



## From the Desk of Editor

It gives me a great feeling of pleasure to release the 6th issue of National Research Journal of Humanities & social sciences July-Dec. 2015. It is a matter of pride that eminent researchers, academicians and scholars have contributed their papers with care and security.

One again this Journal incorporates the most original and thought provoking research papers in the field of humanities, Social sciences and Fine Arts. Researchers have made honest effort to examine and study the currently useful and relevant issues through a modern perspective and advanced research methodologies. There has been a conscious effort to ensure the authenticity and originality of the articles.

I take this opportunity to wish all our readers a very Happy New Year 2016. I wish to see more researchers and academicians getting associated with us next year. I firmly believe that research scholars and academicians will continue to explore new vistas of meaningful research with increasing social and practical use in diverse disciplines and contribute their original and weighty research ideas to this journal.

Regards and best wishes for the New Year.

A handwritten signature in dark ink, appearing to read 'Hari Om Shankar'.

Dr. Hari Om Shankar  
Editor-in- Chief



# Contents

Abhishek Kumar Mishra	Rights of the accused judicial system	1
Ekta Meena	Indian Education system: needs to transform	21
Dr. H.S. Rawat	F.D.I. Inflow in India	29
Dr. Alpana Nigam	Right to Education act major issues and challenge	36
Mala Dhawan	Music in harmony with painting an Unending relationship	44
Dr. R.K. Sharma	Effect of diesel and petroleum Combustion on Health	46
Dr. Shikha Nagalia	Analysis of unequal spread fo proverty in Uttarakhand	51
Jyoti CHaturvedi	Confessionalism- a main character in The poetry of adrienne rich and kamala das	58
Dr. D.K. Shrivastava	Technological innovations of India	68
Rakesh Kumar Sainia	Banking sector	
Jyotsna Bhatt	Potential, Inpact and issues related to Hydo-	72
Dr. Dinesh Pratap	Development in Uttarakhand	
डॉ. सुरजीत सिंह भदौरिया	बालक को निःशुल्क शिक्षा का अधिकार	83
डॉ. पुष्पा खण्डूड़ी	संत कवि रैदार के काव्य में व्याप्त सांस्कृतिक चेतना	86
राज कुमार कसेरा	1942 ई0 का भारत छोड़ो आन्दोलन: एक मूल्यांकन	91
हंसा चौधरी	समकालीन भारत में राजनीति का बदलता स्वरूप	94
संजीव कुमार	फ्रेड बिमान दास की मूर्तिकला में श्रंगारिक प्रेम की अभिव्यक्ति'	99
डॉ. किरण सूद	श्री अरविन्द: राजनीतिक क्रान्ति से रूपान्तरण क्रान्ति की ओर	107
श्रीमती कमलावती सकलानी		
डॉ. किरण सूद, बबीता सहोत्रा	उत्तराखण्ड पृथक— राज्य आन्दोलन मे अनुसूचित वर्ग का योगदान	134
भजन सिंह	पाल कालीन दृश्य कलाएँ	141
अजय सिंह	पर्यावरण चेतना और वैदिक साहित्य	146
नेहा सम्सेना	ललित कलाओं में रस का महत्व	149

वर्षा गुप्ता	प्रेमचन्द का राष्ट्रवाद और आम आदमी	153
डॉ. अरुण कुमार	जाति : एक व्यवस्था के वाद के रूप में	160
डॉ. रीतिका गर्ग	भारतीय कला में धर्म का स्वरूप	165
डॉ. पुनम रानी	राजस्थानी शैली— साहित्य, संगीत और चित्रकला की त्रिवेणी के रूप में	168
कीर्ति दूबे	भारतीय शिक्षा के विकास में माधमिक शिक्षा आयोग का योगदान	172
डॉ. राम विनय सिंह	नारी, वेद और वर्तमान परिवेश	175
श्रीमती कंचन मैनवाल	डॉ. एच. एन. मिश्रा के चित्रों में गणेश अंकन	179
डॉ. राखी उपाध्याय	यजुर्वेद संहिता में स्तोत्रों तथा मंत्रों का स्वरूप	182
दिव्या थापा	ढोकरा मूर्तिशिल्प में लोककला एवं संस्कृति के मौलिक रूपाकार	188
डॉ. अरविन्द गौड़	कौशाम्बी का बौद्ध कला केन्द्र के रूप में अध्ययन	191
हिमांशु जोशी	संगीत का व्यवसायिक पक्ष	196
डॉ. सुमन भदौरिया	रामायण में वर्णित माताएँ— एक ऐतिहासिक विश्लेषण	201
डॉ. अंजुलि रतनम्	प्राचीन भारतीय साहित्य में चित्रण परम्परा	210
प्रो. के. रतनम्	इतिहास लेखन की भारतीय अवधारणा	214
डॉ. कुमार विमल लखटकिया	भारत में सार्वजनिक क्षेत्र का निजीकरण	219
मोहर सिंह	ग्वालियर संसदीय क्षेत्र में राजनैतिक चेतना	222
यशोजीत सिंह परमार	मुगलों के पूर्व भारत में उद्यान कला	230
मयूरी गुप्ता	आगरा के मुगल स्थापत्यों में रामबाग तथा एत्माद—उद—दौला मकबरे का महत्व	236
डॉ. वासंती (बक्षी) जोशी	ग्वालियर कला क्षेत्र के कलाकार—प्रभात नियोगी	241

# RIGHTS OF THE ACCUSED IN JUDICIAL SYSTEM

**Abhishek Kumar Mishra\***

## INTRODUCTION

Rights that are inherent in our basic human nature, without which we cannot sustain as human beings are “human rights”. Basic human rights and civil liberties are an index of the level of civilization and the degree of political maturity of society. That is why, every democratic society tries to protect these democratic rights through various provision under their laws. The rights and liberties are protected not only of those who are peace loving and law abiding person but also of those who are accused of any Several international Human rights instruments also lay stress upon those aspects of rights which ensure free and fair trial.

Article 3 of Universal declaration of Human Rights declares that it is obligatory on every civilized nation to respect the rights that every person has to respect the right that every civilized nation to respect the right that every person has to protect his life and personal liberty. The same principal has been reiterated in the constitution of India. Though constitutional provisions have been given concrete shape by the code of criminal procedure which confers a number of rights and liberties upon an accused. This also implies corresponding duties on the arresting authorities.

Apart from analyzing the constitutional provision, this paper shall cover the various rights awarded to the accused person by the code of criminal procedure which will be studied under two different heads dealing specifically with the rights at the time of arrest and the post arrest rights. Further this paper also analysis constitutional rights of accused under articles 20,21,22 with judicial pronouncements. The paper also presents the rights of accused under various International Conventions, reports of the commission and recent amendments.

## Constitutional Rights of the Accused

Under constitution of India, Article 21 which says that no person shall be deprived of his life and personal liberty except according to the procedure established by the law; implies some inalienable rights for all people including the accused and the condemned. To reinforce the effect of Article 21, Article 20 and 22 specifically provides for certain express rights in respect of arrest, detention and conviction for the offence. Further the scope of Article 21 has been enlarged by the decision of Meneka Gandhi case in which court held that all the fundamental rights are interrelated to each other and procedure established by law also includes due process of law.

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<sup>1</sup>Meneka Gandhi (Smti.) v Union of India, AIR 1978 SC 576.

<sup>2</sup>AIR 1953 SC 730.

<sup>3</sup>AIR1978 SC 1025.

<sup>4</sup>Francis Coralie v. Administrator Union Territory of India, AIR 1981 SC 746.

<sup>5</sup>Kharak Singh v. State of U.P., AIR 1963 SC 1295.

<sup>6</sup>M.H.Hosket v. State of Maharashtra AIR, 1978SC1548.

<sup>7</sup>Prem Shanker Shukla v. Delhi Administration, AIR 1980 SC 1535.

<sup>8</sup>Smt.Nalabati Behra v. Union of India AIR 1993 SC1960.

conviction for the offence. Further the scope of Article 21 has been enlarged by the decision of Meneka Gandhi case in which court held that all the fundamental rights are interrelated to each other and procedure established by law also includes due process of law.

**(a) Article 20**

Provides some internationally recognized safeguards when a person has to face a criminal action, which may ultimately deprive him of his life and liberty. Thus, Article 20 and 21 are very closely related to each other. The safe guards provided by Article 20 in its three clauses which are three in number:

- (i) Prohibition of ex-post-facto law.
- (ii) No double jeopardy, and
- (iii) Prohibition against self incrimination.

- (i) Prohibition of ex-post-facto law:** means that no person shall be held guilty of any criminal offence on account of any act or omission which did not constitute a criminal offence, at the time when it was committed. The court in case of Maqbool Hussain v.State of Bombay held that if the act when committed is not an offence, to convict the concerned person thereafter on the force of ex postfacto law would definitely mean he did not get the real opportunity of defending himself.
- (ii) Protection against double jeopardy:** Clause (2) incorporates the principals of autrofois convict, which is rooted in the principles and maxims of the English law, however this section also takes care of autrefois acquit also. It is a common law rule that “nemo debet vis rexari” i.e. no man should be put twice in peril for the same offence. The principal existed in India even before the constitution by way of General Clauses Act 1897, Section 26 and Section 300 of Cr.P. C., 1973.
- (iii) Prohibition against self incrimination:** the safe guard provided by clause (3) is very salutary because, but for this, a conviction can be obtained even by compelling a person, may be forcibly, to incriminate himself. So, self incrimination has been prohibited. To put it differently, this clause prohibits compelled testimony. In Nandini Satpathi case the court held that the prohibitive sweep of Article 20(3) was not confined to evidence given in the

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<sup>9</sup>Khetri (ii) v. State of Bihar, 1981 Cri LJ 470 at pp. 631-32.

<sup>10</sup>Ghanshyam Mohanty v. Stae of Orissa AIR 1982 SC 1167.

<sup>11</sup>In paramnda Katara's case AIR 1989 SC 2039.

<sup>12</sup>Arvinder singh Bagga v. State of U. P. AIR 1995 SC 117.

<sup>13</sup>Ashutosh, "Rights of The Accused", Universal Law Publishing Co.,(2009).

<sup>14</sup>Hansmukh v. State of Gujrat ,AIR 1981 SC 28

<sup>15</sup>Gopalan v. State of Madras, 1950 SCR 88.

<sup>16</sup>Bakshi P. M., Constitution of India, at p. 50, 9<sup>th</sup> Ed., Universal Law Publishing Co.,(2009).

court room but available from the stage of police interrogation. This means that the protection is available when police examining the accused during investigation under sec. 161 Cr P. C.

**(b) Article 21**

Expansion of Personal Liberty Right of Accused through Judicial Activities:

1. Right of personal liberty also includes Right to live with human dignity and not mere animal existence.
2. The accused has a right to privacy and encroachment upon it without support of law is violative of article 21. Likewise he also has a Right not to be a witness against himself.
3. Right to an appeal against conviction held to be flowing from Article 21.
4. Practice of indiscriminate handcuffing held to be violative of Article 21.
5. Right to claim compensation for contravention of Human Rights and fundamental rights held flowing from Article 21.
6. Right to free legal aid for poor or for indigent accused person who are incapable of engaging lawyer.
7. Right to speedy trial held flowing from Article 21.
8. The injured even if an accused has a right to be treated by doctor immediately without waiting for the police formalities and instant Medical is held to be the right flowing from Article 21.
9. Use of third degree method by police is held to be violative of Article 21.
10. Any form of torture or cruel inhuman or degrading treatment of accused by police and also police atrocities illegal arrest and torture by police held to be violative of Article 21.

**(b) Article 22**

In the words of Dr. Ambedkar the provisions made in our Article 22 were sufficient against illegal and arbitrary arrest. By making them a part of both parliament and State legislature not to abrogate those provisions Article 22 provides protection to a person arrested and detained in police custody. It lays down:

- (i) Right to be informed the grounds of arrest: Article, 22 (1) is in the nature of a directive to the arresting authorities to disclose the grounds of arrest of a person immediately. The words used in this Article 'as soon as may be' which means as early as is reasonable in the circumstances of a particular

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<sup>17</sup>State of UttarPradesh v. Abdul Samad, AIR 1962 SC 1506.

<sup>19</sup>Bakshi, P.M., "The Constitution of India", at p58, Universal law \*Publishing co.(2009).

<sup>20</sup>Harikishan v. State of Maharashtra AIR 1962 SC.



case This right of being informed of the grounds of arrest is mandatory.

- (ii) Right to be defended by a lawyer of his own choice: This is also mandatory; beside this there is a right to legal aid, flowing from Article 21, even where section 304 of the Code of Criminal Procedure, 1973 does not apply.
- (iii) Right to be produced before a Magistrate: in addition to the furnishing of the grounds of arrest, the arrested person must be produced before the magistrate within 24 hours only under the judiciary custody. It affords a possibility if not an opportunity for immediate release in case the arrest is not justified.
- (iv) No detention beyond 24 hours except the order of the Magistrate: This means if there is necessity of detention beyond 24 hours it is possible only under judicial custody. The expression arrest and detention in article 22 (1) and (2) was held not to apply to a person arrested under a warrant issued by the court on a complaint or under a warrant issued by the court on circumstances complaint or under security proceedings. Article 22 is designed to give protection against the act of the executive or order of non-judicial authorities and applies to a person who has been accused of a crime or of offence of criminal or quasi criminal nature.

Article 22 (3) however, provides two exception to the rule contained in its clause (1) and (2). It says that the rights given to the arrested person under clause (1) (2) are not available to the following persons:

- (a) An enemy alien and
- (b) A person arrested and detained under preventive detention laws.

Article 22 (5) gives two rights to the arrested person- (1) the authority making the order of detention must “as soon as may be” communicate to the person detained the grounds of his arrest i.e. the grounds which led to the subjective satisfaction of the detaining authority (2) to give the arrested person the earliest opportunity of making a representation against the order of detention. It is to be furnished with sufficient particulars to enable him to make representation.

(1) The grounds of detention should be very clear and easily understandable by the arrested person. Where the arrested person does not know the particular language to understand the grounds communicated to him it has been held that there was no sufficient compliance with the requirements laid down in the constitution, the grounds of detention must be in existence at the time of the detention.

(2) Right of the Representation Cl. (5) of Article 22 : This obligation of the detaining authority to furnish particulars of detention so as to enable the arrested

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<sup>21</sup> See supra note 20.

<sup>22</sup> Avinash madhukar mukhedkar v State of Maharashtra, 1983 Cr LJ 1833 (Bom).

person. To make the representation against his detention at the earliest opportunity also imposes an obligation on it to consider and dispose of the representation as soon as possible. When liberty of the citizen is in peril immediate action is imperative. The consideration of the arrested persons representation should be real, proper not causal or mechanical.

### **Rights of the Accused under the Code of Criminal Procedure 1973.**

However, in this paper the concerned is mainly on that provision of the code which entitle an accused of certain rights during the course of any investigation enquiry or trial of an offence with which he is charged.

#### **(a) Rights of the accused at the time of trial**

(i) Protection against arbitrary or illegal arrest: Provision in this regard is as follows:

(a) When police may arrest without warrant: under section 41 very wide powers are conferred on the police in order that they may act swiftly for the prevention or detection of cognizable offences without the formality and delay of having to go to a Magistrate for order of arrest. Courts should, therefore, be particularly vigilant to see that the powers are not in any way abused or lightly used for the satisfaction of private feelings or of designing complainants. Therefore, the arrest and detention of person without warrant are not matter of caprice but are governed by rules and principles clearly laid down by laws.

(b) Arrest on refusal to give name and residence: Under section 42, arrest of a person (1) who commits a noncognizable offence in the presence of a police officer, or (2) is accused before him of having committed such an offence is permissible only, if he refuses to give name and address and as soon as they are ascertained he is to be released on execution of a bond for appearance. If name and residence cannot be ascertained he must not be kept under arrest beyond 24 hours, but should be taken to a Magistrate. If his name and address were previously known to the police officer, he cannot be arrested or detained

(c) Arrest by private person and procedure on such arrest: Section 43 is based on the principle that every citizen has the duty to help, keep the peace and so has the right to make over or cause to be made over to the authorities any offender who breaks the law. It empowers a private person to arrest or cause to be arrested - (1) a proclaimed offender, or (2) any person who in his presence commits a non-bailable and cognizable offence, but not after the completion of such offence. After the offence has already been committed, it is a matter for the police and a private person

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<sup>23</sup>Gopal v state of madras, (1922) 46 Mad 605 (FB).

<sup>24</sup>Kartar, v state of punjab AIR 1956 Punj 122.

<sup>25</sup>Section 46(2).

<sup>26</sup>Protab, 1 WR 9.

<sup>27</sup>Sheo Balak Dusadh v. Emperor, AIR 1948 All 103;

<sup>28</sup>Section 46(3).

should then inform them. After arrest, he must without unnecessary delay either take the person or cause him to be taken to the nearest police station. No arrest can be made on mere suspicion or information. Private Citizen cannot follow and arrest a person on the statement of another person, however unimpeachable, that the former committed a non-bailable and cognizable offence.

**(d) Arrest how made:** Section 46 envisages three modes of arrest-(i) submission to custody, (ii) touching the body physically, or (iii) confining the body. Arrest is restraint on personal liberty. Unless there is submission to custody, by words or by conduct, arrest must be made by actual contact. If such person forcibly resists the endeavor to arrest him, or attempt to evade the arrest, such police officer or other person may use all means necessary to affect the arrest. But if force is required, no force should be employed in effecting arrest than is justly necessary. Whether violence is justifiable depends on whether the means employed were such as an ordinarily prudent man could make use of, who had no intention of doing any serious injury. All means necessarily includes help from other persons and it also applies to arrest by private citizen. However, this section does not give a right to cause the death of a person, who is not accused of an offence punishable with death or with imprisonment for life. Accordingly, police officer in attempting to re-arrest escaped thief has no right to shoot.

**(c) Search of place entered** by person sought to be arrested: Section 47 provides that if any person acting under a warrant of arrest, or any police officer having authority to arrest, has reason to believe that the person to be arrested has entered into, or is within, any place, any person residing in, or being in charge of, such place shall, on demand of such person acting as aforesaid or such police officer, allow him free ingress thereto, and afford reasonable facilities for a search therein. The force means in order to effect entrance into such place the police officer may break open any outer or inner door or window of any house or place, whether that of the person to be arrested or of any other person, if after notification of his authority and purpose, and demand of admittance duly made, he cannot otherwise obtain admittance.

