे असले तरी त्यांच्या मनात गावकीच्या कामाबद्दल निर्माण झालेली चीड खास म्हारी बोलीत नाट्यात्मक संवादातून मांडल्याने भावकीच्या कामाबद्दल मनात धुमसणारा असंतोष प्रकट होतो हे निश्चित. तशीच ‘सांगावा’ कथासंग्रहातील ‘सांगावा’ या कथेतील रामा महाराची पत्नी आहे. तिच्या बोलण्यातून रामा महाराच्या घरच्या दारिद्र्याची तसेच गावकीच्या कामाबद्दलचा तिच्या मनातील राग व्यक्त होतो. ती कामावरून मोकळ्या हातानेच परत आलेल्या नवऱ्याला पाहून त्याच्यावर रागावते, वैतागते. आणि घरच्या दारिद्र्यामुळे दोघांत संघर्ष निर्माण होतो. संघर्षाचा परिपाक म्हणून रागाने ती नवऱ्याला म्हणते, “बोलू न्हाय तर का तुमच्या म्होरं डोसकं फोडून घेऊ? कालच्यानं ती गावकी जाळायला गेलाय अन् एवढा दिवस वर करून आलाय. काय हाय का लेकरा—बाळांच्या पोटाची काळजी?”<sup>१०</sup>

मात्र ‘गावशिव’ या कथासंग्रहातील ‘जोगतीण’ या कथेत मैना जोगतीणीची शिकलेली तरुण मुलगी शीला हिच्या मनातील देवाविरूद्धचा संघर्ष चित्रित केला आहे. शीला नोकरी करत असते. तिची आई मैनाबाई देवीची भगत आहे. ती मुलीला सांगते, “देवीमुळे तुम्हाला सुख लाभलेलं आहे तेव्हा देवीची जत्रा करायला पाहिजे.” तेव्हा शीला आईला म्हणते, “माझं कसंही चालू दे पण मला मैनाची लेकर म्हणून जगायचं आहे. जोगतीणीची मुलगी म्हणून नाही.” आणि ती देवीचा जग डोक्यावरून टाकून देते. ‘मुळी’ या कथेत गीता मुळीच्या जीवनाची झालेली वाताहत चित्रित केली आहे. जिणं आपली जवानी भंडाऱ्यासारखी उधळली पण म्हातारपणी तिला कोणी विचारत नाही. देवसुध्या विचारत नाही. त्यावेळी तिला सगळे देव दगड वाटतात आणि सगळ्यांना ती दगड घेऊन मारू लागते. अखेर आयुष्यात झालेल्या पश्चातापाने ती वेडी होते. दुसऱ्या एका ‘देवाच्या दारात होलार’ या कथेत गुणाबाई नवरा संसाराकडे लक्ष देत नाही, पोराबाळांचं लेंढार तिलाच सांभाळावं लागतं, तेव्हा नवरा संबा होलार म्हणतो, “आपला नाचारपणा परलब्धाच्या गोष्टी आहेत.” तेव्हा गुणाबाई म्हणते, “बस झालं हे तुमचं गिन्यानं. जवातवा तुमचं हेच ऐकावं. तुमचा देव आमच्या जिवाला कार.”<sup>११</sup> यातून गुणाबाईचा देवावरचा राग व्यक्त होतो. आणि नवऱ्याला ती ठणकावते, “एवढं कळत होतं अन् मग कशाला या प्रपंचाच्या जाळ्यात पडला? खुशाल अंगावर भगवी कपडी घालायचं अन् गोसावी बनायचं.”<sup>१२</sup> देवाला गेलेल्या संबा होलाराला व त्याच्या मुलाला वाटेत मार बसतो. संबा जखमी अवस्थेत घरी आल्यावर गुणाबाई म्हणते, “तरी मी जवातवा बोलतीया. देवदेव करून घरादाराच्या जिवाला कार करून ठेवलाय. आली

का आता परचीती. एवढी जीव जावूस्तर मार खाल्ला, आला का तुमचा देव सोडवायला?"<sup>१३</sup> याबरोबरच भावकीने केलेल्या जत्रेत संबा सामील झाला नाही म्हणून भावकी त्याच्या कुटुंबाला वाळीत टाकते. अशाप्रकारे या कथेत गुणाबाईचा देवाविरुद्धचा राग स्पष्ट होतो. परंतु याबरोबरच भावकीनं वाळीत टाकल्यामुळे झालेली तिची अगतिकता व असहाय्यताही स्पष्ट होते.

शंकरराव खरातांनी काही कथांतून स्वाभिमानी अशा दलित तरुणींचं चित्रणही केलेलं आहे. सुस्वरूप दलित तरुणींना आपल्या मोहजाळ्यात ओढून फसविणारे वासनांध लोक चैन-विलास संपताच त्या तरुणींना झिडकारण्याचा प्रयत्न करतात. खरातांच्या या नायिका मात्र तेजस्वी आणि खंबीर आहेत. अन्यायाचा त्या सूड घेतात. 'माझं नाव' या कथासंग्रहातील 'तू मला फसवतोस' या कथेतील उच्चवर्णिय नायक रमेश दलित तरुणी सुशीलास फसवू पाहतो. तिच्याशी प्रेमाचे नाटक करतो. तिचा सर्वार्थाने उपभोग घेतो. ती गरोदर झाल्यावर, तिची जात समजल्यावर तो तरुण तिला झिडकारतो. सर्वस्व त्याला दिलेली ती तरुणी पिसाळून उठते. सुरा काढून त्याला भोसकून मारते. स्वतःहून पोलिसात जाते.

डॉ. बाबासाहेब आंबेडकरांनी आपल्या समाजाला 'शिका, संघटित व्हा, संघर्ष करा' हा मंत्र दिला. त्यानुसार नव्या पिढीने तो आत्मसात करून शिक्षण घेऊन आपल्यातील स्वाभिमानही जागृत केला. जागृत झालेल्या समाजात केवळ पुरुषच नाहीत तर स्त्रियाही ताठ मानेने, स्वाभिमानाने कशा जगू पाहतात याचे चित्रण 'हा माझा अपमान', 'हुंडा' या कथेत खरातांनी केले आहे. स्वाभिमानाने जगू पाहणारी शिकलेली, सुसंस्कृत, देखण्या तरुणीची कथा म्हणजे 'हा माझा अपमान' ही होय. या कथेची नायिका मिस पवार देखणी आहे. तिच्या रुपावर तिच्या ऑफिसमधील लोक खूष असतात. तिच्या या सुंदर रुपामुळे तिच्याच ऑफिसमधील पण उच्च जातीतील देसाई नावाचा तरुण प्रेम करू लागतो. दोघंही प्रेमविवाह करण्याचे ठरवितात. पण शोभा पवारच्या वडिलांना स्वतःहून भेटण्याचे देसाई टाळत असतो. कारण त्याला आपल्या उच्च जातीचा अभिमान असतो. शोभाला तो म्हणतो, "माझ्यासारखा पती मिळाल्याने तुझी प्रतिष्ठा वाढेल. स्टेट्स वाढेल." या त्याच्या बोलण्यावर शोभा खूप चिडते व म्हणते, "मी बी.सी. असले म्हणून मला स्टेट्स नाही असं कोण म्हणतो? अन् तू उच्चवर्णिय असलास तरी तुला स्टेट्स आहे हे कोणत्या मापानं मोजायचं? म्हणून तुला स्पष्ट सांगते, उच्चवर्णिय दृष्टीतून विवाह करणाऱ्या तुझ्याशी मला एक शब्दही बोलायचा नाही. त्यानं माझा अपमान होतो. माझ्या इभ्रतीला धक्का बसतो. इट इज माय इन्सल्ट? ध्यानात ठेव. <sup>१४</sup> स्वतःला उच्चवर्णिय श्रेष्ठ समजणाऱ्या देसाईला शोभा पवारने दिलेले उत्तर यातून दलित स्त्रीच्या ठिकाणी स्वाभिमानाचे तेजांकित झालेले स्फुल्लिंग दिसून येते.

आपल्या इभ्रतीला जपणाऱ्या शोभा पवार प्रमाणेच आपल्या समाजात प्रवेश करू इच्छिणाऱ्या अनिष्ट रुढीपरंपरांना जागीच पायबंद घालण्याचा प्रयत्न सुशिक्षित, सुसंस्कृत सुमन कशी करते याचा प्रत्यय 'हुंडा' या कथेत येतो. दलित समाज शिक्षण घेऊन प्रतिष्ठित जीवन जगत आहे. स्वतःला पांढरपेशा समजू लागला आहे. त्या पांढरपेशी समाजाचे काही संस्कार त्याच्यावर होऊ लागले आहेत. त्यांच्या चालीरितीचे तो अनुकरण करू लागला आहे. पांढरपेशी समाजाप्रमाणे लग्नात तरुण हुंडा मागू लागला आहे. ही पद्धत दलितांमध्ये नव्हती. ती पांढरपेशी समाजाचे अनुकरणातून त्याने घेतली. डॉ. बाबासाहेबांच्या तत्वांना तो जणु विसरत चालला आहे. तो स्वार्थी मतलबी बनत आहे. पण अशा या हुंड्यासारख्या अनिष्ट प्रथेला मुरड घालण्याचे कार्य आजची जागी झालेली सुशिक्षित दलित तरुणी करीत आहे. ती डॉ. बाबासाहेब आंबेडकरांच्या विचाराची आहे. ती शिक्षणाने विचारप्रवृत्त झालेली आहे. त्यामुळेच पदवीधर झालेल्या सुमनचे लग्न जमवितांना हुंड्याची चर्चा करतांना ऐकते तेव्हा ती चिडते अन् फाडकन बापाला उलट बोलते, "तुम्हाला बाबासाहेबांची शिकवण आणि त्यांचे विचार माहित नाहीत तर इथं फोटो कशाला लावला?" असे सरळ विचारून त्यांच्या ढोंगावर शत्रूचा आसूड मारला. "तुम्ही बाबासाहेबांकडून हेच शिकला का?" आणि शेवटी म्हणते "जिथं माणसाची किंमत पैशावर करतात त्या घरात मला कशाला आणलंत? हुंडा मागून समाजाला, डॉ. बाबासाहेबांच्या तत्वाला काळिमा आणणाऱ्यांच्या घरात मला मुळीच पाऊल ठेवायचं नाही." असे म्हणून ती लग्नाला नकार देते. दलित तरुणीमध्ये आलेले आत्मभान, आत्मसन्मान, तिच्यातील आत्मतेज खरातांच्या संवेदनक्षम मनाला कसे जाणवतात याचा प्रत्यय या कथेत येतो.

'माझा काय दोष' या कथासंग्रहातील 'विद्रोह' कथेतील सुंदरा व्यवस्थेच्या विरुद्ध बंड करते. आई-वडिलांना सांगते, "बापा! म्हंजी मी अशी बिनलग्नाची राहून तुमच्यापाय माजं तरुणपण, उभा जाळूं? आरं असं लेकीच्या जीवावर मुर्दाड्यासारखं जगायचं बंद करा!"<sup>१५</sup> यावर तिचे आई-वडील तिला घर सोडण्याबद्दल सांगतात.

आई-वडिलांनी निर्वाणीचा इशारा दिल्याने ती घर सोडते. काही दिवसांनी ती दर महिन्याला आपल्या आई-वडिलांना शंभर रुपये पाठवते. तिचे आई-वडील सुंदराचा धंदा व्यवस्थित चालल्याचा समज करतात. एक दिवस अचानक सुंदरा आपल्या आई-वडिलांकडे येते. तिच्या अंगावर दागदागिने असतात. आजूबाजूची माणसे जमतात. बायका बोलू लागतात. आमच्या मुलींनाही शहराकडे धंद्याला घेऊन जा. सुंदराला त्या बायांचा प्रश्न कळतो आणि ती कंपनीत पगार मिळतो असे सांगते. तिच्याबरोबर तिचा नवरा व मुलेही असतात. ती आपली लहान बहीण शांतीला घेऊन जाण्याबद्दल सांगते. तिला थोडा विरोध होतो. परंतु तिला तिच्या वडिलांचा होकार मिळतो.

परंपरा आणि त्याच्या अधीन गेलेली माणसे अज्ञानामुळे पिढ्या बरबाद करित असतात. सुंदरासारखी युवती विद्रोह करते. आपल्या आई-वडिलांच्या विरोधात जाऊन घर सोडते. शहरात जाते. लग्न करते. परंपरेची बंधने झुगारून बंड करते, विद्रोह करते ही घटना निश्चितच धाडसी आहे. नव्या पिढीला एक आदर्शव्रत आहे, हेच खरात प्रस्तुत कथेतून मांडतात.

याच कथासंग्रहातील 'देवदासी' या कथेत वस्तीतला देवाप्पा आपल्या मुलीच्या जटा काढून मुलीला देवीच्या जटातून बाहेर काढतो. वस्तीतल्या गड्यांची बैठक बसते. गणपा सांगतो, "आता यापुढं आपल्या भावकीतली मुलगी देवदासी म्हणून देवीला सोडायची नाय...!"<sup>१६</sup> ठराव केला गेला. भावकीतल्या लोकांनी ठराव मानला नाही तर त्याला वाळीत टाकायचे. गावात वार्ता जाते. गावातले माडीवाले, धनदांडगे यांच्यात खळबळ माजते. देवीचा कोप करून गावावर संकटे आणण्याच्या गप्पा गावकरी करू लागतात. गणपा तर गावकऱ्यांना सडेतोड उत्तर देतो. तुम्हाला देवीची भीती वाटते तर तुमच्या मुली देवीला सोडा. गावकरी वस्तीवर बहिष्कार टाकतात. भावकीतले लोक गाव सोडून जातात. वस्ती ओसाड होते. पावसाळा सुरू होतो. पावसाने गावाला झोडपून काढले. ओढ्याला गढूळ पाणी येते. गावाच्या लोकांच्या तब्येती बिघडतात. हागवणीची साथ सुरू होते. गावातील लोक देवीचा कोप झाल्याची चर्चा करू लागतात. गावातल्या पंचांची व गावगड्यांची बैठक होते. वस्तीतल्या लोकांना परत आणायचे ठरते. त्यांना शोधण्यासाठी चौफेर तरुण गडी जातात. पण ते रिकामे परत येतात. मंगळवारचा दिवस देवीचा वार, त्याच दिवशी गावकऱ्यांची बैठक होते. बिघडलेल्या हवेची गोष्ट साऱ्यांच्या लक्षात येते. देवीच्या भक्ताला विचारण्यात येते. देवाच्या दारी देवदासी नसल्याचे तो सांगतो. आम्ही आता कोणती दासी द्यावी, असा एक गडी म्हणतो. भक्त म्हणतो, 'तुमच्या घरातील द्या' 'मुली देवाला सोडल्या तर आमच्या मुलाला मुलगी कोण देणार. आमची अबू धुळीला मिळेल'. हे सांगताच भक्त म्हणतो, 'तुमची अबू तशी त्यांची देवदासीच्या आयबापाची नाही कां?' असा गंभीर भाव व्यक्त करणारा भक्त गरिबाविषयी बोलून निघून जातो.

शतकानुशकापासून मागासलेल्या समाजावर होणारा अन्याय, होणारा अपमान, असह्य वेदना सहन करायला भाग पाडणारी व्यवस्था शंकरराव खरात कथांमधून मांडतात. अस्पृश्यतेचे चटके सहन करणारा मागासलेला समाज मांडतांना शंकररावांनी प्रथमतः सहनशील असा अस्पृश्य कथेत मांडला आणि नंतरच्या कथांमध्ये बंड करून उठणारा नायक, नायिका ह्या विद्रोहाची भाषा बोलू लागतात. डॉ. बाबासाहेबांच्या विचाराने अस्मिता जागृत झालेला समाज खरातांनी चित्रित केलेला आहे.

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## महाराष्ट्रातील औद्योगिक क्षेत्राच्या विकासाकरीता शासनाची भुमिका

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### गोषवारा (Abstract)

देशाच्या विकासाचे इंजिन महाराष्ट्र आहे. आणि त्याला गती द्यायची असल्यास उद्योग वाढीला प्रोत्साहन देण्याची गरज ओळखून मुख्यमंत्री देवेंद्र फडणवीस यांनी मेक इन महाराष्ट्राची घोषणा केली. राज्य सरकारने गेल्या वर्षभरात घेतलेल्या अनेक निर्णयामुळे महाराष्ट्र उद्योग वाढीत आणि गुंतवणूकीमध्ये क्रमांक एकचे राज्य बनले. उद्योग क्षेत्रातील मरगळ दुर होऊन रोजगार संधीत वाढ व्हावी यासाठी मुख्यमंत्र्यांनी "बॉश" सारख्या कंपनीशी करार करून आयटीआय मधील तरुणांना प्रशिक्षित करण्याचे सहकार्य मिळवले. याच बरोबर मुंबई नागपूर द्रुतगती मार्ग वेगाने करण्यावर शासनाने भर दिला. दाव्होस दौऱ्यात त्यांनी महाराष्ट्राची बलस्थाने जागतिक व्यासपीठावरून विषद करून जनरल इलेक्ट्रिक, नेस्ले, पेप्सिको इत्यादी कंपन्यांशी चर्चा करून महाराष्ट्र कसा उद्योग स्नेही आहे हे पटवून दिले. त्यामुळे निर्माण क्षेत्राकरीता शासन सकारात्मक पाऊले उचलल्याचे दिसून येते.

### संशोधनाची उद्दीष्टे :-

- 1) महाराष्ट्राच्या विकासात औद्योगिक क्षेत्राची भुमिका अभ्यासने.
- 2) औद्योगिक क्षेत्राच्या वाढीकरीता शासनाच्या विविध धोरणाचा अभ्यास करणे.
- 3) औद्योगिक क्षेत्राचे निर्यातीमधील योगदान अभ्यासने.

### गृहितकृत्य :-

"महाराष्ट्रातील औद्योगिक क्षेत्राच्या विकासाकरीता शासनाची भुमिका सकारात्मक आहे."

### संशोधन पध्दती :-

उपरोक्त संशोधन अध्ययनाचे क्षेत्र विस्तृत असल्यामुळे व प्राथमिक तथ्य संकलन करणे शक्य नसल्यामुळे सदर संशोधनासाठी द्वितीय स्रोतांची मदत घेतली गेली. यासाठी विविध अभिलेख प्रकाशीत आकडेवारी, मासिके, अहवाल आणि इंटरनेटचा आधार घेतला गेला.

### प्रस्तावणा

देशाच्या आर्थिक विकास करण्यासाठी औद्योगिक क्षेत्र महत्वाची भुमिका पार पाडीत असते. औद्योगिक क्षेत्राच्या विकासाकरीता सरकारद्वारे नवनिवन योजना आमलात आणल्या गेल्या. महाराष्ट्र राज्य हे औद्योगिक क्षेत्रामध्ये अग्रगण्य राज्यापैकी एक असून देशाच्या वस्तू निर्माण क्षेत्रामध्ये महत्वाचे स्थान आहे. आर्थिक विकासात राज्य नेहमीच आघाडीवर असून राज्याचा अर्थव्यवस्थेवर औद्योगिक व सेवा क्षेत्र वाढीचा मोठा प्रभाव राहिल आहे. गुंतवणुकीसाठी अनुकूल शासकीय धोरणे, पायाभूत सुविधांची मागणी व सार्वजनिक निधीच्या मर्यादा यामधील दरी कमी करण्याच्या दृष्टीने खाजगी गुंतवणुकीसाठी विविध धोरण खूली करणे, खात्रीशीर ग्राहक बाजारपेठ, उत्पादनज्ञम मनुष्यबळ, उद्योगासाठी पोषक वातावरण इत्यादी बाबीमुळे राज्याच्या औद्योगिक वाढीला हातभार लागला आहे. तसेच औद्योगिक वाढीस चालना देण्यासाठी परवानग्यांची संख्या कमी करणे मैत्रीच्या माध्यमातून सर्व परवानग्याची एकाच ठिकाणी देणे, उद्योग उभारणे व नविन गुंतवणुकीसाठी ई-माध्यम निर्माण करणे, पायाभूत सुविधा व औद्योगिककरणासाठी अद्ययावत शहरे यांचा विस्तार, औद्योगिक संकूले, लॉजिस्टिक संकूले, विशाल वस्त्र केंद्रे इत्यादीचा विकास करण्यावर शासनाने लक्ष केंद्रीत केले आहे.

### महाराष्ट्रातील औद्योगिक गुंतवणूक :-

राज्याने रोजगार निर्मितीची सर्वाधिक क्षमता असलेले सर्वात जास्त प्रस्ताव प्राप्त केले. ऑगस्ट १९९१ ते ऑक्टोबर २०१४ या कालावधीत एकूण १०,६३,३४२ कोटी गुंतवणूकीच्या १८,७०९ औद्योगिक प्रस्तावांना मान्यता देण्यात आली. यापैकी २,५४,७८४ कोटी गुंतवणूकीचे (२३.९ टक्के) व प्रस्तावित १०.९५ लाख रोजगार निर्मितीचे ८,३७६ प्रकल्प (४४.८ टक्के) कार्यान्वित झाले. तर ८८,०८६ कोटी गुंतवणूकीच्या २,११५ प्रकल्पाचे काम सुरु असून त्यामधून ३.०३ लाख रोजगार निर्माण होणे अपेक्षित आहे. देशामध्ये प्राप्त झालेले औद्योगिक प्रस्ताव आणि गुंतवणूकीमध्ये राज्याचा अनुक्रमे १८ टक्के आणि १० टक्के वाटा आहे. माहिती तंत्रज्ञान उद्योगाने ४४१ प्रस्ताव प्राप्त केले. असून त्यामधील गुंतवणूक सर्वात जास्त ३,८२,७६६ कोटी (३६ टक्के) आहे. तर त्या पाठोपाठ इंधन उद्योगामध्ये १,४२,२८३ कोटी (१३.४ टक्के) आहे.

मंजूर केलेल्या प्रस्तावामध्ये प्रस्तावाच्या संख्येनुसार रसायन व खते १५.१ टक्के वस्त्र १०.६ टक्के धातु १०.२ टक्के, साखर ८.१ टक्के, विद्युत व इलेक्ट्रॉनिक ६.०० टक्के प्रक्रिया केलेले अन्न ५.६ टक्के फोटोग्राफिक फिल्मस व कागद ५.२ टक्के हे महत्वाचे उद्योग आहेत.

### विदेशी प्रत्यक्ष गुंतवणूक :-

ऑगस्ट १९९१ ते मार्च २०१२ या कालावधीत राज्यात थेट विदेशी गुंतवणूकीच्या ४,२४६ प्रकल्पना मान्यता देण्यात आली. असून त्यातील गुंतवणूक ९७,७९९ कोटी रु. आहे. त्यापैकी ४५ टक्के प्रकल्प कार्यान्वित झालेले असून १० टक्के प्रकल्पाचे काम चालू आहे. त्यातील गुंतवणूक अनुक्रमे ५१ टक्के व ९८ टक्के आहे. सन २०११-२०१२ मध्ये ५,४५४ कोटी गुंतवणूकीच्या १०५ प्रकल्पांना मान्यता देण्यात आली. महाराष्ट्राच्या औद्योगिक क्षेत्रात विदेशी गुंतवणूक करणाऱ्या देशामध्ये अमेरिका आणि मॉरिशस हे दोन प्रमुख देश असून या देशांचा विदेशी प्रत्यक्ष गुंतवणूकीत अनुक्रमे १४ टक्के व १३ टक्के वाटा आहे. मेक इन महाराष्ट्र अंतर्गत फॉक्सकॉन आणि जनरल मोटर्स या दोन मोठ्या कंपन्यांचे महाराष्ट्र शासनासोबत दोन मोठे करार झाले असून या दोन्ही सामंजस्य कराराचे मुल्य हे ६५ हजार कोटी रुपये असून दोन्ही प्रकल्पामुळे ५० ते ६० हजार व्यक्तींना रोजगार आणि स्वयंरोजगाराच्या संधी उपलब्ध होतील.

### महाराष्ट्रातून निर्यात :-

राज्यातून मुख्यत्वे रत्ने, आभूषणे, सॉफ्टवेअर, अस्त्रे, तयार कपडे, सुती धागे, धातू व धातु उत्पादने शेतमालावर आधारीत उत्पादने, औषधी व औषधी द्रव्ये, प्लास्टिक व प्लास्टिकच्या वस्तू यांची निर्यात होते. निर्यातदाराच्या प्रयत्नांची दखल घेवून राज्यातील निर्यात वाढीस पुरस्कार देणे. आंतरराष्ट्रीय प्रदर्शनात सहभागी होणाऱ्या लघु उद्योगांना भुई भाडे अनुदान देणे याबाबत शासन पुढाकार घेत आहे.

### महाराष्ट्र आणि भारतातून निर्यात (कोटी)

वर्ष	महाराष्ट्र	भारत
२००९-२०१०	२,२८,१८४	८,४५,१२५
२०१०-२०११	३,०८,५१५	११,४२,६४९
२०११-२०१२	३,९४,००५	१४,५९,२८०
२०१२-२०१३	४,१७,६२६	१५,४६,७६६
२०१३-२०१४	२,८८,३८४	१०,६८,०८९

आधार : महाराष्ट्राची अर्थिक पाहणी २०१४-१५ महाराष्ट्र शासन

विशेष आर्थिक क्षेत्र :-

आर्थिक वाढीस चालना देण्यासाठी राज्याने फेब्रुवारी २००६ पासून विशेष आर्थिक क्षेत्र धोरण स्विकारले. डिसेंबर २०१४ पर्यंत राज्यात २३६ विशेष आर्थिक क्षेत्राचे प्रस्ताव प्राप्त झाले आहेत. या प्रस्तावापैकी १२४ प्रस्तावांना केंद्र शासनाकडून मान्यता (१०४ औपचारिक त्या व २० तत्त्वतः) देण्यात आली. राज्यात ३१ डिसेंबर २०१४ रोजी ३,०५९ हेक्टर क्षेत्रावर १८,७८६ कोटी गुंतवणूकीच्या २४ विआक्षेकी अमलबजावणी झाली असून त्यामधून सुमारे १.३१ लाख रोजगार निर्माण झाला आहे.

#### माहिती व जैव तंत्रज्ञान संकूले आणि सहकारी औद्योगिक वसाहती:-

मऔविम, सिडको व सॉफ्टवेअर टेक्नॉलॉजी पार्क ऑफ इंडिया यांनी क्षेत्रास एकूण ३७ माहिती तंत्रज्ञान संकूले विकसीत केली. ४६५ खाजगी माहिती तंत्रज्ञान संकूलापैकी १४४ कार्यान्वित झाली. त्यामध्ये ३,३३२ कोटीची गुंतवणूक असून सुमारे ४.४४ लाख रोजगार निर्माती अपेक्षित आहे. राज्याने २००९ मध्ये जैव तंत्रज्ञान धोरण जाहिर केले. राज्यात मऔविम परिसरात जालना आणि हितवडी (पुणे) येथे सावर्जनिक क्षेत्रातील दोन जैव तंत्रज्ञान संकूले विकसीत करण्यात आली. डिसेंबर २०१४ अखेर एकूण १४२ सहकारी औद्योगिक वसाहतीना मंजुरी दिली असून त्यामध्ये एकूण ७,२२२ घटक कार्यरत आहेत. त्यामधील रोजगार १.३७ लाख आहे.

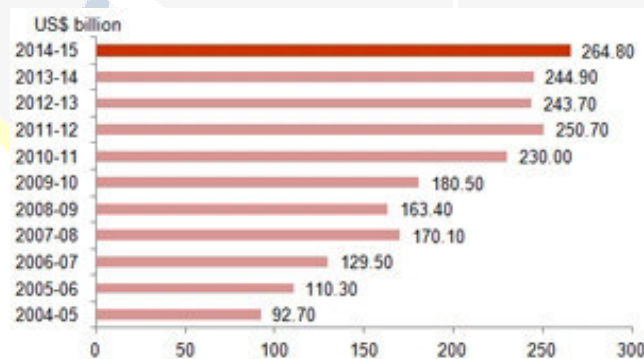
#### उद्योगाच्या वाढीसाठी शासनाची धोरणे :-

- १) मेक इन महाराष्ट्र अंतर्गत औद्योगिकरणाला गती देण्यासाठी ६७ परवानग्यांची संख्या कमी करून ३७ वर आणण्यात आली.
- २) लघु उद्योगांना चालना देण्यासाठी तसेच उद्योग सुलभतेसाठी कारखाने अधिनियम १९४८ मध्ये बदल करण्याचा महत्त्वपूर्ण निर्णय घेण्यात आला.
- ३) माहिती तंत्रज्ञान व सहाय्यभूत सेवा धोरण २०१५ जाहिर केले.
- ४) उद्योग स्थापना करण्यासाठी आवश्यक सर्व परवानग्या एका महिन्याच्या आत देण्यासाठी आधिकाऱ्यांच्या शक्ती प्रदान गटाची स्थापना.
- ५) १०० कोटी रुपयापेक्षा जास्त गुंतवणूक करणाऱ्या गुंतवणूकदारासाठी 'मैत्री' या वेब पोर्टलच्या माध्यमातून सर्व परवानग्या एकाच ठिकाणी मिळण्याची सुविधा.
- ६) मायक्रोसॉफ्टच्या माध्यमातून देशातील तीन डाटा सेंटर्सपैकी दोन डाटा सेंटर्स मुंबई व पुणे येथे सुरु केले.
- ७) लघु व मध्यम गटातील उद्योगासाठी सुविधा कक्ष.

#### गृहितकृत्याचे सत्यापन :-

वरिल अभ्यासावरून महाराष्ट्रामध्ये गुंतवणूक आणि रोजगारांच्या संधीत वाढ झाल्याचे दिसून येते.

#### महाराष्ट्राचा जीएसडीपी



वरिल आलेखावरून महाराष्ट्राच्या जाएसडापा मध्य सतत वाढ हाताना दिसून येत. वारल कलेल्या सामुग्री विश्लेषणातून सदर शोधनिबंधामधील गृहित धरलेले गृहितकृत्य पुर्णतः सत्य आहे हे सिध्द होते.

#### निष्कर्ष :-



गेल्या काही वर्षांमध्ये महाराष्ट्राने गुजरातला मागे टाकत विदेशी आणि स्थानिक गुंतवणूकीत आघाडी घेतली आहे. यावर अॅसोचॅमने शिक्का मारतब केला आहे. औद्योगिक क्षेत्राच्या वाढीमुळे राज्यातील मुलभूत सोयी सुविधेसोबतच रोजगाराच्या संधीत वाढ झाली असून याला सरकारची निर्माण क्षेत्रा बदलची सकारात्मक भुमिका महत्वाची आहे.

संदर्भ ग्रंथ सुची

पुस्तकाचे नाव  
सामाजिक संशोधन पध्दती  
महाराष्ट्राची आर्थिक पाहणी  
२०१४-२०१५  
लोकराज्य मासिक  
लोकसत्ता वृत्तपत्र  
इंटरनेट

लेखकाचे नाव  
डॉ. सुधिर बोधनकर  
महाराष्ट्र शासन  
मे, फेब्रु २०१६

प्रकाशनाचे नाव  
साईनाथ प्रकाशन, नागपूर  
अर्थ व सांख्यिकी संचालनालय, मुंबई.



## संत साहित्य में मानवीय मूल्य की पृष्ठभूमि

सुधांशु राँय

### सारांश :

भारतीय गरिमा का सच्चा संवाहक जो वेद शास्त्र और लोकशास्त्र के सेतु के रूप में परिस्थितिनुरूप उपजा है। संत साहित्य की परंपरा लगभग पंद्रहवीं शताब्दी से प्रभावित होकर आज भी समाज में कहीं-न-कहीं, किसी ने किसी रूप में उपलब्ध है। यहीं समय है जो मानव ने परमात्मा का संदेश सुनाया। कबीरदास, सूरदास, तुलसीदास, गुरुनानक, शेख फरीद अपने शब्दों तथा साखियों के द्वारा मानव को अपनी मानवीय मूल्य से अवगत कराते का प्रयास किया। भारत को ऋषि-मुनियों का देश कहा जाता है और सदैव यहाँ ब्रह्मानुभूति चिंतनधारा बहती रहती है। संत साहित्य में मानवीय प्रतिष्ठित गुणों को प्रतिपादित करते हुए जीवन मूल्य को पाने का भरसक प्रयास किया गया है।

संत साहित्य में ब्रह्मा को आधारभूत मानकर उन्हें सम्पूर्ण सृष्टि का निर्माता माना गया है। ब्रह्मा ज्ञान वेदों से प्राप्त होता है और वेदशास्त्र का मंथन करनेवाली विद्या वेदों से निःसृत है। इसी ब्रह्मात्व भावनाओं से इस देश को अमृततल की अमूल्य निधी प्रदान किया गया। इसी व्यापक मानवीय भावनाओं के साथ समस्त मानवजाति का निस्तर करने वाले जगद्गुरु ब्रह्मा का विचाराधीन तत्व सम्पूर्ण संत साहित्य में समाहित है।

### बीजशब्द :

ब्रह्मानुभूति, जीवनमूल्य, अमृततत्व, अमूल्यनिधी, तात्त्विक, सानिध्य, आध्यात्मिकता, प्रतिष्ठापन, उद्द्वेलित, निर्गुणवादी, परिमार्जित, सर्वशक्तिमत्ता, विशिष्टाद्वैतवाद, आत्मीयता, सम्प्रदाय।

### प्रस्तावना :

ब्रह्मा साधन नहीं, आध्य है। ब्रह्माज्ञान को प्राप्त करना हमारे जीवन का अंतिम लक्ष्य है। ब्रह्मा अनुभूति का विषय है, अनुभूति से ही ज्ञानों का पराकाष्ठ चिंतनतत्व से मिश्रित होकर विलीन हो जाती है तब सावकाश ब्रह्माज्ञानों से जीव परिचित होते जाते हैं। ब्रह्मा एक है और अद्वैत हैं जो सबकी दृष्टि से परे होकर भी सभी के अंतर्मन में बसा हुआ है। संतों ने वेद-उपनिषद के तात्त्विक सिद्धांतों को स्वीकार कर उन तत्वों को मानवीय मूल्य के आधार के रूप में स्वीकार किया है।

ब्रह्मा ज्ञानों का योग्य प्रतिपादन करते हुए संत साहित्य में इसका विस्तृत विवेचन किया गया है। जीव इस संसार में आनंद की प्राप्ति तभी कर पाते हैं जब उनके सानिध्य में या उनके अंतर्मन में ब्रह्मा की स्मरण सदा बने रहें। जीव को इस संसार में आनंद प्राप्ति करने के लिए सदैव इस चराचर में व्याप्त आत्मज्ञान को आत्मसात करना होता है। इसी ब्रह्माज्ञान के अंदर ऊँच-नीच छुआछूत के भाव थे, जो समाज में जहर की तरह फैलते गए। वर्णधर्म की श्रेष्ठता की भावना को प्रश्रय देने लगे। संत साहित्य द्वारा इसे घोर विरोध किया गया। कबीर हिंदू और मुसलमान दोनों को कटु वचन से प्रहार किया। कबीर के अलावा रज्जब, शेख फरीद, दादू, धनिया, पीपा, सेन, नाई, रैदास चमार आदि संतों ने इस प्रकार छुआछूत को अन्याय बताया।

अनेक प्रयासों के पश्चात इस जाति-व्यवस्था की दीवार टूटी तो नहीं बल्कि कमजोर पड़ गए, जिससे समाज में मध्यकाल के संत साहित्य पर अत्यधिक सुप्रभाव पड़ा। इस प्रकार अनेक ऊँची जातियों वाले संतों के शिष्य बन गए या उनके प्रभावों से समाज में एक आध्यात्मिकता की लहर सी दौड़ गई, जिस लहरों में बहकर सभी के मन, हृदय स्वच्छ मन गया। जर्मीदार गुलाल सिंह राम के शिष्य बन गए और ब्राम्हण भीखानंद चौबे भी कृष्ण के शिष्य बन गए। संतों के काव्य चिंतन और सिद्धांतों ने समाज में एक आध्यात्मिकता का प्रवाह ला दिया। यदि संतों का अभ्युदय नहीं होता तो न जाने समाज में और भी कितने जाति-व्यवस्था, वर्ण-व्यवस्थाओं का जन्म हुआ होता। साधु तथा संतों ने देश में महान मानवीय मूल्य का प्रतिष्ठापन किया।

संतों ने अपने कार्य समर्पित ढंग से किया। जीवन समर्थन का ही नाम है, अगर हम जीवन को किसी के प्रति समर्पित करना जानते हैं और मानवीय मंगल कामना के लिए तथा विश्व मानव के लिए हमारे अंतर्मन निरंतर उद्द्वेलित होते हैं तो स्वयं परमपिता परमात्मा की मंगलमय दया से जीवन के सारे दुख-दर्द समाप्त हो जाएगा। संत रैदास अपने जीवनकाल में जितना मान-सम्मान प्राप्त किया उससे उनकी अमूची जाति में एक आशा की किरण चमक उठेगी। संतों ने अपनी वाणी से समाज में ओज, माधुर्य तथा चिंतनशील प्रवृत्तियों का जन्म देते हैं उसी प्रवृत्ति धीरे-धीरे लोक परंपराओं में ढलकर समाज को मजबूत बनाते हैं।

संत साहित्य के माध्यम से समाज में परिवर्तन ही नहीं बल्कि सामाजिक क्रांति, विचार प्रवाह तथा अनेक मतवादों का समन्वय हुआ है। योग-भक्ति, साकार-निराकार, निर्गुण-सगुण, हिंदू-मुसलमान, छूत-अछूत सबके विचारों का मंथन होकर समाधान प्राप्त हुआ है। इस प्रकार पंडित हजारी प्रसाद द्विवेदी ने अपने शब्दों में लिखा है- वे नाना भाँति की विरोधी परिस्थितियों के मिलान बिंदु पर अवतीर्ण हुए थे, जहाँ एक ओर हिंदुत्व निकल जाता है, दूसरी ओर मुसलमानत्व, जहाँ एक ओर ज्ञान निकल जाता है दूसरी ओर अशिक्षा, जहाँ एक ओर योग मार्ग निकल जाता है, दूसरी ओर भक्ति मार्ग, जहाँ एक से एक तरफ निर्गुण भावना निकल जाती है दूसरी ओर सगुण साधना।

इन सभी विचारों का मूल में संत है कारण संतों के विचारों से प्रभावित होकर ही समाज सम्प्रभुता की ओर बढ़ता है। सामाजिक आंदोलन संत विचार से ही उद्द्वेलित होता है और विचारों से ही समस्त कुछ समाप्त भी हो जाता है। इन सभी संतों को ज्ञानमार्गी तथा शुद्ध निर्गुणवादी कहना अन्याय है। वे ज्ञानों के साथ संलग्न होकर ज्ञान की धारा में प्रभावित हो जाते हैं तथा अज्ञान की धारा को त्यागकर स्वयं को उससे पृथक बना लेते हैं। कबीर निर्गुण होते हुए भी दोनों का समर्थन किया तथा जहाँ पर उनको लगा कि ये अन्याय है, तब वे हृदय से उन्हें फटकारा। कबीर संत कवि है और ज्ञान तथा प्रेममार्गी का सुंदर पथिक भी है। जायसी सिर्फ प्रेममार्गी ही नहीं ज्ञानमार्ग का भी समर्थक कवि है।

इस प्रकार विचारों का आदान-प्रदान तथा संतों के समागम से समाज में पुष्पित पल्लवित कुविचारों को उत्कासित कर बच्चे तथा सही विचारों को स्थापित कर सकते हैं। संतों द्वारा सृजित साहित्य में प्रेमरस के साथ-साथ उन सभी रसों का समावेश है। जो समाज को परिष्कृत तथा परिभाजित रख सकें। संत सुंदरदास ने प्रेमरस का एक सुंदर छंद प्रस्तुत किया है-

“प्रीति की रीति कष्ट नहीं राखत जाति न पाँति नहीं कुल गारौ ।  
प्रेम के नेम कहूँ नहीं दीसत लाज न कानि लग्यो सब खारो ।  
लीन भयो हरि सो अभ्यंतर आठहु याम रहै मतवारी ।  
सुंदर कोऊ न जाति सकै यह गोकुल गाँव को पैडोहि न्यारो ॥”

संतों के द्वारा हृदय की पवित्रता, आचरण की शुद्धता तथा सत प्रवृत्तियों का विकास होता है । संत साहित्य में मानवीय मूल्य तथा उनके द्वारा प्रतिष्ठित आध्यात्मिक विचारों का संकलन मिलता है । संत काव्य का मूलाधार मानवीय कल्याण के साथ-साथ शंकर का अद्वैत दर्शन भी है जो जीव को विशुद्ध ब्रह्मा तत्व मानते हैं तथा आत्मा की सर्वशक्तिमत्ता, सर्वात्मा भावना और सर्वरूपता को स्वीकार करता है । संत कवियों ने सात्विक विचारों को आत्मसात कर जनसाधारण में भक्ति रस को प्रसारित करते हैं । समाज के आध्यात्मिक मूल्यों को सर्वश्रेष्ठ तथा उत्कृष्ट बनाने के लिए संत कवियों का योगदान अवर्णनीय है ।

सामाजिक प्रतिष्ठान सांस्कृतिक समन्वय तथा साम्प्रदायिक सद्भावना का मिश्रण होना अति आवश्यक है । यह समाज की आत्मा है जो सर्व प्रतिष्ठित तथा सर्वव्यापि विद्यमान है । भारतीय पवित्र भूमि में महान संत शंकराचार्य, कुमारिल भट्ट, वल्लभाचार्य की विचारधारा से कालांतर में विशिष्टाद्वैतवाद, शुद्धवैतवाद आदि मतों का प्रतिपादन किया गया है । संत साहित्य में परस्पर आत्मीयता, धनिष्ठता, आत्म-स्वाभिमानों की भावनाओं से सराबोर कर देने वाले विचारों को अत्यधिक मूल्यों दृष्टि में रखकर किया गया है । संत मतों में आस्था, विश्वास, नैतिक मूल्य, आध्यात्मिकता तथा समन्वयात्मकता का होना अति आवश्यक हैं और यही समाज का मूलाधार है, जिस पर हमारा सम्पूर्ण समाज टिका हुआ है ।

अधिकांश संतों के विचारधाराओं की प्रवृत्ति सामाजिक प्रतिष्ठित आध्यात्मिक विचारों से है, जो मानवीय मूल्य को सर्वोपरि मानते हुए अपने विचारों को किसी सम्प्रदाय के साथ न जोड़कर पृथक्ता के साथ आगे बढ़ाते हैं ।

### निष्कर्ष :

इस प्रकार संत साहित्य में मानवीय मूल्य की पृष्ठभूमि सर्वत्र व्याप्त है जो समाज को एक आधार प्रदान कर खड़े हैं । साधु, संतों की विचारधारा से मानव में मानवीय प्रवृत्ति विकसित होती है, जो समाज को स्वाभिमान तथा आत्मविश्वास से परिपूर्ण बनाते हैं । ब्रह्मा ज्ञान वेदों से प्राप्त होता है और मानवीय ज्ञान आध्यात्मिक विचारों से समाज को स्वभिमान तथा सृष्टि बनाने के लिए संतों का विचारा अमृत के समान है ।

ब्रह्मा साध्य ज्ञान है और निराकार है । ब्रह्मा ज्ञान से अवगत होना ही जीवन का अंतिम लक्ष्य माना जाता है । ब्रह्मा से सृष्टि का निर्माण हुआ है और ब्रह्मा से ही इसका

विनाश भी है । कबीर आदि संतों ने ब्रह्मा के महत्व को भलिभाँति उजागर कर ब्रह्मा को पाने की इच्छा को सर्वसाधारण में प्रसारित कर दिए हैं । ‘ब्रह्मा सत्ता’ इस साधना को संतों ने अपनी ओजस्वी वाणी द्वारा

जनसाधारण में प्रसारित किया है । संतो के द्वारा किया गया कार्य हमेशा समर्पित होता है और समर्पित भाव से किया गया कार्य मानव कल्याण के लिए अति उत्कृष्ट माने जाते हैं ।

संदर्भ ग्रंथ सूची :

- |   |   |                     |
|---|---|---------------------|
| (१) साहित्यिक निबंध                                   | - | डॉ. कन्हैया सिंह    |
| (२) हिंदी साहित्य                                     | - | डॉ. धीरेंद्र वर्मा  |
| (३) हिंदी काव्यशास्त्र का इतिहास                      | - | डॉ. भगीरथ मिश्र ।   |
| (४) चैतन्य सम्प्रदाय और उसका साहित्य                  | - | प्रभु दयाल मित्तल । |
| (५) निराला काव्य की छवियाँ                            | - | नंदकिशोर नवल ।      |
| (६) पंत का उत्तर-काव्य                                | - | मीरा काव्य ।        |
| (७) सुमित्रानंदन पंत के काव्य में युगबोध और मानवतावाद | - | डॉ. रामउदित शर्मा । |

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## Marital Disharmony And Alienation In Mahasweta Devi's Mother Of 1084

Shital M. Katkamwar

Dr. Sambhaji Warkad

### ABSTRACT

In the novel *Single Women in Indian Perspectives*, Dr Neshla says: "In the *vedic* age, Indian women like *Lopamudra*, *Visvavara*, *Gargi*, and *Maitreyi* enjoyed a high status at the home as well as outside in the society." If we think about the women in those days, they played an important part in religious, social and political affairs. Marriages in those days took place at a fairly advanced age and the girls had an effective say in the selection of their husbands. If fate or chance made them a widow, they could marry again. The position of a wife was as a respected member in the family, as no religious ceremony could be performed by the husband alone without wife.

Unfortunately due to social, political and economical changes of the latter centuries, women's position declined. Women lost their position in educational and other fields. The glitter of the golden age peeled away with the passing time. After that the East India Company arrived in our country. The limitations were made and condemned. The Indian model of the *Savitri*, *Seeta* and *Damayanti* had cracked in the crises. After independence the landlords and administrative authorities exploit the women. In so called sophisticated societies of twentieth century, the women have to struggle for her existence; the position of women is secondary only. The form of exploitation has been changed but they have to suffer at home and in society also. Still she is the victim of cruel system of the society.