**(d) No unnecessary restraint:** According to section 49, there should be no more restraint than is justly necessary to prevent escape, i.e., reasonable force may be used for the purpose, if necessary; but before keeping a person under any form of restraint there must be an arrest. Restraint or detention without arrest is illegal.

**(e) Person arrested to be informed of grounds of arrest and of the right to bail:** Section 50 provides that any person arrested without warrant shall immediately be informed of the grounds of his arrest, and if the arrest is made in a bailable case the person shall be informed of his right to be released on bail. Arrest

<sup>29</sup>Section 47(1).

<sup>30</sup>Section 46(2)*Ramesh*, 41 C 350 (376)

<sup>32</sup>*Ajit Kumar Sarmha v. State of Assam*, 1976, Cr. LJ 1303 (Gau).

without compliance of this provision will be illegal and will make the officer or person making such illegal arrest liable to all such remedies as are available in case of an illegal arrest. Section 50 is mandatory. If particulars of offence are not communicated to an arrested person, his arrest and detention are illegal. If he alleges by affidavit that he was not communicated with full particulars of the offence, the police officer's diary can be perused to verify his claim of oral communication of such particulars. When the provisions of section 50 have not been complied with, the non-consideration of such non-conformance by the court when considering the question of bail operates to the prejudice of the arrested person and the order is liable to be set aside on this ground. This provision carries out the mandate of Article 22(1) of the Constitution of India. The grounds can be communicated even impliedly by conduct.

(f) Search of arrested person: Section 51 is the only provision which allows a police officer to make a "personal search of arrested persons, but it comes into operation after arrest (with or without warrant) and not before. No search witness is legally necessary Search by the police of the person of the accused does not contravene Article 20(3) of Constitution.

(g) **Examination of accused by medical practitioner at the request of police officer:** Section 53 authorizes an examination of the arrested person by a registered medical practitioner at the request of a police officer, if from the nature of the alleged offence or from the circumstances under which it was alleged to have been committed, there is reasonable ground for believing that such an examination will afford evidence. A specific legal provision in this regard has been considered necessary because under the existing general provision relating to the search of an arrested person forcible medical examination would not offend Article 20(3) of the Constitution. Without a statutory provision compulsory medical examination of the accused would have been illegal.

(h) **Examination of arrested person by medical practitioner at the request of the arrested person:** Section 54 provides that when a person who is arrested, whether on a charge or otherwise, alleges, at the time when he is produced before a Magistrate or at any time during the period of his detention in custody that the

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<sup>33</sup> Govind Prasad v. State of West Bengal, 1975, Cr LJ 1249 (Cal).

<sup>34</sup> Pranab Chatterjee v. State of Bihar, 1970 (3) SCC 926.

<sup>35</sup> M.P.Sharma v. Satish Chandra, AIR 1954 SC 300.

<sup>37</sup> Law Commission of India 37<sup>th</sup> Report, para 183 and 41<sup>st</sup> ref. Vol.1, para 5.

<sup>38</sup> Sheela Barse v. State of Maharashtra, AIR 1983 SC 378.

<sup>39</sup> Khatri v. State of Bihar, AIR 1981 SC 928.

<sup>40</sup> Gulam Md. Azimuddin v. State of Madhya Pradesh, AIR 1959 MP 147.

<sup>41</sup> State of Punjab v. Ajaib Singh, AIR 1953 SC 10.

<sup>42</sup> Saptawna v. State of Assam, AIR 1971 SC 813.

<sup>43</sup> State v. Ram Autar Chaudhry, AIR 1955, All 138.

examination of his body will afford evidence which will disprove the commission by him of any offence or which will establish the commission by any other person of any offence against his body, the Magistrate shall, if requested by the arrested person so to do, direct the examination of the body of such person by a registered medical practitioner unless the Magistrate considers that the request is made for the purpose of vexation or delay or for defeating the ends of justice. The accused must be informed of his right under section 54.

**(i) Procedure when police officer deposes subordinate to arrest without warrant:** Section 55 authorizes an officer-in-charge of a police station for making an investigation under Chapter XII to depute a subordinate officer to arrest without warrant any person by an order in writing. Any officer subordinate is not limited to police officer (as in sections 41, 42, 57 etc.), but may be any other subordinate officer, e.g., Chowkidar. The jurisdiction of the police officer under this section is not excluded by the Magistrate issuing a warrant.

**(j) Person arrested not to be detained more than twenty-four hours:** The constitutional and legal requirements to produce an arrested person before a Judicial Magistrate within 24 hours of the arrest must be scrupulously observed.<sup>3</sup> Section 57 is concerned solely with the question of the period of detention. It does not deal with the question of bail. The intention is that the accused should be brought before the Magistrate competent to try or commit, with the least delay. Arrest without warrant call for greater protection than do arrests under warrant issued by court and production within twenty-four hours before a Magistrate ensures the immediate application of judicial mind to the legality of the arrest and the regularity of the procedure adopted, police officer failing to produce an arrested person before Magistrate within 24 hours is guilty of wrongful detention. But such wrongful or illegal detention does not entitle the accused to be released on this ground when he is afterwards in lawful detention as an under trial prisoner. Though a limit of 24 hours is allowed, there is no absolute right to keep in custody till that period and in no case can a police officer detain for a minute longer if he can send the accused to a Magistrate at once, except upon some reasonable ground.

**(m) Police to report apprehensions:** The object of section 58 is that the Magistrate should be kept informed of all arrests without warrant by the police in order that he may see whether their powers were being exercised properly or abused, or to detect infractions of sections 56 and 57 and also to enable him to issue promptly such order as may be necessary in regard to the person arrested, as it is his duty to see that persons are not unnecessarily kept in custody.

**(ii) Protection against search of an accused premises:** The relevant provisions

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<sup>44</sup>M.P. Sharma v. Satish Chandra, 1954Cr LJ 865:

<sup>45</sup>ThavarmalClarka, 39 C 953 PC, 53 B 367; Mithu, 10 Cr LJ 3

<sup>46</sup>Bajrangi Gope v. Emperor, ILR 38 Cal 304.

are discussed as under:

**(a) When search warrants may be issued:** This provision is available under section 93, which is supplementary to sections 91 and 92, the object being to make provisions effective by issue of a search warrant. A power of search and seizure is an overriding power of the State for the protection of social security and that power is necessarily regulated by law. Article 20(3) of the Constitution is not defeated by the provision for searches there are well-defined limitation to the exercise of the power which must be used with great caution, and before the issue of a warrant the court must be fully satisfied that there are sufficient materials to justify the strong measure.

**(b) Search of place suspected to contain stolen property, forged documents, etc.:** The protection against illegal and arbitrary search by the police is provided under section 94. The pre-existence of a proceeding against a person is not necessary for the issue of a warrant. The issue of a search warrant without any allegation or information which a Magistrate believes that a particular place is used for deposit or sale of stolen property is illegal. The person who can execute the warrant is the officer named in it. It cannot be endorsed to another officer of the same rank. Search under the section without warrant is illegal.

**(c) Search by police officer:** Section 165 empowers the police officer specified to make a search without warrant subject to certain safeguards. The pre-requisites for a search are that

- (1) Search must be necessary for investigation,
- (2) The offence must be such as the police officer is authorized to investigate i.e. Cognizable offence.
- (3) Reasonable grounds must exist for believing that the thing required will be found in a place,
- (4) There would be undue delay in getting the thing in any-other way.
- (5) Grounds of belief as to necessity of search must be previously recorded.
- (6) The article for search must be specified, as far as possible, in the record.

All the above conditions must be fulfilled. Searches have to be conducted strictly in accordance with the formalities and within the legal limits prescribed in the Code. No officer has a prerogative right to forcibly enter a citizen's house except under authority of law which is open to be examined by the courts of law and justice. Indiscriminate search causes considerable resentment and may also lead to serious

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<sup>47</sup>New Swadeshi Mills of Ahmedabad v. S.K. Ration, (1967) 9 Guj LR 364.

<sup>48</sup>Sec Chapter 33 of Cr PC.

<sup>49</sup>Law Commission of India, 14th Report, Vol. I, pp. 587-600.

<sup>50</sup>Kuthu Goala, 1981 Cr LJ 424 (Gau).

consequences. To prevent misuse of power and as a safeguard against needless harassment, the section casts an obligation on the police officer to place on record the reasons for making a search without taking a warrant

**(iii) Right to be produced before the Magistrate within 24 hours of arrest:** Two sections of the Code deal with this right of the accused, which are discussed as under:

**(a) Person arrested to be taken before Magistrate or officer-in-charge of police station:** This right is contained in section 56 of the Code, according to which if the police does not think it fit to take bail, the arrested person has to be taken to the Magistrate having jurisdiction, i.e., jurisdiction to try the case. Person arrested should not be kept in any other place but sent immediately to the Thana. He can be discharged on personal bond or bailor under a Magistrate's order under section 167.

**(b) Person arrested not to be detained more than twenty-four hours:** the provision, as contained in section 57, under "Protection against arbitrary arrest and right to know specific ground of arrest" already discussed.

**(iv) Right to consult and to be defended by a counsel of his choice and to get free legal aid in case of economically disabled accused:** Apart from ensuring a fair prosecution, a society under the Rule of Law has also a duty to arrange for the defense of the accused, if he is too poor to do so. Free legal aid to persons of limited means is a service which the modern State, in particular a Welfare State, owes to its citizens. The provisions to deal with this right under the Code are discussed as under:

**(a) Right of person against whom proceedings are instituted to be defended:** Section 303 recognizes the right of any person brought before the criminal courts to answer any charge or accusation to be defended by a lawyer of his choice. It is absolutely essential for all Magistrate to explain to the accused, before proceeding to record confession, his fundamental right under Articles 22(1) and 20(3) and provisions of section 303 that he has a right to consult the lawyer. The right to consult and to be defended by a legal practitioner of accused choice is now recognized in Article 22(1) of Constitution. Arrest and trial in jail in hot haste on the next day without an opportunity to defend or informing the accused of their right under Article 22 of constitution and section 303 is in a sense a denial of fundamental rights.

**(b) Legal aid to accused at state expenses in certain cases:** Section 304 places on a

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<sup>51</sup>M.H. Hoskot v state of Maharashtra, AIR 1978, SC 1548.

<sup>52</sup>Hussainara Khatoon V Home Secretary, State Of Bihar AIR 1979 SC 1369.

\*Maneka Gandhi v Union of India, AIR 1978, Khatri v State of Bihar, AIR 1981 SC 1068.

<sup>53</sup>Kailash Nath Agarwal v. Emperor, AIR 1947 All 436.

<sup>54</sup>MR. Venkataraman In re., AIR 1950 Mad 441.

<sup>55</sup>Visheshwar v. State, 1976 Cr LJ 521.



statutory footing the right of the accused without sufficient means to engage lawyer to be defended at the expense of the state in regard to Sessions trials. In section 304 a partial statutory implementation of constitutional mandate under Article 21 read with article 39A is found, and in court cannot be inert in the of Articles 21 and 39A of constitution. The state is under a mandate to provide free legal aid to an accused who is unable to secure legal service on account of indigence or incommunicado situation provided the accused does not object, and whatever is necessary for this purpose has to be done by the state.

**(b) Rights available to accused at the time of trial:**

(i) Right to open trial: This is provided under section 327. There is no provision in the Code that court must be held in the usual court-room. But wherever it may be held, it must be like an open court with access to the public generally so far as accommodation permits. The proviso confers a discretion in a particular case to exclude the public or any particular person, e.g., during disclosure of indecent matter or when there is likelihood of a disturbance, or for any other reasonable cause. As it is an exception to a very well-settled rule, court excluding the public or a section of the public, must record its reasons for doing so. It should also record reasons when court is held in any place other than the court building or in jail. In the absence of consent of the accused it is not proper to hold session's trial in jail unless a clear notification is issued by the High Court under section 9(6).

(ii) **Right of accused to have notice of charge:** Provisions of the Code in this regard are as follows:

(a) Contents of charge: The right to have precise and specific accusation is contained in section 211, Cr PC. A charge is a written notice of the precise and specific accusation against him, which an accused is required to meet. It is the first notice to the prisoner of the matter whereof he is accused and it must convey to him with sufficient clearness and certainty that the prosecution intends to prove against him and of which he would have to clear himself. Its object is to warn the accused of the case he is to answer. Charge must be properly framed and evidence tendered must relate to matters stated in the charge.

**(iii) Right of accused to get the complaint filed against him for the alleged**

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<sup>56</sup>Reity, 28 Cal 434; Wawo, AIR 1948 Sindh 40.

<sup>57</sup>Srikantiah B.N. v. State of Mysore, AIR 1958 SC 672.

<sup>58</sup>Ramkrishna v. State of Maharashtra, 1980 Cr LJ 254.

<sup>59</sup>State of Punjab v, Sanvan Singh, AIR 1981 SC 1054.

<sup>60</sup>Nandini Satpathy v. P.L. Dam, AIR 1978 SC 1025.



**offence within the period of limitation:** Section 468 contains the relevant provisions in this regard. The object of Cr. P.C in putting a bar of limitation on prosecution was clearly to prevent filing cases after a long time, as a result of which material evidence may disappear and also to prevent abuse of the process of the court by filing vexatious and belated prosecutions. It is clearly in consonance with the concept of fairness of trial as enshrined in Article 21 of Constitution.

(iv) Protection against police from extorting confession by using illegal method in the form of force and coercion: Following provisions in the Code provide this right to the accused:

(a) Police's power to require attendance of witnesses: Section 160 provides that a police officer making investigation under Chapter XII to issue a written order requiring the attendance of witnesses (within certain limits). Ordinarily, the police will go to the persons who are acquainted with the facts and circumstances of the case without sending for them. Particularly women should be examined in their houses instead of bringing them to the police station. Police officer cannot insist on women and juveniles appearing at the police station. The proviso forbids the summoning of any male person under the age of fifteen or women of any age (whether pardanashin or not) to the police station. If their statements are to be taken the police must go to their residence.

(b) Examination of witnesses by police: It is only under section 161 that a police officer making investigation under Chapter XII can examine witnesses acquainted with the facts of the case and reduce them to writing. Section 161 does not authorize beating or confining a person with a view to induce him to make a statement. Recording of statements is not obligatory under sub section (3). The statement, if recorded are not privileged and their use is controlled by section 162. During the course of investigation, the accused is entitled to have the services of lawyer his choice. In Nandani's case the Apex Court has observed relative scope of Article 20(3) of the constitution of India section 162(2) of Cr.P.C. as regards accused's rights of silence and compelled testimony during police investigation. According to this decision the prohibitive sweep of Article 20(3) of the Constitution goes back to the stage of police interrogation not commencing in court only. Both the provisions substantially cover the same area, so far as police investigation is concerned. The court further observed that self incrimination or tendency to expose oneself to criminal charges is less than relevant and more than confessional. Irrelevance is impermissible but relevance is licit but when relevant question are

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<sup>61</sup>Vimlabai Deshpande v Emperor, AIR 1945, Nag 8.

<sup>62</sup>Nandani Satpathy v P.L. Dani, AIR 1978 SC 1025.

<sup>63</sup>Section 161 of Cr.P.C. and Art. 20 (3) of the constitution.

<sup>64</sup>See section 162.

<sup>65</sup>Aghnoo Nagesia v State of Bihar, AIR 1966 SC 119.

loaded with guilty interference in the event of answer being supplied, the tendency to incriminate springs in to existence. The accused person cannot be forced to answer question merely because the answer there to are not implicative when viewed in isolation and confined to that particular case. He is entitled to keep his mouth shut if the answer sought has a reasonable prospect of exposing him to guilt in some other accusation actual or imminent, even though the investigation under way is not reference to that. However, fanciful claims, unreasonable apprehensions and vague possibilities cannot be the hiding ground for an accused person. He is bound to answer where there is no clear tendency to criminate.

(c) Statement made to police not to be signed: Section 162 is a part of continuation of section 161. Section 160 and 161 empower the police to examine the witness. The purpose is to protect the accused against the use of the statements of witnesses made before the police. The words of section 162 are wide enough to include a confession made to a police officer in the course of investigation.

(d) No inducement to be offered: This provision is contained in section 163. Where a statement is not made voluntarily but is the result of inducement or threat there is a danger of it being false or at least biased and it would not be safe to receive a statement made under any influence of fear. Section 163 emphasizes the fact that section 161 does not authorize the police officers to bear or confine a person with a view to induce him to make a statement.

(e) Recording of confession and statement: section 164 empowers any metropolitan or judicial Magistrate whether or not he has jurisdiction in the course of investigation by the police, or (when the investigation has been concluded) at any time afterwards but before the commencement of the inquiry or trial. It applies only to statements recorded in investigation

Strict observance of the formalities: A confession has to be recorded by strict observance of the formalities prescribed in section 164 and 281. The requirements of this section as expounded in various decisions may be summarized before dealing with them individually:-

(a) The accused must be informed that he is before a Magistrate independent of the police.

(b) The mandatory requirement is that confession should be voluntary & accused should not be under any threat, inducement or fear.

(c) Confession should be ordinarily recorded in open court unless there are special reasons.

(d) The accused should be informed that confession, used against him in the

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<sup>66</sup>State of Maharashtra v Atma Ram, AIR 1966 SC 1786.

<sup>67</sup>Gurbaksh Singh v. State of Punjab, AIR 1978 P&H 1 (FB).

<sup>68</sup>1982Cr LJ 284 (Guj).

court.

(v) Right to Bail:-

(a) Right to anticipatory bail in certain circumstances: Section 438 deals with this right of the accused. Special powers have been conferred only on the High court and Court of Session for directing a person on bail previous to his arrest. In the case of Gurbaksh case principles of law relating to grant of anticipatory bail have been laid down by Supreme Court. The High court and the Court of Session having been given wide discretionary power have been left free in the exercise of their judicial discretion to grant bail.

(b) Right to bail under Section 167: under this section it is provided that investigation should be completed with 15 days in all. And a further provision has been made that if the investigation is not completed within the period of 90 days or 60 days as the case may be, the Magistrate shall be bound to release an accused on bail if he is prepared to and does furnish bail. In the case of Babubhai Parshttamdas Patel v State of Gujrat court held that the merits of the case are irrelevant at that stage and right of the accused to be released on bail under this provision is absolute.

(c) Right to bail in bailable offence: Under section 436 the accused can claim as a matter of right in cases which have been shown as bailable offence in the first schedule to the code. No condition can be imposed in a bail order under section 436. The only choice is as between (i) taking a simple recognizance, or (ii) demanding with the security.

(d) Bail in case of non bailable offence: The section 437 deals with the power of court of the Magistrate. Granting of bail under this section is discretionary. the discretion to grant bail in case of non-bailable offences has to be exercised according to certain rules. The court's discretion has now been restricted to an extent by inserting a proviso to section 437(1) to the effect that a person who has been accused of offences punishable with death, life imprisonment or imprisonment for 7 years or more shall not be released on bail without giving an opportunity of hearing to the public prosecutor

(e) Right to move the higher court in case of refusal of bail: Special powers of High Court or Court of Session regarding bail to grant bail to a person in any case without condition or with condition in certain specified offences provided under section 439. the powers under this section are very wide.

**(v) Accused not to be prosecuted more than once for the same offence:** Person once convicted or acquitted not to be tried for same offence: Section 300 is based on the principle that no man's life or liberty shall be twice put in jeopardy for the same

<sup>69</sup> G. Narasimulu v Public Prosecutor, (1978)1 SCC 240.

<sup>70</sup> See S.37 of Act 2005.

<sup>71</sup> Kamal Krishna De v State, 1977 Cr LJ 1492 (Cal).

<sup>72</sup> Mohammad Safi v State of West Bengal, AIR 1966SC 69.

set of facts. The section embodies within narrow limits the principles of the English common law pleas of *autrefois convict* (formerly convicted) and *autrefois acquit* (formerly acquitted).

(vi) Right to get copies of statements of the prosecution witnesses and other documents: Provisions of the Code dealing with this aspect of the matter are discussed as under: (a) Supply to the accused of copy of police report and other documents, Section 207 provides this mandate. This is obligatory and a duty has been cast on the Magistrate under section 238, to see that they are so furnished.

(vii) Right of the accused to examine the witnesses in his presence Evidence to be taken in presence of accused section 273 contains this right of the accused. This section says that except as otherwise provided all evidence whether for the prosecution or the accused must be taken in the presence of the accused.

**(viii) Right to cross-examine the prosecution witnesses:** Section 231 contains the procedure for recording of prosecution evidence. On the date as fixed under section 230, the judge shall go on recording the evidence of prosecution witnesses till the prosecution closes its evidence. The accused in order to test the veracity of the testimony of a prosecution witness has the right to cross-examine him. After prosecution witnesses are examined by the accused and re-examined (if any) shall follow immediately in the order stated in the section 138 Evidence Act.

(ix) Right to examine the defense witnesses: Entering upon defense, Section 233 provides that if the judge does not acquit the accused under section 232 on the ground that there is no evidence, he shall call upon the accused to enter on his defense and adduce evidence and file with the record any written statement, if put in by the accused. If the accused desires to call any witness and apply for issue of process for compelling attendance of witnesses or production of any document or thing an adjournment has necessarily to be given for the purpose

(x) Right to explain his case by way of giving his statement: Power to examine the accused, Section 313 of the Code deals with this kind of right of the accused. The characteristics of this provision are as under:

(a) The section enacts that in every inquiry or trial with a view to enable the accused to explain anything against him in the evidence (i) the Court may at any stage put questions to the accused, and (ii) shall after the examination of all prosecution

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<sup>73</sup>See section 273.

<sup>74</sup>See section 231.

witnesses question him generally.

- (b) No oath shall be given when accused is examined by Court under sub-section (1).
- (c) Accused cannot be punished for refusing to answer.
- (d) The answers of the accused may be taken into consideration for or against him.

(xi) Inquiry by Magistrate into cause of death: Section 176 relates to inquiry by a Magistrate empowered in cases of suspicious death. In the case of death under police custody inquest is obligatory and in other cases it may be instead of or in addition to the investigation by the police. The section -proceeds on the basis that inquiry into a suspicious death should not depend merely upon the opinion of the police, but there should be a further check.

### **Malimath Committee Recommendation**

The accused has the right to know about all the right to about all he has how to enforce them and whom to approach there is denial of those rights. The committee therefore felt that all the rights of the accused flowing from the laws and judicial decision should be collected and put in a schedule code.(ii) The right of the accused recognized by the Supreme Court may subject to the classification in chapter 4 and the manner of their protection be made statutory, incorporating the same in a schedule to the Cr. P. C. (iii) Specific provisions in the code be made prescribing reasonable conditions to regulate handcuffing, including provisions for taking action for misuse of power by the police officer.

### **International Convention and Rights of the Accused**

#### **(a) The Universal Declaration and Human Rights**

This Universal Declaration of Human as a common standard of achievement for all nation, to end that every organ of the society, keeping this declaration constantly in mind, shall strive by teaching and education to promote respect for these rights and freedom and by progressive measures, national and international, to secure their universal and effective recognition and observance, both among the peoples of member states themselves and among the peoples of member state. Following are the rights of the accused under universal declaration:

Article 9 No one shall be subjected to arbitrary, arrest, detention or exile.

Article 10- Everyone is entitled in full equality to a fair and public hearing by an independent and impartial tribunal, in the determination of his rights and obligation

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<sup>75</sup>See sections 174(4), 460(c).

<sup>76</sup>P. Rajangam v. State of Madras, AIR 1959.

and of any criminal charges against him,

Article 11- (1) Everyone charged with a penal offence has the right to be presumed innocent until proved guilty according to law in a public trial at which he has had all the guarantees necessary for his defense.

(2) No one shall be held guilty of any penal offence on account of any international law, at the time when it was committed, nor shall a heavier penalty be imposed than the one that was applicable at the time the penal offences committed.

Article 12- No one shall be subjected to arbitrary interference with his privacy, family home or correspondence, nor to attack upon his honors and reputation, everyone has the right to the protection of the law against such interference or attacks.

### **(b) International Covenant on Civil and Political Rights.**

Rights of the accused under the covenant are:

Part (I) Article 2 (3) provides Each state party to the present covenant undertakes : (a) To ensure that any person whose rights or freedom as herein recognized are violated shall have an effective remedy, notwithstanding that the violation has been committed by person acting in an official capacity; (b) To ensure that any person claiming such remedy shall have his right there to determined by competent judicial, administrative or legislative authorities, or by any other competent authority provided for by the legal system of the state and develop the possibilities of judicial remedy; and (c) To ensure that the competent authorities shall enforce such remedies when granted.

Part (II) 1. Article 7 provides No one shall be subjected to torture or to cruel, inhuman or degrading treatment or punishment. In particular, no one shall be subjected without his free consent to medical or scientific experimentation.

2. Article 9- provides everyone has the right to liberty and security of person no one shall be subjected to arbitrary arrest or detention. No one shall be deprived of his liberty except on such grounds and in accordance with such procedure established by law .(2) Anyone who is arrested shall be informed at the time of arrest, of the reason for his arrest and shall be promptly informed of any charges against him.(3) Anyone who is arrested or detained on a criminal charges shall be brought promptly before a judge or other officer authorized by law to exercise judicial power and shall be entitled to trial within reasonable time or to release.(4) Anyone who is deprived of his liberty by arrest or detention shall be entitled to take proceedings before a court, I order that court may decide without delay on the lawfulness of his detention and order his detention is not lawful.(5) Anyone who has been the victim of unlawful arrest or detention shall have and enforceable right to compensation.

3. Article 10- (1) all persons deprived of their liberty shall be treated with

human dignity of the human person. (2) (a) Accused person shall, save in exceptional circumstances, be segregated from convicted person and shall be subjected to separate treatment appropriate to their status as unconverted person (3) The penitentiary system shall comprise treatment of prisoners the essential aim of which shall be comprise treatment of prisoner the essential aim of which shall be their reformation and social rehabilitation. Juvenile offenders shall be segregated from adults and be accorded treatment appropriate to their age and legal status.

4. Article 14 (2) everyone charged with a criminal offence shall have the right to be presumed innocent until proved guilty according to law.(3) In the determination of any criminal charges against him everyone shall be entitled to the following minimum guarantees, in full equality (a) to be informed promptly and in detail, in a language which he understand of the nature and cause of the charges against him;(b) To have adequate time and facilities for the presentation of his defense and to communicate with the counsel of his own choosing;(c) To be tried without undue delay;(d) To be tried in his presence and to defend himself in person or through legal assistance of the rights and to have legal assistance assigned to;(e) to examine, or have examined , the witness against him and to obtain the attendance and examination of witness against him;(f) To have the free assistance of an interpreter if he cannot understand or speak the language used in the court; and (g) Not to be compelled to testify against himself or to confess guilt.(4) in the case of juvenile person, the procedure shall be such as will take account of their age and the desirability of promoting their rehabilitation.(5) Everyone convicted of a crime shall have to his conviction and sentence being reviewed by a higher tribunal according to the law.(6) the person wrongly convicted shall be compensated.(7) No one shall be liable to be tried punished again for and offence for which he has already been finally convicted or acquitted in accordance with the la and penal procedure of each country.

5. Article 15- (1) No one shall be liable held guilty of any criminal offences on account of any act or omission which did not constitute a criminal offence under national or international law, at the time when it was committed, Nor shall a heavier penalty be imposed than the one that at the time when the criminal offence was committed. If subsequent to the commission of the offence , provision is made by or the imposition of a lighter penalty , the offender shall benefit there by.

6. Article 17 - (1) No one shall be subjected to arbitrary or lawful interference with his privacy, family, home or correspondence, nor to unlawful attacked on his honor and reputation. (2) Everyone has the right to the protection of the law against such interference or attacks.

### **Conclusion:**

The code of Criminal Procedure provides a set of just and fair rights to the accused

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<sup>77</sup>AIR 1997 SC 610.



so that he can maintain his basic human dignity as envisaged by the founding father of our constitution. These rights have been further reinforced by a number of judicial decisions that have come about in the past several years. Although implementation of the rights remain suspects, the formal law as it stands today, thanks to the foresight of the framers, and the activism of the Judges is more or less, just and is in conformity with most of the set international standards.

In our criminal justice system the legal ethics is very clear, “let thousand of criminals be let out, but a single innocent should not be punished”. Following this principle the judiciary requires all case to be proved beyond reasonable doubt. In our system while “onus of proof” lies on prosecution to prove the accused guilty, the benefit of doubt” is always given to the accused. Starting from the first step of arrest till end of the trial in every stage the accused is conferred with several Rights by the Supreme Law of the land i.e. Constitution, the Criminal Procedure Code and also according to verdicts of the higher and Apex judiciary of the country. Before the trying court, till his guilt is proved, the accused is also considered to be innocent and even as an under trial prisoner any violation of his rights is considered as Human Rights violation. To protect human rights of the accused, the Apex court D.K. Basu v. State of West Bengal has held that transparency of action and accountability are perhaps the two possible safeguards which Courts must insist upon. In this judgment more concrete and specific guidelines concerning arrest have been laid down by the Supreme Court.

With regard to the rights of the accused under preventive detention, the question arises whether these accused are entitled to get Human Rights like other accused person? When Sovereignty of the countries and precious rights of the citizens are at stake. In the changed social climate, when terrorist activities are on the rise it would be a realistic approach to Human Rights to suspend Human rights till they proved themselves innocent.

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# INDIAN EDUCATION SYSTEM: NEEDS TO TRANSFORM

**Ekta Meena\***

## ABSTRACT

Education is vital to the success of any nation, human resources development and human empowerment. In any education system, higher education encompasses Management, Engineering, Medicines, etc. It plays a major role in imparting values, knowledge and developing skills, increase the growth and productivity of the nation. In India, the Government is committed to providing primary education and certain facilities/grants for higher education, given the higher cost for establishment of higher education institutes, besides that we are witnessing the entry of private sector to run educational institutions. So it becomes necessary to know the basic requirements of transformation, the specific challenges and opportunities in the higher education system of the country. This research paper, therefore, finds out the specific sets of challenges and opportunities which are evident in the Indian education system. This paper also seeks to know how the level of engagement of the faculty members of higher education institutions should be improved. Secondary data was used to infer the current scenario of higher education in India. Based on the data, certain recommendations were also given.

Keywords: - Higher Education, Transformation, Challenges, etc.

## Introduction

Education has been a problem in our country. Even Rabindranath Tagore wrote lengthy articles about how Indian education system needs to change. Funny thing is that from the colonial times, few things have changed. We have established IITs, IIMs, law schools and other institutions of excellence; students now routinely score 90% marks after that even students with 90+ percentage find it difficult to get into the colleges of their choice. Creating a few more schools or allowing hundreds of colleges and private universities to mushroom is not going to solve the crisis of education in India. And a crisis it is, that we are in a country where people are spending their savings and borrowed money on their children's education and even then their children are not getting standard education, and struggling to find employment of their choice. In terms of the number of institutions in the higher education system, India is one of the largest of the world, just after the United States and China. India has shown tremendous growth in the number of institutions and enrolment; however it still faces the challenges on several counts such as inequitable

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and low access to higher education, dearth of competent faculty, deficient infrastructure, and most importantly inadequate research. In this country, millions of students are victim of an unrealistic, pointless, mindless rat race. The mind numbing competition and rote learning do not only crush the creativity and originality of millions of Indian students every year, it also drives brilliant students to commit suicide. We also live in a country where the people see education as the means of climbing the social and economic ladder. Education system in India is failing because of more intrinsic reasons.

Another aspect of India's higher education woes is that problems are not taken care of at the grass-root level. The students are not engaged in the system. Right from their enrolment they face numerous problems which remain mostly unsaid. They do not get quality education because of the concept of rote learning being practiced. The syllabus remains orthodox which has little relevance in the present scenario. The revisions of the syllabus are not done in a regular manner. The pedagogy of the whole education system seems to be flawed. The overall evaluation system encourages rote learning and there is little value addition.

## **NEED AND IMPORTANCE OF EDUCATION**

On the need for education, Mahatma Gandhi once said that education not only moulds the new generation, but reflects a society's fundamental assumptions about itself and the individuals which compose it. The famous philosopher Einstein while discussing the need for education has projected the following fundamentals:

- a) To educate the individual as a free individual; to understand and use critical thinking skills.
- b) To educate the individual as a part of society virtually all our knowledge, our clothes, our food is produced by others in our society, thus, we owe Society and have responsibility to contribute back to Society.
- c) Through education, knowledge must continually be renewed by ceaseless effort, if it is not to be lost. It resembles a statue of marble which stands in the desert and is continually threatened with burial by the shifting sand. The hands of service must ever be at work, in order that the marble continue to lastingly shine in the sun.

While discussing the importance of education, I must state that schools have become the most important means of transforming wealth of knowledge and skills from one generation to another. However, the role of institutions becomes more challenging in the modern world with innovations and technological developments. Investment in education and educational institutions should be viewed as an investment for economic prosperity. In India, there are about 26,478 institutions providing higher education and accounting for one of the largest number in the world. In comparison, according to a report, in 2014-15, the U.S. had 33,706 higher education schools and China had 28,000. It is important that given the large number

of schools of higher learning in India, we must target to bring more students under the system. Investment in human capital, lifelong learning and quality education help in the development of society and nation.

## **ISSUES AND CHALLENGES**

### **Expenditure on education**

In terms of expenditure incurred on education, particularly on higher education, during the year 2014-15, the government spent around Rs. 15, 440 crore which is about 85 per cent of the revised budget estimates for the year. The recent round of NSSO survey reveals that between 2004 and 2014, spending on education in general jumped by 378 per cent in rural areas and 345 per cent in urban areas of the country. The survey further reveals that spending on children's education underlines sharp increase 63 per cent for rural and 73 per cent for urban families. However, if we measure the expenses on education as a percentage to GDP, India lags behind some developed/ developing nations. We recognize that the gap in investments in education in India can perhaps be filled by private sector.

### **Gross enrolment pattern**

At present, in India, there are about 2.96 crore students enrolled in various streams of higher education. Despite the large number of students studying in various streams, we have not seen any major shift in the productivity as skills and talents are deficient to support economic activities and, hence there is a serious concern on employability of these educated persons. The gross enrolment ratio (GER) for higher education in India was 12 per cent in 2014. We need to recognize that our enrolment level is far below from several other countries. For example, according to a Report, GER is 23 per cent for China, 34 per cent for Brazil, 57 per cent for U.K., 77 per cent for both Australia and Russia and 83 per cent for the America. In this context, the attempt of Government authorities to increase the number of students by 2020 so as to reach GER of 30 per cent becomes a big challenge. As a positive step, for the remaining duration of Twelfth Five Year Plan, the Government has taken initiatives to incentives States for setting up/expansion of existing educational institutions, establishment of 8 universities, expansion of colleges to achieve a target of 1 lakh students enrolment and schemes for setting up model colleges in regions which are below national average of GER.

Capacity utilizations: Another challenge to be addressed in strengthening the Indian education system is to improve the capacity utilization. For example, a recent study on capacity utilization in India for higher education indicates that the capacity utilization in case of MBA is about 57 per cent in Maharashtra and 72 per cent in Haryana. In case of certain states, there are a lot of unfilled seats in institutions. On one hand, we need to improve our GER, and on the other, we need to ensure that institutions/ colleges/schools created for providing higher education fully utilize the capacity created.

Infrastructure facilities: One of the factors why the capacity utilization is low in upcoming/new institutions/colleges (both in private and public sectors) is their inability to provide necessary physical infrastructure to run the institutions. The infrastructure facilities desirable to rank the institutions of better quality include real estate, state of the art class rooms, library, hostels, furniture, sports facilities, transport, commercial buildings, etc. We need to ensure a policy supported private sector participation in the establishment of colleges for providing quality physical infrastructure.

PPP model The Government is making efforts to improve the education system in terms of various parameters like GER, quality, investments, infrastructure, etc. But we need to recognize the constraints which the Government faces while trying to make a big turnaround with huge investments in education. Private sector has started playing a distinctive role in improving the education system in India. In this context, it is useful to explore the possibility of public private partnership (PPP) model in education. This is not only going to reduce the burden of the Government in incurring high cost of providing basic infrastructure facilities but also lead to construction of state of the art buildings, labs, libraries, hostels, etc. Besides, the collaborative efforts between universities/colleges and corporates would help in organizing joint research and development, students getting exposure to industrial activities in terms of internships, corporate training during vacations and issuing of certificates by corporates for attending internship/training, etc. and, thus facilitating in image building and branding of institutions and making the students more job-worthy.