### KEY WORDS

Disharmony, Alienation, empowerment, marriage, existence, exploitation, tradition.

### INTRODUCTION

*Mother of 1084* is Devi's one of the widely read novels, this sensitive novel written in 1974. This novel belonged to the sentimental style of the mainstream Bengali novel of the fifties and the sixties. The novel *Mother of 1084* deals with an urban, middle class and qualified mother image. The tone of narrative is matter-of-fact even when the disastrous event happened. The unique structure and the form of Devi's work lies in the hope and break fourth designing unconquerable desire to live oppose and fight with the challenges that always crush humanity. This novel is considered a significant milestone in Devi's literary career.

Marriage is a union of two souls and two bodies. It is to be making stable and firm very carefully and knowingly. The relationship between man and woman points out the plus and the minus points of husband and wife. Very common situation in the society is that no sentiments and no suitable time is offered to these affairs and the outcomes of this situation are the hopelessness, unhealthy fixation, loneliness, clashes in the family and then alienation. The bad influence of such things and disturbances causes the unhealthy relations between husband and wife. Especially these clashes in the family directly effects on the children, who are always in

search of the affection of their parents. It is very common outlook of our society that only wife is responsible for the ruin and the bad habits of their children as well as the successful and the unsuccessful status of marital life

Novel opens with the past memories of Sujata's life. Now at her age of fifty one her children Jyoti and Neepa got already married. Both of them are leading the happy and settled life. Tuli is engaged with Tony Kapadiya. Brati, her youngest son is involved in Naxalite movement for the welfare of the tribal. Family members are unaware about Brati's struggle. Now Sujata and her family are well settled with lack of responsibilities. They are financially sound.

Sujata is an Indian woman, who portrays the urge of women to escape from the family ties in search of their *Selves*. The novel portrays the life of Sujata at the level of silent and unconscious. A realistic and sentimental dramatization of the married life of Sujata and her husband Dibyanath represents by Mahasweta Devi. It centers round the inner vision of the protagonist, a woman, who is skilfully drawn from inside, a woman, who finds her normal routine so interrupted that for the first time she looks at herself, and situation attempt her to decide, who she really is? It is obviously a deeper wound for any woman to struggle to achieve an identity and prove her existence in her own family.

Sujata is sophisticated and educated; she works in nationalised bank. She is intelligent and aware of her husband's various extra-marital affairs. She never creates trouble for him and accordingly for herself. She maintains a quiet dignity between their relationships. She has uniquely wonderful capacity to compromise with the hard realities. She is obedient, calm but not passive. She takes decision, when required and faces Dibyanath's furious mood with heroic resistance. Hem, Sujata's maid always plays a part of her care-taker like her mother by giving her sympathy, patient nursing and self-sacrifice, which Sujata expects from her husband, Dibyanath Chatterjee.

Mahasweta Devi depicted the fact of marital disharmony and the problem between husband and wife's relationship and the monotonous family life in *Mother of 1084*. Due to the tension between each other the husband and wife are unable to co-operate with each other in their marital life. Devi not only traces the disturbed relationship but also the disadvantages of lack of proper understanding among the family members. The death of Brati in Naxalite movement plays the significant role in the relationship of Sujata and Dibyanath. After that Sujata understands the depth and reality of outside world by departing her husband.

A woman always bears everything without a drop of tear in her eyes and any demand of man. Marriage has reduced Sujata to a state of total surrender. Woman's relating and responding to the needs of others may withdraw her from her own sense of identity. She easily assumes herself in any shape. Sujata feels as if she has become so fluid that she has no her real shape. No form of her own. She thought, what is her own identity in the family, without wants of her own? There are many questions, which we can put before the men. Should they out of fear, by putting on the mask of painful submission? Should woman as passive characters put on a hypocritical point of view towards themselves as well as the society? Various times we can see the submission of woman towards the male about sex and she develops a tendency to prevail by passive means. Most common thing is woman surrenders before man, whom they really love.

She wants to show to the world and her mother side people that her marriage is successful and she puts on the mask of a dutiful and an obedient wife. This attitude of women should stop somewhere. In the beginning of the novel, we can observe that Sujata is also in the same category, who always wears a mask of successful married life.

A lots of stress and depression already make infirm the mind and body of Sujata due to Brati's tragic death. Near about three months Sujata was restricted for complete rest by the doctor. She needs mothering care for herself. Hem, her housekeeper is the gentle lady. She is as careful as mother for Sujata. She is silently nursing the appendicitis pain of Sujata. After three months Sujata returns to her daily routine. She starts to go to the bank regularly.

*Mother of 1084* represents the story of violence, hate and mourning, which combine together in the form of cultural psyche by Devi. The complex situation of the protagonist helps the novel to step forward towards the empowerment. Psychoanalysis proved that propensity and hate about the happening can be personal or group emotions. The presence of hate is an individual or the consciousness of the group is dependent on the preservation of a damaged past. We hate what we see about ourselves in others and cannot accept. In the novel *Hysteria*, Christopher Bollas observed: "Sometimes it takes horrible form and object can be in trouble, and sometimes with the help of proper information and logical guidance object turn towards the new way of life." The same thing happens with Sujata.

Marriage is an essential means of ensuring its existence, both physical as well as moral in the Indian society. In Sujata's life male word is law. For Sujata, marriage is the destruction of her sense of purity and security and the sense of pride. It is like an earthquake to her future hopes, her desires and dreams of a happy life. In the novel Sujata represents kindness, love, charity, awareness, devotion and give preference to the emotions in the marital status. If we think about Dibyanath, he is selfish, aggressive, cruel, materialistic person. He always cares for his social status than the sorrow of his son's death. On the critical moment of Sujata's delivery, Dibyanath was out of town. He is totally careless and emotionless about Sujata but he keeps watching Sujata's body recover quickly after delivery. He regularly inquires whether Sujata is taking necessary medicines and tonics properly so that he can make her the victim of his passion again. He uses Sujata as a sex object only. Dibyanath enjoys extramarital affair with his typist. Dibyanath's daughter, Tuli feels a strange sense of pleasure and satisfaction, while helping her father by giving the messages of his mistress to Dibyanath. Tuli always keeps secret the messages of both of them. Only Tuli knows about the dates of Dibyanath with his typist. In fact she is strangely possessive about Dibyanath. She never feels dislike and disgust about the relation of her father with his typist.

In this novel the theme of rejection and disharmony is presented by Mahasweta Devi. The family members are unable to cope with each other. Unanswered love and loneliness drives Devi's heroin to the jaws of appendix, stomach disease. Devi clearly shows the ill-adjustment of upper middle class people of society. Her protagonist, Sujata, suffers from lack of emotional attachment; disturb relationship of Brati with his father, broken faith of each other and dissatisfaction with her existence. Such type of disturbances, then alienation and at last the



empowerment of protagonist, which we hardly find in any other Indian women novelist but Devi set this theme very skilfully.

An essential part of the research work is now Sujata does not want to mourn for Brati but wants to go onward by making his memories as a ladder in her life. Due to this slow and self reflexive process Sujata can identify her existence. Now Sujata is strong enough to throw out her husband from her life. The sudden lift in Sujata's life brings dead Brati more close to her. Sujata confronts Dibyanath for the first time—a step up the hierarchic ladder. Now Sujata is in the situation of knowing, learning and edging towards the deciding. Sujata shows her inner hate through her expressions towards Dibyanath. She reminds him, his insensitivity from the beginning of their married life. She enlightens herself with the new energy. Sujata understands the real meaning of power, rebel, betrayal, tolerance and revolutionary optimism also.

The ending of Devi's novels is always gives a different twist to the novel. Generally the endings, in which knowledge of loss is presented, knowledge leads to tears. In Devi's *Mother of 1084*, there are tears and sorrow but we find tears replaced with strong willed mother. Devi's protagonist Sujata gains power and mental strength by isolating from her family and world around her. The novel aptly reflects a mother's image in a very distinct way. Sujata's knowledge of loss compels her to change her personally. Devi sets the events of novel inside the parameter of one day very skilfully.

#### CONCLUSION

It is needful to break down the barriers in the way of the development of the women. It is necessary to develop her in all the aspects. They should think about their well-being and socio-cultural rights. Each and every section of Indian women should be give their due share to protect and maintains the dignity and modesty of women. It is necessary that every woman must participate in social development programs. It will give them the courage to deny the life of slaves. She should insist for the principle of equality. If all the women raise their voices like Sujata against her husband and society, they will definitely get the real respect and their identity.

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**SPATIO-TEMPORAL DISTRIBUTION OF GROUNDWATER IRON  
IN CHANDRAPUR DISTRICT, CENTRAL INDIA**

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**Abstract**

Spatio-temporal distribution of groundwater iron of Chandrapur district was assessed during winter 2012 and summer 2013. Groundwater samples were collected from 36 sampling locations comprising of hand pumps (34) and dug wells (02). Water samples were analysed for physico-chemical parameters along with iron concentration by Inductively Coupled Plasma-Optical Emission Spectroscopy, ICP-OES (Germany). Results revealed that iron concentration in groundwater varies from below detectable limit (bdl) to 47.101 mg/L for winter 2012 and 0.164 to 3.825 mg/L for summer 2013. The average iron concentration in groundwater was found to be 2.838 mg/L and 0.731 mg/L respectively for winter and summer which was above permissible limit of WHO (1984) and Indian Standard (2012) for drinking water for iron (0.30 mg/L). From the results it was observed that 55.5% and 63.88% of samples from study area had iron concentration above Indian Standards for drinking water for winter and summer seasons respectively. Further observations showed consistency in iron concentration in groundwater for winter and summer season. Iron concentration below detectable limit for 16 and 13 samples for winter and summer season respectively was observed from the study area. Range of groundwater iron concentration varies widely in winter season (range, 47.095 mg/L) whereas in summer season it was confined to a narrow range (range, 3.661 mg/L). Thus, the distribution of iron concentration in groundwater in the study area seems to be influenced by space and time. This can be attributed to seasonal variations in groundwater and geology of the study area.

Keywords: Central India, Chandrapur, Groundwater, Heavy metal, Iron

**Introduction**

Water is an indispensable part of human life and is most valuable resource on the earth and an integral part of the environment. Less than 1% of the earth's water is available to human being for consumption. This water source is also being continuously maintained by precipitation in the form of rain or snow. Water quality at a particular area is decided by its physical, chemical and biological analysis. These parameters decide whether water is potable or not. Use of groundwater for drinking and cooking has become increasingly important to many communities around the world. The presence of some trace metals in groundwater is essential for human being at minimum concentration. However, at elevated levels these trace metals may cause adverse effects in the form of morphological abnormalities, growth reduction, mortality and mutation.



Iron is the second most abundant metal in the earth's crust of which it accounts for about 5%. Iron is most commonly found in nature in the form of its oxides. Iron, which is known to be present in aquifers in many parts of India ranges from not detected to levels of about 65 mg/L (CGWB, 2010).

Access to safe drinking water is essential to human health, a basic human right and a component of effective policy for health protection. Iron is an essential element in human nutrition. Estimates of the minimum daily requirement for iron depend on age, sex, physiological status and iron bioavailability and range from about 10 to 50 mg/day (WHO, 2008). High concentration of iron (>1.0 mg/L) in groundwater has been found in the states of India which includes Andhra Pradesh, Assam, Bihar, Chhattisgarh, Goa, Gujarat, Haryana, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Orissa, Punjab, Rajasthan, Tamil Nadu, Tripura, Uttar Pradesh, West Bengal and Andaman & Nicobar islands (CGWB, 2010).

Studies pertaining to elevated groundwater iron concentration in different parts of the world had been carried out and includes Behera *et al.*, (2012), Bhuyan (2010), Haloi and Sarma (2011), Hazarika and Bhuyan (2013), Ibe *et al.*, (2001), Idoko (2010), Merrill *et al.*, (2010), Mondal *et al.*, (2010), Ngah and Nwankwoala (2013), Singh *et al.*, (2012), Subba Rao (2007); and Tiwary and Dhar (1994).

Owing to the consumption of groundwater for drinking and cooking purposes the presence of iron makes individuals exposed to various potential health hazards. There is a paucity of studies pertaining to spatio-temporal variation on groundwater quality in study area. This study assesses the influence of space and time on groundwater quality with respect to iron concentration.

### Study Area

Chandrapur district is located in the eastern edge of Maharashtra in 'Vidarbha' region lying between 19°25' N to 20°45' N and 78°50' E to 80°10' E and covers an area of 11,364 km<sup>2</sup> of central India. This district is considered to be one of the most important mining deposits of Maharashtra, India. Intense mining activities along with natural processes like rock alteration attributes to high major and trace metal concentration in the groundwater and stream water.

Chandrapur district is well known for its sprawling coal mines, thermal power plant, pulp and paper industry, cement plants, etc. There are several mines in the Chandrapur district viz. coal, limestone, fluorite, chromium, fireclay, iron, copper, etc. The mineral based industrial development and rapid urbanization has resulted in environmental contamination and degradation. The mining activities disturb the groundwater balance. It is also the fact that it

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increases groundwater contamination as mine water has lower pH values in the ranges of 2-4, which dissolves metals from the surrounding geological formations. Wastewater released from mine pit contains suspended solids, low pH, sulphates, major and trace metals, etc.

### **Climate and Rainfall**

The climate of the district is characterized by a hot summer and general dryness throughout the year except during the south-west monsoon season, i.e., June to September. The temperature rises rapidly after February till May, which is the hottest month of the year. The mean daily maximum temperature during May is 42.8 °C and the mean daily minimum temperature during December is 12.2 °C. The normal annual rainfall varies from about 1200 to 1450 mm. It is minimum in the western part around Warora and gradually increases towards east and reaches maximum around Brahmapuri (CGWB, 2009).

### **Geomorphology**

Chandrapur district can be divided into two physiographic regions i.e., plane region in valleys of Wardha, Penganga and Wainganga Rivers and upland hilly region. The plane region is made up of widely spread and flat terrain occurring mostly along Wardha River. In Wainganga valley flat terrain exhibits rolling topography with residual hills in the southern part, while in the northern part (Brahmapuri taluka) wide alluvial flood plains are observed. In Penganga valley, flat terrain covers very little area in south western part of the district. The upland hilly region lies between Wardha and Wainganga Rivers comprising parts of Warora, Chandrapur, Mul and Brahmapuri talukas. The south western part of the district in Penganga basin and covering parts of Rajura and Gadchandur talukas exhibit hilly topography. The entire area of the district falls in Godavari basin. Wardha, Wainganga and Penganga are the main rivers flowing through the district. These three rivers along with their tributaries rise in the upland within the district and drain the entire district (CGWB, 2009).

### **Hydrogeology**

The major water bearing formations in the district are Alluvium, Lower Gondwana Sandstones, Deccan Trap Basalt, Vindhyan Limestone and Archean metamorphics. Amongst these, the lower Gondwana Sandstones, particularly Kamthi Sandstone forms the most potential aquifer (CGWB, 2009).

### **Geology**

Geologically, Chandrapur district forms a part of Gondwana sedimentary basin. The Gondwana sedimentation took place in Wardha valley where Gondwana sediments have overlay the

Archean rocks. Litologically Chandrapur district presents a variety of stratigraphic units right from Archean to recent alluvium and laterites. The Archean rocks comprise gneisses, quartzites, banded haematite quartzites (BHQ), schists with basic intrusives like pyroxinites, amphibolites, etc. The rocks are intruded by several dykes, trending NE-SW, are exposed in the eastern part of Chandrapur district. Iron ore series and Sakoli series are equivalent in age. Iron ore series constitutes the important iron deposits of Chandrapur district. The rocks are quartzite, BHQ, quartzite schist, phyllites, etc. The Dharwars have been intruded on a very large scale and comprise of granites, granitoids and gneisses. The Vindhyan are represented mainly by flaggy and massive limestones, shale's and sandstones. The lenticular patches of breccia with angular fragments cemented by calcareous matrix are found at several places in limestones. The limestones are dolomitic at places. Sandstones and quartzites are hard compact and forms ridges. Lower Gondwana includes hard quartzite, sandstones, grits, and conglomerates. The sandstones are fine grained whitish colored and calcareous in nature. The shales are of red colour and are found in small patches in the southeastern part of Chandrapur district. The Deccan trap lava formation covers small part of the district. The amygdaloidal softer variant varieties usually show calcite filling. In the district, Alluvium is mostly of fluvial origin and comprises sand, silt and clays. It is generally found along the banks of nallas and rivers. Its thickness varies from 8 to 35 m as observed along the Wardha river, the Erai and the Wainganga river courses. It also contains gravel along with sand, silt and clays at places (Satapathy, 2009).

Chandrapur district is underlined by various geological formations of Archean to recent age. The Archaeans comprises hard and fissured gneisses, quartzite. The Vindhyan metasediments are represented by flaggy and massive shale, limestone, sandstones and ferruginous quartzite, covering an area of 1670 sq km. Groundwater in Archean crystallites and Vindhyan rocks occurs under table to semi-confined conditions in weathered and fractured zones. Aquifers in Archaeans are characterized by degree of weathering, secondary porosity and effective intergranular space; whereas in Vindhyan, joint planes and fracture porosity developed during cooling and compression of sediments and in limestone the solution cavities play a major role in aquifer nature (Geology of the Chandrapur).

Limestone, quartzite and shale of the Vindhyan Super group occur as isolated outcrops in south and southwestern parts of the district. Sandstones, shale's, clays of the Gondwana formations occur near Chandrapur city and also at other localities in isolated patches (Satapathy, 2009).

### **Ore mineralization**

The district is bestowed with deposits of various minerals like coal, iron, limestone, clay, copper, chromium, etc. Thermal power plant, many coal mines, cement and paper factories, huge limestone deposits, iron and chromite mines are the sources of wealth for the district. Natural deposits of the high-grade iron ore in Sindewahi taluka are estimated to be 2,200,000 tonnes; limestone in Rajura and Korpana talukas (547,000,000 tonnes). Coal in Chandrapur taluka alone is estimated to be 1,227,000,000 tonnes. Availability of huge coal deposits has led to increased coal mining activity and the power plant. Availability of limestone has prompted cement industries particularly in Rajura tehsil. Paper mills are established because of availability of wood/bamboo located on banks of river or nallas (Satapathy, 2009).

### **Water resources**

Wardha, Wainganga and Penganga are the important rivers in Chandrapur district. The total replenishable groundwater resource is of the order of  $3.782 \times 10^{10} \text{ m}^3/\text{year}$  provision for domestic, industrial and other uses  $1.24 \times 10^{10} \text{ m}^3/\text{year}$ . Available groundwater resource for irrigation is  $2.547 \times 10^{10} \text{ m}^3/\text{year}$  and the net draft is  $3.8 \times 10^{10} \text{ m}^3/\text{year}$  (Satapathy, 2009).

### **Material and Methods**

#### **Water sampling**

Total 36 representative groundwater samples from hand pumps and dug wells from various villages of Chandrapur district were collected. Groundwater sampling was carried out by grab sampling method for winter 2012 and summer 2013. The sampling locations from the study area are depicted in Figure 1. Out of these 36 groundwater samples collected from study area, two samples were from dug wells and remaining 34 samples were from hand pumps. Before collecting water sample from hand pumps they were pumped for five minutes to avoid collection of stagnated water in its pipe. At the time of allowing the water to flow from a hand pump, internal pipe structure of its outlet was cleaned so as to remove any solids or foreign material adhered to its internal surface. Groundwater samples were collected in pre-cleaned, 100 mL plastic bottles (Poly lab). The plastic bottles were rinsed with hand pump or dug well water before water sampling and then water sample was collected into it. Groundwater sample was collected up to the rim of sampling bottle so as to have no head space in bottle for entry of atmospheric gases into it and thus altering its physico-chemical properties. While carrying out groundwater sampling, water sample was preserved by adding conc.  $\text{HNO}_3$  (1 mL for 100 mL water sample) into it. The sampling bottle's mouth was closed with a screw cap which was afterwards sealed with the help of an adhesive tape so as to avoid entry of contaminant into it.

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The details regarding sampling location were recorded on sampling bottle and also in field diary. The groundwater samples were brought to the laboratory for further analysis.

### **Analytical procedures**

Water quality parameters such as pH and conductivity were measured in the field itself by using portable water analysis kit (Deluxe Water and Soil Analysis Kit, Model 172, India) and temperature by mercury thermometer (Gera Model, GTI, India). Groundwater iron concentration was determined by using ICP-OES (ICP-OES, Dv 7000, Germany).

### **Questionnaire survey**

While carrying out groundwater sampling from study area relevant data pertaining to hand pump/dug well depth, year of installation, usability and availability of water were also collected from respective villagers. The respondent includes males and/or females in study area having primary or above education background. The age of the individuals who were interviewed was above 18 years.

### **Statistical analysis**

The data which was obtained from analytical results was statistically analysed by employing various statistical tools which includes average, mode, median, range and standard deviation.

### **Results and Discussion**

Details pertaining to groundwater sampling locations, geographical details are presented in Table 1. From the table it can be observed that, altitude in the study area was in the range of 152 to 287 m amsl and average altitude was 214.6 m amsl.

### **Winter Season**

Groundwater iron concentration from the study area for winter season is presented in Table 2 and its statistical summary in Table 3. Out of 36 water samples analysed from the study area groundwater iron concentration was detected in 20 (55.55%) samples, whereas in 16 (44.44%) samples iron concentration was below detectable limit. Maximum iron concentration from the study area was found to be 47.101 mg/L (Ballarpur, HP) whereas minimum was 0.006 mg/L (Sonogaon, HP). Of the samples analysed 16 (44.44%) samples had iron concentration within permissible limit as per WHO (1984) and BIS (2012) standards of 0.3 mg/L. Whereas 20 (55.55%) samples had iron concentration above permissible limits of WHO (1984) and BIS (2012) (0.3 mg/L). Of the samples in which iron concentration was above WHO and BIS standards, 8 (22.22%) samples had iron concentration between 0.31-1.0 mg/L, 5 (13.88%) between 1.1 to 2.0 mg/L, 3 (8.33%) in 2.1 to 5.0 mg/L, 1 (2.77%) in 5.1 to 10.0 mg/L and 3

(8.33%) samples had iron concentration above 10.0 mg/L. Spatial distribution of groundwater iron concentration from the study area during winter season is depicted in Figure 2. The average iron concentration from the study area was found to be 2.838 mg/L which was about tenfold higher than drinking water standards prescribed by WHO (1984) and BIS (2012). The standard deviation of groundwater iron concentration in study area during winter season was  $\pm 8.189$ , whereas variance was 67.07 and skewness was 4.87.