### **Student-teacher ratio**

Another challenge for improving the Indian education system is to improve the student teacher ratio. In India, this ratio is very high as compared to certain comparable countries in the world. For example, in developed countries this ratio stands at 11.4, in case of India, it is as high as 22.0. It is even low in Commonwealth of Independent States (10.9), Western Asia (15.3), and Latin America (16.6). This brings the necessity to recruit quality teachers and strengthen the teachers required to handle classes.

### **Accreditation and branding quality standards**

In order to improve the skills and talent of our large population, there is a need for raising the quality and standards of our education system. It is well-known that many of our professionals (engineers/doctors/management professionals) remain unemployed despite lot of opportunities being open in the globalised world. One of the major factors is the lack of quality education resulting in qualified but not employable category. We need to introduce the mechanism for rating and ranking universities/colleges. At present, there is no compulsion for institutions/colleges to get accreditation in India. Government has already mooted a proposal to introduce

accreditation. We, therefore, require standard rating agencies to give accreditation to universities/colleges/schools. Most of the top ranking business schools were from the U.S. In this ranking, even China was ahead of India. However, a positive development is that these high ranked Indian Schools possess faculties with doctoral qualifications and of global standards who can deliver quality education to the students. In BIS central bankers' speeches the world ranking of universities by Quacquarelli Symonds in 2010, out of 200 world renowned universities, only one Indian educational institution appears in the list, while 53 institutions were in the U.S. According to Webometrics ranking for 2011, while no Indian university appears in the list, there were 99 U.S. universities included. This essentially shows that we need to develop Centre for excellence of global standards. Given the increasing role of private sector in the recent years in the development of higher education standards, we need more such institutions that meet certain global rating standards to come up in those areas where low GER prevails.

Let's explore something else in this one: what should be changed in Indian education system? What needs to be fixed at the earliest? :

### **Focus on skill based education**

Our education system is geared towards teaching and testing knowledge at every level as opposed to teaching skills. “Give a man a fish and you feed him one day, teach him how to catch fishes and you feed him for a lifetime.” It shows that if you teach a man a skill, you enable him for a lifetime. Knowledge is largely forgotten after the semester exam is over. Still, year after year Indian students focus on cramming information. The best crammers are rewarded by the system. This is one of the fundamental flaws of our education system.

### **Reward creativity, original thinking, research and innovation**

Our education system rarely rewards what deserves highest academic accolades. Deviance is discouraged. Risk taking is mocked. Our testing and marking systems need to be built to recognize original contributions, in form of creativity, problem solving, valuable original research and innovation. If we could implement this successfully then Indian education system would have changed overnight. Memorising is no learning; the biggest flaw in our education system is perhaps that it incentivizes memorizing above originality.

### **Get smarter people to teach**

For way too long teaching became the sanctuary of the incompetent. Teaching jobs are until today widely regarded as safe, well-paying, risk-free and low-pressure jobs. The teacher could not put required effort for being good at teaching. Thousands of terrible teachers all over India are wasting valuable time of young children every day. We need leaders, entrepreneurs in teaching positions, not salaried people trying to hold on to their mantle.

## **Built massive technology infrastructure for education**

India needs to embrace internet and technology if it wants to teach all of its huge population, the majority of which is located in remote villages. Now that we have computers and internet, it makes sense to invest in technological infrastructure that will make access to knowledge easier than ever. Instead of focusing on outdated models of brick and mortar colleges and universities, we need to create educational delivery mechanisms that can actually take the wealth of human knowledge to the masses. There is lot of innovation yet to take place in this space.

## **Re-define the purpose of the education system**

Our education system is still a colonial education system geared towards generating babus and pen-pushers under the newly acquired skin of modernity. We may have the most number of engineering graduates in the world, but that certainly has not translated into much technological innovation here. Rather, they are busy running the call centers of the rest of the world. The goal of our new education system should be to create entrepreneurs, innovators, artists, scientists, thinkers and writers who can establish the foundation of a knowledge based economy.

## **Effective deregulation**

Until today, an institute of higher education in India must be operating on a not-for profit basis. This is discouraging for entrepreneurs and innovators who could have worked in these spaces. On the other hand, many people are using education institutions to hide their black money, and often earning a hefty income from education business through clever structuring and therefore bypassing the rule of not earning profit from recognized educational institutions. As a matter of fact, private equity companies have been investing in some education providing companies which in turn provide services to not-for-profit educational institutions and earn enviable profits. Sometimes these institutes are so costly that they are outside the reach of most Indian students. There is an urgent need for effective deregulation of Indian education sector so that there is infusion of sufficient capital and those who provide or create extraordinary educational products or services are adequately rewarded.

Take mediocrity out of the system Our education system today encourages mediocrity in students, in teachers, throughout the system. It is easy to survive as a mediocre student, or as a mediocre teacher in an educational institution. No one shuts down a mediocre college or mediocre school. Hard work is always tough, the path to excellence is fought with difficulties. Mediocrity is comfortable. Our education system will remain sub-par or mediocre until we make it clear that it is not ok to be mediocre. If we want excellence, mediocrity cannot be tolerated. Mediocrity has to be discarded as an option.

Personalize education one size does not fit all Assembly line education prepares assembly line workers. However, the drift of economic world is away from

assembly line production. Indian education system is built on the presumption that if something is good for one kid, it is good for all kids. Some kids learn faster, some are comparatively slow. Some people are visual learners, others are auditory learners, and still some others learn faster from experience. If one massive monolithic education system is providing education to everyone, then there is no option but to assume that one size fits all. If, however, we can effectively decentralize education, and if the government did not obsessively control what would be the “syllabus” and what will be the method of instruction, there could be an explosion of new and innovative courses geared towards serving various niches of learners.

### **Ethics in education**

In my opinion, the most important objective of any educational institution is to equip the students with ethical values besides imparting knowledge and skills. Today, the basic human quality is slowly eroding. In the same coin, as education has to be made affordable to all deserving and poor students, there is a strong need for educational institutions not to over-commercialize education but to uphold ethics in the business of education as well. It is not anyone's case that the business has to be run unprofitably but the business must be carried out with ethical values for sustenance of educational institutions. Exploitation should be avoided. Profit cannot be the sole motive for undertaking this business. It must be driven by an unflinching commitment to society which in turn will benefit the business in the long run.

### **Conclusion**

To sum up, we need to recognize the knowledge, skills and productivity of our growing young and dynamic work force that forms the backbone of our economy. To reap the benefits of such a young work force, we need to implement the reforms in the education system and also bring forth new factors of production, namely knowledge, skills and technology which have the ability to unleash the productive frontiers of the economy in the most efficient and dynamic way. Besides, taking a leaf from the western hemisphere, India should try to become “knowledge economy” to promote inclusive growth. I, therefore, would recommend three major areas to be focused to ensure that our education system is sustainable and meets global standards:

- i. Quality of Education in terms of infrastructure, teachers, accreditation, etc.
- ii. Afford ability of Education ensuring poor and deserving students are not denied education.
- iii. Ethics in Education avoiding over-commercialization of education system.

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# **“F.D.I. INFLOWS IN INDIA”**

**DR. H.S. RAWAT\***

## **INTRODUCTION:**

F.D.I. stands for Foreign Direct Investment. F.D.I. is one of the ways of globalization. The simplest explanation of F.D.I. would be a direct Investment by a Corporation in a commercial venture in another country. The investment corporation must control 10 percent or more of the voting power of the new venture.

Companies invest in foreign countries in order to gain control over the market and hereby increase sales F.D.I. include.

1. Purchase of existing assets in a foreign country.
2. New investment in Property Plant & Equipment.
3. Participation in a joint venture with a local partner.
4. Transfer of many types of assets like human resources, systems, technological knowledge in exchange for equity in foreign companies.
5. Exports of goods for equity. This method may not be used in the initial stage of the establishment of a company.
6. Companies also invest in the equity of foreign companies by purchasing the equity shares of a foreign company.
7. Reserve Bank of India's automatic approval rate for equity holding upto 51 percent.
8. Aquisition of shares (since 1996)
9. RBI's non resident Indian (NRI) schemes.

## **WHY DO COUNTRIES WANT F.D.I.?:**

Now a days every country of the world wants F.D.I. Because they wants to earn more and more. Traditionally, Foreign investment is seen as a way of filling in gaps between the domestically available supplies of savings, foreign exchange, government revenue and human capital skills and the desired level of these resources necessary to achieve growth and development targets. FDI seeks to fill the gaps in technology, managerial skills and entrepreneurs. F.D.I. can generate healthy competition in the recipient countries.

Indian is the seventh largest and second most populous country in the world.

## **REVIEW OF LITERATURE:**

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After the second world war global FDI was dominated by the United States, as much of the world recovered from the destruction brought by the conflict. The U.S. accounted for around three quarters of new FDI between 1945 and 1960. Since that time FDI has spread to become a truly global phenomenon, no longer the exclusive preserve of OEC Countries.

#### **Bruce A. Blonigen-**

This paper surveys the recent burgeoning literature that empirically examines the FDI decisions of multinational enterprises (MNEs) and the resulting aggregate location of FDI across the world. The contribution of the paper is to evaluate what we can say with relative confidence about FDI as profession, given the evidence and what we cannot have much confidence in this point. Suggestions are made for future research directions.

#### **Hugo Rojas Romagosa-**

FDI flows have increased substantially in the past two decades. These developments have motivated the appearance of a large number empirical papers that test the expected benefits that FDI inflows are assumed to bring to the host countries.-

This paper study the dynamics of expected stock return and volatility in emerging financial market. However, emerging market exhibit higher volatility and conditional probability of large price charges then mature market exposure to high country specific risk does not appear to be rewarded with higher expected return.

#### **Karimullah-**

The article examines the impact of foreign Institutional Investors (FII) equity investment behavior in the Indian Stock Market. Apart from net the purchase and sales behavior of FIIs are analyzed separately. The results indicate that stock market performance is a major determinant of both the FIIs purchase and sales behavior.

#### **Block holder, Market efficiency and managerial myopia-**

This paper shows holders can add value even if they cannot intervene in a firm's operations by trading on their private information they cause prices to reflect fundamental value rather than current earnings. Contrary to the view that the U.S.'s liquid markets and transient share holders exacerbate myopia, this paper shows that they can encourage investment.

**OBJECTIVE OF THE STUDY:** The objectives of this study are as under:-

1. To examine the trends and patterns in the Foreign Direct Investment across different sectors of the different countries.

2. To know the performance of Indian Stock Market about F.D.I.
3. To know the impact of FIIs on Indian Stock Market.
4. To know the impact of FDI's on Indian Stock Market.
5. To know the flow of Investment in India.
6. To know how can India Growth F.D.I.
7. To know in which sector we can get more foreign currency in terms of Investment in India.
8. To know which country is safe to Investment.
9. To know how much to invest in developed countries or in developing countries.
10. To know which sector is good for beneficial Investment.
11. To know which country is investing in which country.
12. To know the reason or purpose for Investment in India.

**RESEARCH METHODOLOGY-** Today is Business era. Business is life blood of the Economy of any country just like blood in a body. FDI is spread the business of the country.

In order to accomplish this study successfully I will take following steps.

1. **Sampling-** The study is limited to a sample of Top 10 countries of the world e.g. Mauritius, Singapore, UK, Japan, Netherland, USA, Cyprus, Germany, France and Switzerland and top ten sectors e.g. service, construction, Telecommunication, computer, Drugs and Pharmaceuticals, Automobile, Chemicals, Metallurgical Industry and Hotel and Tourism from April 2000 to July 2014.
2. **Data Collection**
  - The research will be done with the help secondary Data from Internet sites.
  - The data is collected mainly from websites, annual reports, World Bank Reports, research reports, already conducted survey analysis, data available etc.

**Analysis:** Appropriate tools like correlation and regression has been used to analyze the data like to analyze the growth and patterns of the FDI and FII flows in India.

FDI statistics consist of FDI flows. FDI positions (stocks) and FDI income. FDI flows are cross border financial transactions within a given period of time between affiliated enterprises that are in a direct investment relationship. FDI statistics are organized according to whether the investment relates to an asset or a liability for the reporting country.

## DATA ANALYSIS AND INTERPRETATION

Sector-wise FDI Equity Inflow from April 2000 to July 2014

Table 1

Sl. No	Sectors	FDI Inflow (Rs. In Crores)	Percentage of Total FDI Inflow
1.	Service	191752.15	17.73
2.	Construction	111127.49	10.40
3.	Telecommunication	80608.47	7.23
4.	Computer Software & Hardware	61707.07	5.76
5.	Drugs & Pharmaceuticals	61340.03	5.47
6.	Automobile Industry	49678.09	4.41
7.	Chemicals (other than fertilizers)	47538.99	4.40
8.	Power	44667.08	4.05
9.	Metallurgical Industry	39225.17	3.60
10.	Hotel & Tourism	38030.37	3.25

**Interpretation** Above table indicates that India's FDI inflow in service sector is Rs. 191752.15 crores which is high percentage i.e. 17.73%. In Hotel and Tourism is the lowest 3.25%. Some sectors like construction, drugs and Pharmaceuticals, Chemicals, Power, Metallurgical and Hotel and Tourism can spread the inflow of FDI in future to get the more income.

Top Ten Country-wise FDI Equity Inflows to India from April 2000 to July 2014.

Table-2

Sl. No.	Name of country	Amount of FDI Inflows (Rs. In Crores)	Percentage with total FDI Inflows (+)
1.	Mauritius	390691.18	35.88
2.	Singapore	135784.52	11.88
3.	United Kingdom	105795.83	9.46
4.	Japan	85639.02	7.49
5.	Netherlands	65256.29	5.57
6.	U.S.A.	57835.90	5.38
7.	Cyprus	37349.33	3.38
8.	Germany	33486.48	2.99
9.	France	19398.74	1.75
10.	Switzerland	13801.42	1.23

**Interpretation-** Above table shows world's top ten countries FDI equity inflow to India from April 2000 to July 2014. During this period Mauritius is top one. India's

total FDI inflows with Mauritius 35.88% while the Switzerland's only 1.23% which is very low.

**Importance of FDI :** Foreign Direct Investment is investment of Foreign assets into domestic structures, equipment and organizations, FDI inflows are into the primary market and do not include foreign investments into the stock markets. It is a long term investment and is used by the developing countries as a source of their economic Development, productivity Growth to improve the balance of payments and employments and employment generation. Its aim is to increase the productivity by utilizing the resources to their maximum efficiency.

**ADVANTAGES OF FDI:** Developing countries which invite FDI, can gain access to a wider global and better platform in the world economy. Prime Minister Shri Narendra Modi's "Make in India" is one FDI in various sectors in India has boosted the economic life of the country. Foreign Direct Investments have opened a wide spectrum of opportunities in the trading of goods and services in India both in terms of Import and Export production. As well as FDI apparently helps in the out sourcing of knowledge from India specially in the Information Technology Sector. FDI increases the level of competition in the host country, enhances the quality of products, companies improves their processes and services.

In addition to above, employees of the country, which is open to FDI get acquaint with globally valued skills. FDI has also ensured a number of employment opportunities by aiding the setting up of industrial units in various areas of India.

### **FACTORS AFFECTING FDI**

Several factors influence the decision relating to the flow of FDI. These factors are as under:

Supply Factors	Demand Factors	Government Factors
Production costs Logistics Resource availability Access to Technology	Customer access Follow clients Follow rivals Exploitation of competitive advantage	Economic priorities Avoidance of trade barriers Economic Development incentives

Source: Adapted from International Business by Griffin and Pustay P. 169.

### **FINDINGS:**

Foreign Investors were not enthusiastic to invest in India, so that the Prime Minister of India Shri Narendra Modi offered a scheme for them "Make in India". In this connection he visited many countries and invited them to invest in India. For the success of this scheme he declared that many facilities will be provided to those investors, who invest in India. This will be proved a mile stone for economic reform

and development of the country.

### **SUGGESTIONS:**

There are following suggestions regarding FDI inflows

1. India's performance regarding FDI inflows is not good in comparison with China. India should improve its regulatory system through better and effective monetary and fiscal reforms.
2. There should be favourable economic environment in terms of increasing efforts like provision of subsidized raw material, power, land and tax concession etc.
3. India should try to raise its level of capital formation through careful implementation of foreign Investment policy.
4. Unemployment is a severe problem of India, so that the FDI have to increase to generate the employment.
5. It is required to change India's development strategy in order to reap the full benefits of FDI inflows.

### **CONCLUSION:**

The process of economic reforms which was initiated in July 1991 to liberalize and globalize the economy had gradually opened up many sectors of its economy for the foreign investors. The liberalization era of the FDI policy regime in India and brought about a structural break through in the volume of the FDI inflows into the economy but maintained a fluctuating and unsteady trend during the study period. It might be of interest to note that more than 50% of the total FDI inflows received by India during the period from April 2000 to July 2014 came from Mauritius and the U.S.A.

At present FDI attract to every country because it is very essential due to globalization. India should use its advantages such as large domestic market, abundant supply of trained and low wage labour, vast pool of technical professional second largest nation etc. FDI is a panacea for the economic ills of any country. Economic Development strongly depends on FDI. Mauritius, Singapore, United Kingdom, Japan, Netherlands, U.S.A., Cyprus, Germany, France and Switzerland are top ten foreign investors in India. Maharashtra rank first with 17.50 percent of FDI inflows, Delhi. Second with 12.10 percent and then Karnataka and Gujarat occupy next position respectively. In 2008 FDI inflow in India was 43.40 billion dollar. FDI in India has contributed effectively to the overall growth of the economy in the recent years. FDI policy permits FDI up to 100 percent from Foreign/NRI investor without prior approval in most of the sectors including the service sectors.

P.M. Narendra Modi's "Make in India" provides many facilities to Foreign/NRI investors and invites them to invest in India. The limit of FDI extended by Govt. of India upto 49 percent in Insurance Sector. "Make in India" is as simple as it is compelling, India must become a manufacturing power house in order to gainfully employ its demographic dividend.

Prof. Kaushik Basu, who was the Indian government's Chief Economic Adviser between 2009 and 2012 and now Chief Economist World Bank said that "Investors would be looking at eight or Nine countries and trying to decide where they should go and their eyes quickly go to the ranking and where the country stands."

Net FDI inflows have touched a record high of 34.9 billion Dollar in 2014-15 on growing investor confidence in India.

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# RIGHT TO EDUCATION ACT MAJOR ISSUES AND CHALLENGE

DR. ALPANA NIGAM\*

## INTRODUCTION

The right to education came into force on 1<sup>st</sup> April 2010. After enforcement of this act, India has joined the club of those countries who provide for a constitutional guarantee to free and compulsory education. Enforcement of this act has made free and compulsory education a fundamental right of every child who falls in the age group 6-14 years. Now it has become joint responsibility of Central and State government to fulfill the objects of this act by all means. This paper is an attempt to outline features of the Act and throw light on issues and challenges and suggest ways to overcome them.

## History of the ACT

**December 2002** 86<sup>th</sup> Amendment Act (2002) via Article 21 A (Part III) seeks to make free and compulsory education a Fundamental Right for all children in the age group 6-14 years.

**October 2003** A first draft of the legislation envisaged in the above Article, viz., Free and Compulsory Education for Children Bill, 2003, was prepared and in October, 2003, inviting comments and suggestions from the public at large.

**2004** Subsequently, taking into account the suggestion received on this draft, a revised draft of the bill entitled Free and Compulsory Education Bill, 2004, was prepared.

**June 2005** The CABE (Central Advisory Board of Education) committee drafted the 'Right to Education' Bill and submitted to the Ministry of HRD, MHRD sent it to NAC where Mrs. Sonia Gandhi was the Chairperson. NAC sent the Bill to PM for his observation.

**14 July 2006** The finance committee and planning commission rejected the Bill citing the lack of funds and a Model bill was sent to states for making necessary arrangements. (Post 86<sup>th</sup> amendment, States had already cited lack of funds at State Level.

**19 July 2006** CACL, SAFE, NAFRE, CABE invited ILP and other organizations for a Planning meeting to discuss the impact of the Parliament action, initiate advocacy actions and set directions on what needs to be done at the district and village levels.

**1 April 2010** A historic Right to Education (RTE) was enforced in India.

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Prime Minister Dr. Manmohan Singh promised that financial constrained will not hamper its implementation.

### **The Salient Features of RTE ACT**

- Free and compulsory education to all children of India in the 6-14 age group.-
- No child shall be held back, expelled, or required to pass a board examination until completion of elementary education.
- A child above six years of age has not been admitted in any school or though admitted, could not complete his or her elementary education, then, he or she shall be admitted in a class appropriate to his or her age.
- For the purposes of admission to elementary education, the age of a child shall be determined on the basis of the birth certificate issued in accordance with the provisions of the Births.
- A child who completes elementary education shall be awarded a certificate.
- Calls for a fixed Teacher-Student teacher ratio of 1:30.
- Will apply to all of India except Jammu and Kashmir.
- Provides for 25 percent reservation for economically disadvantaged communities in admission to Class One in all private schools.
- Mandates improvement in quality of education.
- School infrastructure (where there is problem) to be improved in three years, else recognition cancelled.
- Financial burden will be shared between state and central government  
School teachers will need adequate professional degree within five years or else will lose job.

### **Protection of the Right**

- Independent Monitoring of the implementation of the Act is assigned to the National Council of Protection of Child Rights (NCPCR). The main responsibility are
- Examine and reviews safeguards for rights under this Act, recommend measures for effective implementation.
- Inquire into complaints relating to child's right to free and compulsory education.
- Conduct Periodic social Audit of the stats of implementation.

### **RTE Implementation Road Map**

Establishment of neighborhood schools	3 years
Provision of school infrastructure	3 years
All weather school buildings	
One-classroom-one-teacher	
Head Teacher cum office room, library-	
Toilets, drinking water, kitchen sheds-	
Barrier free access-	
Playground, fencing, boundary walls	
Provision of teachers as per prescribed PTR	3 years
Training of untrained teachers	5 years
Quality interventions and other provisions	with immediate effect

### **Bringing Community and Schools closer**

Community participation ensured through school

- Management Committee comprising parents, teachers and elected representatives
- $\frac{3}{4}$  members from among parents of children in the school
- Proportionate representation to weaker and deprived sections  
Allocates major responsibility to the Local Authority
- Panchayati Raj system
- To probatively monitor the delivery of rights and entitlements of children

### **Involvement of Private Schools**

No School without recognition

- Conform to the minimum standards prescribed  
All unaided schools to provide free education to at least 25% children from the weaker sections in the neighborhood
- Costs to be reimbursed - @ per child expenditure incurred by the state

## **ISSUES AND CHALLENGES**

### **Central Legislation through State Governments**

- State Government ownership is critical
- They are gauging the implications,
- First Central Act in Education unchartered territory for every one

### **Infrastructure Provision**

- Every school be equipped with certain minimum infrastructure
- Despite recent investments, huge gaps exist
- Government faces a huge challenge of ensuring quality of infrastructure and its maintenance
- Equally a problem for NGO initiatives
- Small private schools would also face difficulty
- Recognition of NGO and Private Schools depend on upgrading the infrastructure to meet the RTE norms.
- Can we afford to push them out altogether? What would happen to children attending these schools? Should the government provide supplementary resources?

### **Provision of Qualified Teachers**

- Ensuring teacher supply at 1.30 is a huge task
- Teacher-Pupil ratio to be monitored in every school
- More than a million teachers have to appointed
- Inadequacy of Institutions for teacher training
- Issue of Redeployment and transfer of teachers
- Some states have begun to appoint teachers to schools
- Some are appointing to a Block Cadre with limited scope for transfer

### **Protecting the Right of the Child in the school and the Classrooms**

- The onus is on the Teachers and School Heads
- Preparing them to embrace a new culture through appropriate programmes is a huge challenge.
- Banning corporal punishment, no detention policy, continuous and comprehensive evaluation, making schools and classrooms truly inclusive and so on.
- Above all, protect the right of the children to learn as per the curriculum through quality education.
- The issues are many and the task is stupendous with around 1.3 million

schools and 6 million teachers NGO's could contribute yet may not suffice

- Reforming the internal monitoring system Redefining the roles and responsibilities of inspection and supervision
- Strengthening teacher support systems Block Resource Centers and Cluster Resource Centers
- Provision of facilities including open distance learning for professional development of teachers
- Revamp Teacher Education invest more in teachers
- Better scrutiny at the recruitment stage Teacher Eligibility Test has become mandatory

Management Decentralization focus on schools and panchayats

- Every school to have school management committee
  - Issues of freedom for private management with
  - Government aid also for minority managed institutions
  - Awareness and Capacity Building at school level
  - Monitoring the implementation Panchayati Raj bodies are given the first responsibility
- o Monitoring school functioning as well as participation of children in schooling
- o Are they prepared and willing to take up the task? How will they actually ensure?

Involving Private Self-Financing Schools

- Ensuring compliance externally is difficult onus is placed on the school
- o Disclosure of lists of children taken in this category
- o Periodic Social audits that report on the level of conform it
- Contentious issue but blown out of proportion only the top 5-10% private schools are likely to contest
  - Private school participation may not significantly influence achieving the goal of universal elementary education but it is very important for making schools inclusive spaces

**Redefining the Role of NGO's**

- Government alone without civil society involvement cannot fully implement the RTE
- But the engagement of NGOs and the Government required to be redrawn afresh
- There is need to mobilize parents as well as school and local authorities in favour of the Act, State Governments also have to accept a sense of urgency Possibly NGO's and Governments have to work together to make this happen and make the Right of Education of every child a reality.

### **Meeting Financial Requirements**

- Innovative strategies surcharge on taxes has helped significantly
- Bigger challenge is to create capacity for effective utilization funds at the local level if all schools prepare good school development plans, begin improving their quality of work, and become effective in utilizing resources one is likely to face a challenge of resources.

### **Recommendations / Suggestions**

Following are some suggestions which may be helpful to meet the challenges:

1. The state governments are required to show promptness for the implementation of the RTE Act. The states who have not yet released any notification regarding the Act must do it without any further delay. The Central Government should impose a time limit to release funds to the states. If any state government still shows apathy to release notification, then no funds should be released by the Center to that state for the establishment of new schools. State governments should show full commitment for the implementation of the Act.
2. Primary schools with all minimum required infrastructure facilities should be established in the neglected areas on priority basis. Central government should released budget of its share to the states at the earliest. Facilities in the existing government schools should be expanded. To avoid the closure of unrecognized private schools for not fulfilling the prescribed recognition

standards within three years, these schools must be helped to improve their facilities by resources support and providing linkages with financial institutions. To meet budgetary constraints, stress must be given on cost effectiveness and accountability at every level.

3. To meet the increasing demand of qualified and trained full time teachers, the teachers in required number must be recruited at the earliest. Pupil-teacher ratio must be maintained as per requirement. As more and more children move into the primary school age group, it becomes needful to build more and more schools and recruit more teachers for sustained improvement in the quality of education.
4. Primary schools need to be made aware of the provisions made for 25percent reservation of seats for the economically and socially weaker and disadvantaged children and the role of school managing committees in this regard. The identification, selection and verification procedure of such children should be well defined and well informed. It should also be notified that how the whole process will be monitored.
5. There is need to streamline educational administration. The pace of implementation of the Act can become faster if bottlenecks in administration are removed. Altogether, it is essential to adopt an integrated approach and establish linkages between education and other related areas such as child care, nutrition and health. Each state should formulate a 'State Programme of Action' and each district and school should formulate a Programme of Action of its own by taking into account the State Programme of Action.
6. Teachers' performance is the most crucial input in the field of education. Well qualified and highly motivated teachers are the key to effective implementation of the curriculum. They give impetus to the teaching-learning process. Top priority, therefore, should be fixed for the improvement in the quality and content of teacher education programme.
7. While the Central and State Governments have their full share of responsibilities, it is community participation and involvements of NGOs

which will make marked difference in meeting the challenge of implementing Right to Education Act.

8. To achieve the goals of Free and Compulsory Elementary Education, it is of utmost importance to develop curricula that is responsive to changing needs and facilitates the incorporation and integration of new content areas related to science, technology, population and the environment.

## **Conclusion**

In order to meet the challenges and remove the hurdles that stand in the way of implementing Right to Education Act, it is needful to concentrate all efforts with full dedication and commitment. Not only the central and state governments but the nation as a whole should take responsibility in this regard. Community participation and support can make marked difference in achieving this goal. There exists a need for greater coordination amongst different agencies and functionaries involved in this task. To overcome population pressures and budgetary constraints, cost effectiveness and accountability must be ascertained at every level. Efforts should be focused on qualitative improvement of the whole programme.

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# **Music in Harmony with Painting, An Unending Relationship (Auditory and Visual Senses intermingled)**

**MALA DHAWAN\***

The environment we experience influences our creative process as they relate our different senses. When we experience variations in lighting, colors on the walls, different smells, different types of sounds, and the surroundings they evoke different feelings within us and in turn these sensory experiences influence our creative process. These senses give a combined effect on the entire registry of any moment in our brain. Similarly, the sensory effects of music affects our painting process; It is distinctly seen how music plays out in once art and in the creativity of my students.

When I drive and turn on a fast moving number I feel that my car and body feels the rhythm of it. Similarly, when I need a zap of extra energy in select areas of a painting, I turn on the tunes and see how my brush tangoes with my canvas. I keep a personalized play list of fast moving music to wake my creative brain and up through an artistic lullaby really helps!

Interestingly enough, many art forms use similar descriptive terms across art disciplines. Music, painting, drama and architecture use terms such as repetition, variety, intensity, rhythm, dialogue, balance, unity and so on. Some people can actually hear color, therefore they are easily influenced by music. Some others can actually smell the colors and can feel the color even in closed eyes. I can hear and smell colors which really helps me to create new output on canvas.

I spoke to other successful musicians about the similarities between music and painting or for that matter of fact other senses also. We all had an instant connection because we spoke and understood each other's creative language. Whether we were discussing music styles or musical genres such as country, opera, rap and heavy metal or visual arts like folk art, Renaissance paintings, installations, and abstract expressionist work, we relate what the other artist was trying to communicate through his or her art from both either art, drama or music.

**What similarities did Vincent see between music and painting? Jan Raes -Director of the Royal Concertgebouw Orchestra** once asked. As early as his Dutch period, Van Gogh was convinced of the link between color and music. In Charles Blanc's book *Les artistes de mon temps*, he read: 'color can be learnt, just like music'. He even took piano lessons in order to better understand the gradation of colour tones, and to harmonize them. In fact, harmony is the key word here. Van

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Gogh would later often make comparisons with music in his letters: '... this bloody mistral is a real nuisance for doing brush strokes that hold together and intertwine well, with feeling, like a piece of music played with emotion.'

**We can gain much from learning, understanding and accepting differences across the art forms.** (That's why there's different colors, different beats and notes right?) That pretty much sums up those differences.

I encourage you to explore how music affects your painting process. Try creating several different play lists to listen to while you work in your art studio; have each play list include a different musical genre. As you listen, think about what the music is telling you. Then react to the music in your color choices and mark making. Is the music slow, staccato, loud, aggressive or melodious? Fast tempo will encourage fast mark making, calm music may result in calm color choices. The music will orchestrate your brushes and create artistic sheet music to represent what you felt through that music. You can interpret music through your art. Just go try it, you get the idea. Watch how the music transforms the marks on your canvas!

# EFFECT OF DIESEL AND PETROLEUM COMBUSTION ON HEALTH

DR. R.K. SHARMA\*

## Abstract

The paper emphasizes on the study of pollutants released due to combustion of diesel and petroleum and its impact on health and mankind to a large ultimately speedily deteriorating the environment. Urban air pollution due to these hazardous particulate has become a serious environmental problem. An effective and decisive measures in this respect should be taken particularly by countries like India and China to eliminate the havoc to mankind.

Keywords : Air pollution, particulate matter, diesel and petroleum

## INTRODUCTION

Diesel and Petroleum exhaust from vehicles is a complex mixture of gases and fine particles. The primary pollutants emitted from diesel engines include:

- Particulate matter (PM)
- Carbon monoxide (CO)
- Nitrogen oxides (NO<sub>x</sub>)
- Hydrocarbons (HC)
- Volatile organic compounds (VOCs)
- Other chemicals that are classified as “hazardous air pollutants” under The Clean Air Act

Health studies show that exposure to diesel and petroleum exhaust primarily affects the respiratory system and worsens asthma, allergies, bronchitis, and lung function. There is some evidence that diesel exhaust exposure can increase the risk of heart problems, premature death, and lung cancer.

## POLLUTANTS AND THEIR IMPACT ON HEALTH

**Particulate Matter (PM) :** Particulate matter is the term for solid or liquid particles. Some particles are large or dark enough to be seen as smoke, but most are fine particulate matter. Fine particulate matter is composed of very small objects found in the air, including dust, dirt, soot, smoke, and liquid droplets. Ninety percent of diesel/petroleum particulate matter is fine - more commonly referred to as PM<sub>2.5</sub> (less than 2.5 microns in diameter).

Particulate matter can travel deep into the lungs where it can aggravate

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asthma, chronic bronchitis, emphysema, and other lung conditions. Particles may trigger or cause significant health problems, such as:

- Coughing and difficult or painful breathing
- Aggravated asthma, bronchitis, emphysema
- Decreased lung function
- Weakening of the heart, heart attacks
- Premature death

**Carbon Monoxide (CO) :** Carbon monoxide is a colorless, odorless, poisonous gas produced by the incomplete burning of solid, liquid, and gaseous fuels. The main source of carbon monoxide in our air is vehicle emissions.

Effect of CO concentration on Health	
Concentration [%]	Effects
less than 0.4	Normal levels of carboxy-hemoglobin for non smokers
2.5 and 3	Decrease performance in angina patients
4 and 5	Cause headache due to oxygen deficiency
around 10	Affected heart function; vision impairment, skills and learning disabilities
higher concentrations	Produce more serious effects and even death

**Nitrogen Oxides (NOx) :** Oxides of nitrogen, or NOx, is the generic term for a group of highly reactive gases, all of which contain nitrogen and oxygen in varying amounts. Many of the nitrogen oxides are colorless and odorless. However, one common pollutant, nitrogen dioxide (NO<sub>2</sub>) along with particles in the air can often be seen as a reddish-brown layer over many urban areas. Nitrogen oxides form when fuel is burned at high temperatures, as in a combustion process. The primary manmade sources of NOx are motor vehicles, electric utilities, and other industrial, commercial, and residential sources that burn fuels. NOx can also be formed naturally.

Effect of NOx concentration on Health		
Concentration [ppm]	Duration Exposure	Effects
above 0.062 to 0.109	2 to 3 year	risk of respiratory disease
0.12	instantly	immediate perception - unpleasant smell
0.25	8 months	broken leaves in orange trees
0.50	35 days	clorosis
0.25	4 hours/day for 6 days	Effects on the pulmonary system of rabbits

**Hydrocarbons (HC) :** Hydrocarbons are chemical compounds that contain hydrogen and carbon. Most motor vehicles and engines are powered by hydrocarbon-based fuels such as gasoline and diesel. Hydrocarbon pollution results when unburned or partially burned fuel is emitted from the engine as exhaust, and also when fuel evaporates directly into the atmosphere. Hydrocarbons include many toxic compounds that cause cancer and other adverse health effects. Hydrocarbons also react with nitrogen oxides in the presence of sunlight to form ozone. In typical urban areas, a very significant fraction comes from cars, buses, trucks, and nonroad mobile sources such as construction vehicles and boats.

**Volatile Organic Compounds (VOCs) :** Volatile organic compounds are emitted from a variety of sources, including motor vehicles, chemical plants, refineries, factories, consumer and commercial products, and other industrial sources. Volatile organic compounds also are emitted by natural sources such as vegetation. Hydrocarbons (HC) are a large subset of VOC, and to reduce mobile source VOC levels there are maximum emissions limits for hydrocarbon as well as particulate matter.