### **Summer Season**

Groundwater iron concentration for summer season from study area is presented in Table 2 and its statistical summary is presented in Table 3. Out of 36 samples analysed from the study area, groundwater iron concentration above WHO and BIS standard (0.3 mg/L) was detected in 23 (63.88%) samples whereas in 13 (36.11%) samples the concentration was below WHO and BIS standard (0.3 mg/L). Maximum groundwater iron concentration from the study area was found to be 3.825 mg/L (Ballarpur, HP) and minimum of 0.164 mg/L (Sagra, DW). Of the total samples analysed, 13 (36.11%) samples had iron concentration within permissible limit of WHO (1984) and BIS (2012) standards (0.3 mg/L Max.). Groundwater iron concentration from the study area between 0.31-1.0 mg/L was observed in 18 (50%) sampling locations, whereas in 2 (5.55%) samples the concentration was 1.1 to 2.0 mg/L and in 3 (8.33%) samples it was found to be 2.1 to 5.0 mg/L. Spatial distribution of groundwater iron concentration from the study area during summer season is depicted in Figure 3. The average iron concentration from the study area was found to be 0.731 mg/L which was twofold higher than the prescribed standard for iron concentration by WHO (1984) and BIS (2012) in drinking water. Iron concentration from the study area was in the range of 0.164-3.825 mg/L. The standard deviation was found to be  $\pm 0.909$  which shows that there was no significant deviation in groundwater iron concentration from the study area. The variance and skewness were found to be 0.826 and 2.57 respectively.

From the results of these two seasons from the study area it was found that iron concentration was widely spread in winter season from bdl to 47.101 mg/L and average concentration was 2.838 mg/L which was about tenfold as compared with WHO (1984) and BIS (2012) standards whereas in summer it was in the range of 0.164 to 3.825 mg/L and average concentration was 0.731 mg/L. The presence of such an elevated and varied iron concentration from the study area can be assigned to dissolution of iron from ores in the earth crust of the study area.

### **Conclusion**



Spatio-temporal distribution of average iron concentration in groundwater in study area was 2.838 mg/L (winter) and 0.731 mg/L (summer). The presence of groundwater iron in study area can also be attributed to geogenic origin which needs to be ascertained with further studies. Environmental factors like temperature and precipitation may be causing variations in groundwater iron concentration in study area. Further, with respect to space, iron concentration in groundwater was also varying. This can be attributed to natural geogenic factors (presence of iron bearing ores in the study area) and may be anthropogenic factors also.

Public awareness for presence of groundwater iron in study area and its plausible effects on human health need to be carried out by government agencies. In addition to give some identification mark on water source (e.g. by painting hand pumps/bore wells with red colour) for individuals of the society will make them to use alternate water source. Taking into consideration the socio-economic conditions of inhabitants in the study area an alternative low cost iron removal technology is the need of the hour.

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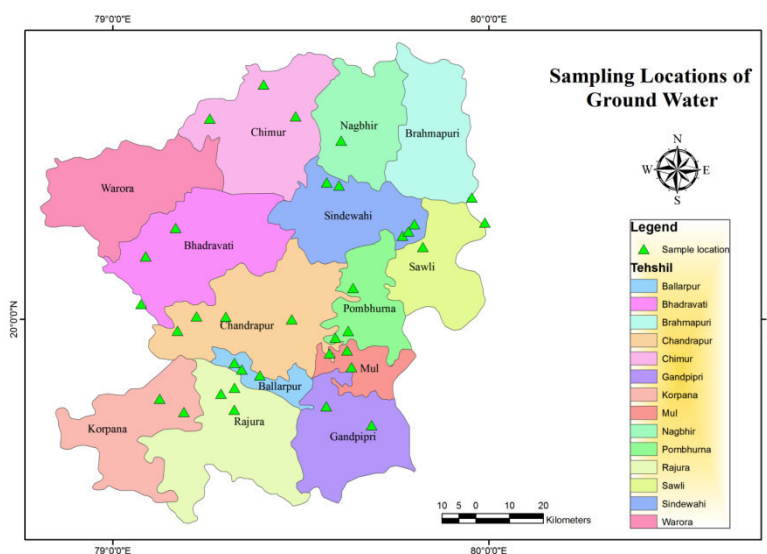


Figure 1. Groundwater sampling locations from study area

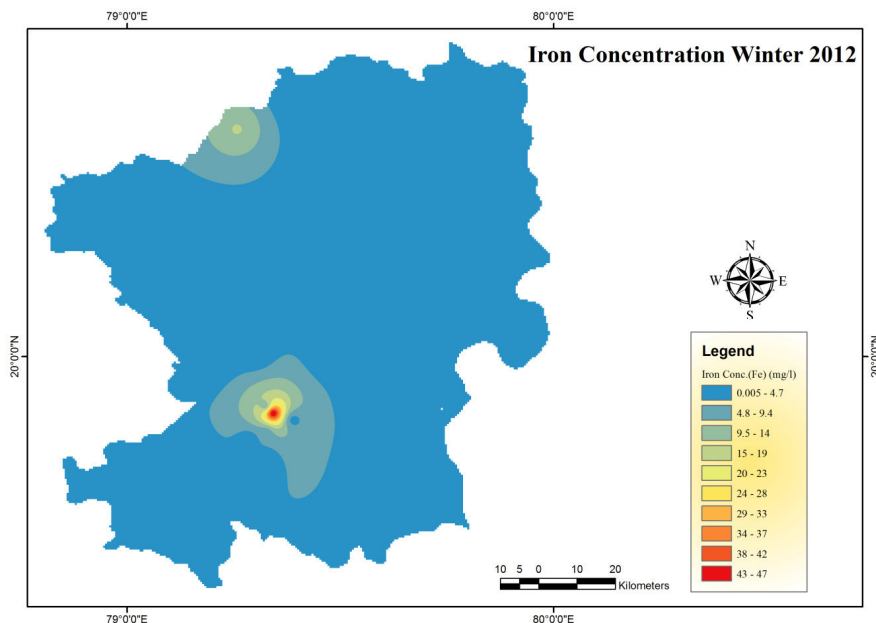


Figure 2. Groundwater iron concentration in study area (Winter 2012)

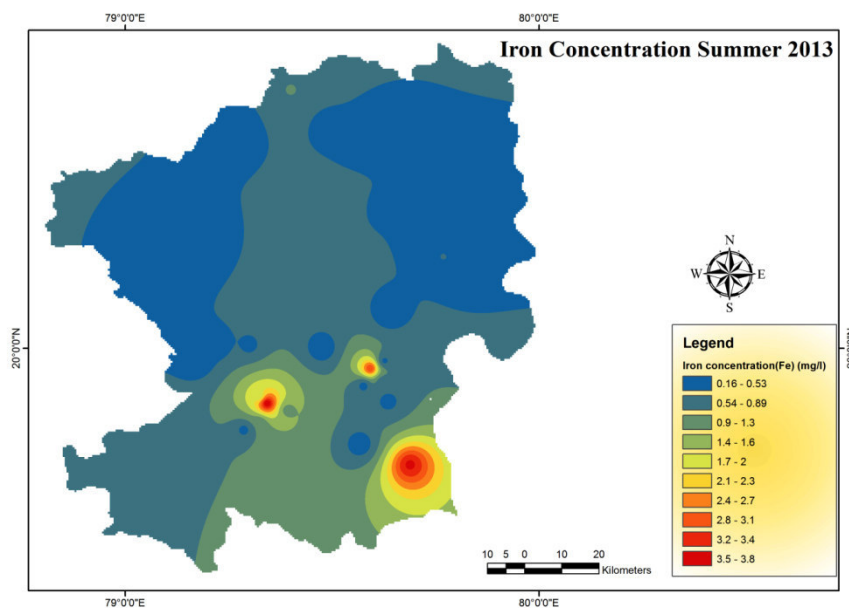


Figure 3. Groundwater iron concentration in study area (Summer 2013) **Table 1.** Details of groundwater sampling locations in study area

Sampling locations	Latitude	Longitude	Altitude	Water source	Age	Depth
Sonegaon	19 58'20.18" N	79 10'30.59" E	215	HP	3	100
Telwasa	20 02' 46.53" N	79 04'54.93" E	207	HP	3	100

Belora	20 10'06.65" N	79 05'21.87" E	210	HP	10	100
Sagra	20 14'57.66" N	79 10'03.50" E	240	DW	57	50
Pethbhansouli	20 32'05.79" N	79 15'46.12" E	209	HP	3	100
Bhisi	20 37'49.43" N	79 24'03.33" E	287	HP	1	150
Pimpalgaon	20 32'42.30" N	79 29'16.55" E	246	HP	25	250
Mowada	20 15'47.70" N	78 59'38.90" E	198	HP	10	180
Dongargaon	20 19'43.68" N	78 57'28.72" E	222	HP	30	200
Lohara	19 59'08.62" N	79 21'32.90" E	202	HP	12	60
Chichpalli	20 00'00.99" N	79 28'54.27" E	226	HP	12	70
Dabgaon (T.)	19 57'06.42" N	79 35'52.71" E	215	HP	3	300
Naleshwar	19 58'15.72" N	79 37'57.79" E	215	HP	12	140
Karwan	20 05'03.19" N	79 38'33.42" E	205	HP	8	150
Chikmara	20 13'36.52" N	79 46'23.80" E	214	HP	25	100
Pathri	20 11'54.59" N	79 49'49.52" E	240	HP	20	100
Gunjewahi	20 15'21.25" N	79 48'11.22" E	230	DW	60	35
Mangali Chak	20 14'03.28" N	79 47'16.26" E	224	HP	25	200
Govindpur	20 28'54.27" N	79 36'45.26" E	271	HP	25	150
Ratnapur	20 21'8.87" N	79 34'14.42" E	250	HP	10	100
Antargaon	20 21'39.96" N	79 36'11.34" E	246	HP	15	200
Visapur	19 53'07.65" N	79 19'40.07" E	152	HP	9	100
Ballarpur	19 52'01.24" N	79 20'56.78" E	243	HP	5	60
Sasti	19 49'07.56" N	79 19'41.11" E	198	HP	10	180
Gowari	19 48'15.48" N	79 17'24.77" E	198	HP	6	120
Arvi	19 45'59.79" N	79 19'37.18" E	202	HP	23	100
Awarpur	19 47'32.39" N	79 07'45.38" E	216	HP	2	200
Lakhmapur	19 45'21.58" N	79 11'35.24" E	243	HP	8	200
Kem (T.)	19 51'05.12" N	79 23'45.20" E	178	HP	8	150
Ganpur	19 46'13.70" N	79 34'04.50" E	199	HP	25	160
Gondpipari	19 43'10.93" N	79 41'29.06" E	195	HP	20	100
Pombhurna	19 52'39.51" N	79 38'06.97" E	189	HP	20	100
Jam Tukum	19 55'06.70" N	79 37'40.47" E	174	HP	20	250
Dongar Haldi	19 54'56.71" N	79 34'57.48" E	187	HP	6	120
Durgapur	20 00'42.04" N	79 18'00.70" E	201	HP	4	20
Morwa	20 00'48.09" N	79 13'36.34" E	218	HP	15	100

Altitude = in meters above mean sea level (amsl); Water source HP = hand pump, DW = dug well; Age = age of the hand pump or dug well from year of installation; Depth = water table depth in feet below ground level (bgl).

**Table 2.** Groundwater iron concentration from the study area

Sampling locations	Altitude	Water source	Age (years)	Depth (m)	Fe concentration (total) mg/L
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					Winter 2012	Summer 2013
Sonegaon	215	HP	3	100	0.006	0.188
Telwasa	207	HP	3	100	0.034	0.221
Belora	210	HP	10	100	bdl	0.171
Sagra	240	DW	57	50	bdl	0.164
Pethbhansouli	209	HP	3	100	14.313	0.312
Bhisi	287	HP	1	150	0.337	0.906
Pimpalgaon	246	HP	25	250	0.687	0.466
Mowada	198	HP	10	180	0.117	0.240
Dongargaon	222	HP	30	200	1.700	0.455
Lohara	202	HP	12	60	3.749	0.357
Chichpalli	226	HP	12	70	bdl	0.204
Dabgaon (T.)	215	HP	3	300	1.997	3.084
Naleshwar	215	HP	12	140	0.982	0.446
Karwan	205	HP	8	150	bdl	0.200
Chikmara	214	HP	25	100	0.575	0.571
Pathri	240	HP	20	100	bdl	0.246
Gunjewahi	230	DW	60	35	bdl	0.188
Mangali Chak	224	HP	25	200	0.117	0.266
Govindpur	271	HP	25	150	0.120	0.249
Ratnapur	250	HP	10	100	1.765	0.864
Antargaon	246	HP	15	200	0.117	0.276
Visapur	152	HP	9	100	11.536	1.741
Ballarpur	243	HP	5	60	47.101	3.825
Sasti	198	HP	10	180	5.715	0.892
Gowari	198	HP	6	120	0.378	0.401
Arvi	202	HP	23	100	0.317	0.901
Awarpur	216	HP	2	200	bdl	0.569
Lakhmapur	243	HP	8	200	2.922	0.793
Kem (T.)	178	HP	8	150	2.927	1.134
Ganpur	199	HP	25	160	1.364	0.281

Gondpipari	195	HP	20	100	0.951	3.548
Pombhurna	189	HP	20	100	0.420	0.351
Jam Tukum	174	HP	20	250	0.030	0.627
Dongar Haldi	187	HP	6	120	1.437	0.399
Durgapur	201	HP	4	20	0.241	0.439
Morwa	218	HP	15	100	0.207	0.331

bdl = below detectable limit, HP = Hand Pump, DW = Dug Well

**Table 3.** Statistical summary of iron in groundwater in study area

Particular	Details	
	Winter	Summer
Total groundwater samples analyzed	36	36
Groundwater samples from hand pump	34 (94.44 %)	34 (94.44 %)
Groundwater samples from dug well	02 (5.55 %)	02 (5.55 %)
Altitude (m amsl) Average	214.55 m amsl	214.55 m amsl
(Range, m amsl)	(152-287 m amsl)	(152-287 m amsl)
Groundwater temperature (°C) Average	29.9 °C	30.4 °C
(Range)	(27.5-31.5 °C)	(28.0-32.0 °C)
Groundwater samples with iron detected	20 (55.5%)	23 (63.88%)
Groundwater samples having iron conc. bdl	16 (44.44%)	13 (36.11%)
Maximum iron concentration in groundwater	47.101 mg/L (Ballarpur, HP)	3.825 mg/L (Ballarpur, HP)
Minimum iron concentration in groundwater detected	0.006 mg/L (Sonegaon, HP)	0.164 mg/L (Sagra, DW)
Groundwater samples having iron concentration within permissible limits as per WHO Standards (1984) and BIS (2012) (< 0.3 mg/L)	16 (44.44%)	13 (36.11%)
Groundwater samples having iron concentration above permissible limits as per WHO Standards (1984) and BIS (2012) (> 0.3 mg/L)	20 (55.55%)	23 (63.88%)
Iron concentration in groundwater below <0.3 mg/L	16 (44.44%)	13 (63.88%)
Iron concentration in groundwater between 0.31-1.0 mg/L	8 (22.22%)	18 (50.0%)
Iron concentration in groundwater between 1.1-2.0 mg/L	5 (13.88%)	2 (5.55%)



mg/L		
Iron concentration in groundwater between 2.1-5.0	3 (8.33%)	3 (8.33%)
mg/L		
Iron concentration in groundwater between 5.1-10.0	1 (2.77%)	--
mg/L		
Iron concentration in groundwater between >10.1	3 (8.33%)	--
mg/L		
Average iron concentration in groundwater in the study area	2.838 mg/L	0.731 mg/L
Range	bdl-47.101 mg/L	0.164-3.825 mg/L
Standard deviation	±8.189	±0.909
Variance	67.07	0.826
Skewness	4.87	2.57

bdl = below detectable limit

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## Assessment Of Seasonal Variation Of Physico-Chemical Characteristics Of Junona Lake In Chandrapur District, Maharashtra, India

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### ABSTRACT

Lakes are important part of an urban ecosystem. Water in lakes is an easily available source of water for the needs of many sectors of economy such as agriculture, domestic and industrial. In an aquatic ecosystem the physico-chemical environment exerts profound influence on its biotic components. Therefore periodic examination of these water bodies is necessary to determine their environmental status. In this context a study was conducted from Feb 2014-Jan 2015 for estimation of physico-chemical characteristics. During the analysis it was found that values of colour, temperature, pH, total dissolved solids, alkalinity and total phosphorus exceeds during summer as compared to winter and monsoon season.

**Key words:** Physico-chemical, seasonal, characteristics, Chandrapur, Maharashtra

### INTRODUCTION

Water is one of the priceless gifts of nature. Today, water resources have been most exploited due to increasing population, industrialization, urbanization, increasing living standards and broad spheres of human activities. The level of pollution in the natural environment especially water contamination has been of great concern to the scientists, environmentalist and engineers because of its toxic nature and other adverse effects on human beings and other living creatures (Sinha, D., K., and Navneet Kumar (2008).

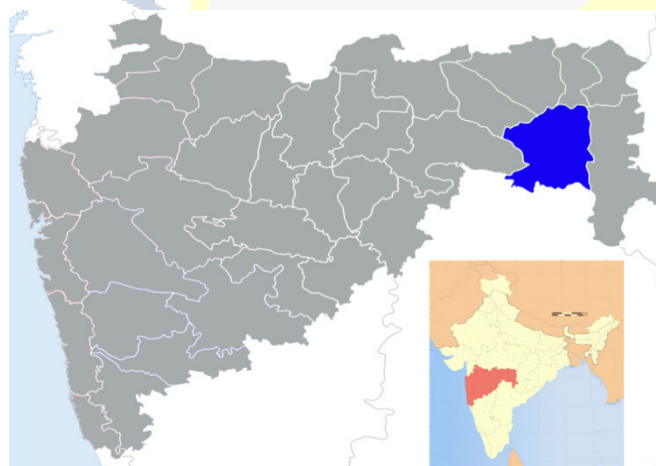
Water is widely distributed on Earth as freshwater and salt water in the oceans. The Earth is often referred to as the "blue planet". The oceans cover roughly 71% of the area of the Earth. Of the liquid surface fresh water, 87% is contained in lakes, 11% in swamps, and only 2% in rivers. Small quantities of water also exist in the atmosphere and in living beings (Water distribution on Earth). Typically, fresh water is defined as water with a salinity of less than 1 percent that of the oceans. Water with salinity between this level and 1% is typically referred to as marginal water because it is marginal for many uses by humans and animals. The ratio of salt water to fresh water on Earth is around 40 to 1 (United States Geological Survey).

Chandrapur District is abundantly endowed with rich flora and fauna, water resources and mineral wealth. Chandrapur district is also gifted with large number of lakes. The larger lakes in the district are Ghodazari, Asola Mandha, Kasarla, Tadoba, Naleshwar, Junona, and Ramala etc. (MPCB, 2006). Due to available minerals and abundant water resources, industries have been set up within and in the surrounding of Chandrapur city (MPCB, 2006). But due to industrial proliferation, rapid population growth, increasing living standards and wide spread human activities these resources, especially water is getting exploited. Surface water resources are becoming polluted due to heavy flux of sewage, industrial effluents and agriculture wastes which

consists of substances varying from simple nutrients to toxic hazardous chemicals. Toxic chemicals and human waste products pose threat to aquatic life as well as human health. Surface water resources in Chandrapur District are facing problem of nutrient load which is the root cause of eutrophic condition of water bodies specially the lentic ecosystem.

Lakes serve as an important life support system which not only recharge and regulate the hydrological regime but also plays significant role in water table maintenance (Jadhav and Khare, 2008). The lakes act as a potential habitat of many aquatic birds and represent significant network of tropic levels. Thus, many lakes around the world are favourite bird watching destinations. The lakes of India act as a warm habitat for many migratory birds during winter (Ranade 2007). Lakes are used for domestic and irrigation purposes, and provide ecosystems for aquatic life especially fish, thereby functioning as a source of essential protein, and for significant elements of the world's biological diversity. They have important social and economic benefits as a result of tourism and recreation, and are culturally and aesthetically important for people throughout the world (Muhammad and Tasneem 2008). The rapidly expanding human population within the catchment area of lakes has brought about a series of changes in its biotic components (Pandit and Rather 2002).

#### STUDY AREA



Chandrapur district is one of the eleven districts of Vidarbha region of Maharashtra. Chandrapur district is located in the eastern edge of Maharashtra in Nagpur division and forms the eastern part of 'Vidarbha' region. It is bounded on south by Andhra Pradesh State, east by Garhchiroli district, on north by Gondia, Bhandara, Nagpur and Wardha districts on west by Yavatmal district. Wardha River forms the western boundary, whereas Wainganga River forms

the eastern boundary of the district. The district lies between 19°30' and 20°45' north latitudes

and 78°46' and 80°00' east longitudes. It falls in parts of the Survey of India Toposheet No. 55H, 55L, 56E and 56I covering an area of 10920 sq.km (CGWB). The city is located on the bank of 'Erai' river. Due to number of coal mines present around the city, the city is also known as city of **Black Gold** (Environmental Status Report, 2007).



**Junona Lake:** The Junona Lake is the principal freshwater bodies situated south side and the area of this lake is spread over

near about 300 acre, 12km away from the Chandrapur city, located in the Chandrapur district of



Maharashtra state, India. It is situated at about 677 m. above mean sea level and is at 79 23'35.97" E longitude and 19°55'29.92" N latitude. The water of this lake is primarily used for washing, bathing and fishing activities (Harney N.V, 2015). Junona Lake is a fresh water and historical lake of Chandrapur district. The lake is surrounded by dense Chichpalli forest and contains rich treasure of flora and fauna. It harbours varieties of birds including migratory birds. This place is known for its scenery lake, where various types of birds visit during different seasons around the year.

**Water Sampling:** Water Sampling was done taking into consideration of objectives of water quality monitoring. Sampling locations were also based on water quality monitoring and some knowledge of the physical features of the water- course system. The location of the sampling stations was made only after a field investigation and accordingly sampling locations were selected. The samples were collected from all the locations by grab sample. The samples were collected for studying the variations in water quality and for comparative analysis.

**Sample Container:** The water sampling was done by using borosilicate glass bottle and polyethylene bottles of one liter capacity having tightly sealed stopper. The bottles were soaked with 10% HCL and then thoroughly cleaned and rinsed with distilled water. Acid dichromate solution was prepared as stated by Maiti S. K. and was used as cleaning solution.

**Sample Collection:** During collection of water sample the sampling container was rinsed 2-3 times with the sample to be examined. The sampling was done where water was well mixed. Large non-homogenous matter such as leaves, rags, twigs and other floating material was avoided while collecting the water sample. The sampling was done preferably at 20cm depth in a shallow site and more than that as far as possible.

**Labelling and transportation of container:** Each sampling bottle was provided with an identification label on which the following information was mentioned as shown in table 7. Sampling containers were placed either in plastic box or in thermocole box and ice cubes were added to the boxes to maintain the low temperature to avoid the changes in the constituents of water during transportation.