**Greenhouse Gases :** Some greenhouse gases occur naturally in the atmosphere, while others result from human activities. Naturally occurring greenhouse gases include carbon dioxide, methane, nitrous oxide, ozone, and water vapor. Certain human activities add to the levels of most of these naturally occurring gases:

- **Carbon dioxide (CO<sub>2</sub>) :** Carbon Dioxide is released to the atmosphere when solid waste, fossil fuels (oil, natural gas, and coal) are burned from mobile sources, which include both onroad sources and nonroad equipment such as agricultural and construction vehicles.
- **Methane (CH<sub>4</sub>) :** Methane is emitted during the production and transport of coal, natural gas, and oil.
- **Nitrous oxide (N<sub>2</sub>O) :** Nitrous Oxide is produced during agricultural and industrial activities, as well as during combustion of solid waste and fossil fuels.

## **ANALYSIS OF STUDY AND IMPACT OF POLLUTION ON MANKIND**

A new study conducted by Aaron Cohen suggests that the annual death toll from outdoor air pollution could double to 6.6 million globally by 2050 without new antipollution measures. World Health Organization (WHO) estimates air pollution is responsible for almost 3.5 million premature deaths annually (WHO estimates indoor air pollution accounts for an additional 3.5 million.). Using a computer

model that fused air pollution and atmospheric chemistry data, they estimated what annual average levels of ozone (a key smog ingredient) and fine particulate smaller than 2.5 microns (PM<sub>2.5</sub>) were in 2010 within 100-km-by-100-km grid squares across the world. Then they forecast what the levels of both pollutants would be in 2050, assuming policymakers implemented no new controls.

Next, the researchers estimated how many premature deaths the pollution caused in each square. To do that, they used a set of equations recently updated based on the most recent epidemiological research describing how exposure to air pollution affects a person's risk of dying from various diseases. These “exposure response relationship” equations enabled the researchers to calculate how fine particles and smog would affect the risk of a range of diseases, including heart attacks, strokes, lung cancer, and pulmonary disorders.

However, Lelieveld cautions that the findings depend on a number of assumptions. Particles can differ in chemical composition, and thus could differ in toxicity, based on location or source type. The mortality numbers also depend to some degree on the accuracy of assumptions about how exposure to different levels of pollution affects disease risk.

According to Cohen, to offset that demographic impact, China and India may have to make even deeper pollution cuts in order to cut death rates.

## **CONCLUSION**

We can conclude that the pollutants present in diesel/petroleum contains toxicity which is highly hazardous for mankind and is responsible for many diseases not only in humans but also to other fauna and flora. The main hazardous pollutants present in diesel/petroleum are NO<sub>x</sub>, CO, HC, VOCs. The policymakers should implement new controls for this challenging task.

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# ANALYSIS OF UNEQUAL SPREAD OF POVERTY IN UTTARAKHAND

**DR. SHIKHA NAGALIA (SHARMA)\***

It seems that Uttarakhand is a fast growing state with most of the growth taking place in the industrial and services sectors. Although more than half of the workers are engaged in the agriculture sector, its share in GSDP is 27.01 per cent while the share of secondary and tertiary sectors is 29 and 44 per cent respectively.

Per capita income is a summary measure of the level of economic development of any region. The tentative per capita NSDP at factor cost in 2003-04 was Rs 16,528 (at current prices) as compared to the national average of Rs 20,989. Uttarakhand thus lags behind the national level of development. However, the gap between the State and National level in this respect has narrowed since the creation of the State. This fact has also been noted by NCAER in their Draft Uttarakhand Development Report.

## **Economic profile of Uttarakhand**

The proportion of BPL persons in Uttarakhand stands at 39.6% as compared to the all-India figure of 27.5% (according to the estimates of 2004-05). The figure for Rural Uttarakhand is 40.8% while that for Urban Uttarakhand is 36.5%.

The Work Participation Rate for Uttarakhand stands at 37%; accordingly the proportion of Non-Workers stands at 63%. Among the workers, the vast majority belong to the category of Cultivators (50%) followed by Other Workers (39%).

Although the per capita estimates indicate a rather healthy picture, the fact remains that poverty levels are quite high in the State. One problem with official estimates of per capita net domestic product in Uttarakhand is that they relate to income “originating”, and not to the income “accruing” in the state. It is quite possible that income may originate in Uttarakhand, but accrue elsewhere. This is especially so in the case of income from forestry, which accounts for about 20 percent of the contribution from the primary sector. Only a small part of this income, 10 to 15 percent, is retained in the State by way of wages to local workers. Similar is the case with the mining and quarrying sectors, which account for another four percent of net domestic product from commodity producing sectors.

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**Table 1: Economic Indicators of Uttarakhand**

Item	Value
Poverty (% of BPL persons) - Overall	39.6
Poverty (% of BPL persons) - Rural	40.8
Poverty (% of BPL persons) - Urban	36.5
Work Participation Rate (%)	36.9
% of Non-Workers	63.1
Proportion of Cultivators (%)	50.1
Proportion of Agricultural Labourers (%)	8.3
Proportion of Household Industry Workers (%)	2.3
Proportion of Other Workers (%)	39.3

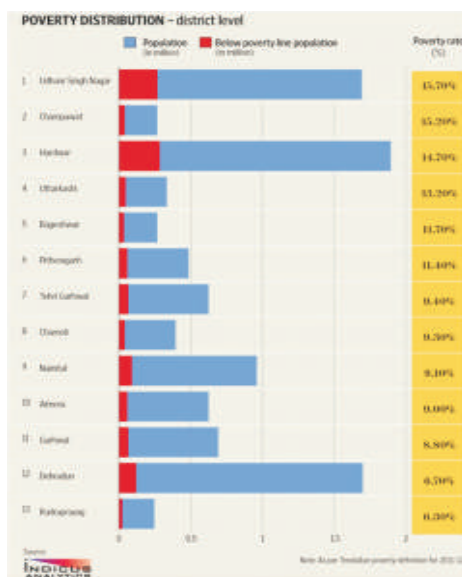
**SOURCE: STATE DEVELOPMENT REPORT 2009**

A second factor to be kept in mind is the existence of sharp regional differences with some areas of the State, especially the more remote and interior hill areas being economically quite backward. Thus Nainital or Dehradun account for a very high per capita income, while the interior areas of Uttarkashi, Pithoragarh, Chamoli, Champawat and Bageshwar have stark poverty. Moreover, the figures indicated in the Figure 1 given below show a relatively higher incidence of poverty in two plain districts of Udham Singh Nagar and Haridwar. Therefore, the per capita NSDP figures do not give a correct picture of the privations that people face.

**FIGURE 1: INTER DISTRICT VARIATIONS IN POVERTY RATE IN UTTARAKHAND**

**SOURCE: INDICUS ANALYTICS**  
**(As per Tendulkar Poverty definition for 2011-12)**

This last assertion is borne out by the poverty data for Uttarakhand. The Planning Commission has recently released estimates of population below the poverty line in various states and at all-India level based on the 1<sup>st</sup> Round of household consumer expenditure survey carried out by the NSSO in 2004-05. It has presented two separate estimates one based on uniform recall period (URP) in which consumer expenditure data for all items are collected from 30-day recall





period, and the other based on mixed recall period (MRP) in which consumer expenditure data for five non-food items are collected from 365-day recall period and the rest from 30-day recall period. The comparative results for Uttarakhand, Himachal Pradesh and all-India in both rural and urban areas are given below.

<b>TABLE 2: Percentage of Population Below Poverty Line: 2004-05</b>						
State	URP			MRP		
	Rural	Urban	Total	Rural	Urban	Total
Uttarakhand	40.8	36.5	39.6	31.7	32.0	31.8
Himachal Pradesh	10.7	3.4	10.0	7.2	2.6	6.7
All-India	28.3	25.7	27.5	21.8	21.7	21.8

URP refers to uniform recall period; and MRP to mixed recall period

Poverty levels in Uttarakhand are much higher than those at the all-India level or in Himachal Pradesh in both rural and urban areas. This is true irrespective of the estimate we rely upon whether based on URP or MRP. According to URP, rural poverty in Uttarakhand is estimated at 40.8%, urban poverty at 36.5% and total poverty at 39.6%. The corresponding figures according to MRP are 31.7%, 32.0% and 31.8% respectively. The all-India poverty estimates are at least 30% lower on both the counts. Poverty levels in Himachal Pradesh, on the other hand, are only a fraction about one-fourth in rural areas and one-eleventh to one-fifteenth in urban areas of the Uttarakhand levels.

Similar results were obtained in a survey of rural households conducted by the Rural Development Department to identify BPL families. This survey estimated the proportion of BPL families in rural areas of Uttarakhand at 36.5%.

What these data clearly point to is the need to give topmost priority to creating livelihood opportunities for the people, in both rural and urban areas, even while accelerating economic growth. Growth clearly has to be an inclusive process.

The state has capitalized on its strengths and growth has been at an average rate of 12% annually since 2004-05, while Uttar Pradesh has seen a much slower momentum at 7% per annum during the same period. Socially, Uttarakhand has always been a more advanced part of Uttar Pradesh; its literacy rate stood at 71.6% in 2001, much above its parent state's 56.3% and higher than the national literacy

rate of 64.8%. Census 2011 data show that the literacy rate has increased to 80%, a noteworthy achievement given the fact that most parts of the state are remote and difficult to access.

When it comes to poverty as well, the state has done better than its parent state, with a poverty rate of merely 11% in 2011-12, compared with 29% in Uttar Pradesh.

However, even though Uttarakhand has a huge potential for development rich natural resources, flourishing forest goods-based industries and increasing revenue from tourism like the other parts of India, some pockets have benefited much more than the others in the state. Spatial analysis suggests that the bulk of the economic activities are concentrated in only one quarter of the state. Ninety per cent of Uttarakhand comprises hilly areas and, therefore, presents daunting challenges for both agriculture and industrial growth. Spatial data analysis shows a high concentration of poverty near areas covered with snow and glaciers. Difficulties of communication, transportation and the sparseness of population discourage economic activity in these areas.

Further, economic growth is not always successful in alleviating poverty. Two districts of Uttarakhand bear this out—Udham Singh Nagar and Hardwar. Udham Singh Nagar is one of the agriculturally rich districts and is known for its synchronized pattern of agriculture and irrigation. Similarly, Hardwar being one of the important pilgrimage destinations, has been generating revenue for years through tourism. However, despite high-earning potential, poverty is very high in this part of the state. The reason for this lies in the state's highly lopsided regional development. It is the dearth of job opportunities in the neighbouring areas that pushes people to settle in the regions with higher economic opportunities.

## **CAUSES OF HIGH INCIDENCE OF POVERTY IN UPPER REACHES OF UTTARAKHAND**

### **LACK OF DEVELOPED SOCIAL AND ECONOMIC INFRASTRUCTURE :**

Poor infrastructure in the hills is naturally an important contributory factor behind

the high poverty levels in some of the hilly areas of the state. Spatial data shows fewer educational institutions, hospitals, etc., in the high-poverty concentration zones. Consequently, out-migration from Uttarakhand is one of the highest in the country. Transport and communication network are either totally underdeveloped or only seasonal in nature. All this reflects in the low level of investment and economic activity in these areas. Power supply, water supply, functional airports and well developed financial institutions are relatively scarce in these parts of the state. An important indicator of poverty is the absence of proper sanitation facilities, suggesting that developmental initiatives should prioritize areas with low sanitation coverage which can result in greater pro-poor benefits.

### **PREDOMINANCE OF AGRICULTURE WITH POOR AVERAGE SIZE OF HOLDINGS**

Despite the growth of industries and services in these areas, agriculture continues to be a major economic activity. The average size of land holding is one of the significant correlates of poverty. The average size of land-holding among the rural households in the hilly districts is low compared with that of the districts in the plains. More than one-tenth of the land holdings in the hill districts are less than 0.25 hectare (ha) size, another half of the land holdings are between 0.25-5 ha . Also, productivity of land is generally low in the hilly areas. This makes the condition of agricultural workers in the hilly areas worse than that in the plains.

### **LOW QUALITY OF EDUCATION AND TRAINING FACILITIES WITH LOW EMPHASIS ON GIRL EDUCATION**

Building a skilled workforce through proper education is known to be one of the key ways of reducing poverty. Global experience shows that education of women has played a significant role in building a better qualified next generation of youth, and Uttarakhand is no exception. However, the status and quality of primary, secondary, vocational and higher education continue to be low with a high rate of absenteeism and drop out rate. Most educational institutions are not even fully staffed and lack in very basic infrastructure. The rate of drop out among girls is very high due to factors like support in domestic work, early marriages and safety issues

owing to long distances from home to school or college. All this results in poor quality of human resources which is in essence both the cause and the result of poverty in the hills.

## **UNSATISFACTORY GROWTH OF TOURISM SECTOR**

At the time of its inception, Tourism sector was predicted to be the mainstay of the state's economy. Uttarakhand bagged the National Tourism Award in 2002 and was declared ideally suitable for 'Eco Tourism'. Besides, there is potential for developing various kinds of non conventional forms of 'New Tourism' like adventure sports, botanical, health, spiritual & yoga tourism etc in addition to the traditional religious and leisure tourism. However, due to poor quality human resource for this industry, lack of related infrastructure, lack of far sighted planning and some natural setbacks like natural calamities like the Kedarnath tragedy of 2013 have hampered the growth of this sector and the expected level of income generation from this sector.

## **CHALLENGES IN POLICY MAKING**

The critical problem of Uttarakhand is that of unevenly spread poverty. The relatively (compared with UP) fewer poor spread across hard-to-reach locations, provides a tough target for the state government. However, there are two districts which account for the bulk of the poor in Uttarakhand. At the north-western end of the state is the mountainous Uttarkashi and towards the southeast is Udham Singh Nagar. A concentrated effort in these two districts could wipe out half the poor in the state, leaving the rest of the state for a more organic sustainable growth approach.

## **CONCLUSION**

All the districts of Uttarakhand are not uniformly poor, so what is really required is an area specific approach to poverty alleviation in the state. This would entail a detailed analysis of the root causes of poverty in these districts so that a suitable and sustainable strategy of development with attainable targets can be launched in these areas. The areas with huge potential for certain industries and services should be identified and obstacles to growth in such areas should be

removed on top priority. In addition to the development of basic infrastructure like roads, transport and communication, power and drinking water supply, sanitation, and well developed financial institutions, a strong focus on skill enhancement through suitable education and training systems for human resource development in the given areas is an imperative need of the hour. Moreover, to make this strategy more sustainable and fruitful, it is essential to harness the local entrepreneurial talent and skills ensuring maximum local participation so that the resultant growth results in increased incomes for the local populace.

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# CONFESSIONALISM- A MAIN CHARACTER IN THE POETRY OF ADRIENNE RICH AND KAMALA DAS

JYOTI CHATRUVEDI\*

Confessionalism is the chief character in the poetry of modern feminist writers or one can say it is the indispensable part of feminist literature. This is the confession came into being after churning process of female psyche. The heart that was traumatic and mind that was perplexed due to dominance nature of male kind, sought relief through confession. Confession is the outcome or by product of 'Virodh' in Sanskrit and 'conflict' in English. 'A Handbook to literature ' by Harmon Willium defines conflict as-

“The Struggle that grows out of the interplay of two opposing forces. Conflict provides interest, response and tension. At least one of the opposing forces is customarily a person.”

Virodh arises when an individual's Vivek impels him/her to do something and outer forces like social norms, law, rituals, etc. compels him/her to do something else. Vivek or conscience drags him/her to other pole to choose the path which is logically correct but lack of courage doesn't allow him/her to accept and follow inner voice, Virodh or conflict arises. Conscience is a part of mind that tells an individual whether his/her action is right or wrong and always put forth a person on side of truth or righteousness. Active and alert conscience is the mother of all conflicts of the world. Conflict or Virodh is noticed mostly creative. Conflict of growth as it has been analyzed becomes creative. Now the question arises why it has become creative? There are two kinds of bodies in human being: 1) visible and physical that reveals the composition of materiality and that is also the abode of egoism; another is that esoteric body that consists of conscience invisible. So there remains consistent strive between visible or the buddhi (intelligence) and the conscience the invisible. When a man comes to the appropriate unification of the sensibility with the rational power he/she comes to confess out of his /her conflict the things he/she has done in her/his life whatever forms of doings might be.

It is a churning process of mind and outcome is always for the welfare of human kind. When an individual finds himself /herself in two Virodhabhasi (contradictory) situations where it becomes difficult to choose one or to deny another and it becomes utterly impossible to avoid it, confession is the only way to recover from this psychological trauma. It saves the individual to be trapped in any of mental agony or disorder. To some extent it is a relief camp for the victims of psychological stressed soul. The relief attained through confession is great but to agree to opt it is a matter of great courage. But once decided to tread the path of confession honestly there is no way to look back to worries, traumas or agonies. It opens a new realm of peace and forgiveness which ends the complexities of life. The

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term confession is usually added with Christianity- Christian philosophy, where a person confesses in front of a priest about his crime to release his soul from guilt conscious. It is very secretive process and believed that confession purifies a soul and brings a person closer to God. In British dictionary confession is described as religious psychoanalytic, criminal and legal settings refer to the revelation of a shameful secret, as in a sin.

Confession is the purification of soul and Poetry is the expression of soul. Hence it is obvious that confession is the integral part of this literary sphere. Confession is the quality of sensitive souls and poets are the most sensitive one. It is a medium to express poet's deepest emotion through poems and about the most personal subject. Though feelings and emotions are the key note or the most important element of the poetry but confessional poetry differs on the ground that it's content are not of traditional as they talk about the subject matter that is highly personal. Feminist writers like Kamala Das and Adrienne Rich used confessional mode as their strongest tool that worked for the purgation of those emotions which were difficult to confide to heart as well as to express. It works in the same manners for the women readers who undergoes with the same suffering and same state of mind. As David Perkins also says,

*"At present time the finest poetry by feminist is likely to be in the confessional style, Confessional poetry by women is of absorbing interest to feminist readers. Confessional poetry renders personal experience or emotions as it actually is, regardless of social conventions. Moreover confession poetry expresses truths and experiences so painful that most people would suppress them. If therefore, a woman resents her children, or feels victimized by a patriarchal society and revengeful towards it, The confession mode enables her to express such emotions directly, and, for readers, they have a documentary value. At this level the confession of women's experience reveals, at least as feminist readers interpret it, emotions that have persisted throughout history but have not hitherto been acknowledged. Once they are articulated, other women recognize them in themselves, and thus confessional poetry tends to promote psychological liberation, the liberation that comes in freely seeing and talking about what has previously been repressed. Moreover, in all such confession there is an additional revolutionary impulse."*(2)

Adrienne Rich is one of the noted figures of this genre in America and Kamala Das, a popular Indian poet. These two women responded in a similar way to similar themes. Rich is an American, educated and liberated. Kamala Das is a traditional Indian woman. Both represent their pent-up inner feelings of their hurt mental state in the confessional style. It is found to be a convenient form of expression for the two poets who are keenly sensitive to the delicacies. This paper is a comparative study of the poetry of Kamala Das with that of Adrienne Rich in relation to their confessional style of writing. It is an attempt to produce more genuine and more truthful appreciation of their work.