Following parameters were measured at the sampling site or in the field immediately after a sample was taken

1. Temperature (must be measured in situ)
2. pH (portable pH meter )
3. Electrical conductivity (portable conductivity meter)
4. Dissolved Oxygen (300ml sample in BOD bottle and DO was fixed by adding 2ml MnSO<sub>4</sub>)
5. Transparency (SD)

Table 1: Physico-chemical characteristics of Junona Lake during summer season (Feb-May 2014)

Parameters	Site 1	Site 2	Site 3	Site 4	Site 5	Average
Colour (Hazen )	16.0	18.0	20.0	14.0	16.0	16.8
Temperature °C	36.2	35.5	35.0	39.9	35.1	36.34

Turbidity (NTU)	11.2	15.5	20.6	12.9	16.0	15.24
pH	7.9	8.2	8.3	8.0	7.6	8.0
TDS(mgL <sup>-1</sup> )	200	250	260	220	270	240
Conductivity mmhos/cm	0.698	1.12	1.16	1.12	0.786	0.976
Total Alkalinity (mgL <sup>-1</sup> )	130	164	148	142	139	114.6
Acidity (mgL <sup>-1</sup> )	110.0	100.0	125.0	120.0	130.0	117.0
Chlorides(mgL <sup>-1</sup> )	40.5	44.8	46.1	44.9	46.7	44.6
Total Hardness (mgL <sup>-1</sup> )	89.0	76.5	78.2	87.6	88.0	83.86
DO (mgL <sup>-1</sup> )	4.3	4.1	3.1	2.2	3.5	3.44
BOD(mgL <sup>-1</sup> )	1.5	1.0	1.6	1.7	1.0	1.36
COD(mgL <sup>-1</sup> )	13.9	15.5	14.2	18.2	14.3	15.22
Total Phosphate (mgL <sup>-1</sup> )	2.20	1.74	1.54	1.78	1.90	1.832
Secchi disc(m)	0.25	0.26	0.30	0.25	0.15	0.242

Table 2: Statistical analyses of Physico-chemical characteristics of Junona Lake during summer season (Feb-May 2014)

Parameters	Range		Average	Average Deviation	Standard deviation
	Min	Max			
Colour (Hazen )	14	20	16.8	1.6	2.280
Temperature °C	35	39.9	36.34	1.424	2.0452
Turbidity(NTU)	11.2	20.6	15.24	2.552	3.576
pH	7.6	8.3	8.0	0.2	0.273
TDS(mgL <sup>-1</sup> )	200	270	240	24.0	29.154
Conductivity mmhos/cm	0.698	1.16	0.976	0.187	0.217
Total Alkalinity (mgL <sup>-1</sup> )	130.0	164.0	114.6	9.12	12.641
Acidity (mgL <sup>-1</sup> )	100.0	130.0	117.0	9.6	12.0415
Chlorides(mgL <sup>-1</sup> )	40.5	46.7	44.6	1.64	2.428
Total Hardness (mgL <sup>-1</sup> )	76.5	89.0	83.86	5.208	5.994
DO (mgL <sup>-1</sup> )	2.2	4.3	3.44	0.632	0.841
BOD(mgL <sup>-1</sup> )	1.0	1.7	1.36	0.288	0.336
COD(mgL <sup>-1</sup> )	13.9	18.2	15.22	1.304	1.773
Total Phosphate (mgL <sup>-1</sup> )	1.54	2.20	1.832	0.1744	0.2431
Secchi disc(m)	0.15	0.30	0.242	0.0368	0.0554

Table 3: Physico-chemical characteristics of Junona Lake during monsoon season (June-sept 2014)

Parameters	Site 1	Site 2	Site 3	Site 4	Site 5	Average
Colour (Hazen )	9.8	10.0	13.2	14.0	12.5	11.9
Temperature °C	30.1	28.4	29.1	30.4	29.5	29.5
Turbidity (NTU )	13.5	11.2	23.5	26.9	12.9	15.02
pH	7.34	7.46	7.33	8.0	7.56	7.53
TDS(mgL <sup>-1</sup> )	78.0	60.0	80.6	90.0	50.0	61.72
Conductivity mmhos/cm	0.145	0.18	0.15	0.28	0.14	0.151
Total Alkalinity (mgL <sup>-1</sup> )	110.5	115.9	117.0	115.5	114.8	114.74
Acidity (mgL <sup>-1</sup> )	145.2	155.0	150.2	145.0	185.4	156.08
Chlorides(mgL <sup>-1</sup> )	64.9	69.8	94.6	93.4	73.5	79.24
Total Hardness (mgL <sup>-1</sup> )	149.6	163.8	184.3	164.0	156.8	126.85
DO (mgL <sup>-1</sup> )	3.8	2.9	3.5	3.9	3.3	3.48
BOD(mgL <sup>-1</sup> )	1.0	2.3	1.7	1.8	2.4	1.84
COD(mgL <sup>-1</sup> )	12.9	14.3	14.8	12.5	20.5	15.0
Total Phosphate (mgL <sup>-1</sup> )	0.035	0.032	0.022	0.027	0.034	0.030
Secchi disc(m)	0.23	0.38	0.28	0.36	0.38	0.33

Table 4: Statistical analyses of Physico-chemical characteristics of Junona Lake monsoon season (June-sept 2014)

Parameters	Range		Average	Average Deviation	Standard deviation
	Min	Max			
Colour (Hazen )	9.8	14.0	11.9	1.6	1.9026
Temperature °C	28.4	30.4	29.5	0.6	0.7968
Turbidity(NTU)	11.2	26.9	15.02	6.08	7.0915
pH	7.33	8.0	7.53	0.1936	0.2749
TDS(mgL <sup>-1</sup> )	78.0	90.0	61.72	13.376	16.2908
Conductivity mmhos/cm	0.14	0.28	0.151	0.0408	0.0585
Total Alkalinity (mgL <sup>-1</sup> )	110.0	117.0	114.74	1.696	2.5006
Acidity (mgL <sup>-1</sup> )	145.0	155.0	156.08	11.696	16.8561
Chlorides(mgL <sup>-1</sup> )	64.9	94.6	79.24	11.808	13.8214
Total Hardness (mgL <sup>-1</sup> )	149.6	184.3	126.85	8.4	12.9506
DO (mgL <sup>-1</sup> )	2.9	3.9	3.48	0.304	0.4024
BOD(mgL <sup>-1</sup> )	1.0	2.4	1.84	0.408	0.5594
COD(mgL <sup>-1</sup> )	12.5	20.5	15.0	2.2	3.2186

Total Phosphate (mgL <sup>-1</sup> )	0.022	0.035	0.030	0.0044	0.005431
Secchi disc(m)	0.23	0.38	0.33	0.0568	0.0676

Table 5: Physico-chemical characteristics of Junona Lake during winter season (Oct-Jan 2015)

Parameters	Site 1	Site 2	Site 3	Site 4	Site 5	Average
Colour (Hazen )	10	7.5	8.0	14.0	12.0	10.3
Temperature °C	25	25	25	25	25	25.0
Turbidity (NTU )	4.2	3.0	3.5	7.0	5.0	4.54
pH	7.2	6.89	6.57	7.30	6.25	6.84
TDS(mgL <sup>-1</sup> )	280	200	250	300	270	260
Conductivity mmhos/cm	0.28	0.22	0.24	0.23	0.25	0.24
Total Alkalinity (mgL <sup>-1</sup> )	80.0	88.0	84.0	90.0	92.0	86.8
Acidity (mgL <sup>-1</sup> )	60.0	80.0	64.0	62.0	82.0	69.6
Chlorides(mgL <sup>-1</sup> )	62.5	78.2	92.3	94.3	72.6	79.98
Total Hardness (mgL <sup>-1</sup> )	100	97.2	98.5	102.0	99.0	99.34
DO (mgL <sup>-1</sup> )	6.2	5.9	5.2	6.9	7.0	6.24
BOD(mgL <sup>-1</sup> )	1.2	1.5	1.85	2.0	1.25	1.048
COD(mgL <sup>-1</sup> )	14.2	15.5	14.9	13.9	16.5	15.0
Total Phosphate (mgL <sup>-1</sup> )	2.10	1.20	1.65	1.90	1.65	1.7
Secchi disc(m)	0.42	0.35	0.50	0.45	0.36	0.416

Table 6: Statistical analyses of Physico-chemical characteristics of Junona Lake during winter season (Oct-Jan 2015)

Parameters	Range		Average	Average deviation	Standard deviation
	Min	Max			
Colour (Hazen )	7.5	14	10.3	2.16	2.7294
Temperature °C	25.0	25.0	25.0	00	00
Turbidity(NTU)	3.0	7.0	4.54	1.168	1.567
pH	6.25	7.30	6.84	0.3456	0.0437
TDS(mgL <sup>-1</sup> )	200	300	260	28.0	38.078
Conductivity mmhos/cm	0.22	0.28	0.24	0.0168	0.023
Total Alkalinity (mgL <sup>-1</sup> )	80.0	92.0	86.8	3.84	4.816
Acidity (mgL <sup>-1</sup> )	60.0	82.0	69.6	9.12	10.526

Chlorides(mgL <sup>-1</sup> )	62.5	94.3	79.98	10.656	13.416
Total Hardness (mgL <sup>-1</sup> )	97.2	102	99.34	1.328	1.796
DO (mgL <sup>-1</sup> )	5.2	7.0	6.24	1.328	0.743
BOD(mgL <sup>-1</sup> )	1.2	2.0	1.048	0.292	0.356
COD(mgL <sup>-1</sup> )	13.9	16.5	15.0	0.8	0.933
Total Phosphate (mgL <sup>-1</sup> )	1.20	2.10	1.7	0.24	0.337
Secchi disc(m)	0.35	0.50	0.416	0.0488	0.0626

Table 7: Comparative analysis of Physico-chemical characteristics of Junona Lake during winter, monsoon and summer season (Feb 2014-Jan 2015)

Parameters	Winter		Monsoon		Summer	
	Min	Max	Min	Max	Min	Max
Colour (Hazen )	7.5	14.0	9.8	14.0	14.0	20.0
Temperature °C	25.0	25.0	28.4	30.4	35.0	39.9
Turbidity(NTU)	3.0	7.0	11.2	26.9	11.2	20.6
pH	6.25	7.30	7.33	8.0	7.6	8.3
TDS(mgL <sup>-1</sup> )	200.0	300.0	78.0	90.0	200.0	270.0
Conductivity mmhos/cm	0.22	0.28	0.14	0.28	0.698	1.16
Total Alkalinity (mgL <sup>-1</sup> )	80.0	92.0	110.0	117.0	130.0	164.0
Acidity (mgL <sup>-1</sup> )	60.0	82.0	145.0	155.0	100.0	130.0
Chlorides(mgL <sup>-1</sup> )	62.5	94.3	64.9	94.6	40.5	46.7
Total Hardness (mgL <sup>-1</sup> )	97.2	102.0	149.6	184.3	76.5	89.0
DO (mgL <sup>-1</sup> )	5.2	7.0	2.9	3.9	2.2	4.3
BOD(mgL <sup>-1</sup> )	1.2	2.0	1.0	2.4	1.0	1.7
COD(mgL <sup>-1</sup> )	13.9	16.5	12.5	20.5	13.9	18.2
Total Phosphate (mgL <sup>-1</sup> )	1.20	2.10	0.022	0.035	1.54	2.20
Secchi disc(m)	0.35	0.50	0.23	0.38	0.15	0.30

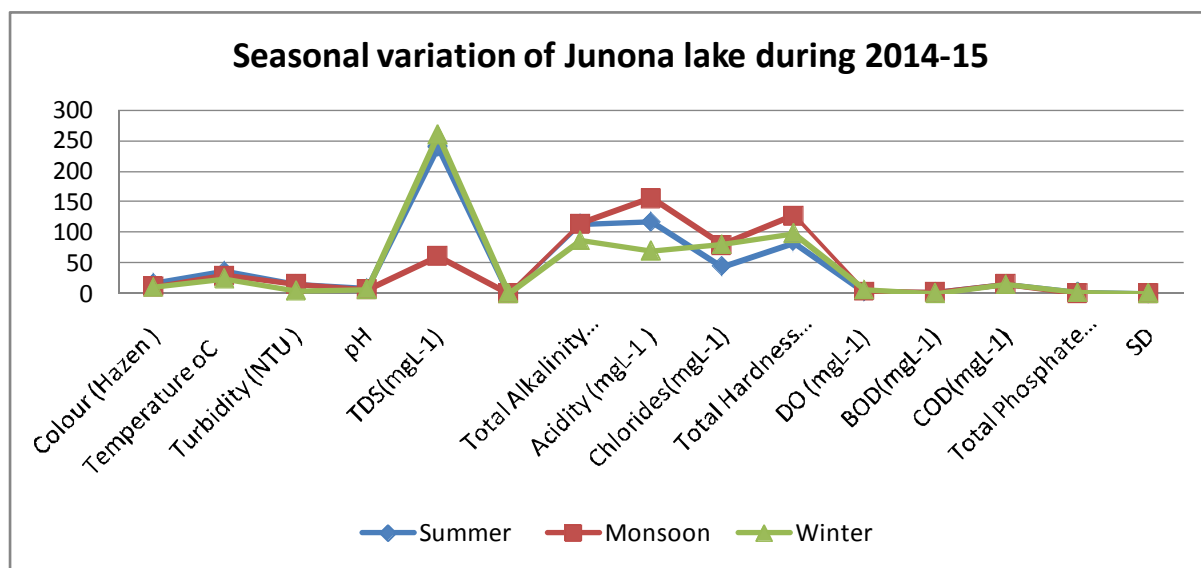


Fig 1: Graphical representation of seasonal variation of physico-chemical characteristics of Lake Junona (2014-2015)

## RESULTS AND DISCUSSION

**Colour:** Colour is usually the first to be recognized which affects the aesthetic, water transparency and gas solubility of water bodies (Yuxing and Jian, 1992). For Junona lake minimum colour was recorded in winter season i.e. 7.5 Hazen units and maximum colour was recorded in summer season i.e. 20.0 Hazen units. This may be due to evaporation of water in summer season.

**Temperature:** Temperature influences the parameters like dissolved oxygen, solubility, pH, conductivity etc. influencing water chemistry (Ramchandra, and Solanki, 2007). Atmospheric and water temperature both play an important role in the physico- chemical and physiological behaviour of an aquatic system. It also exerts profound direct or indirect influence on metabolic and physiological behaviour of aquatic ecosystem (Welch, 1952). Water temperature is dependent on duration and intensity or daily iridescence received by the water body. The intensity of solar radiation may be modified by variations in cloud cover, water flow, phytoplankton species composition and diversity, surface area, depth, wind velocity, solid matter suspension, altitude, etc. resulting in fluctuations in water temperature (Atoma, O.C., 2004). For Junona lake minimum temperature was recorded in winter season i.e. 25.0°C and maximum temperature was recorded in summer season i.e. 39.9°C.

**Turbidity:** Turbidity is also related to aesthetic of water body. Turbid water is not suitable for drinking purposes. For Junona lake minimum turbidity was recorded in winter season i.e. 3.0 NTU and maximum turbidity was recorded in summer season i.e. 20.6 NTU.

**pH:** pH is the negative logarithmic expression of hydrogen ion concentration. pH showing alkaline conditions supports productivity of lotic ecosystem (Chandrasekhar, 2006). pH that maintains the acidic or basic property, is a vital characteristic of any aquatic ecosystem since all the biochemical activities and retention of physico- chemical attributes of the water are greatly depend on pH of the surrounding water. Most of the similar study suggested that water samples are slightly alkaline due to presence of carbonates and bicarbonate (Tank and *et al* 2013 and

Verma and Chandawat 2012). Venkateswarlu has classified reservoirs into five categories, viz., acidobiontic (pH<5.5), acidophilus (pH from 5.5 to 6.5), indifferent pH (between 6.5 to 7.5), alkaliphilous (pH between 7.5 to 9.0) and alkalibiontic (pH more than 9.0). According to Jhingran and Sugunan, the pH range between 6.0 and 8.5 was medium productive reservoirs, more than 8.5 were highly productive. The pH range for Junona was 6.25 to 8.3 (medium productive - highly productive).

**Total dissolved solids (TDS):** Total dissolved solids is simply the sum of cations and anions concentrations expressed in mg/L. A high content of TDS elevates the density, turbidity, hardness, salinity of water, influences osmoregulation of fresh water organisms, reduces solubility of gases (like oxygen), reduces utility of water for drinking purpose and results into eutrophication of the aquatic ecosystem (Mathur, *et al.*, 2007). For Junona Lake minimum TDS was recorded in winter and monsoon season i.e. 78.0 mg/L<sup>-1</sup> and maximum TDS was recorded in winter season i.e. 300 mg/L<sup>-1</sup>.

**Conductivity:** Conductivity is a numerical expression of an aqueous solution's capacity to carry an electric current. This ability depends on the presence of ions, their total concentration, mobility, valence and relative concentrations, and on the temperature of the liquid. Solutions of most inorganic acids, bases, and salts are relatively good conductors. In contrast, the conductivity of distilled water is less than 1 µmhos/cm. Conductivity of the lake is generally lower during the rainy seasons than dry season. It is due to a dilution by rain and less evaporation during the rainy season, especially in lakes with short retention time (Zinabu, 2002).

**Total Alkalinity:** Alkalinity is a measure of the buffering capacity (ability to resist changes in pH) of the water, and since pH has a direct effect on organisms as well as an indirect effect on the toxicity of certain other pollutants in the water, the buffering capacity is important to water quality. Commonly occurring materials in water that increase alkalinity are carbonates, bicarbonates, phosphates and hydroxides. Limestone bedrock and thick deposits of glacial till are good sources of carbonate buffering. Lakes within such areas are usually well-buffered (Gorde and Jadhav 2013). Spence has also classified Scottish lakes into three major categories based on the values of alkalinity. They are (i) nutrient poor (1.00 mgL<sup>-1</sup> to 15.00 mgL<sup>-1</sup>) (ii) moderately rich nutrient (16.00 mgL<sup>-1</sup> to 60.00 mgL<sup>-1</sup>) and (iii) nutrient rich (>60.00 mgL<sup>-1</sup>). For Junona lake minimum total alkalinity was recorded in winter season i.e. 80.0 mg/L<sup>-1</sup> and maximum total alkalinity was recorded in summer season i.e. 164.0 mg/L<sup>-1</sup>.

**Acidity:** Acidity of a liquid is its capacity to donate H<sup>+</sup> ions. Waters containing mineral acidity i.e. due to H<sub>2</sub>SO<sub>4</sub>, HCL and HNO<sub>3</sub> are unacceptable. For Junona lake minimum acidity was recorded in winter season i.e. 60.0 mg/L<sup>-1</sup> and maximum acidity was recorded in monsoon season i.e. 155.0 mg/L<sup>-1</sup>.

**Chloride:** Chloride is one of the major inorganic anion in water and waste water. It is stored in most fresh water algal cells. Contamination of water from domestic sewage can be monitored by chloride assays of the concerned water bodies. For Junona lake minimum chloride was recorded in summer season i.e. 40.5 mg/L<sup>-1</sup> and maximum chloride was recorded in monsoon season i.e. 94.6 mg/L<sup>-1</sup>.

**Hardness:** Hardness of water is not a pollution parameter but indicating water quality mainly in terms of  $\text{Ca}^{++}$  and  $\text{Mg}^{++}$  expressed as  $\text{CaCO}_3$ . The increase in hardness can be attributed to the decrease in water volume and increase in the rate of evaporation at high temperature (Kaur and Sharma, 2001). High values of hardness may be probably due to regular addition of sewage and detergents to the lake from nearby residential areas (Kaur *et al.*, 1996). Total hardness is the property of water which prevents the lather formation with soap and increases the boiling points of water (Trivedy and Goel 1986). Hardness is governed by the concentration of calcium and magnesium salts largely combined with bicarbonates and carbonates giving temporary hardness while sulfate, chloride and other anions of mineral acids causing permanent hardness (Sawant and Chavan 2013). Water having more than 60.0 ppm hardness is the nutrient rich water (Manwar N.A *et al.*, 2014). For Junona lake minimum total hardness was recorded in summer season i.e.  $76.5\text{mg/L}^{-1}$  and maximum total hardness was recorded in monsoon season i.e.  $184.3\text{mg/L}^{-1}$ .

**Dissolved oxygen (DO):** Dissolved oxygen is an important parameter in water quality assessment as it regulates many metabolic and physiological processes of biotic components. The DO values indicate the degree of pollution in water bodies (Nirbhay and Pimple 2015). The lower concentration of dissolved oxygen is a sign of organic pollution in the lake (Dwivedi P 2000). Dissolved oxygen in water at a given temperature depends on factors like temperature of water. The low dissolved oxygen value may be due to higher water temperature (Singh *et a.*, 1991). For Junona lake minimum DO value was recorded in summer season i.e.  $2.2\text{mg/L}^{-1}$  and maximum DO was recorded in winter season i.e.  $7.0\text{mg/L}^{-1}$ .

**Biochemical Oxygen Demand:** Biochemical Oxygen Demand is a test for measuring the amount of biodegradable organic material present in water. The acceptable BOD level in raw water meant for treatment for is  $3\text{mg/L}$  while more than  $2\text{mg/L}$  BOD indicate the non suitability of river water for domestic use as per Indian standards. For Junona lake minimum BOD value was recorded in summer season i.e.  $1.0\text{mg/L}^{-1}$  and maximum BOD was recorded in monsoon season i.e.  $2.4\text{mg/L}^{-1}$ .

**Chemical Oxygen Demand (COD):** Chemical Oxygen Demand (COD) test determine the oxygen required for chemical oxidation of organic matter with the help of strong chemical oxidant. For Junona lake minimum COD value was recorded in monsoon season i.e.  $12.5\text{mg/L}^{-1}$  and maximum COD was recorded in monsoon season i.e.  $20.5\text{mg/L}^{-1}$ .

**Total Phosphorus (TP):** Phosphorus, an essential part of the biological system, is present mostly in the form of inorganic phosphates, which is taken up by the biota (Martin, 1987) and also constitutes a limiting factor to eutrophication (Vollenweider *et al.*, 1980). In natural water, phosphates are present in small quantities. Generally aquatic ecosystems receive it as an essential plant nutrient and most often controls aquatic plant (algae and macrophyte) growth in freshwater. It is found in fertilizers, human and animal wastes, and yard waste. There is no atmospheric (vapor) form of phosphorus. Because there are few natural sources of phosphorus excess of this nutrient through untreated domestic sewage and agriculture runoff (Malathi, 1999). Normally phosphate acts as a limiting nutrient in the process of eutrophication and lakes can be aesthetically classified into good, fair and bad on the basis of % phosphates loading (Edmondson,



1991). Phosphates may occur in surface water as a result of domestic sewage, detergents and agricultural effluent with fertilizers. The high level of both phosphates and nitrates can lead to eutrophication, which increases algal growth and ultimately reduces dissolved oxygen in the water (Murdoch and Cheo, *et al* 2001). Lee *et al* have classified the water bodies on the basis of phosphorus contents into five categories (i) oligotrophic  $<0.007 \text{ mgL}^{-1}$  (ii) oligomesotrophic  $0.008 \text{ mgL}^{-1}$  to  $0.011 \text{ mgL}^{-1}$  (iii) mesotrophic  $0.012 \text{ mgL}^{-1}$  to  $0.027 \text{ mgL}^{-1}$  (iv) meso-eutrophic  $0.028 \text{ mgL}^{-1}$  to  $0.039 \text{ mgL}^{-1}$  (v) eutrophic ( $>0.040 \text{ mgL}^{-1}$ ). For Junona lake minimum TP value was recorded in winter season i.e.  $0.00 \text{ mg/L}^{-1}$  and maximum TP was recorded in summer season i.e.  $2.20 \text{ mg/L}^{-1}$ .

**Secchi disc (SD):** The Secchi disc is among the oldest limnological measuring devices; the first use dates to 1865 (Cialdi 1866). Measurements of Secchi disc depth approximate the point of 1 to 20% surface light penetration (Beeton 1958; Lorenzen 1978). Black and white markings gave Aberg and Rodhe (1942) a sharper end point. Specific instructions for use of the Secchi disc are provided by Hutchinson (1957) and Wetzel (1975). Secchi disc depth is controlled by chlorophyll at high chlorophyll levels, while disc depth is controlled by non-chlorophyll turbidity at low chlorophyll levels (Lorenzen 1980). Furthermore, at high chlorophyll concentrations, even large reductions in chlorophyll produce little change in disc measurements (Rodhe 1965). The Secchi disc measures light reduction more from suspended particles than dissolved particles (Szczepanski 1968). For Junona lake minimum SD value was recorded in summer season i.e. 0.15meter and maximum SD was recorded in winter season i.e. 0.50meter.

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**Phytochemical Investigations And Antimicrobial Activity Of *Geodorum densiflorum*(Lam) Schltr.**

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**ABSTRACT:**

*Geodorum densiflorum*, a terrestrial orchid member of family Orchidaceae having distributed in Ambabarwa forest locality of Buldhana district. The pseudo-bulbs are found to be useful as nutraceutical particularly on debility, stomach troubles, insect bite, wounds, rheumatic swellings, diabetes and complaints related to women health.

The present paper deals with qualitative phytochemical analysis and antimicrobial activity of pseudobulbs of *Geodorum densiflorum*. The pseudobulbs showed alkaloids, glycosides, phytosterols, tannins and proteins and antimicrobial activity against *Bacillus cereus*, *Bacillus subtilis*, *Staphylococcus aureus*, *Escherichia coli*, *Pseudomonas aurigenosa* and *Salmonella typhi*.

**Key words:** Phytochemical investigations, Antibacterial Activity, *Geodorum densiflorum*.

**Introduction:**

Ethnomedicinal plants play a vital role in maintaining human health and contribute towards improvement of human life. The ethno-botanical information is being prominently used for the formulation of alternative drugs and gaining much significance because of its efficacy and negligible side effects. The skill and practices nourished by tribal communities are also increasingly acknowledged by the pharmaceutical industries due to the presence of novel phytoconstituents.

Plants have provided a source of inspiration for novel drug compounds as plant-derived medicines have made significant contribution towards human health. Phytomedicines can be used for the treatment of diseases as is done in case of Unani and Ayurvedic system of medicines or it can be the base for the development of a medicine, a natural blueprint for the development of new drugs.

*Geodorum densiflorum* (Lam) Schltr., locally known as jangalisalam or hargatthi, (Family: Orchidaceae) is a terrestrial herb with buried or half buried, ovoid-conical pseudobulbs. The plants are distributed in a restricted locality and seem to be exploited heavily for the purpose of crude formulations. They are mostly perennated by pseudo-bulbs. The tubers are found to be useful as nutraceutical particularly on debility, stomach troubles and complaints related to women health.

The pseudo-bulbs of *G. densiflorum* are used as medicine for the treatment of various diseases (Rao, 1979). It's an endangered species (Sheelavantmath et al., 2000). The pseudobulb is used to regularize menstrual cycle (Dash et al., 2008) and in diabetes by the traditional

practitioners. The underground pseudobulb of the plant has been found to possess anti-diabetic property (Roy and Banerjee, 2002).

The present paper deals with qualitative phytochemical analysis and antibacterial activity of pseudobulbs of such an endangered orchid *Geodorundensiflorum*.

#### MATERIAL AND METHODS:

The pseudobulbs of *Geodorundensiflorum*(Lam) Schltr. (Fig. 2) were collected from Ambabarwa forest locality of Buldhana district in October, 2010. The plant specimens were identified and authenticated from PGTD STM Nagpur University, Nagpur and deposited in the Department of Department Of Biotechnology, SGB Amravati Uni. Amravati (M.S.).

The pseudobulbs of *Geodorundensiflorum* were washed under running tap water, shade dried and then homogenized to fine powder and stored in airtight bottles.

#### Preparation of Crude Extract:

Different solvents like Petroleum ether, chloroform, methanol, ethanol and water were chosen for successive solvent extraction based on polarity using Soxhlet extraction apparatus and the extracts of *Geodorundensiflorum* were concentrated under reduced pressure using rotary evaporator (Gunasekaran and Selvarajan, 2009).

#### Phytochemical Tests:

Solvent free extract obtained as above was then subjected to qualitative tests for identification of various plant constituents of each sample.

Standard phytochemical screening methods were applied to each plant extract, so as to test them for alkaloids, glycosides, phytosterols, tannins and proteins following the techniques of Harborne (1996), Sofowora (1984), Kokate (1994) and Evans (2002).

**Table-1. Qualitative phytochemical investigations of various extracts of pseudobulbs of *Geodorundensiflorum***

(Obtained by successive solvent extraction of plant material)

Plant Part Used	Tests	Reagents	Petroleum Ether Extract	Acetone Extract	Benzene Extract	Chloroform Extract	Ethanol Extract	Water Extract
P S E U D O B U L B S	Alkaloids	Mayer's Test	+	+	+	+	+	+
	Glycosides	Libermann Burchard's Test	+	+	-	-	+	-
	Phytosterols	Libermann's Burchard's Test	+	-	+	+	-	+
	Tannins	Ferric Chloride Test	-	+	+	+	-	-
	Proteins	Biurete Test	-	+	+	-	-	+

(Phytochemicals: Present= +, Absent= -)

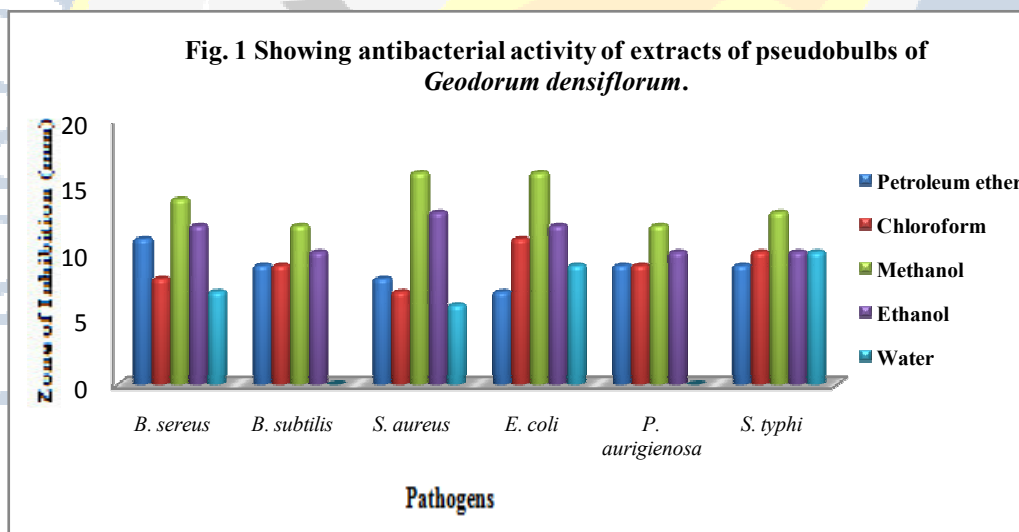
#### Antibacterial Screening:

**Test Organisms:**

Authentic cultures of three Gram +ve and three Gram -ve bacteria viz., *Bacillus cereus*, *Bacillus subtilis*, *Staphylococcus aureus*, *Escherichia coli*, *Pseudomonas aurigenosa* and *Salmonella typhi* were obtained from NCL, Pune, India and they are used for the antibacterial activity against the prepared plant extracts.

**Table-2. Showing antibacterial activity of extracts of pseudobulbs of *Geodorumdensiflorum*.**

Test organisms	Zone of inhibition (in mm)				
	Petroleum ether	Chloroform	Methanol	Ethanol	Water
<i>Bacillus cereus</i>	11	8	14	12	7
<i>Bacillus subtilis</i>	9	9	12	10	-
<i>Staphylococcus aureus</i>	8	7	16	13	6
<i>Escherichia coli</i>	7	11	16	12	9
<i>Pseudomonas aurigenosa</i>	9	9	12	10	-
<i>Salmonella typhi</i>	9	10	13	10	10



**Fig. 2 Pseudobulbs of *Geodorumdensiflorum***

**Disc Diffusion Method:**

Antibacterial activity is studied by using the disc diffusion method (Kirby et al., 1966). The discs were put in a clean dry glass bottle and sterilized at 121°C for 15 min in an autoclave. Broth dilution assay was used to screen the extracts for antibacterial activity. The diameter of zone of inhibition of each well was recorded. The results of antibacterial activity were tabulated in Table-2.

#### RESULTS:

It was clear from the experimental data presented in Table-1 that the substances like alkaloids, glycosides, phytosterols, tannins and proteins were medicinally active components of the pseudobulbs of *Geodorum densiflorum*. The petroleum ether extract confirms the presence of alkaloids, glycosides and phytosterols. Acetone extract confirms the presence of alkaloids, glycosides, tannins and proteins. Benzene extract confirms the presence of alkaloids, tannins, proteins and phytosterols. Chloroform extract confirms the presence of alkaloids, phytosterols and tannins. Ethanol extract confirms the presence of alkaloids and glycosides. Distilled water extract confirms the presence of alkaloids, phytosterols and proteins.

The results of antimicrobial screening of the extracts revealed that the methanolic and ethanolic extracts show significant antimicrobial activity than petroleum ether, chloroform, ethanol and water extract against almost all the test bacteria and showed zone of inhibition of 12-16 mm and 10-13 mm (Table-2) respectively. The petroleum ether and chloroform extracts showed moderate activity and the water extract showed lesser activity against the microorganisms. Water extract did not show activity against *Bacillus subtilis* and *Pseudomonas aurigenosa*.

#### DISCUSSION:

The use of medicinal plants plays a vital role in covering the basic health needs in developing countries and these plants may offer a new source of antibacterial, antifungal and antiviral agents with significant activity against infective microorganisms (Munoz et al., 2003; Coelho et al., 2004). The presence of these bioactive components in the crude drugs have been linked to their activities against disease causing microorganisms and also offering the plants themselves protection against infection by pathogenic micro-organisms (El-Mahmoud et al., 2008).

The obtained results may provide a support to use of the plant in folk and traditional medicine. Based on this, further chemical and pharmacological investigations to isolate and identify minor chemical constituents in *Geodorum densiflorum* to screen other potential bioactivities may be recommended.

This type of study will guide the pharmaceutical companies to select the required part of the plant which yields maximum quantity of required active ingredient for the therapeutic preparations.

#### CONCLUSION:

The extracts of the plant part produced good inhibition zones against the test organisms. So it is expected that they could be used to treat infections and diseases caused by these organisms and if the active ingredients of the extracts are isolated and possibly crystallized, therapeutic antibiotics could be produced from these compounds. The inhibition of growth of the

test organisms that are known to cause infections justify the continued use of these plants in traditional system of medical practice.

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## CALLUS INDUCTION AND REGENERATION POTENTIAL OF

### *Ceropegia hirsuta* Wight & Arn.

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#### ABSTRACT:

A protocol was developed for *in-vitro* callus induction and plantlets regeneration of *Ceropegia hirsuta* Wight & Arn. a newly reported ethnomedicinal plant from Buldhana district, using nodal explants. Explants were cultured on Murashige and Skoog medium (MS) supplemented with different plant growth regulators (NAA, BAP, 2,4-D, IBA and Kn). The combinations and concentrations of plant growth regulators were shown significant variations for the frequency of callus formation, appearance of callus and the potential of callus differentiation. IBA and NAA have been found highly effective in callusing and plant regeneration.

The highest number of shoots (4/explants) was obtained from nodal explants cultured on MS with 1 mg/l NAA and 2 mg/l IBA. The regenerated shoots transferred to rooting medium (MS with 1 mg/l IBA) were successfully rooted and showed rapid elongation. Rooted plantlets were acclimatized in pots. The aim of the present study was to develop protocol for the suitable culture media and growth regulators on callus induction and plantlets regeneration from nodal explants.

An appropriate strategy and action plan for the conservation and sustainable utilization of this medicinal plant of the region need to be formulated and implemented, effectively for betterment of human being.

**KEY WORDS:** Callus induction, plantlets regeneration, *Ceropegia hirsuta*.

#### INTRODUCTION :

The cell and tissue culture technique has been successfully employed in variety of plant species especially economically important plants. These studies have demonstrated growth and differentiation (Bajaj and Bopp. 1977, Vasil and Vasil, 1972, Murashige, 1974) in these plants. The technique has been a great asset to understand growth and development in plants (Randolph and Cox, 1943, White, 1954). The revelation of the unique capacity of plant cells called cellular totipotency i.e. all living cells in a plant body irrespective of their ploidy level can potentially give rise to the whole plant is an important contribution made through this technique. Auxins and cytokinins operative directly or indirectly, alone or in combinations have given us an insight into the interrelationship that exist between cells, tissues and organs and the integrated development of a whole plant.

White (1934) reported continuously growing culture of tomato root tips, for the first time. He used a medium containing inorganic salts, Yeast extract and sucrose but later yeast extract was replaced by three B-vitamins, viz., Nicotinic acid, Pyridoxine and thiamine.

In 1939, Gautheret for the first time reported continuously growing tissue culture from



carrot root cambium. White (1939) also reported the establishment of similar cultures from tumour tissue of the hybrid *Nicotianaglauca* X *N. langsdorfii*. Stimulatory effect of coconut milk on embryo development and callus formation in *Datura* observed experimentally by Van Overbeek and co-workers in 194. In tobacco pith tissue cultures the addition of adenine and high levels of phosphate increase callus growth and bud formation even in the presence of IAA which otherwise acted as bud inhibitor as demonstrated by Skoog (1944) and Skoog and Tsui (1951).

The concept of hormonal control of organ formation was put forth by Skoog and Miller in 1957 an observed the differentiation of roots and shoots in tobacco pith tissue cultures was a function of the auxin :cytokinin ratio and that organ differentiation could be regulated by changing the relative concentrations of the two substances in the medium.

*Mesembryanthemum floribundum* a member of Portulacaceae studied by Asha Mehra and P.H. Mehra (1972) for differentiation. Callus obtained from all vegetative parts of the plant was able to differentiate shoots or whole plants which flowered in vitro.

Several species of scrophulariaceae have been regenerated in vitro. *Toreniafournieri* has been regenerated by Bajaj (1972). Shoots were initiated in numerous hormone treatments for both leaf (Bajaj, 1972) and inter-node (Kamada and Harada, 1979). Five different cytokinins could be used to initiate shoot formation in *T. fournieri*.

Ramavat et al., (1977) raised callus tissues from stem explants of *C. roseus*. On MS medium tissues were grown and maintained by using various concentrations of kinetin,  $\alpha$ - NAA) and malt extract observed callus development from stem and pods on MS medium.

The tuberous roots of many *Ceropegiaspecies* are edible (Mabberley,1987) and many others are of medicinal value (Jain andDefilips, 1991). The root tubers contain starch, sugar,gum, albuminoids, fats and crude fiber and are valuableconstituents in many traditional medi-cinal systems inIndia (Kirtikar and Basu, 1935). Active principle oftuberous roots contains an alkaloid cero-pegine which isactive against diarrhoea and dysentery (Nadkarni, 1976).

Nikamet. al.,(2008)propagated *Ceropegia spp.* by *in vitro* culture of nodal segments on MS medium supplemented with BAP and IAA successfully. Theshoot multiplication at an enhanced pace by subse-quentsubcultures observed in this study is in agreement withreport on other Asclepiadaceae members, such as *G.sylvestre*(Komalavalli and Rao, 2000), *H. indicus*(Sreekumar et al., 2000), *H. ada-kodien*(Martin, 2002),and *D. arayalpathra*(Gang-aprasad et al., 2005).

#### MATERIALS AND METHODS:

*Ceropegiahirsuta*Wight &Arn.a member ofAsclepiadaceae selected as an experimental material for in vitro studies. The plants are grown in Garden of Department Of Biotechnology, SGB Amravati Uni. Amravati (M.S.).

### In Vitro Studies

For in vitro studies the different explants used are node, inter-node and laminar segments (from the nodes of 2<sup>nd</sup> to 6<sup>th</sup> orders from the apex). The explants were sterilized with distilled water, 70% ethanol and chlorine water. A modified Murashige and Skoog's (1962) medium was used as nutrient medium, henceforth referred to as MS.

The stocks are prepared as follows-

Stock I (macronutrients) was prepared 20 times concentrated while stock II, III and IV (micronutrients, iron source and vitamins respectively) were made 200 times concentrated.

Sucrose (2%) was used as carbon source. In follow up experiments the medium was supplemented with 2,4-Dichloro-phenoxy acetic acid (2,4-D),  $\alpha$ -Naphthalene acetic acid (NAA), Indole butyric acid (IBA), 6-Benzyl amino purine (BAP) and kinetin (Kn) individually or in different combinations at various concentrations before autoclaving.

Double glass distilled water and analytical grade chemicals were used for the preparation of media. The pH of the medium was adjusted at 5.8 with in 0.1N NaOH or 0.1N HCl with control dynamics glass electrode pH meter. After this the medium was gelled with 0.8% DifcoBacto Agar and kept on water bath for agar dissolution. Twenty ml, of hot medium was then poured into 100 ml and 150 ml pre-sterilized with dry heat corning flasks.

Mouth of the flasks were plugged with non absorbent cotton (cotton bungs) wrapped in muslin cloth/cheese cloth after pouring the media in them. The flasks were autoclaved at 20 lbs/inch<sup>2</sup> for 12 minutes for each combination three explants were kept in a flask and five replications were raised till the submission of dissertation about 516 cultures were raised.

The inoculation was done in the laminar flow bench. All the precautions at the time of inoculation were strictly followed, which resulted into 10-15% contamination in the beginning but later reduced to 2-4%. The cultures were maintained at 25<sup>0</sup>c  $\pm$  2<sup>0</sup>c and illuminated with four feet fluorescent lamps for 16 hours. The intensity of illumination at the level of cultures was 2400 lux. Sub-culturing was done after 15-20 days of time.

The percentage of culture giving positive or negative response was taken into consideration for evaluating the effects of various treatments.

### RESULTS:

In the present investigation on *Ceropegia hirsuta* a member of Asclepiadaceae, the attempts were made to induce callus from different explants like node, inter-node and leaf segments. The hormones were added to MS media individually in different concentration and also in different combinations. The results are explained in the following paragraphs-

#### (A) Callus induction and Growth

##### (i) Effect of auxins and cytokinins used separately :

Among the auxins, 2,4-D, NAA and IBA were tested at various concentrations for callus induction and also for establishing the callus cultures and for this node, internode and leaf segments were tried.

When MS medium was supplemented with low concentration of 2,4-D (1-1.5 mg/l),

though the callus initiation was observed further growth was arrested even after frequent sub-culturing. In this condition the callus formed was cream coloured and watery. When concentration of 2, 4-D was increased to 2mg/l, the callus induction begins at cut ends of explants after 10-12 days. The whole explants transformed into callus (Fig. 1.). Amongst the explants used the nodal segments were quite responsive as compared to internodes and leaf segments.

When effect of NAA was studied more or less similar results were observed. After sub-culturing and when the medium was supplemented with 2mg/l NAA, the callus induction and further proliferation was at high frequency at cut ends of nodal region. It has also been studied that even if the concentration of NAA increased to 2mg/l no appreciable change has been recorded except the whole explants transformed into calli. Here also nodal region were more potent for callus induction and further proliferation.

IBA exhibits the similar results but the rate of callus proliferation was too slow.

Among the cytokinins, Kinetin at 2mg/l conc. appeared more potent (Fig. 2.). The callus induction occurred within 10-12 days. Initially the rate of callus proliferation was slow but on subsequent sub-culturing proliferation was enhanced. The callus produced was shining, friable and compact. Such a callus is obtained on nodal explants, while inter-node and leaf segments exhibit arrested growth of callus which led to necrosis.

#### **(ii) Effect of Auxins and Cytokinins together.**

Experiments were also conducted on MS media which was supplemented with auxins and cytokinins in different combinations –

When 2,4-D and BAP was used in various combinations of different concentrations, the explants i.e, node, inter-node and leaf segments showed induction of callus on 7<sup>th</sup> day of inoculation. The callus was whitish, loose, watery and friable (Fig. 3.). The callus at its highest growth showed distinct old cream colored and loose callus where as newly formed calligreen, compact and shining.

When 2,4-D was used with Kinetin as cytokinin source, the response was very less. The callus initiated between 8-12 days of inoculation in all the combinations. Here the growth of callus was very slow and the morphology of the callus was similar to that of the callus obtained from 2,4-D and BAP.

When NAA and BAP both used in equal concentration (1mg/l) callus induction in all the explants occurred on 4-5th day. The growth of callus was rather fast and on inter-nodal segment, the calli developed on both cut ends. The growth in all the cases was luxuriant.

At any combination of NAA and Kn), the callus morphology was similar to that mentioned earlier but the rate of growth and proliferation was too slow even after sub-culturing. The calli could not grow further. The rate of callus growth was slightly enhanced when auxin was in higher concentration (2mg/l). The callus induction took place on 9-10th day.

In low concentration of IBA (1mg/l) than BAP (2mg/l) the callus initiated on 8-9th day, whereas when auxin was used in more quantity than BAP(1 mg/l) the callus initiation occurred on 6-7th day of inoculation. The callus was as usual whitish, loose watery and shining. The callus initiation as well as proliferation in leaf segments was rather slow as compared to node and inter-

node.

When Kn was used instead BAP, along with IBA, the rate of callus growth was slow. The greenish, loose and shining callus could not grow further even after 2 months sub-culturing 3 times on same medium combination.

#### **(B) CAULOGENESIS**

However, during the experiments the dormant buds on nodal region proliferated and developed into shoot. This shoot formation from dormant buds was more prolific when the medium was supplemented with NAA (1 mg/l) and IBA (2 mg/l) in combination (Fig. 4.).

#### **DISCUSSION:**

In the present work on *Ceropegia hirsuta*, the effect of auxins (2,4-D, NAA, IBA) and cytokinins (Kn and BAP) have been studied on different explants viz., node, inter-node and leaf segments in order to demonstrate the morphogenetic potential. The callus formation was initiated more rapidly on nodal part as compared to inter-node and leaf segments.

The results of present experiments showed that 2,4-D, NAA, IBA, BAP and Kn affected growth of callus and further proliferation when supplemented singly or in combination. The addition of auxins like 2,4-D (2 mg/l) and NAA (2 mg/l) yielded excellent results with all the explants but addition of IBA (2 mg/l) to the medium proved to be fruitful when only nodal explants are used. The kinetin (2 mg/l) appeared more potent.

In all these experiments the callus grew well and it was maintained on same media. In the present investigation on *Ceropegia hirsuta*, the nodal segments are more potent for the rapid response to morphogenesis as compared to inter-node and leaf segments. This behavior of the explants is probably due to genetic stability or substance responsible for morphogenesis. Shoot formation is observed in *Ceropegia hirsuta* from the dormant buds when nodal part was cultivated on the medium. Sinnott (1960) on callus formation indicate that the stimuli involved in the callus production are endogenous hormone, auxins and cytokinins.