Subjectivity is the key note of confessional poetry. 'I' is present in almost of all the poems of confessional mode. There is no other person in the poems. 'I' in the poem is the poet and nobody else. They don't talk about others and their feeling. Their poems are highly emotional in tone and narrative in structure. Poet vividly

talks about herself, her needs, her desires, her pain, her pleasures, her complaints. Hence the poems of Kamala Das and Adrienne Rich are subjective in nature. They talk in the first person voice which directly appeals the heart of readers. This first person voice we can hear in the poetry of Kamala Das when she confesses about her little knowledge about politics, religion, casticism in her poem “The first Meeting”

*..... I never knew any  
Politics, wielded no religion or  
Caste to empower my claims; yes never  
Feared calumny, poverty, pains or death  
But the fatigue in your eyes unnerved me. (3)*

Most of her poems deal with her interior life and subjective state. She writes of her private anguish in an effortless manner. In the poem “Too Early The Autumn Sights” she expresses her pain and anguish

*Too early the autumn sights  
Have come, too soon my lips  
Have lost their hunger, too soon  
The singing birds have  
Left. (4)*

Poem “The conflagration” also highlights the poet's silent suffering in the company of a cruel man. She asks herself-

*Woman, is this happiness, this lying buried  
Beneath a man? (5)*

She vividly expresses her despair in the poem “The Freak”-

*The heart  
An empty cistern waiting  
Through long hours, fills itself  
With coiling snakes of silence....  
I am a freak, It's only  
To save my face, I flaunt, at  
Times, a grand, flamboyant lust. (6)*

In the poem “Gino” in “Old Play House and other poems” she shares her experience of life that is deprived of joy and she lost all the hopes to get it. She writes-

*This body that I wear without joy, this body*



*Burdened with lenience, slender toy, owned  
By man of substance, shall perhaps wither, battling with  
My darling's impersonal lust. Or it shall grow gross  
And reach large proportions before its end. (7)*

Poem “Someone Else's Song” presents her utter dissatisfaction with life-

*I am a million, million deaths  
Pox- clustered, each a drying seed  
Someday to be shed, to grow for  
Someone else, a memory. (8)*

The poet does not hesitate to confess that she was cheated and exploited. She wants to explore herself but lost herself completely.

Adrienne Rich is the most significant confessional poet after Anne Sexton and Sylvia Plath. She gathers the world into her account of private incident, feelings and problems of her life. Her life caused her pain and confusion. Her poetry is her life. She expressed her pain, confusion, inner turmoil and severe disappointment in her poetry. The Poem “The Key” in the volume “Leaflet” expresses her pain in following words-

*How long I have gone round  
And round, spiritless with foreknown defeat  
In search of that glitter. (10)*

In the poem “Trying to talk with a man” she confesses-

*Out here I feel more helpless  
With you than without you. (11)*

Her pain reached to the extreme where it lost the reason behind it and only rolling tears left out. She writes in the poem “Merced”

*I find myself in tears  
Without knowing which thought  
Forced water to my eyes. (12)*

In the poem “Translation” she shares her pathetic position in painful words and gives it a universal expression on behalf of woman kind-

*We have trained like ivy to our walls*

*Baked it like bread in our ovens.  
 Worn it like lead on our ankles  
 Watched it through binoculars as if  
 It were helicopter  
 Bringing food to our femine  
 Or the satellite  
 Of a hostile power. (13)*

Rich expresses her dissatisfaction of her present life. She denies to call it life. In the Poem “Origin and History of Consciousness” she tries to prompt woman-kind to come out of the cocoon that is built by the patriarchal system of society:

*But I can't call it life until we start to move  
 Beyond this secret circles of fire  
 Where our bodies are giant shadows flung on wall  
 Where the night becomes our inner darkness, and sleeps,  
 Like a dumb beast, head on her paws in the corner. (14)*

Through her poetry Adrienne Rich tries to awake her own conscience and boost herself to make life useful through creativity. Even she tries to implant the seeds of awareness in the minds of reader who still lead aimless and stagnant life.

The term 'confessional' overstresses the notion of the poem as instant communication. The poem itself is an act, a part of the life it describes. It creates an environment where the poet leads a life of struggle, improvisation and resistance. Personal experience includes the fantasies of the poet's inner life. Poetry absorbs the data of private events, fears and desires as well as materials of intimate confessional and historical imagination. Confessional poetry thus translates autobiographical facts into epic narratives. with a sense of anguish and despair Kamala Das says in, “Of Calcutta” that her people probably her husband, who had sent her away to another city as:

*A relative's wife, a housfrau for his home,  
 and Doll for his parlour, a walkie talkie  
 one to Warm his bed at night.....  
 he folded Me each night in his arms  
 and told me of greater Pleasure that had come his way, rich harvest of  
 Lust, gleaned from other fields, not mine the embers died.  
 Within me then. (15)*

Adrienne Rich, in an identical vein, in “Diving into the Wreck” expresses a woman's feeling of anguish about the hypocrisy of man that leaves her shattered and lone:

*I hate you,  
I hate you the mask you wear, your eyes  
Assuming depth.  
They do not possess, drawing me  
Into the grotto of your skull  
The landscape of bone  
I hate your words  
They make me think of fake  
Revolutionary piles  
Crisp imitation parchment  
They sell at battle fields. (15)*

Confessional poetry is an expression of personality and never an escape from it. In this regard Kamala Das and Adrienne Rich follow the Romantics and break with classical theory of impersonal nature of poetry. These poets do not obliterate their personalities in their poems: their lives seldom remain invisible in their works. They deliberately parade the details of their life in poetry. They reveal to the readers what a Christian reserves for the Father Confessor or a patient reserves for the analyst. In “Morning at Appollo Pier” Kamala Das expresses a woman's yearning for unadulterated love:

*..... But, hold me, hold me once again,  
Kiss the words to death in my mouth, plunder  
Memories. I hide my defeat in your  
Wearing blood, and all my fears and shame.  
You are the poem to end all poems  
A Poem, absolute as the tomb. (16)*

Her mood alternates between frenzy and pain, the need for love and the thought of death. In a state of subjective reality the poet equates love with death, compares a lover to a poem and finds in poetry an alternative to love making.

Rich celebrates her lesbian love with her female lover in “Twenty One Love

Poems”:

*Your touch on me, firm, protective, searching  
Me out, your strong tongue and slender fingers  
Reaching where I had been waiting years for you  
In my rose-wet cave whatever happens, this is. (17)*

The words 'this is' binds the sex act to the present, but it is an anomaly. The poem immortalizes the relationship of Rich and her lover, but it stands alone. The explicit description of sexual love shows the transgressive potential of the body in this poem. She is able to celebrate her sexuality with the shocking graphic nature of the poem.

Adrienne compares her loneliness with an object rather than another person or even with an animal that actually has feelings. The image of an inanimate object to explain loneliness works well in the readers' mind.

*If I'm lonely  
it's with the rowboat ice-fast on the shore  
in the last red light of the year  
that knows what it is, that knows it's neither  
ice nor mud nor winter light  
but wood, with a gift for burning. (18)*

She uses the situation to bring out the positive attitude within her. She says the plane might feel isolated and alone in the sky, but its mission combined with the magical atmosphere marks its incredible journey. The poet wants all the women must be firm in reaching their destination.

Kamala Das finds herself alone in such a big world and sometimes feels that she would lose herself. This loneliness was there with her from the beginning of her life. In childhood, when a person finds himself/ herself most secure in the lap of his/her mother or holding the finger of his/ her father one thinks that he is guided in a right direction and would never lose the path; she was the one who was alone. She writes in her poem “A Requiem For My Father”

*I was never afraid to die,  
From childhood to middle years I have had a raw deal  
Illness and loneliness, loves that faded like mist,  
And the elders' irrational hate. ”*

But poetry provides her escape same as John Keats finds solace in his poetry and Lamb finds in his essays. Difference is that they live the life expected and wished in their work while Kamala Das gives confessions it in her poetry and relieves her soul. Her poetry becomes the close companion as she expresses her feeling of loneliness and her gratitude to the poetry which soothes her burning heart as written

in the third poem of “Anamalai Poems”-

*If I had not learnt to write how would  
I have written away my loneliness  
Or grief? Garnering them within my heart  
Would have grown heavy as a vault, one that  
Only death might open, a release then  
I would not be able to feel or sense....(19)*

Confessional poets like Kamala Das and Adrienne Rich reveal all the layers of their psyche through their poems. Their poetry functions as a bridge between the readers and their traumatized souls that are suffering. This loneliness was a result of not getting the desired and unfulfilled wishes that led them to the state of alienation and they start wishing to meet their doom. They long for death and sometimes convinced that it is the only solution for their suffering. In Kamala Das' poetry one can find many illustrations of her suicidal instinct or her longing for death. In her poem “The Suicide”, she writes

*O sea, I am fed up  
I want to be simple  
I want to be loved  
And  
If love is not to be had  
I want to be dead, just dead.(20)*

Here one can find that the yearning for true love, wish to be loved is the only thing that can bring her and keep her into life. And if, that is not there she just wish to quit. There is no charm and attraction in her life and death is the one she opts for.

In her another poem, 'Death brings no loss' she boldly declares:

*Each night when darkness twins  
Me blind, I think of death,  
Understandig it to  
Be like night fall, just a  
Temporary phase, which  
Brings no loss.(21)*

Confession is all about the outcome of paradoxical thoughts. This is vividly

expressed when Kamala Das herself confronts the idea of death and conclude that it is not the ultimate solution, its not a brave act to attempt. In her poem, 'Death is so mediocre', she write

..... *Death is*  
*So mediocre, any fool can achieve*  
*It effortlessly.* (22)

Kamala Das' poetry expresses a central conflict between life and death. But she resolved this conflict by choosing life over death.

Unlike Kamala Das ,Adrienne Rich does not plunge into the thought of 'Death'. She just hates the idea of death or suicide. She belives in making things better, life is to live and do some fruitful. She writes in her poem 'The Phenomenology of Anger':

*Madness, Suicide, Murder.*  
*Is there no way out but these?* (23)

Rich always looks to find a way to run life as it's a precious gift and death is not a ultimate solution of anything. Death takes away all the possibilities to get a solution and to live life and enjoy it. She quotes the example of great people who sacrificed their life to make people learn the language of love , sympathy and kindness. She talks about them gets herself filled with life, with a new ray of hope and she declares that life is only way to choose and follow. She writes in her poem 'Merced'

*I think of Norman Morrison*  
*The Buddhists of Saigon*  
*The black teacher last week*  
*Who put himself to death*  
*To waken guilt in hearts*  
*Too numb to get the message*  
*In a world masculinity made*  
*Unfit for women or men*  
*Taking off in a plane*  
*I look down at the city*  
*Which meant life to me, not death....* (24)

These lines show a strong affirmation of life. She thinks that human beings are not born to hate, to have guilt or to repent. She wants that human's mind should be channelized in such a way that it fails to feel rage, guilt or hate.

Confessional poetry by kamala Das and Adrienne Rich is an effort to illuminate the universal quest for a favorable resolution of human guilt. They

connect their individual problems with general experiences, their own self gain aesthetic distance over their private anxieties and attain a clear insight about the general character of all human experience. Their poetry represents not a revelation of the external or factual, but of the internal and imaginative.

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# **TECHNOLOGICAL INNOVATIONS OF INDIAN BANKING SECTOR**

**Dr. D.K. Srivastava\***  
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## **RESEARCH PAPER**

### **ABSTRACT**

Technology has been one of the most important factors for the development. Information and communication technology is the major advent in the field of technology which is used for access, process, storage and dissemination of information electronically. Indian banking industry is fast growing with the use of technology in the form of ATMs, on-line banking, Telephone banking, Mobile banking etc., plastic card is one of the banking products that cater to the needs of retail segment has seen its number grow in geometric progression in recent years. This growth has been strongly supported by the development of in the field of technology. The Paper is concerned with the Comparative study of the Profitability of the Indian Banking Sector and the impact of Technological Investment on the Profitability of the Public and Private Sector Banks for three financial years i.e. 2011, 2012 and 2013. The information processed and analyzed is based upon the Various Reports of the Indian Banking Association (IBA).

### **INTRODUCTION :**

The banking sector in India has a long way to go to match up with its peers in the international market with respect to technology and therefore most banks are still looking at investing in IT. Price water house Coopers (PwC) in its recent report has revealed that most banks in India have expressed it is the right time to invest in technology. Almost 55% of the banks PwC spoke to, feel that it is the right time to invest in technology while 27% want to wait till the downturn and 18% felt technology warrants investments irrespective of downturn.

The banking sector in India is spending about 46% of its technology budgets on business continuity. While 32% are being allocated to adding new products, product functionality or new features and 22% is being spent on new technology that will change business process. According to the report, the core issues being faced by the banking sector are identifying and retaining good clients, managing customer services expectations, optimizing operational costs and beating competition. The PwC report suggests that banks should take up automation that will have a combination of centralized networks, operations and a core banking

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application and will enable banks to offer 24X7 services using lesser manpower. Moreover, the banks need to look at business intelligence (BI), business process re-engineering and customer relationship management (CRM) that caters to operational and analytical businesses.

N Chandrashekar, Chairman, CII Banking Tech Summit 2009 and COO & ED at Tata Consultancy Services said, "It is important for the banks to adapt new technologies that can bring down the cost of transactions and at the same time bring business continuity.

In the world of banking and finance nothing stands still. Apart from traditional business, banks nowadays provide a wide range of services to satisfy the financial and non financial needs of all types of customers from the smallest account holder to the largest company and in some cases of non customers.

## **CHANGING FACE OF BANKING SERVICES**

Liberalization brought several changes to Indian service industry. Probably Indian banking industry learnt a tremendous lesson. Pre-liberalization, all we did at a bank was deposit and withdraw money. Service standards were pathetic, but all we could do was grin and bear it. Post-liberalization, the tables have turned. It's a consumer oriented market there. Technology is revolutionizing every field of human endeavor and activity. One of them is introduction of information technology into capital market. The internet banking is changing the banking industry and is having the major effects on banking relationship. Web is more important for retail financial services than for many other industries.

Retail banking in India is maturing with time, several products, which further could be customized. Interest rates are coming down and market has seen some innovative products as well. Other retail banking products are personal loan, education loan and vehicles loan.

## **FINANCIAL INNOVATION**

Financial innovation is key to survival of banks in contemporary banking environment. The importance of financial innovation is widely recognized. Many leading scholars, including Miller (1986) and Merton (1992), have highlighted the importance of products and services in the financial arena. Innovative ideas are manifest in diverse industries and in different forms. For example innovation in product development is one of the forms of innovation that has been used by banks. Right from the beginning stage of financial modernization innovations have been playing major roles in curtailing financial exclusions and improving the ways banking services are rendered to people. Financial innovation is one of the commonly used banking terminologies. It has been used to describe any change in the scale, scope and delivery of financial services.

The deregulation of financial service industry and increased competition with in investment banking undoubtedly led to increased emphasis on the ability to design new products, develop better process, and implement more effective solution for increasingly complex financial problems. These financial innovations are a result of number of Government regulations, tax policies, globalization, liberalization, privatization, integration with the international financial market and increasing risk in the domestic financial market.

## **REVIEW OF LITERATURE**

Banking industry in India has also achieved a new height with the changing times. Customer services and customer satisfaction are prime responsibilities of banks now days. Information technology has given rise to new innovations in the product designing and their delivery in the banking and finance industries. Technology offers a chance for banks to build new systems that address a wide range of customer needs including many that may not be imaginable today. Banking through internet has emerged as a strategic resource for achieving higher efficiency, control of operations and reduction of cost by replacing paper based and labor intensive methods with automated process thus leading to higher productivity and profitability. Financial innovation associated with technological change totally changed the banking philosophy and that is further turned by the competition in the banking industry. Challenging business environment within the banking system create more innovation in the fields of product, process and market.

From the above reviews it is observed that the banking industries itself adopted various innovative schemes for furtherance of their business and to attract more and more customers. These has resulted their sustainability and keep their brand image even in the competitive environment. Further, technology is one of the important segments where maximum stresses are provided for dissemination of innovative ideas and it is observed that major innovation took place in this field in recent years.

## **CHALLENGES AHEAD FOR BANKING SECTOR**

Technological changes in Indian banking system presents unique opportunities and challenges for the banking industry. Developing or acquiring the right technology, deploying it optimally and then leveraging it to the maximum extent is essential to achieve and maintain high service and efficiency standards while remaining cost effective and delivering sustainable return to shareholders. Managing technology is therefore, a key challenge for the Indian banking sector.

## **CONCLUSION**

India is one of the top 10 economies in the world, where the banking sector has tremendous potential to grow. The number of ATMs has doubled over the past few years, with more than 100,000 in the country at present (70 per cent in urban areas). They are estimated to further double by 2016, with over 50 per cent expected

to be set up in small towns. Also, the scope for mobile and internet banking is big. At the start of 2013, only 2 per cent of banking payments went through the electronic system in the country. The Indian Banking Industry in Technological advancement is still in gestation phase. However the Private Sector Banks Outperform the Public Sector Banks in some fields. Nationalized banks are performing well as indicated by the various positive figures in case of Net Profit, Profit Per Employee and Business Per Employee. But still RBI has to take various steps so that the Public Sector Banks (Nationalized and SBI & its Associates) becomes able to manage their profitability by striking the balance between technological Investments (Expenditures) and Incomes.