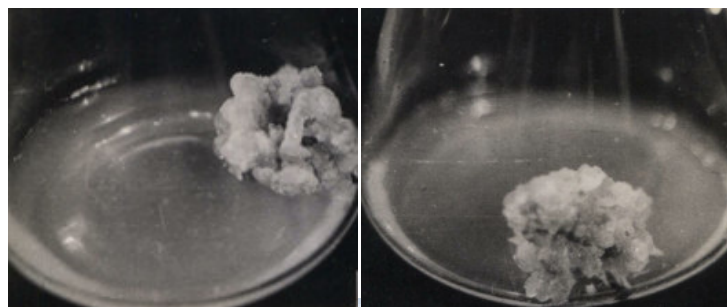


Fig. 1.Fig. 2.

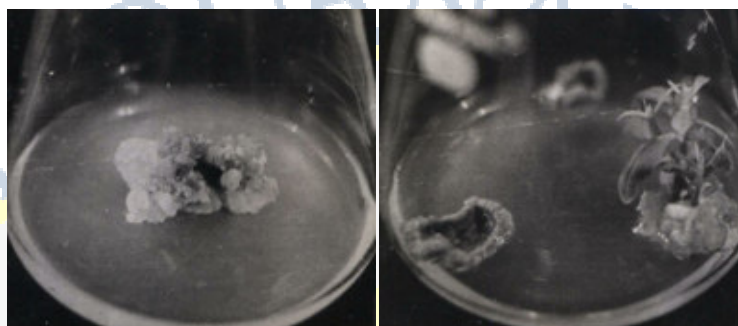


Fig. 3.Fig. 4.



Fig. 5.

Fig. 1. Callus obtained from Nodal explant on MS medium supplemented with (2,4-D 2mg/l)

Fig. 2. Callus obtained from nodal explant on MS medium supplemented with (Kn 2 mg/l)

Fig. 3. Callus obtained from leaf explant on MS medium supplemented with (2,4-D 2mg/l + BAP 1mg/l) Fig. 4.

Shoots obtained from nodal explant on MS medium supplemented with (NAA 1 mg/l and IBA2 mg/l)

Fig. 5. Hardened Plant of *Ceropegiahirsuta*

## CONCLUSION:

On the whole it was observed that the source of the explants cultured is important in determining the regenerative potential. In the present study nodal part appears to be more potent for callus formation and leaf segment follow latter.

The investigations on *Ceropegiahirsuta* shows that callus can be established and grown in culture and plantlets are regenerated (Fig. 5). The totipotency of node, inter-node and leaf segments has been established, similarly, the efficacy of different auxins and cytokinins have also been studied individually or in combinations. The auxins, 2,4-D and NAA both at 2 mg/l are more effective in callus induction but in combination with BAP or Kn the prolific results are

obtained.

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*The World of Adolescent Girls: A Review*

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*Abstract*

Adolescents aged between 10-19 years account for more than one-fifth of the world's population. In India this age group forms 21.4% of the total population. This means adolescents are our biggest national assets but they are popularized as misbehaving, rebellious and misguided group (Bezbaruah, S. 2000). With the new wind of change, today's adolescents are living in an entirely different world from their parents and grandparents. Still the adults expect them to perform in accordance with the old aged norms of the society. It is sheer injustice on the part of adolescents. Education has also failed to make the horizon of educated people broader to accept the ground reality about adolescents in general and adolescent girls in particular. It is a well known fact that adolescence is not the same for boys and girls. Adolescent boys have clear cut edge over their female counterpart in terms of mobility and freedom. Our adolescent girls are subjugated in comparison to adolescent boys because of prevalent patriarchy in Indian society.

The present paper would try to give a glimpse of the adolescent girls ' world. What they have dreamt of? What are their concerns, their areas of conflicts and the same? And how education could has proved to be helpful in making the world of adolescent girls better, safer and smoother.

**Introduction:** The term adolescence is derived from the Latin word 'adolescere' which means to grow up or grow into maturity (Muuss, 1990). Adolescence is something relatively new for our society. Even today in primitive societies there is no such stage of development. There is only a short period of puberty or time of sexual maturity and then the boy or girl is admitted to adult society and starts having the responsibilities. This concept is gradually changed in upcoming years due to release in economic pressures and a shift towards inculcation of democratic ideals. It is only recently that education has been extended and marriages are delayed resulted in a true period of adolescence which becomes an almost universal phenomenon in today's life.

The world of adolescent girls': It is such a paradox that by going through the phase of adolescence a boy and a girl have to bear almost contradictory experiences. For boys adolescence can be a time for expanded participation in community and public life. Girls however may experience new restrictions and find their freedom of movement limited. It can be said that world of adolescent girls is full of various concerns or it can be said to the extent, that their world is simply the world of concerns and dilemmas.

Let us talk about the various conflicts which our adolescent girls have to face in their daily life only because of societal ignorance towards their needs. These conflicts can be divided into several headings which are taking one by one for better understanding.

1. **Adolescent Girls' Sexuality:** Feminists argue that the patriarchal society gives men more sexual freedom than women (Fasula, 2005). Gender is an important variable in sexual harassment and peer violence. Boys are allowed to have sexual freedom while girls are denied to express their sexuality (Pearson, 2009). The height of double standard lies in terms of girls' sexuality is





that at the same time, society views girls' lack of sexual pleasure as normative but women in heterosexual marriages are supposed to have sexual desire (for their husband), if they don't they labeled with a sexual problem (Alperstein et al,2001). The reason may be that society is divided by sex, where men and not women are holding economic, political and social power (Shore, 2008).

It is high time to time to talk about girls' sexuality in positive terms. Although numerous studies have investigated correlates of sexual satisfaction in women, no research till date has explicitly examined the factors that enable adolescent girls and young women to have positive satisfying sexual experiences. The development of healthy sexuality during adolescence is a critical developmental task. It can be done by introduction of proper sex education at proper time. Adolescent girls, at the time of leaving the school system are ill equipped in terms of both information and skill to handle their diverse critical life situations. Due to lack of proper guidance, adolescents give more importance to peers, their immature company gives rise to smoking, alcoholism, drug addiction, drug trafficking, pornography, HIV infection and other sexually transmitted diseases. In context of this acquisition of relevant information becomes vital for adolescent girls in dealing with risky life situations (Rao and Srinivas, 2006). There are researches whose data do not provide any support for the popular belief that more attention to matters of sexuality and protective sex behavior leads to promiscuous behavior (Givaudan et al., 2007). In last it can be said that provisions for sex education is the best remedy for today's adolescent girls to deal with their sexuality.

2. **Menarche and Misconceptions:** Menarche, the first menstruation is an important transitional event in the female life cycle. Unlike other gradual pubertal changes such as breast development and pubic hair growth, menarche usually occurs suddenly and without precise predictability (Brooks-Gunn and Peterson, 1996). Furthermore, teenage girls often obtain information about menstruation from their mother, school, friends and advertisements of sanitary products (Koff and Rierdan, 1995). However these sources of information tend to emphasize only physiological aspects of menstrual cycle whereas emotional aspects are neglected altogether (Marvan et al., 2001), totally unprepared girls obviously experience fright towards menstruation (Chrisler and Zittel, 1998).

Researchers argue that the understanding of menstruation should also attend to menstrual beliefs within a specific cultural context (Chandra and Chaturvedi, 1992). For example a menstruating Indian woman is considered as impure or unholy and is not allowed to engage in any religious or social activities (Chaturvedi and Chandra, 1991). Bangladeshi girls need to withdraw from school at the time of menstruation. Both American men and women believe that women should avoid sexual contacts when menstruating (The Tampax report, 1981). Hence it can be said that problems related to Menarche are worldwide and developed nations like U.S. also have misconceptions regarding this. Only educational insight and sensitization towards girls can provide emotional support to girls over this matter. These age old misconceptions have to be vanished now in light of cognitive liberalization.

3. **Adolescent Girls' Self Image:** Society puts pressure over an adolescent girl that she should be thin, still curvaceous, beautiful and attractive. Various studies have also advocated the



same. According to Corccia, 2009 adolescent girls negotiate rigid appearance norms in a prickly society where looks are everything and identity is particularly malleable during adolescence. Non pubertal girls were found to be more appreciative of their bodies as there was closeness of self assessment to others measurement for this group (Dutta, 1988). It is widely reported that adolescent girls are at greater risk for body related concerns compared to boys (Cash and Pruzinsky, 2002). Body image develops in the context of socio-cultural factors. Unrealistic media images of female beauty create dissatisfaction in adolescent girls. To look pretty and slim, the adolescent girls generally take less food than required for maintaining normal health status (Reddy et al.2005). Adolescents in the group more concerned with appearance reported lower self esteem than others and lower perceived competence in the scholastic and social domains (Seidah and Boufard, 2007).

It should be role of media that she has to be more sensible and not to portray girls and woman in the role of beauty figure only. The mass media particularly television, should be actively utilized to encourage and motivate the adolescent girls to take care of their general as well as reproductive health. It must be the role of teacher to promote other positive points in adolescent girls than beauty and fairness and appreciate those girls who are better in any other skills.

4. **Adolescent Girls' Identity Crisis:** A concern with identity has become pervasive since the 1950s when Erikson has popularized the notion of identity crisis. Eriksons' remark was that in the social jungle of human existence there is no feeling of being alive without a sense of identity (Bendle, 2002). Identity is a dynamic process that is shaped by societal construction of markers such as race, ethnicity, cultural differences and gender (Mai, 2007); these social constructs have created a society that has not been fair for less dominant groups (Davis,2009). There is a need to envisage a process of education that teaches the adolescent girls to question wrong forms of socialization and empower girls to overcome disadvantages rather than reinforcing their subordination (N.C.E.R.T. 2006). Identity of adolescent girls has to be integrated into curriculum development and professional development for encouraging them to see themselves as scholars and productive social change agents rather than mere a female.

Relationship with mother- We know that adolescence in general is the time of acute loneliness especially for girls. To overcome the psychological problems of irritability, anger, depression, worry and so on, at the time of puberty, adolescent girls require special care, affection and warmth from their mother ( Reddy et al., 2005). But generally mother seems to be most critical of their girls at the time of adolescence because she tries to fit her daughter into those norms of society which were appropriate to her age. Mother should remember that she has also passed through this stage and remind herself about their behaviour and expectation during their adolescence ( Rao and Srinivas, 2006). It has been proved that the smooth mother – daughter dyad of childhood is definitely distorted at the time of adolescence. This relationship is not at its best this time or differently said it has been torn off.

It can be said that inadequate role playing of mothers and teachers are responsible for the worsen state of adolescent girls. Mother has to accept that world is entirely different now from her time and hence to be more empathetic and liberal for her daughter to make this bond warmer

and smoother. Teacher has to be in touch with the parents of girls and made them sensitized towards this issue.

Adolescent girls and peer pressure- Peer groups have been identified as an important source of attraction and influence, particularly in adolescence ( Heaven, 1994). Peer groups have similar physical and psychological characteristics. Because adolescent girls could not find appropriate support from parents hence turn to their peer group for the much needed love, warmth and support. Adolescent girls often blindly follow their peer group in taking up a course which they may not have the aptitude for ( Mathur, 2010). Peer pressure and peer support do in fact play a role in shaping adolescent's attitude towards sexuality ( Santor et al., 2000). On the similar lines Simon and Gagnon, 1986 have found that peers shape the ways that girls make sense of their sexual experiences and may be pivotal in their sexual choice.

So it becomes clear that adolescent girls feel acute loneliness and anxiety because they have so much conflicting situations around them. They altogether lack the sharing of their experiences with their parent especially with the mothers before they are confused in terms of role expectations, values and identity. Parents and society put blame on adolescent girls that they give more attention to their peer group than their families. But in fact parents are itself responsible for devaluing themselves. It is their foremost responsibility to be the true confidant of their girls so that over indulgence of adolescent girls over their peer group can be checked. Adolescent girls are in the constant dilemma to choose in between the peer value and parental value. Its solution lies in the fact that it is the prime duty of parent to spend quality time with their daughters so that they feel free to share alsl their weirdness with them. This can prevent them to indulge in wrong practices of their peers because they are equally immature to give judicious way of thinking over any issue.

#### **Conclusion:**

*The above said discussion is a small glimpse of a world of adolescent girls. It is high time now to think that who is responsible for their pity situation in family and society. Why we are deliberately wasting half of our national asset by ignoring them and another half by giving undue advantage. It is a new world; society is rapidly changing its value and expectations for everyone. This is true for policy makers of education also so that they can integrate value of social justice, gender sensitization and equality of educational opportunities for all. This true effort can only make the world of adolescent girls a better place for living where they can also flourish and nurture and can contribute to oneself, to family and to society. Parents have to bear equal share in this pious task. Society has to move ahead of her patriarchal mind set to provide humane and empathetic environment to our sweet, little adolescent girls also because it is their birth right. We cannot deny them anymore.*

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## An Evaluation of the Feminism of Jane Austen and George Eliot

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### Abstract

Virginia Woolf says of Jane Austen that “of all great writers she is the most difficult to catch in the act of greatness.” Wollstonecraft, Jane Austen ‘inherited a common tradition’ of feminist development. In the moral intelligence she imparts to her heroines, their individuality is stressed through the quality of their interaction with others. As well as remaining true to inner feelings and perceptions, they have the ability of acknowledging the legitimate claims of others. In fact the reader at the end of a Jane Austen novel is filled with contentment There are many who hear a woman’s voice in Jane Austen’s writing do not do so in George Eliot’ works as the latter’s writing emphasise universals while Jane Austen largely concentrates on female characters, as hers is a woman’s world. George Eliot, on the other hand, has been a knot of controversy for feminist critics. The scale and size of her achievement is undeniable, the intellectual depth of connected life, the emotional power of humdrum experience, the range of exploratory discourses.

KEYWORDS: feminist, individuality, perception, contentment, controversy.

### INTRODUCTION:

Words on the page are not autonomous. They are connected within the text by means of grammatical structure, narrative trajectories, and by the erased needs of the writer. Beyond that, they are also controlled by their part in current controversies, and may have a combative significance which vanishes as ideological conditions change.

There has been a widespread assumption trickling down from the nineteenth century that systems of explanation must necessarily register growth as well as shifts of attention. Anyone who has studied women’s movements and the discussion of women’s rights and positions knows well that there has been no steady arc of progress. Instead, arguments and determinations have been advanced and then have apparently vanished again as we see in the relationship between the end of the eighteenth century with the complex arguments of Mary Hays and Mary Wollstonecraft, and the beginning of the nineteenth. We need to be aware of misreading the meaning of acts and statements after conditions have changed. What may have a correct emphasis at one political moment may need to be jettisoned ten years later, or would properly have been repudiated ten years earlier.

However it would be a dangerous trend to view earlier movements as mere Proto – feminism, a theory of insignificance, deluding us into applauding merely the current theory and practice rendering are previous feminist thoughts to being non-existent.

The first wave of recent feminist literary theory gave short shrift to George Eliot. Kate Millet had only this to say “Living in Sin”, George Eliot lived the revolution as well perhaps, but she did not write of it. She is stuck with the Ruskinian service ethic and the pervasive Victorian

fantasy of the good woman who goes down into Samaria and rescues the fallen man-nurse, guide, mother, adjunct of the race. Dorothea's predicament in *Middlemarch* is an eloquent plea that a fine mind be allowed an occupation; but it goes no further than petition. She marries Will Ladislaw and "can expect no more of life than discovery of a good companion whom she can serve as secretary".

Millet raises the objection that George Eliot does not offer a positive model for aspirant woman, but simply represents their curtailment. The argument that representation of the status quo may serve to reinforce the status quo cannot lightly be dismissed, though in *Middlemarch* George Eliot employs the double time-scheme of the novel to disturb any temptation to accept what is represented as either desirable or absolute. Zelda Austen sees the distrust of George Eliot as linked to a refusal of formalism, in the phase of American feminist writing:

Feminist critics uniformly resist making judgments about literature on the basis of style, structure or mimesis.

Ever since the work of Gilbert and Gubar (1979), Nancy Miller (1980), and Elizabeth Ermath (1983) that criticism is less apt, though there is still a gap between the formal preoccupations of French critics such as Kristeva and Cixous, and the moralized character oriented writing of much American and Anglo-Saxon criticism. The most vivid attack on George Eliot in those terms is Ellen Moers, where she argues that 'George Eliot \_ was no feminist. Dinah Morris gives up her preaching career at the end of *Adam Bede* with a flutter of glad submission for George Eliot, as her readers have always been surprised to discover was no feminist. That is, her aim as a novelist was not to argue for a diminishing of the social inhibitions and a widening of the options that affects the lives of ordinary women; instead George Eliot was always conceived with the superior, large-souled woman whose distinction resides not in her deeds but in her capacity to attract attention and arouse admiration ...

Dorothea Brook in *Middlemarch*...is good for nothing but to be admired. An arrogant, selfish, spoiled rich beauty, she does but little harm in the novel.

As Gillian Beer notes that:

the energetic perversity of this judgment certainly draws attention to the problem of the gap between aspiration and action in George Eliot's heroines, and the self-dramatisation it provokes, but her reading falls in too readily with the middle community assumption that women with a sense of their own potential are merely a nuisance.

Both, in Jane Austen's letters and novels, she describes more woman than men, her character often speaks confidently about women alone. General Tilney observes:

What say you, Eleanor? Speak your opinion, for ladies alone can tell the taste of ladies in regard to places as well as men. (NA.175).

Henry Tilney boasts of his knowledge of women, and confesses to Catherine Morland:

My dear Madam, I am so ignorant about young ladies ways as you wish believe me. (NA. 27).

What is debated is the reaction of that achievement to our needs as women and her power as a woman. Gillian Beer points out:



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“One key problem has been the obduracy with which she encloses her heroines within the confines of ordinary possibility, confines from which the author had by means of her writing, escaped.”

In fact Jane Austen’s heroines exhibit single-mindedness of character. This imparts to them a peculiar intensity and uniqueness. Their language is intelligible, their motives clear. They try to grapple with the present. The past is important for them inasmuch as it has a bearing on the present. Elizabeth believes in this philosophy and asks Mr. Darcy to follow it:

You must learn some of my philosophy. Think only of the past as its remembrance gives you pleasure. (PP 368-69).

In conformity with their creator, the heroines maintain decorum and decency in behaviour. The heroines are fallible, certainly not “pictures of perfection”. However, they learn from experience. Being consciously virtuous, they acquire considerable self-confidence and faith. They are not easily disheartened. It is only in extraordinary situations that even a naïve girl like Catherine Morland actuated by haunting illusions, feels terrified in Northanger Parsonage. She has faced boldly what a human being can face. Jane Austen’s heroines, persistent as they are in their efforts to be epitome’s of integrity, do not excuse lack of virtue or integrity in others. Jane Austen, in John Hardy’s views, explores human relationship at such a depth which means her heroines at some stage seem more alone and isolated than many of her minor characters, while it has been claimed that the ‘theme of isolation’ in the novels gives expression to the:

'The essential loneliness of men and women.'

More so, Jane Austen seems to turn this perception to her own advantage in that there exists a connection (not always easy to elaborate or explain) between the heroines being thrown to her own resources and the kind of quality of character that this experience refines or reveals. Whatever the means employed, what remains distinctive about her heroines in their active involvement in situation in which they find themselves. Though they might be isolated, they are never static or inert, for all are engaged in a continuous, ongoing activity of thinking and responding. Not only does this fact lift the moral seriousness of the novels above the prescriptions of the conduct books (whose vocabulary they partly inherit); it also represents their distinct advance on earlier English Fiction.

George Eliot on the other hand, persistently worked at the central dilemmas of feminism in her time without setting out to write Feminist novels. She probed current assumptions about women’s nature as well as scrutinizing the arguments of her friends in the women’s movement. ‘Yet’, as Gillian Beer opines:

“She was not according to our lights, either a feminist theorist or activist.”

George Eliot saw men and women as locked together by their needs and hopes, and by their common misunderstanding. George Eliot’s key topic is relations between women and men, men and women. These may be the relations between lovers, between wives and husbands, fathers and daughters, brothers and sisters, mothers and sons. Relationships between women and women, take their place in the novels, but the key bond is that between the sexes, with its immense power to yoke unlike people and to blind them in desire, or into flesh in generation. This contradiction-difference and connection-sustains the tension of her work. Sixteen years



later, she opened *'Middlemarch'* with an ironic glance at the false scientificism of absolute demarcations of women's functions. John Stuart Mill in *'The Subjection Of Women'* (1869) also saw the circularity of women's capacities which were based on their current curtailed role in society. The likeness claimed is not identity, but rather the right to discovery and change:

"We want freedom and culture for woman, because subjection and ignorance have debased her and with her, man."

The question of how far women must be identified with passivity beset George Eliot throughout her career as a writer and she persistently questions, while never entirely escaping, the strong connection society has made between women and passivity. In her notebooks we find frequent extracts which imply doubts about the extent to which men and women are different in nature, rather than in their upbringing in culture:

The virtue of a man and of a woman is one and the same says Plutarch.

Her courage was silent. It took the form of writing, of private action, not of public campaign. In writing she could tease out the meaning of action with a profound but unyielding compunction. The intransigence of this insight perhaps helped to account for her knowledge of remorse. In her life, she made extreme, irrevocable commitments without confiding in her friends before-hand or insisting that they sympathise afterwards. Her moral fascination with renunciation went alongside a passionate grasp of what was possible. What to give up and what persistently to claim was the key problem for her. She works at the problem at the level of plot and characterization and blanching out of the male narrator in her later works.

Jane Austen was distrustful of 'imagination and original insight', especially when they came into conflict with her clear, rational and materialistic concept of society, and more so when woman were made, or made themselves the sovereignty of reason. Since she took a comic artist's delight in moral absurdity and self-delusion, no matter in which sex it appeared, and since she did not seek to make her heroines pictures of perfection, she does not make them entirely rational. On the contrary they are often deceived by their own self interested or self-aggrandizing fantasies and, where their arguments are valid, the premises upon which they are based are often false. Austen often uses the indirect free style to show us such things, laying bare to us the inner consciousness of her heroines when they are most in error, but she also uses it to show the readers that, for all their mistakes and follies, they have the capacity for stringent rational reflection and it is through the exercise of this capacity that they learn to judge properly of their own conduct and that of other people, including those in higher places, carrying greater authority than themselves.

Through the 'indirect free style' Jane Austen shows not only the intimate personal feelings of her heroines but their argumentative, hard-headed mind, and she needed such a technique because in the age in which she lived-a young women's ability to think rationally and to apply her tested moral principles impartially to conduct and character-was likely to be the most private- because least acceptable-aspect of her mental life. A young woman's capacity for rational thought was not only suspect in itself but liable to be hedged about by all kinds of unstatable personal considerations, as Anne Elliot puts it, 'betraying a confidence, or in some respect saying what should not be said'. (*Persuasion*, 234) While, a man's judgment of character

and motive related to an individual's conduct in public life could be openly expressed middle-class women were seldom free to draw or express such general inferences from their personal life. Anne Eliot, with the wisdom of 'comparative maturity', defines the problem which women faced, but Austen even endows her lesser mature heroines with such for mature thinking. Fanny Price's inability to communicate to her uncle her 'perfectly clear, well thought out objections' to Crawford as a husband based on logical and rational principles but remains incommunicable because she cannot make an open statement 'about the evidence on which she has formulated her views on him'.

Her ill opinion of him was founded chiefly on observation, which for her cousin's sake, she could scarcely dare mention to their father. Maria and Julia and especially Maria, were so closely implicated in Mr. Crawford's misconduct, that she could not give his character, such as she believed it, without betraying them. (MP, 318).

When writing *Pride and Prejudice*, Jane Austen herself was twenty one, the age of Elizabeth. Elizabeth also has many opinions and traits of her creator. For example, she shares Jane Austen's humorous turn of mind and does not hold to ridicule what is wise and good. She also possess her creator's cheerful outlook. The novelist says:

But it was her business to be satisfied... and certainly her temper to be happy. (PP, 239).

Therefore, irony is seldom directed against her. Elizabeth and Emma are almost akin to a self-portrait. Anne Eliot is the nearest approximate to hers.

Where Jane Austen's early art thieved on the up endings of pastiche, George Eliot refers fugitively to other texts, or at an angle which does not at first reveal them. She engages with the work of writers she respects, or is troubled by, by means of expansion, taking the implications of words and events where they have failed to go.

Elaine Showalter states that:

We tend to forget how insistently Victorian reviewers made women the targets of 'ad feminam' criticism. An error in Gordon Haight's. A century of George Eliot criticism illustrates this common modern over-sight; Haight quotes E.S Dallas as saying of Eliot that no "Englishman" could approach her as a writer of prose. The word Dallas actually used was "Englishwoman."

She further explains that,

As the number of important novels by women increased through the 1850's and 1860's, male journalists were forced to acknowledge that women were excelling in the creation of fiction, not just in England, but also in Europe and America. As it became apparent that Jane Austen and Maria Edgeworth were not aberrations, but the forerunners of female participation in the development of the Novel, jokes about dancing dogs no longer seemed an adequate response".

It has been easily proved that women authors in the Victorian Age, including George Eliot and Charlotte Bronte had to and were unable to escape the condescending judgment of critics who refused to believe that women were capable of producing art that was equal to that of men. It is precisely in this line that we need to look for answers to questions that why has so little



attention been paid to Jane Austen's 'moral interest' if as F.R Leavis claims it to be 'the principle of organization and the principle of development in her work' was that of a feminist of a particular historical period, and of a particular phase in the development of English Fiction.

In the first place, the history of feminist ideas and their relation to literature and politics before the late nineteenth century, when women's suffrage became an active political issue, has yet to be written. Besides this general difficulty, there is also the particular difficulty associated with the period at which the Austen novels were first published. They appeared, belatedly, in the aftermath of the anti-feminist reaction which followed Mary Wollstonecraft's death, a time when feminist ideas, however unexceptionable they might seem to modern readers, had no chance for open discussion. Jane Austen's use of irony is to be seen in this context, as it was a personal defence to enable her to say what was unsayable in public otherwise. *Northanger Abbey* includes some of Austen's strongest criticism of the society she lived in pertaining to the purpose of education and the prevailing laws.

In this novel Austen had openly criticized sexist bias in literary work and in reviewers, but the novel had been suppressed by the publishing house to which she had sold it. The avoidance thereafter of any open statement should be attributed to it and should not be surprising. Jane Austen, therefore learnt to tell the truth by way of riddling irony which 'chill elves' might misread, but which she hoped readers of sense and ingenuity would not. This accounts for the enunciation of the 'irresponsibility of Jane Austen' concept as well as for those who consider her to have nothing to do with the contemporary women's movement. This all was in spite of her feminist sympathy and ingenuity which succeeded in combining a feminist criticism of life and literature with a warm humanity and an abiding love of the ridiculous.

Years later, George Eliot, beginning her literary career with a pseudonym, had her first critics, at the time of publication of *Scenes of Clerical Life* and *Adam Bede* at once characterise the 'writer'. He was clearly male, probably young, and almost certainly a clergyman. Once the news was out that George Eliot was a woman, Marian Evans, intellectual journalist and consort of G.H Lewes, the critics forthwith described her feminine traits as a writer, her excellence in details her incapacity for large-scale invention, her tendency to feminise her men and idealise her women.

It is a salutary story. But it does not end there. George Eliot became a brooding presence, man-womanly and woman-manly' as Virginia Woolf's person in *A Room of One's Own* said true writers must be. It became less easy as George Eliot's career progressed to see her simply as a reconciliation or opposition of known poles a man's 'intellect' and a woman's, 'heart', which was the first attempt to domesticate her writing or exculpate her behaviour.

She had organically all the intellectual strength of a man and (all) in feeling all the peculiar weaknesses of woman.

So another solution was chosen, she was a sibyl': woman as a prophet, amazingly learned, exceptional, peripheral, powerful but inactive.

The question, then remains is her stand on 'the woman question'. "George Eliot did engage with issue vital in the life of women's movement", sums Gillian Beer.

The kind of comment we often encounter that:



she always sought to be free of any close involvement with the feminist movement of her time either in life or in literature.

holds no ground. Nor does Ellen Moers 'flat assertion that George Eliot was no feminist' to be accepted. Almost everyone of the women with whom George Eliot was intimate from the mid 1850's was actively involved in the women's movement whether it was Barbara Bodichon (who drew up a petition in support of the Married Women's Property Bill and was George Eliot's closest female friend) or Clementia Doughty (Mrs. Peter Taylor, a worker for women's suffrage), Edith Simcox (one of the most impressive and courageous workers for women's rights). So we have to concede that George Eliot remained a counsellor and friend behind the scenes as it was a tactical reason because of her irregular life which might have jeopardised more than it gained for the movement if she were an open and active supporter. The reason may not suffice but one does not need to convert her to a radical feminist, it would be pointless to pretend to do so. However what is clearly demonstrable is that she was 'intimately familiar' with the current writing and actions of the women's movement and that in *Middlemarch* particularly, she brooded on the curtailment of women's lives in terms which were drawn from that movement only and in full sympathy with it.

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## इ बँकिंगचा ग्रामीण भागातील लोकांच्या जीवनावर होणा-या परिणामांचा अभ्यास

प्रा. शितल नरसिंग पुरी

### प्रस्तावना:-

सध्याच्या स्पर्धेच्या युगात खुप मोठया प्रमाणात इलेक्ट्रॉनिक यंत्राचा वापर होत आहे. इलेक्ट्रॉनिक यंत्राच्या वापरामुळे व्यवसायास मोठया प्रमाणात फायदाच होतो. म्हणजेच वेळ, काम, पैसा, मनुष्यबळ कमी लागते.

जगात माहिती आणि तंत्रज्ञानाच्या क्षेत्रात मोठया प्रमाणात प्रगती झाली आहे सर्वच व्यवसाय व सेवा क्षेत्रात संगणक आणि संगणकीय जाळे यांचा मोठया प्रमाणावर उपयोग केला जात आहे. त्याचप्रमाणे बँक क्षेत्रातही संगणकाचा वापर वाढला आहे.

इ- बँकिंग म्हणजे इलेक्ट्रॉनिक बँकिंग होय. इलेक्ट्रॉनिक माध्यमाचा वापर करुन केला जाणारा बँक व्यवसाय म्हणजे इ- बँकिंग होय. सध्या परिस्थिती पाहता असे लक्षात येते की, शहरी भागाप्रमाणे ग्रामीण भागात ही बँकेचे संगणकीकरण केले जात आहे. यामुळे ग्रामीण भागात राहणा-या लोकांचा मौल्यवान असा वेळ व पैसा वाचतो, त्याच प्रमाणे त्यांना हवे तेव्हा बँकांचे व्यवहार करता येतात. वेळेचे बंधन नाही.

ग्रामीण भागातील लोकांना इ- बँकिंगमुळे खात्याची चौकशी करणे, पैसे भरणे, पैसे काढणे, रक्कमेचे हस्तांतरण करणे, यांसारखे व्यवहार सहज करता येतात. इ- बँकिंगमुळे बँकेच्या खातेदाराला बँकेत जाण्याची आवश्यकता नसते. इ- बँकिंग च्या साहायाने खातेदाराला घरातून, व्यवसायाच्या ठिकाणाहुन, शेतातून व्यवहार करू शकतात. ग्राहकांप्रमाणेच बँका ही बँका-बँकामधील व्यवहार ही संगणकाच्या साहायाने करतात.

### संशोधनाची गरज व महत्व :-

1. ग्रामीण भागातील बँकेतील इ- बँकिंग विषयी नियोजन व व्यवस्थापन समजते.
2. ग्रामीण भागातील लोकांचा वेळ व पैसा वाचतो.
3. यामुळे ग्रामीण भागातील बँक व्यवसायाचे स्वरूप समजते.
4. इ- बँकिंग ही पारदर्शक बँकिंग प्रणाली आहे का ते तपासून पाहण्याची गरज आहे.

### संशोधनाचे उद्देश्य -

1. इ- बँकिंग ही संकल्पना समजून घेणे.
2. इ- बँकिंगच्या ग्रामीण भागातील लोकांच्या व्यवहारावर काय परिणाम होतो याचा अभ्यास करणे.
3. इ- बँकिंगच्या स्वरूपाचा अभ्यास करणे.
4. इ- बँकिंगच्या फायदे व तोट्यांचा अभ्यास करणे.
5. इ- बँकिंगच्या व्यवहारांचा ग्राहकांवर होणा-या परिणामांचा अभ्यास करणे.
6. इ- बँकिंग ही पारदर्शक बँकिंग प्रणाली आहे का ते तपासून पाहणे व त्याचा अभ्यास करणे.
7. ग्रामीण भागातील इ- बँकिंग यंत्रणेच्या अमंलबजावणीचा आढावा घेणे.

### संशोधनाची गृहीतके :-

1. इ- बँकिंग प्रणाली ही ग्रामीण भागात राहणा-या सर्वसामान्य जनतेला समजते.

2. इ- बँकिंगचा ग्रामीण भागातील लोकांना फायदा होतो.
3. इ- बँकिंगमुळे ग्रामीण भागातील लोकांचा वेळ व पैसा या दोहींचीही बचत होत आहे.
4. ग्रामीण भागात इ- बँकिंगचे जाळे पसरले आहे.
5. खातेदाराला ATM सेंटरवर जावून किंवा प्रत्यक्षात बँकेत जावूनच रक्कमेच्या देवाणघेवाणीचे व्यवहार करावे लागतात.
6. ग्रामीण भागातील जनतेला बँकांवरती पुर्णपणे विश्वास आहे.
7. ग्रामीण भागातील लोक सुशिक्षित आहेत.
8. ग्राहकांना पासवर्ड, संकेतांक इत्यादी लक्षात ठेवावे लागत असल्याने इ- बँकिंगचे व्यवहार डोकेदुखी सारखे वाटतात.

संशोधनाची व्याप्ती:-

1. या संशोधनाची व्याप्ती ही ग्रामीण भागातील बँकापुरती मर्यादित आहे.
2. संशोधनाची व्याप्ती ही ग्रामीण भागातून इ- बँकिंग वरून व्यवहार करणा-या ग्राहकांपर्यंत व्यापक आहे.
3. ग्रामीण भागातील बँकिंगच्या व्यवसायातील सर्व कार्ये आणि व्यवहार इलेक्ट्रॉनिक माध्यमातून संपन्न करण्यापर्यंत व्यापक आहे.

अध्ययन क्षेत्र:-

प्रस्तुत शोध निबंधाचा विषय इ- बँकिंगचा ग्रामीण भागातील लोकांच्या जीवनावर होणा-या परिणामांचा अभ्यास हा असल्यामुळे ग्रामीण भागातील इ- बँकिंग पुरताच मर्यादित आहे.

संशोधन पध्दती:-

प्रस्तुत शोधनिबंधासाठी द्वितीयक तथ्य सामुग्रीचा उपयोग केला आहे त्यामध्ये विविध ग्रंथ वेबसाईट इ.चा आधार घेवून शोध निबंध तयार करण्यात आला आहे.

इ- बँकिंगचा अर्थ व संकल्पना :-

माहिती तंत्रज्ञानामुळे आपले जीवनमान व कार्यपध्दती पूर्णपणे बदलली आहे. ग्राहकांनी इंटरनेटवर खरेदी केल्यामुळे त्यांना इ- बँकिंगचा वापर करावा लागतो. पारंपारिक बँकिंग पध्दतीच्या तत्वांना अनुसरून इ- बँकांनी आपली कार्यपध्दती ठेवलेली असली तरी ही अनेक बाबतीत नावीन्य निर्माण केले आहे. पारंपारिक पध्दतीत बँकेतून पैसे काढण्यासाठी व भरण्यासाठी किंवा इतर बँकेचे व्यवहार करण्यासाठी ग्राहकांना बँकेत आपली सर्व कामे सोडून तासतास रांगेत उभे राहावे लागत होते परंतु इ- बँकिंगमुळे बँकेचे व्यवहार हे सोपे झाले आहेत. ATM आणि क्रेडीट कार्ड हे लोकांपर्यंत पोहचाला वेळ लागला परंतु इ-बँकिंग ही सुविधा 4-5 वर्षातच ही अतिशय लोकप्रिय होवून बँकेच्या ग्राहकांना त्यांच्या सोयीच्या वेळी कोणत्याही ठिकाणाहून बँकेचे सर्व व्यवहार करता येवू लागलेत त्यासाठी बँकेची वेबसाईट, बँक आणि ग्राहक यांच्यातील मध्यस्थ म्हणून कार्य करते.

ऑनलाईन बँकिंगची सुरुवात ही 1980 च्या सुरुवातीला झाली. 1980 च्या शेवटी यु.एस. मधील लोकांमध्ये लोकप्रिय झाली. 1980 च्या शेवटी इंटरनेटवर जवळपास 37 बँकांनी आपल्या वेबसाईटवर तयार केल्या नंतरच्या काळात इ-बँकिंगचा प्रसार सुरू झाला. भारतात 1994 - 95 च्या सुमारास इ-बँकिंगला सुरुवात होवून ती लोकप्रिय होवू लागले. सध्या स्थितीला इ-बँकिंग ही सेवा - ई - कॉमर्सचा कणा आहे.

इ-बँकिंगची व्याख्या:-

1. 'वर्ल्ड वाईड वेबच्या माध्यमातून बँकिंगची कार्ये करणे म्हणजे इ-बँकिंग होय.'

2. इलेक्ट्रॉनिक बँकिंग ही अशी पध्दती आहे ज्यात ग्राहकाला दगड विटांनी बांधकाम केलेल्या वित्त संस्थेमध्ये न जाता घरबसल्या इलेक्ट्रॉनिक माध्यमाचया सहायाने बँकिंगच्या सेवा उपलब्ध करून घेता येतात या सेवा साधारणतः इंटरनेट वरून उपलब्ध करून दिल्या जातात ग्राहक आपल्या वैयक्तिक संगणकाच्या मदतीने आणि विशेष अशा सॉफ्टवेअर द्वारे या सेवा उपलब्ध करून घेतो.
3. इलेक्ट्रॉनिक बँकिंगला छत्री हया संज्ञेची उपमा देण्यात आली असून ग्राहकाला घरबसल्या रक्कमेचे शोधन करणे, रक्कमेचे स्थानांतरण करणे, आपल्या खात्याचे विवरण प्राप्त करणे, या खात्यांचे समाशोधन करून घेणे, इलेक्ट्रॉनिक कॅशचा वापर करणे इंटरनेटवरील लिलावात भाग घेणे, संभाव्य ग्राहकाबद्दल माहिती प्राप्त करणे अशा अनेक बँकिंगच्या सेवा आपल्या वैयक्तिक संगणकावर बसून एकाच छताखाली उपलब्ध करून घेता येतात.
4. बँकिंगच्या व्यवसायातील सर्व कार्य आणि व्यवहार इलेक्ट्रॉनिक माध्यमातून संपन्न करणे म्हणजे इ-बँकिंग होय.

#### **इ-बँकिंगचे स्वरूप:-**

इ-बँकिंगमध्ये कागदपत्राऐवजी इंटरनेट एकस्ट्रानेट आणि इंटरनेट अशा नवीन इलेक्ट्रॉनिक तंत्रज्ञानाच्या आधारावर बँकेचे संपूर्ण व्यवहार संपन्न केले जातात.

इ-बँकिंगचे स्वरूप – 1. बँक आणि ग्राहक 2. बँक आणि बँक 3. बँक आणि मध्यवर्ती बँक 4. मध्यवर्ती बँक आणि बँक या घटकांमध्ये होणा-या व्यवहारांमधून स्पष्ट होते.

#### **इ-बँकिंगचे व्यवहार:-**

1. पैसे खात्यावर जमा करणे व काढणे.
2. बँकेच्या खातेदारांना चेकबुक, डी.डी, खाते उतारा यांसारख्या सेवा पुरविणे.
3. ग्राहकांच्या खात्यासंदर्भातील ठेवी व कर्जावरील व्याजदर, देणीदेणे इतर शुल्क, यांची माहिती पुरविणे.
4. ग्राहकांच्या वतीने वीजबिल, टेलिफोन बिल इत्यादींचा भरणा करणे.

#### **इ-बँकिंगचे ग्रामीण भागातील लोकांवर होणारे परिणाम:-**

1. इ-बँकिंगचे व्यवहार हे ग्रामीण भागातील लोकांना त्यांची कामे करत करत केव्हाही व कोठेही करता येतात या व्यवहारांवरती वेळेचे बंधन नसते.
2. इ-बँकिंगमुळे ग्राहकांना देशात व विदेशातील कोणत्याही व्यापा-यांशी, कंपन्यांशी, बँकांशी व्यवहार करता येतो.
3. ग्रामीण भागातील लोक हे शेती व शेतीपुरक व्यवसाय करतात व आपला माल देशातील प्रत्येक काना कोप-यात विकतात त्यामुळे त्यांना इ-बँकिंगमुळे त्याचे पैसे त्यांच्या खात्यात जमा होतात. त्यामुळे त्यांना पैसे सांभाळण्याची किंवा चोरी होण्याची भीती राहत नाही.
4. इ-बँकिंगमुळे ग्रामीण भागातील लोकांना बँकेत जास्त चक्का न मारता त्यांना तात्काळ कर्ज, निधीस्थानांतरित करणे यांसारखे व्यवहार लवकर होतात.
5. या वाढत्या स्पर्धेच्या युगात इ-बँकिंग सर्व ग्राहकांना फायदयाची आहे.
6. इ-बँकिंगमुळे ग्रामीण भागात राहणा-या लोकांना शहरी भागातील लोकांप्रमाणे दर्जेदार सेवा मिळतात.
7. ग्राहकांची सर्व कामे मोबाईल व संगणकाच्या सहायाने धरूनच होत असल्यामुळे बँकेत जाण्यायेण्याचा खर्च व वेळ वाचतो.

8. इ-बँकिंगमुळे ग्राहकांप्रमाणेच, बँका, सरकार, समाज, मध्यवर्ती बँकांना याचे फायदे होतात. इ-बँकिंगमुळे हे सर्व घटक एकत्र जोडले जातात.

9. इ-बँकिंग ग्रामीण भागातील लोकांना वीजबिल भरण्यास उपयुक्त ठरते.

**इ-बँकिंगचे ग्रामीण भागातील लोकांना होणारे फायदे:-**

1. इ-बँकिंगमुळे कोणत्याही वेळी व कोठेही व्यवहार करता येतात.

2. यामुळे बँकांची कार्यक्षमता वाढते.

3. इ-बँकिंगमुळे ग्राहकांना पैसे देणे घेणे, खात्याविषयी माहिती, कर्जाविषयी माहिती, ठेविषयी माहिती, बँकेच्या नविन योजनेविषयी माहिती अशा अनेक प्रकारच्या सेवा पुरवल्या जातात.

4. यामुळे बँकेचे ग्राहक वर्ग वाढतो.

5. माहिती तंत्रज्ञानावर आधारित इ-बँकिंगचा स्वीकार केल्याने बँकेची स्पर्धाक्षमता वाढते, स्पर्धेत अशी बँक सरस ठरते.

6. इ-बँकिंग प्रणालीत नव्या तंत्रज्ञानाच्या वापराने बँकेच्या नफा क्षमतेत वाढ घडून येते.

**इ-बँकिंगचे ग्रामीण भागातील लोकांना होणारे तोटे:-**

1. इ-बँकिंगमध्ये सुरक्षिततेचा प्रश्न निर्माण होतो.

2. या व्यवहारात त्रयस्त व्यक्तीचा हस्तक्षेप होण्याची शक्यता असते.

3. इ-बँकिंग प्रणाली बँकांना स्वीकारताना कर्मचा-यांच्या शिक्षण प्रशिक्षणावर, प्रारंभी संगणक, इंटरनेट व इतर इलेक्ट्रॉनिक साधनांवर खूप मोठ्या प्रमाणावर खर्च करावा लागतो.

4. ग्रामीण भागात वीजपुरवठा, दूरध्वनी सेवा, इंटरनेट इत्यादी पुरेशा प्रमाणात उपलब्ध होत नसल्याने तेथे इ-बँकिंगवर मर्यादा पडतात.

5. नव्या बँका उच्च तंत्रज्ञानासह प्रवेश करित असल्याने प्रस्थापित बँकांना तंत्रज्ञान अद्यावत करावे लागते त्यासाठी त्यांना सर्व करावा लागतो.

**संशोधनांची निष्कर्ष:-**

1. ग्रामीण भागात वीजपुरवठा, दूरध्वनी सेवा, इंटरनेट इत्यादी पुरेशा प्रमाणात उपलब्ध होत नसल्याने तेथे इ-बँकिंगवर मर्यादा पडतात.

2. ग्रामीण भागातील सर्व जनता ही सुशिक्षित नसल्यामुळे इ-बँकिंगचे व्यवहार हे संगणक व इंटरनेट ने होत असल्यामुळे अनाधिकृत व्यक्तीकडून हस्तक्षेप होवू शकतो.

3. ग्रामीण भागात इ-बँकिंगशी व्यवहार करताना आर्थिक गुन्हे वाढण्याची शक्यता जास्त आहे.

4. ग्रामीण भागातील इ-बँकिंगच्या प्रणालीत सुरक्षिततेचा प्रश्न निर्माण होवू शकतो. कारण यात कागदविरहित व्यवहार केले जातात.

5. इ-बँकिंगचे फायदे निरक्षर, अशिक्षित व अंध व्यक्तींना होत नाही.

6. इ-बँकिंगमुळे ग्रामीण भागातील लोकांचा वेळ व पैसा वाचतो.

7. इ-बँकिंगमुळे ग्रामीण भागातील लोक घरीबसून व्यवहार करतात.





8. या प्रणालीमुळे ग्राहक व बँक यांच्यात विश्वासाचे नाते तयार झाले आहे.

**संदर्भग्रंथ सूची:-**

1. प्रा.रायखेलकर व डॉ.दामजी-मुद्रा अधिकोषण आणि वित्त – विद्याबुक्स पब्लिशर्स, औरंगपुरा, औरंगाबाद.
2. प्रा.एस.एम.कोलते-बँकिंग तत्व आणि व्यवहार – प्रशांत पब्लिकेशन्स, जळगांव.
3. डॉ. सु.म.खंदारे – भारतीय अर्थव्यवस्था- एज्युकेशनल पब्लिशर्स अँड डिस्ट्रिब्युटर्स, औरंगपुरा औरंगाबाद.