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# Potential, Impact and Issues related to Hydro-power Development in Uttarakhand

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## Abstract

Hydro-power energy is considered an important green energy source and one of the solutions of energy crisis world over. Uttarakhand state, the youngest carved out Himalayan state of India, is blessed with the perennial rivers having large amount of water. Therefore hydropower potential is one of the most important strategic assets of the State for the development of the economy (World Bank, 2011). The information available from Uttarakhand Jal Vidyut Nigam Limited (UJVNL), a state government owned hydro-power company, show that a total of 450 hydroelectric projects (HEPs) sites have been identified with the total potential of 27,039 MW. This is almost 50% higher than the hitherto authoritative figure of 18,175 MW determined by the 1987 assessment survey carried out by Central Electricity Authority (CEA). As against the total potential, only about 3,164 MW (16% approx.) has been harnessed so far through 45 Hydro Electric Projects (HEPs) of varying capacities being implemented by State and Central Government agencies and public and private sectors (IIT, 2011).

The hydro power exploitation has always made large impacts, both positive and negative, on the socio-economic and environmental aspects of the people. The conservation-development dilemma has also always been associated with hydro power energy. The questions have been raised for long on the ambitious projects of Uttarakhand which is being often designated as 'Urja Pradesh'. Reputed organisations such as CAG, WII, AHEC-IIT-R and various NGO's have questioned the reliability of EIA's, environmental flows, riverine ecology and sustainability of projects etc.

The present paper discusses some of these issues. The paper highlights potential of hydro-power in Uttarakhand, certain social, economic and environmental impacts resulting from hydro-power development, related issues and its future perspective in Uttarakhand.

## INTRODUCTION:

The urge for controlling the nature and resources has led to the rapid technological development. The technological innovations of 20th century are highly energy dependent and today we are all surrounded by energy consuming

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machines, be it a mobile in your hand or an ATM or a construction machine. The growing demand and limited supply of energy is leading to the energy crisis. This scenario can be seen worldwide.

Among the various sources, hydro power contributes a larger share to the energy supply. As hydro-power energy is obtained from running water, it is considered as a clean and green source of energy. The quick start-up time of a hydropower plant enables it to respond to peak load demands and provide grid stability. Though initial construction costs and time frame for projects is high, operating costs are low. Once the costs of borrowing capital are paid off, revenues and profits increase significantly making hydro-power a potentially attractive sector for investment.

India ranked sixth in hydro electricity generation globally after China, Canada, Brazil, USA and Russia in year 2013. However it is at rank fourth in energy consumption. Therefore the generation of electricity from hydro-power projects has been given priority to bridge the gap in demand and supply in the country (Patel and Singhal, 2015a)

### **STUDY AREA:**

Uttarakhand is the 27th state of India which came into existence on 9th November 2000. It lies between latitudes 28°44' to 31°28' North and longitudes 77°35' to 81°01' East with a geographical area of 53,483 km<sup>2</sup> constituting 1.63% of the land area of the country. It extends from river Tons in the west to river Kali in the east (Fig.1).

Uttarakhand is largely a rugged mountainous region where altitude dramatically fluctuates between 300m to 7817m (Nanda Devi). The abrupt altitudinal variation from the Gangetic plain in the south to rain shadow zone of Trans Himalaya in the north, has obviously resulted in a complex but interesting diversity in topography, meteorology, flora, fauna, demography etc.

The State is well known for its rich natural

**Source: NATMO (2002)**



**Fig.1: Uttarakhand Drainage Map**

resources and varied ecosystems both terrestrial and aquatic. The State is drained by the rivers Ganga and Yamuna and their tributaries namely Tons, Kali, Sharada and Ramganga. The region with its lofty mountains and perennial river fed by large number of glaciers serve as the "Water- Tower" of the Northern India. "The availability of a large volume of water combined with suitable slopes offers tremendous potential for the hydro-power development in the region"( Agarwal et al., 2010a).

### **OBJECTIVES OF STUDY:**

The broad objectives of the present study are:

1. To analyse Hydro power potential of Uttarakhand Himalaya
2. To understand hydro-power projects' impact on environmental, social and economic aspects
3. To understand the issues and controversies regarding Hydro power projects in Uttarakhand
4. To highlight future perspectives of hydro-power in Uttarakhand

### **.POTENTIAL OF HYDRO-POWER ENERGY:**

Availability of power is an important driver of economic growth. Industrial development, agriculture, irrigation and all sectors today are energy dependent. The snow covered peaks of Uttarakhand offer a great potential for continuous supply of water for hydro-power projects. Among the Himalayan states Uttarakhand holds the second largest hydro-power potential.

For the rapid economic growth of the state, the development of hydro-power projects became the priority for the successive state governments. This effort has also been supported by Union Government. The potential and ambitious focus by the state government on hydro-power has been used to give the state the name of "Urja Pradesh". State officials and political leaders consider the production and sale of hydro-power as one of the most potential source of generating revenues, creating employment and the economic progress of the state.

Data available from Uttarakhand Jal Vidyut Nigam Limited (UJVNL), a state government owned hydro-power concern that contributes towards state policy and planning support, show that there are as many as 450 potential HEPs sites in the state. The ultimate estimated potential of 27039 MW assessed by UJVNL is almost 50% higher than the hitherto authoritative figure of 18175 MW assessed in a survey by Central Electricity Authority (CEA). The installed capacity of commissioned HEPs and that of under construction HEPs capacities are shown in following tables 1 and 2. They are categorized by size and their construction status.

**Table.1: Capacities of commissioned and under construction HEPs in Uttarakhand (in MWs)**

Project Status	Micro Mini			Small	Medium	Large	Total
	<=1MW	>1MW <=2MW	>2MW >=5MW	<5MW >=25MW	<25MW <100MW	>=100MW	(MW)
<b>Commissioned</b>	11.96	7.15	31.3	121.6	246.15	3206	3624.16
	(54)	(5)	(9)	(9)	(5)	(10)	(92)
<b>Under Construction</b>	2.78	3.5	20.4	76.5	175	3014	3292.18
	(15)	(2)	(5)	(8)	(2)	(6)	(38)
<b>Total</b>	14.74	10.65	51.7	198.1	421.15	6220	6916.34
	(69)	(7)	(14)	(17)	(7)	(16)	(130)

**(Figures in brackets are the number of projects)**

**Source: MoEF, 2014**

**Table.2: Potential capacities of proposed HEPs (in MWs)**

Project Status	Micro Mini			Small	Medium	Large	Total
	<=1MW	>1MW <=2MW	>2MW >=5MW	<5MW >=25MW	<25MW <100MW	>=100MW	(MW)
<b>Awaiting Clearances</b>	1	1.9	7	303.8	196	28.8	3317.7
	1	1	2	22	(3)	(9)	(38)
<b>Survey and investigation stage</b>	21.28	32.85	101.25	1086.25	2233.8	13330	16805.43
	(58)	(18)	(28)	(84)	(63)	(31)	(282)
<b>Total</b>	37.02	45.4	159.95	1588.15	2850.95	22358	27039.37
	(59)	(19)	(30)	(106)	(66)	(40)	(320)

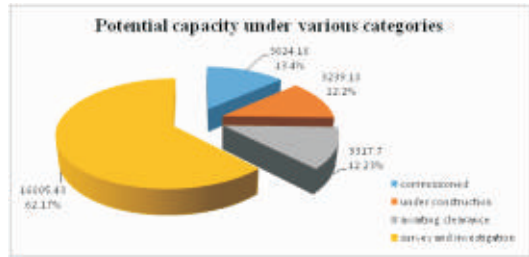
**(Figures in brackets are the number of projects)**

**Source: MoEF, 2014**

Table1 shows that 92 projects have been commissioned so far and 38 are under construction; 38 projects are awaiting clearances and 282 are still undergoing surveys and investigation. A large fraction of the 450 HEPs are diversion projects where river water is carried through tunnels into power houses, while a small number (12) are storage projects. Large (56) and medium (73) projects will account for over 93% of the estimated ultimate installed capacity and the remaining 7% will be provided by small, mini and micro projects (MoEF, 2014a).



Figure 2 shows that Uttarakhand has been able to commission about 13.4% of its potential capacity by 2013; another 12.2% is under construction and 12.3% are awaiting clearances. Once all these 168 projects are completed the installed potential created will be about 10234 MW.



**Fig: 2 Potential capacity under various categories**  
Source: MoEF 2014

## IMPACT ON RESOURCES:

The technology used in hydro power projects in the fragile Himalayan region has been controversial for years. The impact on the resources, biotic and abiotic, the processes and technology used in construction of projects and their socio-economic impacts have been a matter of great interest to society. The debate concerning environment and development has also impacted the execution of hydro power development.

The supporters of hydro power point out that it contributes to energy security, reduction in greenhouse gas emissions, meeting the peak demand and increased flexibility in grid operation. They further suggest that projects are conceived as multipurpose ones contributing not only to power but also to irrigation, flood control, navigation etc. Hydro power plants act as the banks of water and energy security, help achieve climate change mitigation goals by generating clean green renewable, sustainable and affordable energy with low carbon emissions and therefore is environment friendly to a larger extent (Mishra et al., 2015a; Patel and Singhal, 2015b). Mishra et al. (2015b) has underlined that in spite of glaring major benefits, the fact remains that dams significantly impact on freshwater ecosystems and conflicting demands of water for agriculture. He further stated that environmental and social impacts are subjected to widespread criticism but can surely be mitigated to a reasonable extent.

However environmentalists present the darker side of the picture and highlight some irreparable losses and future consequences of hydro power projects. A study by Agarwal (2010b) highlights some of the important social and environmental issues arising due to dense allocation of hydro power projects in the ecologically sensitive Himalayan region. Ecological disturbances, fragmentation of river, loss of biodiversity, loss of productive lands, damage to forests, dilapidation of other natural resources, social and cultural change etc are major implications of hydro-power projects which a region and its people have to face.

Elahi et al., (2010) have underlined the adverse impacts of major projects. According to them “The mega dams pose severe environmental risks in the Himalayan region and mostly in the downstream and the climate change associated



with the global warming threatens the safety and viability of these projects. Dams and their associated reservoirs impact freshwater biodiversity and hydro-geology; changing turbidity, sediment levels, nutrient levels; causing flash flood and prolonged submergence; severe drought in dry season; affecting local ecology and habitat; contribute greenhouse gases and the resulting global warming; dry up the rivers for even longer lengths; impact traditional livelihoods, agriculture, irrigation and fisheries; threat political, regional and geo-strategic stability; increase the rate of disaster associated with the dam failure, land sliding, earthquake in the downstream". In yet another study it has been pointed out that "the big dams like the Tehri Dam, should not be encouraged for execution in future in the geologically and seismologically sensitive mountain region of Garhwal Himalaya. Instead of the big dams, the small, mini, micro, run-off the river and canal projects should be given priority, because they do not cause an unmanageable harm to the ecosystem" *Sharma (2006)*. It has been pointed out that the economic performance of the large dams is also affected by seepage of water from unlined canals which results in staggering water losses. In this regard example of Koyna Dam has been cited where a non seismic area has become prone to earthquakes after construction of dam (Singh, 1997a).

Damming of a river has been called a cataclysmic event in the life of a riverine ecosystem. The hydro-electric projects interrupt and alter the river's important ecological processes by changing the flow of water, sediment, nutrient, energy and biota, All that have serious implications for the aquatic ecology. Dams serve as a physical barrier to movement of migratory species, notably fishes that are often affected because once they are cut off from their spawning area there is the fear of species endangerment as well as potential gaps in the overall food chain. Freshwater molluscs, crustaceous and other benthic organisms are even more sensitive to these changes than most fish species, due to their limited mobility. Reduction in sediment transport in rivers downstream of dams which influences channel flood plain and coastal delta morphology, alter habitat for fish and other groups of plants and animals and through changes in the river water turbidity may affect population of biota directly (WII, 2012a).

Large scale water projects have also been criticized because of their contribution in increased incidence of water borne disease like malaria, filariasis, flurosis, yellow fever, dengue, schistosomiasis etc. in many areas (Singh, 1997b).

## **ISSUES IN UTTARAKHAND:**

The issues of environmental degradation have been the concern for the global community. These issues assume serious proportions in case of mountain areas such as Uttarakhand which is considered geological fragile, prone to seismicity, vulnerable to biodiversity and highly susceptibility to natural disasters like landslides, earthquake, cloudburst etc. Various agencies, from time to time,

have highlighted the serious issues related to environmental degradation in state.

In one of its report titled "Performance Audit Report of Hydro-power Development through Private Sector Participation, Uttarakhand for the Year 2008-2009", Comptroller and Auditor General of India (CAG) argued that the Government of Uttarakhand had pushed the state toward a major environmental catastrophe by following a highly ambitious hydro-power policy. Apart from that a number of researchers and activists have pointed out that the large number of planned and under execution hydropower projects have caused serious damage to the ecology of rivers and river side areas. Some of environmental impacts underlined are change in the hydrology, reduction in aquatic life, loss of agricultural and forest land (Mandal and Venkataramani, 2013)

Another major issue related to large power projects in Uttarakhand has been the environmental flow down the project sites. Since environmental flow which is the optimum amount of flow to be maintained in the river to maintain its hydrological quality and the riparian biodiversity, is crucial for health of the river system, its disruption causes enormous damage not only to river ecology but also people for various purposes. However no specific limits to environmental flows are made. National Environmental Engineering Research Institute (NEERI, 2011) and Comptroller Auditor General (CAG, 2010) in their studies have found the dried up river patches downstream the sites. This has deprived local people from drinking water and irrigation resources.

Another critical issue was the visible and growing adverse impacts on environment which prompted Government of India to enact Environmental Protection Act (EPA) 1986 and subsequent provision of Environmental Impact Assessment (EIA) in 1994 with aim to support the goals of environmental protection and sustainable development and proposes mitigation of adverse impacts (Agarwal et al., 2010c; Iyer, 2003). However some studies have diverse view point. For example, Central Water Commission (CWC) Chairman pointed out that the standards of preparation of the project reports are 'getting diluted', and that 'in many cases the technical studies have not been carried out for selecting the most appropriate dam site after considering several alternatives'. Further the need for an 'improvement in quality and quantity surveys of construction materials and in layout studies of the dam, based on the availability of the local materials' was stressed (Singh, 1997c). Similarly McCully(1996a) pointed out that the dilution of the EIA's norms has made it a mere governmental formality.

Studies have shown that the impact of biodiversity cannot be studied in isolation (Agarwal, 2010d; AHEC, 2011; WII, 2012b; MoEF, 2014b). The cumulative impacts of multiple hydro-power projects along the same river basin and the threat of a cascading chain of catastrophes in case of structural failures or even from purely natural causes such as the Uttarakhand floods of June 2013, suggest that

there is an urgent need for a region or entire basin based Strategic Environmental Assessment (SEA) rather than individual project oriented environmental impact assessments (EIA) that neglect the summation effect. It has been realized that project-specific Environmental Impact Assessment studies are insufficient to tackle the synergistic environmental impacts that are likely to result due to the HEPs (Agarwal, 2010e, MoEF, 2014c).

It was the result of damage caused to environment that in November 2010 the National Ganga River Basin Authority (NGRBA) suggested to notify the 100 km stretch from Gangotri to Uttarkashi as an Eco-Sensitive Zone (ESZ). The Government of India notified this decision in December 2012. It led to the cancellation of several dams within the ESZ with a total installed capacity of about 2040 MW. This issue gained much importance after the 2013 disaster in Uttarakhand. However it has become a much debatable issues for proponents and opponents of hydro-power. This has further enhanced the environment and development controversy in Uttarakhand.

Along with environmental impacts, it should also be remembered that Himalayan rivers are not only environmentally important but they also hold a great socio-cultural and religious value. The impact of dams upon indigenous people is harmful as it destroys the communal and spiritual bonds with their land and cultural practices.

#### **FUTURE PRESPECTIVE:**

The choice of energy source depends on several factors including availability, viability and sustainability energy source. For sustainable development of hydro-power potential in Uttarakhand merely formulation of policies is not going to serve the purpose, in addition to this there is a need to focus on certain priorities.

While it is acknowledged that energy is essential for progress and well being of the people of the State, the loss of biodiversity cannot be compensated by economic growth. It is essential to ensure that water demands for energy and irrigation do not become a cause of the decimation of the forested areas, receding wildlife habitats and loss of biodiversity. By time bound monitoring and follow up, execution of projects can be assessed in a regular manner. This will reduce time and cost overrun considerably (Patel and Singhal, 2015c; CHEA, 2011a). Large hydro plants, especially those that involve the construction of reservoirs, can have serious impacts on local communities and the upstream and downstream environment. In addition, Government of Uttarakhand recognizes the threat of climate change and envisages micro/mini hydro power as one of the key mitigation initiatives of the state. Towards this end it was concluded that small and micro-projects could be the answer to the conflict surrounding Hydro-power projects (CHEA, 2011b).

The new hydro-power policy of Uttarakhand also now focuses on the small, mini and micro projects. Uttarakhand has an estimated potential of about

3000 MW of hydro power, in the small, mini and micro hydro segment. Out of this only about 170 MW of small hydro power projects have been installed. There is a huge untapped potential of generating power from micro/mini hydro projects of capacities up to 2 MW. This potential, if harnessed efficiently, can help to meet Uttarakhand government's goals of rural development, viz-a-viz, electrification, revenue generation and livelihood development. Micro hydro-power systems offer a stable, inflation proof, economical and renewable source of electricity that uses proven and available technologies. Small and micro hydro-power installations have historically been cheap to run but expensive to build. This is now changing with smaller, lighter and more efficient higher speed turbine equipment, the lower cost of electronic speed and load control systems and in expensive plastic penstock pipes (Tyagi and Pandey, 2015; Government of Uttarakhand, 2015). Apart from this the benefits of construction and operation can be captured by the local communities (McCully, 1996b).

Community managed micro/mini hydro power projects with effective support and partnership with public and private sector has the potential to sustainably address the unmet demand of energy in rural areas of Uttarakhand. Micro/mini hydro power projects are also clean and renewable sources of energy having a minimal impact on natural biodiversity and human settlements. Apart from this these projects help in supporting the economy of the local villages and preventing migration in the area.

Therefore, to promote micro/mini hydro power projects in the state, it is essential to formulate a comprehensive policy which aims to accelerate growth of micro/mini hydro power projects in Uttarakhand by providing a favourable environment for all the stakeholders. "We should not mask our reasoning with illusionary developmental planning that alienates the local population, i.e. local needs should not be ignored in the spree of generating power for broader interest" (Rana et al., 2007).

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